
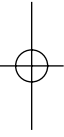




Hard and Easy Questions about Consciousness

JOHN DUPRÉ

Introduction


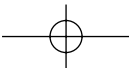


After a quiet period for much of the twentieth century, presumably reflecting the influence of various forms of behaviourism, in recent years philosophical writing on consciousness has reached epidemic proportions. A well-known philosophical website¹ lists almost a thousand online articles on the philosophy of consciousness, and no doubt there are another thousand not so available. This writing has, however, had a quite peculiar focus. A founding document of recent philosophical studies of consciousness is Thomas Nagel's classic article 'What is it Like to be a Bat?'² The almost universally accepted answer to this question nowadays is that although there is definitely something it is like to be a bat, it is extraordinarily difficult, perhaps impossible, to say exactly what this is. More difficult still is the problem of explaining how this ineffable something could somehow have resulted, as it is almost universally agreed it must, from the merely mechanical operations of the brain. This latter conundrum, in particular, has come to be known as the Hard Problem of consciousness—in contrast with the apparently 'Easy Problem'³ of understanding the relevant mechanical operations of the brain—and has provided the motivation for a great deal of the philosophical work I have mentioned.

¹ <<http://consc.net/online.html>>. This website is maintained by David Chalmers, who is credited with naming the Hard Problem mentioned below. Despite this potentially partial source, I think it fairly represents the concentration of philosophical effort in the area.

² T. Nagel, 'What is it Like to Be a Bat?', *Philosophical Review*, 83 (1974), 435–50.

³ These terms appear to have originated in a much admired paper by David Chalmers at the 1994 conference 'Toward a Science of Consciousness' in Tucson, which inaugurated a biennial series of meetings that has continued to the present.



Of course there are quite different kinds of academic work also directed to the topic of consciousness. I shall touch briefly, for example, on the work of psychologist Merlin Donald, who as well as offering some illuminating ideas about how we should understand the place of consciousness in our mental economies has little time for the Hard Problem. The Hard Problem, he remarks, is ‘nothing more than a local squabble between members of a species who are already able to represent what they know or don’t know in words. The thing that really needs explaining is how a particular species (humans) came to be able to have such squabbles in the first place.’⁴ The question [of] what consciousness does, and thereby how it might have evolved, seems an obviously promising one. But the devotees of the Hard Problem have actually tended to rule out this approach, since they take the (unconscious) whirring of neural cogs as being sufficient to explain everything that humans can do, and consciousness therefore to be no more than an epiphenomenal gloss on this real neurological action.⁵ Consciousness is defined as being subjective, and the physicalism embraced by most contemporary philosophers holds that science—which is confidently expected to explain everything—is objective. So there is no room for consciousness to do anything or explain anything.

Donald’s account of the human mind, of the central role within it of consciousness, and of what the latter should help us to explain has more to commend it than merely the acknowledgement that it might explain something. For example, and contrary to a line being very effectively promulgated by evolutionary psychologists, he notes the remarkable flexibility of the human mind, and the consequent possibility of recognizing the great changes—evolutionary changes, even—that have happened to human minds in the last few millennia. As well as elaborating these points, Donald eloquently explains the still insufficiently unappreciated extent to which our minds are a product of the unparalleled complexity of our cultures, and acknowledges how much of what our minds enable us to do depends on the existence of resources external to the individual mind.⁶ The centrality of consciousness to understanding the capacities of the human mind is,

⁴ M. Donald, *A Mind So Rare: The Evolution of Human Consciousness* (New York: W. W. Norton, 2001).

⁵ See D. Chalmers, *The Conscious Mind: In Search of a Fundamental Theory* (New York: Oxford University Press, 1996), 160.

⁶ On the preceding points, see also my *Human Nature and the Limits of Science* (Oxford: Oxford University Press, 2001).

indeed, the main point of Donald's book (2001), and this role is defended specifically against those philosophers who have treated consciousness as non-existent or epiphenomenal and inefficacious.

I think Donald's defence is convincing. One of my objectives in the present essay is to understand better the origins of the curious idea that consciousness might be a fortunate accident, something we could manage perfectly well without, an idea that is central to the dominant place of the Hard Problem and related matters in philosophical discussions of consciousness. One way of understanding this strange state of affairs, I shall argue, is to see that much of this discussion of consciousness remains mired in problems from the seventeenth century that we should by now have left behind. After this critical discussion, I shall more briefly recommend for philosophical consideration a concept relatively neglected by philosophers, but one that is central to Donald's account of consciousness, attention. But before we can begin to address the question what is the function of consciousness or, relatedly, how consciousness might have evolved, we need to reach some understanding of what it is that has this function or, presumably, evolved: there is not even much agreement what consciousness is. No doubt this is one reason why philosophers have taken such an interest in the topic.

The Hard Problem

One natural starting point would be the following thought. At any moment there are some things of which I am actively conscious and others of which I am not; and many of those things of which I am not conscious are things of which I could be conscious if I attended to them or brought them to mind. There are presently a large number of objects within my visual field—tables, chairs, books, piles of paper, etc.—and if a book fell off the shelf or a pile of paper blew over, it would immediately attract my attention. However, my consciousness is entirely absorbed by my computer screen or, occasionally, owing to my impoverished typing skills, by my fingers and the keyboard. The vast majority of things I know or believe are not currently present to my mind, and there are many aspects of my immediate environment to which I am paying no attention. There are obvious questions, both empirical and conceptual, about the nature,

function and consequences of this feature of the mind, questions that also have clear relevance to discussions of the evolution of consciousness. I shall return briefly to these important and interesting questions later in this essay.

