

The Hard Problem of Consciousness

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I: Introduction

Consciousness poses the most baffling problems in the science of the mind. There is nothing that we know more intimately than conscious experience but there is nothing that is harder to explain. All sorts of mental phenomena have yielded to scientific investigation in recent years, but consciousness has stubbornly resisted. Many have tried to explain it, but the explanations always seem to fall short of the target. Some have been led to suppose that the problem is intractable and that no good explanation can be given. To make progress on the problem of consciousness, we have to confront it directly. In this paper, I first isolate the truly hard part of the problem, separating it from more tractable parts and giving an account of why it is so difficult to explain. I critique some recent work that uses reductive methods to address consciousness, and argue that these methods inevitably fail to come to grips with the hardest part of the problem. Once this failure is recognized the door to further progress is opened.

II: The Easy Problem and the Hard Problem

There is not just one problem of consciousness. 'Consciousness' is an ambiguous term, referring to many different phenomena. Each of these phenomena needs to be explained, but some are easier to explain than others. At the start, it is useful to divide the associated problems of consciousness into 'hard' and 'easy' problems. The easy problems of consciousness are those that seem directly susceptible to the standard methods of cognitive science, whereby a phenomenon is explained in terms of computational or neural mechanisms. The easy problems of consciousness include those of explaining the following phenomena:

- 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; a the deliberate control of behaviour;
- the difference between wakefulness and sleep.

All of these phenomena are associated with the notion of consciousness. For example, one sometimes says that a mental state is conscious when it is verbally reportable, or when it is internally accessible. Sometimes a system is said to be conscious of