However, by far the largest part of this enormous literature addresses a cluster of issues responding to what is widely seen as the deep philosophical problem about consciousness, the Hard Problem mentioned above. Indeed, so deep is this problem felt to be that some philosophers have declared that it is in principle insoluble and must be accepted, somewhat in the manner of parts of Catholic theology, as a mystery.⁷ I mentioned that the Hard Problem is generally formulated as concerning the way in which the phenomena of consciousness could arise from the occurrence of ‘merely’ physical, mechanical processes, specifically processes in the brain.⁸ This Hard Problem of consciousness is understood as concerning the very possibility of conscious experience in a material universe and indeed has led some philosophers, most notably David Chalmers, to embrace a kind of dualism.⁹

The Hard Problem concerns what is often called phenomenal consciousness. In a recent survey article, Uriah Kriegel defines the extent of the problem as follows: ‘Phenomenal consciousness is the property [that] mental states, events and processes have when, and only when, there is something it is like for their subject to undergo them, or be in them.’¹⁰ One should already find this heady stuff. ‘There is something it is like to F’ is an unusual form of words, and that there should be a property that attaches to the mental state if, and only if, there is something it is like to undergo it, is even more peculiar. More of this later.

I have referred to this as a cluster of problems, and indeed there are a number of similar problems of this kind widely discussed. As I have mentioned, the canonical source of the ‘something it is like’ talk, is Thomas Nagel’s famous paper ‘What is it Like to be a Bat?’ As David Chalmers puts it, ‘In [the] central sense of “consciousness”, an organism

⁷ Colin McGinn, *Consciousness and its Objects* (Oxford: Oxford University Press, 2004).

⁸ I should note, in passing, that I am deeply suspicious of the description of the brain as mechanism, though this concept is now being rethought by some philosophers in ways intended to make it more congenial to the nature of biological, and especially neurological, processes (see e.g. P. K. Machamer, L. Darden and C. F. Craver, ‘Thinking about Mechanisms’, *Philosophy of Science*, 57 (2000), 1–25). It does, however, further illustrate the extent to which much of this philosophical discussion is still conducted in the terms of the seventeenth century.

⁹ See especially Chalmers, *The Conscious Mind*.

¹⁰ Uriah Kriegel, ‘Consciousness, Theories of’, *Philosophy Compass*, 1 (2006), 58–64.

is conscious if there is something it is like to be that organism, and a mental state is conscious if there is something it is like to be in that state.¹¹ Chalmers proposes reserving the word ‘consciousness’ for the sense assumed in this problem and referring to the various ‘easy’ problems as concerning awareness. These latter, including, for example, the ability to discriminate aspects of the environment, the ability to report on one’s mental states, the ability to control behaviour and the difference between being awake and asleep, are easy because, as he judges, they seem suited to the standard empirical methods of cognitive science. By contrast, according to Chalmers and many others, we have no idea how to go about investigating the Hard Problem.

Defusing the Hard Problem

One might mention in passing that the easy problems are a remarkably diverse bunch, and certainly do not look all that easy—I shall return to some of these later. But it is the Hard Problem with which I shall mostly be concerned here. And, to get straight to the point, my suggestion is that the Hard Problem, as it has generally been formulated, is not a problem at all; indeed most formulations of it, bluntly put, make little or no sense. I certainly should not claim to be the first person to have made such a claim. One notable instance, and one to which the following discussion will be greatly indebted, is a contribution to this philosophical industry by Peter Hacker in a paper entitled ‘Is there Anything it is Like to be a Bat?’, and expanded considerably as part of the important book that Hacker coauthored with the distinguished neuroscientist Max Bennett.¹² This paper, with characteristic acuity and wit, confirmed my intuition that Nagel’s question, or at least the predominant reaction to it, was deeply confused.

A glance at Google Scholar suggests that Hacker’s 2002 paper was entirely ignored by the philosophical consciousness community. The book

¹¹ D. Chalmers, ‘Facing up to the Problem of Consciousness’, *Journal of Consciousness Studies*, 2 (1995), 200–19.

¹² P. M. S. Hacker, *Philosophy*, 77 (2002), 157–74; M. R. Bennett and P. M. S. Hacker, *Philosophical Foundations of Neuroscience* (Oxford and Malden, Mass.: Blackwell, 2003). Another person suspicious of the Hard Problem, though for quite different reasons, is Daniel Dennett (see his *Consciousness Explained* (London: Little, Brown, 1991)).

with Bennett has, on the other hand, been quite widely discussed though mainly by psychologists and neuroscientists rather than philosophers. It did, however, give rise to a session at the 2005 Eastern Division meeting of the American Philosophical Association, at which it was criticized by Daniel Dennett and John Searle, and this, in turn, has led to a book in which Hacker, Bennett, Dennett and Searle debate the issues further.¹³ So it may be that the kinds of problems that Hacker so clearly explained in 2002 will have some impact on this burgeoning field. One objective of this essay will be to try to contribute to such an outcome. I shall also reflect a little on why the kinds of arguments Hacker marshalled appear to have had so little effect on most contemporary philosophizing and, from there, reflect briefly on the nature of the proper relation between philosophy and science.

So what were these arguments? Hacker asked, as the title of his 2002 paper indicates, whether there was anything it is like to be a bat. As the impact of Nagel's original paper shows, the expression 'what it is like to be a bat' has immediate resonance with many readers. However, there is an immediate and obvious ambiguity. Does the question ask what it is like for a person—say myself—to be a bat, or what it is like for a bat to be a bat? The problem with the first reading is that it is quite impossible to see how I could be a bat—and if I couldn't be a bat, there is nothing it would be like for me to be one.

One might reflect, in this context, on Kafka's famous story about a man waking up to find that he had turned into a cockroach. Of course he had really done nothing of the sort. He had perhaps grown a shiny carapace, six legs and a pair of antennae, all of which, though no doubt biologically impossible, is surely imaginable. But no cockroach lies in bed recalling that the day before it had been human. The reflections that Gregor Samsa enters into after this appalling discovery make it quite clear that he feels, more or less, like himself; it is just that horrible things have happened to his body. A human who really turned into a cockroach or a bat would no longer be a human, and hence would not be able to experience what it is like for a human to be a bat: there is fairly clearly no such thing (logically no such thing) as a human having the experience of a beetle or a bat. The

¹³ M. R. Bennett, D. C. Dennett, P. M. S. Hacker and J. Searle, *Neuroscience and Philosophy: Brain, Mind, and Language* (New York: Columbia University Press, 2007). As Akeel Bilgrami notes on the dust-jacket, to persuade Dennett and Searle, widely known as philosophical antagonists, to join forces in their opposition to your views is a remarkable achievement in philosophical controversy.

importance of this point is just that the intuitive attraction of the question, ‘What is it like to be a bat?’ surely derives in part from the (inevitably failed and confused) attempt to imagine (oneself) being a bat. The attempt is confused because if one really became a bat one would surely no longer be oneself.

So it seems that what is at issue must be what it feels like for a bat to be a bat. But this is also a problematic question, and in so far as it makes sense at all, it doesn’t make the sense intended by Nagel and his philosophical successors. One can very well describe what it is like to be a bat: you live in a cave or a belfry hanging upside down and flying out at night to catch insects, or eat fruit, or whatever, depending on what kind of bat you are. Moreover, as was famously described by Donald Griffin, you find your way about using a kind of sonar. But of course that isn’t what the questioner wants to know. In fact anything it is possible to say about what it is like to be a bat will, in so far as it is intelligible by both speaker and hearer, fail to satisfy the intended request. If it can be said and understood, it is something objectively describable, not the subjective and indescribable thing we are looking for.

In normal parlance, the question ‘What is it like to be a bat?’—for a bat to be bat, that is—calls for the kind of answer which I just sketched, but which evidently misses the questioner’s intent. One intends, perhaps, to ask, what it feels like to be a bat, but then it is again rather doubtful whether there is any answer: it takes a little work, at any rate, to convince me that there is something—surely not just one thing—it feels like to be me. Now it is true that there is a perfectly good form of question ‘What is it like for an X to be a Y?’ To take one of Hacker’s examples, we might ask, ‘What is it like for a woman to be a soldier?’, expecting to be told of the particular difficulties and perhaps advantages that face a woman in the military life. And in fact the perfectly sensible question ‘What is it like to be soldier?’ could be taken as equivalent to the question ‘What is it like for a person to be a soldier?’, an expansion we omit because the class of possible soldiers we had in mind is so obvious as not to require specification. But one restriction on this form of question appears to be that X cannot be the same as Y. ‘What is it like for a soldier to be a soldier?’ seems decidedly odd (for certainly no one besides a soldier could be a soldier), and is surely at best an eccentric way of posing the question ‘What is it like (for a person) to be a soldier?’ And this, just as with the normal understanding of the question ‘What is it like to be a bat?’, seems

to call simply for a straightforward description of the characteristic patterns, activities and experiences of the soldier's life.

We might, of course, go on to ask—presumably a soldier—what it *felt like* to be a soldier. To which he, or she, might reply, for instance, 'Wonderful! I'm so proud to be serving my country', or 'Horrible, I'm constantly afraid that I may be called upon to kill people', etc. As Hacker reminds us, there is a perfectly standard and unmysterious question about what it feels like to experience something, but again this is equally clearly not what the philosophical questioner is looking for. It is true that we can't ask the bat what it feels like to be a bat, but this does nothing to restore the mystery, for if it were, *per impossibile*, to answer 'Wonderful, it's such a fantastic sensation to soar down on unsuspecting and delicious mosquitoes', we would have had an answer no more puzzling than those imagined for the soldier. Even if the bat could speak, it could no more tell us what it is like to be a bat than I could tell you what it is like to be John Dupré—in the sense imagined by the consciousness theorist.

The reason for this, I have been suggesting, is quite straightforward: there is no such thing. Indeed, much of this 'what it is like' talk seems a perfect illustration of what is sometimes referred to as the fallacy of reification. From the possibility, sometimes, of saying what it is like to have particular experiences, we conclude that there is something that this is like, and we then try to characterize this entity. But the entity is no more than an unwanted consequence of some linguistic sleight of hand. There are many things to say about being a bat, but the description of some indescribable internal phenomenal quality is not among them.

It is no surprise that these hypothetical feelings-like do not do anything—this is of course why they are so hard to track down. Indeed, not doing anything might almost be their defining quality. This is the premise of what is sometimes said to be the most compelling argument for phenomenal consciousness, the notorious zombie argument. The zombie argument proposes that there could be creatures like us in every respect, but lacking any phenomenal consciousness. They talk and act just like humans but, so it is said, inside is only darkness. They have no phenomenal consciousness and there is nothing it is like to be a zombie. Since we are not zombies—it is apparently brilliantly lit inside *our* heads—we are faced with the problem of saying exactly what it is that distinguishes us from zombies. And this, it is claimed, is the problem of phenomenal consciousness.

Qualia

Rather than confront zombies directly, let me say something about the most crucial kind of thing that we are supposed to have in our heads, but that zombies lack, qualia. Qualia, a central part of the stock in trade of philosophers grappling with the Hard Problem, have, it seems, two very different philosophical genealogies. On the one hand, and in the context of the present debates over consciousness, they are the things it is like to have particular perceptual experiences. As Ned Block puts it: ‘Qualia include the ways things look, sound and smell, the way it feels to have a pain and, more generally, what it’s like to have experiential mental states.’¹⁴ But they also have an ancestry in theories of perception dating from the seventeenth-century way of ideas and leading to twentieth-century sense-data theories. In this tradition sense-data, for example, were the direct objects of perception. One did not see red objects ‘directly’, but rather inferred their existence from red sense-data. For many reasons these theories of perception have been abandoned. J. L. Austin’s critique of the theory in *Sense and Sensibilia* was only the most brilliant such exercise.¹⁵ No doubt some of the philosophical accounts of perception that have replaced sense-data theories have equally serious difficulties, but that is not my concern here. My present point is that these two histories give one a plausible account of how we got to the present philosophical orthodoxy. Although sense-data no longer serve their original central function, that of providing an account of perception, their existence has not come to seem any less plausible. Not least because it is probably the best understood area of neuroscience, scientifically minded philosophers are generally inclined nowadays to discuss perception in terms of reflectances, light waves and neural processing. The sense-data that used to serve an essential purpose in this area hang around as unemployed nomological danglers, forlornly hoping for a new function. Where once they were the objects of perception, now they are a brilliant but useless sideshow to perception.

The ontology remains the same; only the roles played by the various entities have changed. On the past view the mind’s eye perceived the

¹⁴ N. Block, ‘Qualia’, in S. Guttenplan (ed.), *A Companion to Philosophy of Mind* (Oxford: Blackwell, 1994).

¹⁵ Oxford: Oxford University Press, 1962.

sense-datum, and on the basis of this perception the mind reached conclusions about the external world and thence made appropriate decisions about behaviour: my mind's eye sees an image of a lamp-post increasing rapidly in size, and instructs the limbs to change direction to avoid walking into the real lamp-post that caused this image. Nowadays we are inclined to see the brain as doing all this without any help from the poor mind. The brain processes light rays reflected from the lamp-post and it sends the orders to the limbs to change direction. The image has no work to do in this picture, which is why it seems mere luck that we did not, like zombies, find ourselves without any. All they do is light up the insides of our heads—which is no doubt a good thing as the life of a zombie seems distinctly dull—but the only things there are to see inside our heads, unfortunately, are the light sources themselves.

So am I suggesting that there isn't really anything it is like to see red, say? Not exactly. For a start, a literal interpretation of this question might invite the remark that seeing red is a bit like seeing orange, only less yellow—though it is doubtful whether there is any point in saying this, except perhaps to someone wholly colour-blind. But in fact—and here again I follow Hacker—the usual expectation when one asks 'What is it like to perceive X?' is some kind of emotional evaluation. Thus, what is it like to smell coffee? Delicious. Or, what is it like to smell the latrines? Disgusting. And so on. Apart from lacking the philosophical depth generally expected of answers to such questions, this interpretation suggests that for many percepts there is nothing it is like to perceive them. As I walk down the street and perceive, and thus avoid colliding with, the lamp-post I have no emotional response to it at all. Which is why, of course, I am unlikely to be asked, on successfully negotiating this length of street, 'What was it like to see the lamp-post?'

Despite the lack of depth, these banal answers to 'What is it like?' questions have one overwhelming advantage. They point to the efficacious nature of these qualities of experience. The delicious smell of the coffee may be instrumental in moving me rapidly towards the kitchen whence it emanates. The foul smell of the latrines may discourage me from volunteering for latrine duty. And no doubt my association of certain experiences with pleasurable or unpleasurable feelings or emotions will sometimes motivate much more complex trains of action designed to reproduce the experiences with which these feelings have been associated

in the past. From this point of view there is no mystery about there being something some perceptions or sensations are like, nor as to the efficaciousness of these associated feelings or emotions.

But of course theorists of consciousness are not much moved by such remarks. As I have described, they do not answer the hard, deep problem that is thought to be at stake. For surely, even if our language annoyingly has difficulty in formulating the question that has the right kind of answer, there really are those things it is like to be a bat or see red. Another classic thought experiment to reinforce this intuition is the inverted spectrum. Might it not be the case that the way red things look to me, say, might be the same as the way blue things look to you? Contemporary qualia theorists generally do think of this as a perfectly conceivable possibility: my red quale might be indistinguishable from your blue quale. It is admittedly too bad that there is no way of finding out. But we can't find out what's going on outside our lightcone either, and that doesn't mean that nothing is.

The first thing I want to note about this argument is that it confirms the continuity of these views of perception with those of the seventeenth century. Suppose we ask which are the primary bearers of colours: objects in the world, or entities of some kind in the mind? Clearly the seventeenth-century philosophers thought the latter. Locke, for example, thought that physical objects were, literally, colourless.¹⁶ An alternative and more defensible view is that colours pertain to things, and only derivatively to such mental entities as afterimages or imagined scenes. Green is the colour of grass, not the colour of some private quale that grass, if I am lucky, will correctly match.¹⁷ Of course, I could have some peculiar neural condition such that tomatoes looked blue—they might look the colour of the sky, for instance. But that I might be born with experiences of blue invariably connected to experiences of (what everyone else experienced as) red is an unintelligible hypothesis. For 'experiences of blue' can mean only the

¹⁶ At any rate, colours as they pertain to objects are powers to produce sensations in our minds, and generally Locke identifies the colour with the sensation rather than the power. Fortright versions of such a view are far from uncommon today. No less an authority on perception than Richard Gregory, for instance, is quoted as saying, 'one...projects colours onto objects—they're not, of course, themselves coloured' (in S. Blackmore, *Conversations on Consciousness* (Oxford: Oxford University Press, 2005), 107.)

¹⁷ Anyone to whom this is not obvious will need to refer to the classic arguments especially in Wittgenstein's *Philosophical Investigations*. The private internal quale as the definitive sample of a colour is of course a standard example of the kind of postulate the private language argument shows to be incoherent.

experiences produced by observing blue things. Might the qualia theorist think of colours as applying equally, and in just the same way, to mental and external entities? In that case it would, I suppose, be a matter of good luck that when we saw red things they gave rise to red rather than blue qualia. The absurdity of this supposition is enough, I hope, to show that we must see colours as primarily qualifying either internal or external entities. If the latter, then the inverted spectrum problem cannot arise: red images are just images the colour of tomatoes and suchlike. Hence it appears that contemporary defenders of inverted spectra are committed to the idea that colours are primarily tied to internal entities, which explains my suggestion that they have remained remarkably true to the seventeenth-century way of thinking. On a more contemporary understanding that colours are in the first place attributes of objects, the inverted spectrum doesn't arise. And at the same time one central intuition behind the existence of qualia is defused.

A natural response to all of this might be to ask whether, if there are no qualia, or 'what-it-is-likes', we are no different from zombies. Zombies, after all, are just like us except that they lack phenomenal consciousness. If there is no such thing as phenomenal consciousness in the intended sense, then it appears that we are indeed just like zombies. Of course, I have not said that we are not conscious, so the real question is whether there is anything that the zombie could be missing and that we possess, that would nevertheless leave it able to do all the things described in the so-called easy problems. What I have said so far shows just that phenomenal consciousness is not an adequate conception to establish the difference between us and zombies or, therefore, the coherence of the possibility of zombies.

A first point worth noting, in relation to the familiar characterization of zombies as being 'dark inside', is that on the whole it doesn't seem to me that it is light on the inside of my head. In bright daylight, it seems to me that the light is on the outside, and in pitch dark it seems dark both inside and outside. It is customary to respond to the apparent externality of perceptions by adverting to hallucinations and suchlike. But of course hallucinations are, perhaps even by definition, somewhat similar to perceptions. My hallucination of a pink elephant does not appear to be inside my head, not least but not only because my head isn't big enough to contain an elephant. One might, as a last resort, consider phenomena such as afterimages, or possibly the stars that people are said to see following a sharp blow to the head, which might perhaps be described with reference

to internal lights, though even apart from tending to be on the dim side, my own experience of such things is that they seem to be located, if anywhere, just in front of the eyes.

But returning to the more standard case, would it seem dark *outside* to a zombie? My immediate thought is that if a zombie were just like us except that it was dark outside, it would keep bumping into and stumbling over things, which most of us do only rarely. If a zombie were, apart from the inside lights, just like us, in broad daylight it would seem to it to be light outside—as evidenced by the ease with which it avoided bumping into things and, for that matter, its tendency to report, if asked, that it was light. I would say that just like us it would be neither light nor dark inside; provided perception is understood as a relation to external rather than internal objects, lightness and darkness are qualities of the external world rather than the internal. A more productive response to the zombie argument, then, is to provide a more adequate account of consciousness than that centred on qualia and the like, and thereby demonstrate that to be indistinguishable from us zombies would need to have an interesting and sophisticated form of consciousness.

Consciousness and Attention

Having easily disposed of the so-called Hard Problem, the Easy Problem will hardly be so easy to solve. The important point so far is just that the ‘easy’ problems will not be merely hard but impossible to solve if they are seen as intertwined with a network of imaginary entities and ‘what-it-is-likes’. So this essay so far should be seen as a bit of routine Lockean underlabouring, clearing the ground for better-directed scientific investigation. The point of Lockean underlabouring is to allow the construction of sounder and more useful edifices that can replace the inadequate ones whose rubble the underlabourers have disposed of. I cannot hope here to build any sort of useful edifice. I shall, though, make a suggestion as to one promising site for such an erection.

David Chalmers has offered several examples of what he considers easy problems about consciousness—easy, he says, because ‘There is no real issue about whether *these* phenomena can be explained scientifically. All of them are straightforwardly vulnerable to explanation in terms of

computational or neural mechanisms.’ His examples are: the ability to discriminate, categorize and react to environmental stimuli; the integration of information by a cognitive system; the reportability of mental states; the ability of a system to access its own internal states; the focus of attention; the deliberate control of behaviour; and the difference between wakefulness and sleep.¹⁸

This is a motley bunch, and one question one might begin with is the variable extent to which these are really problems about consciousness. The ability to discriminate, categorize and react to environmental stimuli, for example, poses a wide variety of questions, but none that obviously has a lot to do with consciousness. At the neurological level it is an area in which a great deal of progress in understanding has been achieved; at the psychological and philosophical level there is much to be said about what discriminations we are able to make, and what we are doing when we categorize on the basis of such discriminations. That we are conscious—i.e., in this context, aware—seems to be a background assumption of such issues rather than a central aspect of the research. At the other extreme the difference between wakefulness and sleep is pretty clearly connected to consciousness, since in one case one is conscious and in the other not, but the interesting functional question here is presumably about the value of not being conscious—sleeping—rather than of consciousness.

My last remark points to an everyday sense of ‘consciousness’ that has little to do with the epiphenomenal hangers on of ‘phenomenal’ consciousness. In this sense consciousness is perhaps analogous to the classic Humean understanding of freedom: the important point is what it takes not to have it—being asleep, in a coma, lost in a daydream. In this sense, consciousness means awareness, sensitivity to one’s surroundings, and of course its absence doesn’t entail that the mind is empty (as the daydream, or more standard dream in sleep, illustrates). There is a further question, then: whether the person unconscious in this sense is also lacking in mental activity—a tragically vital question concerning some people in persistent comas.

Putting worries about zombies on one side, there is of course no difficulty in deciding whether, in this sense, a person (or one of many kinds of animal) is conscious, though it may certainly be a very difficult thing

¹⁸ Chalmers, ‘Facing up to the Problem of Consciousness’, 201.

to understand the neurological processes that make such consciousness possible. No philosophical mystery seems to present itself. Whether or not it is mysterious, I think we can find among Chalmers's 'easy' problems an issue that really is philosophically fundamental, and which has probably been a major victim of neglect consequent on the obsession with philosophical consciousness. This is the question of attention. And here I again link up with Donald, in whose account of the function of consciousness attention is of central importance.

In comparison with qualia and what-it-is-likeness, attention has received negligible recent philosophical discussion.¹⁹ Though it is quite widely discussed by cognitive psychologists I have been able to track down only a handful of explicitly philosophical discussions. A few of these derive from the phenomenological tradition and especially from Husserl. A handful of papers by analytic philosophers seem mainly concerned with the relation of attention to phenomenal consciousness. There is also some discussion of whether consciousness and attention are coextensive, with psychological evidence adduced to suggest that there are subtle differences between the two.²⁰ This question will not concern me here, not least because a satisfactory answer to it would presumably require an uncontentious definition of consciousness.

I propose instead to offer a comparative perspective. Unlike the elusive question of what it is like to be a bat, there is no difficulty at all (in principle) in saying what bats can and do attend to. And it is not a novel observation that a fundamental aspect of an organism is the set of features of its environment that an organism can discriminate. For most organisms, surely, this is closely connected to the ways in which the organism can interact with its environment, an idea commemorated in J. J. Gibson's concept of affordance, a feature of an organism's environment that it can perceive and that affords a possibility of action. The set of things to which an organism can attend is a fundamental determinant of its relation to the external environment.

¹⁹ In the website to which I referred in n. 1 above, there is a heading for 'Attention and Consciousness' but only under the subheading 'Science of Consciousness'; there are fifteen entries, half the number on zombies. A noteworthy exception is a recent book by John Campbell (*Reference and Consciousness* (Oxford: Clarendon Press, 2002)), though Campbell's main aim is to provide insight into reference.

²⁰ See e.g. V. G. Hardcastle, 'Attention versus Consciousness: A Distinction with a Difference', *Cognitive Studies: Bulletin of the Japanese Cognitive Science Society*, 4 (2007), 56–66.

We should be careful not to stretch our terms too far. We do not say that the plant attends to the sunlight, though its ability to respond to sunlight, whether simply by photosynthesizing or by more actively reorientating its leaves is certainly a comparable feature of its relation to its environment. The swimming of a bacterium up a chemical gradient is probably more similar to the activity of the phototactic plant than to human consciousness. One reason why we do not say that the plant is attending to the light is that it could hardly refrain from doing so. Attention is something that can focus on one thing rather than another, that can wander or be impressive in its steadiness. A plausible scale of behavioural complexity would be a measure of the range of features of the environment that offered affordances or that were potential foci of attention. And it is clear that in this regard humans vastly exceed the complexity of any other organisms.

In case this last were open to doubt, I should just point out that one reason why humans have so many possible objects of attention is that they make them. Modern humans live in an environment containing great numbers of things that have been put there by other humans, living or dead, precisely for the affordances, possibilities of action, that they can offer. The process of becoming a mature human requires, among much else, learning to recognize and make use of many of these artefacts. To gesture towards another wide range of relevant considerations, there is no doubt that human language plays an essential role (or perhaps a variety of roles) in facilitating the production, maintenance and exploitation of the diverse salient features that characterize human environments. And it is a familiar but fundamental point that language enables us to carry our attention beyond the confines of the immediate environment to things that are absent and even merely possible or abstract.

The present point of all this is that the more diverse becomes the range of items of potential interest in the environment, the more interesting and difficult becomes the problem of deciding on what feature of the environment attention should be focused. There is surely no simple answer to this question. Much of the philosophy of decision, of the will (its freedom and its weakness), of intention and planning and so on, addresses problems that arise as humans confront the variety of possibilities for action made possible by the almost indefinitely diverse salience of their engineered and theorized environments. This seems to me a good direction from which to approach the uniqueness and continuity of humans and other animals:

all animals are intimately related to their environments by the features of the environment that are relevant to their activities. These are the features that they perceive and the points at which they act on the environment. Humans have increased the diversity of such features to a degree that is incomparably greater than that of other animals: this is one way of seeing why the attempt to apply simple models of psychological evolution, such as are the stock in trade of evolutionary psychologists, tends to produce a simplistic caricature of human behaviour. The primitive precursor of human attention, I am tempted to say, comes into being when attention can be focused on one thing rather than another—when there is choice. And if attention is what is important about consciousness, this perspective will also capture the common intuition that while most vertebrate animals exhibit some degree of consciousness, the stereotyped and rigid behavioural routines of many instincts don't meet this standard.

I noted that attention is central to Merlin Donald's account of the human mind. Donald focuses on the factors that make possible the diversity of salient features of human environments, language and culture, and the argument that learning, which is of course absolutely essential in mastering language and finding one's way around a complex human culture, is wholly dependent on conscious attention. So the ability to attend, to focus the mind, both is a prerequisite for acquiring the behavioural complexity that is uniquely human, and is essential for dealing with the complexity of behavioural possibilities that this learning process makes possible. I hope this cursory summary doesn't suggest that I think that understanding the nature of such mental attention, let alone describing the neurological structures that (in part) make it possible, is a simple task. It will, nevertheless, be simpler if we focus on the actual content on which this attention is directed—objects in the world, cultural practices and suchlike—rather than on the ineffable feelings that are alleged somehow to accompany these contents.

Language, Science and Philosophy

I want to conclude with some reflections on a quite different kind of question: what is the role of philosophy in addressing topics such as the

present one? The arguments I have been considering that the notion of phenomenal consciousness does not make sense appeal to claims about the functioning of language. I remarked, for instance, that the question ‘What is it like to see red?’, in so far as it had a meaning at all, did not have the one assumed by many consciousness theorists. How is such a claim to be substantiated? Even if there were a definitive list of correct uses of words, might it not be quite legitimate for someone to introduce a new, more or less technical, usage for some particular theoretical purpose? This difficulty can easily be exaggerated. The meaningfulness of most sentences is not controversial. ‘That flower is red’ makes sense, while ‘The number nine is red’ does not; these are not dubious intuitions but mundane, if slightly esoteric, banalities.

But even this doesn’t quite get to the point. Dennett criticizes Hacker for relying on his linguistic intuitions with no apparent awareness of the difficulty linguists have experienced in formulating linguistic rules.²¹ Consider once again the question ‘What is it like to be a bat?’ It is not a simple question whether, according to the philosopher’s intuition, this sentence makes sense. Indeed, if there were a vote among philosophers it seems likely that most would vote in its favour. It is not, on the other hand, a sentence that wears its everyday meaning on its face. It might derive its meaningfulness from analogy with other similar and more familiar questions, or it might be given an explicit definition or explanation in some philosophical context. As a matter of fact, however, neither in Nagel’s classic paper nor in the flood of derivative philosophical work is it felt necessary to provide such an explicit introduction. It is quite clear, on the contrary, that it is taken to have a familiar and well-understood meaning. In evaluating the meaningfulness of this form of words Hacker takes the appropriate line of exploring superficially similar sentences and considering in some detail how these are actually used. As I have described, this investigation fails to disclose an appropriate meaning

²¹ Dennett in M. Bennett, D Dennett, P. Hacker and J. Searle, *Neuroscience and Philosophy: Brain, Mind and Language* (New York: Columbia University Press, 2007). Dennett, as I noted, has his own qualms with qualia, and the attacks in question concern Hacker’s objections to attributing mental states to brains and their parts. However, the arguments in question can equally well be considered with reference to the present issue.

for the original question. This is a more complex form of argument than merely weighing the sentence on one's linguistic palate and declaring it to be sense or nonsense. One might, I suppose, suggest that any philosophical argument depends on intuitions about the meanings of the sentences employed in developing the argument. But this hardly serves as an all-purpose refutation of all philosophical arguments. Rebutting Hacker's (and my) arguments would require the hard work of explaining where his linguistic intuitions have gone astray and why, and then explaining what are the genuine conditions of use of the forms of word in dispute.

Contrary to an occasional knee-jerk reaction that is sometimes induced by what is derided as 'ordinary language' philosophy, then, there is nothing wrong in principle with the methodology Hacker employs, and which I have endorsed by imitation, for questioning the views of philosophers and scientists studying the mind. This is consistent with Hacker's view, much criticized by Dennett and Searle, that philosophy is about distinguishing sense from nonsense, and science is about distinguishing truth from falsehood, and consequently that the two have essentially distinct, non-overlapping subject matters.²² Ironically enough, a similar view might be seen as implicit in the views of philosophers such as David Chalmers on phenomenal consciousness. Apparently this issue needs some serious philosophical work before it can be passed on to the scientists for empirical resolution. For Chalmers this empirical resolution, when the time comes, appears to be a relatively routine if no doubt time-consuming activity; it is, compared with the 'hard' philosophical problem, 'easy'. No one can doubt that scientists, given time, will sort out the details. This all fits with what was once a very standard story: all problems start out as philosophy, but at a certain point in history enough conceptual clarity is reached in a given area of enquiry for it to be handed over to the scientists. Thus physics in the seventeenth century, chemistry in the eighteenth, biology and psychology in the nineteenth.

I am not persuaded, however, that it is useful to draw such a sharp line between science and philosophy. There are of course major differences in

²² Dennett and Searle, in Bennett *et al.*, *Neuroscience and Philosophy*, 79 ff. and 122–40.

training, skills and quotidian practice; but I don't think that problems can be unequivocally divided into one category or the other. This is not because I want to make a radical Quinean denial of any distinction between truths of logic and truths of fact. But I do think that most intellectual work, whether in philosophy or science, requires the confrontation of both kinds of problem. The close, and sometimes productive, engagement between many contemporary philosophers of science and practising scientists is, I believe, an appropriate reflection of the interconnections between philosophical and empirical questions.²³

Successful science, I think, requires good philosophy, not just as a foundation that, once constructed, can be left to take care of itself, but as part of a continuing contribution to the advancement of science. Of course this doesn't mean that every lab needs a resident philosopher (though perhaps that wouldn't be so bad); conceptual work is just part of what many scientists do. Contrary to the now declining philosophical tradition that saw scientists as engaged in a quest for laws, biologists, at least, talk far more about concepts. (In fact they almost never talk about laws.) The question whether a concept is useful is simultaneously a question whether it applies coherently to the appropriate range of known cases, and whether it guides a productive programme of further empirical research. (An example of a concept whose usefulness remains subject to some such dispute is that of affordance, which I have used earlier in this essay.) It is distinctive of work in the philosophy of biology that it is very much concerned with the coherence of such concepts, but it would make no sense to explore this question without attempting to understand the empirical work that they had facilitated. Understanding what a scientific concept means requires understanding how it is used; and, typically, scientific concepts are used in formulating, implementing and reporting programmes of scientific work. Often scientific concepts are used in a variety of very different contexts as, for example, the concept of 'gene', which guided both the Mendelian studies of inheritance that flourished in the first half of the twentieth century and continue today,

²³ I should perhaps add that I do not assume that empirical questions are strictly the preserve of science, and I do not believe that so-called folk knowledge should, as many scientifically minded philosophers suppose, be assumed to be ignorant and ungrounded.

and the molecular genetics that developed during the second half of the last century. There is an interesting debate among philosophers whether this is a regrettable situation that should be rectified by philosophical intervention or, rather, as is increasingly often proposed, it is a productive ambiguity that promotes the interchange of ideas between related fields of enquiry.²⁴ At any rate, it is clear that it would be impossible to address such a question without detailed consideration of the investigative practices in which the term is used. Indeed, the collaboration between Bennett and Hacker, providing respectively authoritative scientific and philosophical expertise, seems to me exemplary of the kind of interaction between science and philosophy that is characteristic of the best current philosophical contributions to science.

One aim in offering this cursory discussion of the contemporary methodology of philosophy of science is to note its striking contrast with the philosophical discussions of qualia, zombies and the internal life of bats that I described earlier in this essay. Far from being grounded in a serious consideration of scientific practice, these phenomena, it is widely agreed, are beyond the reach of any investigative practice that we can yet imagine. Since they are imagined as ineffectual and generally unobservable epiphenomena, this lack of empirical input is of course not surprising. What is evidently not adequately appreciated is that it is not merely that we have no scientific account of qualia and the like, but that we have no proper grounding for these things in our pre-scientific (but nonetheless empirical) picture of the world. It seems to me that there is a real danger that insisting on an impassable divide between the conceptual and the empirical might actually encourage the pursuit of this vacuous quasi-philosophical enterprise. A hypothesis borne out by both Dennett's and Searle's response to Bennett and Hacker's book is that Hacker's commitment to this divide is

²⁴ A sophisticated argument for the usefulness of a degree of flexibility in central scientific concepts, with special reference to the concept of a gene, is H.-J. Rheinberger, 'Gene Concepts: Fragments for the Perspective of Molecular Biology', in P. Beurton, R. Falk and H.-J. Rheinberger (eds.), *The Concept of the Gene in Development and Evolution* (Cambridge: Cambridge University Press, 2000), 219–39. An analysis of the problems that can arise from conflation of different gene concepts, thoroughly informed by contemporary molecular biology, is L. Moss, *What Genes Can't Do* (Cambridge, Mass.: MIT Press, 2003). A prominent example of the growing movement in 'empirical philosophy' is the Representing Genes project led by Karola Stotz and Paul Griffiths, which investigates the diverse uses of the concept of gene by contemporary scientists. See K. Stotz, P. E. Griffiths and R. Knight, 'How Scientists Conceptualise Genes: An Empirical Study', *Studies in History and Philosophy of Biological and Biomedical Sciences*, 35 (2004), 647–73.

liable to provide one excuse for refusing to take his important philosophical arguments seriously. If this is so, I offer myself as one piece of evidence that one can find these arguments entirely persuasive even in the context of a more muddled and inchoate vision of the relation of science to philosophy.²⁵

²⁵ I'm very grateful to John Hyman and Hans-Johann Glock, whose comments on an earlier draft led to many improvements. An early version of the paper was presented to a workshop on the Basic Functions of Consciousness hosted by the research group on 'Funktionen des Bewusstseins' at the Berlin-Brandenburgische Akademie der Wissenschaften, and I am also grateful to participants at that meeting for various helpful comments.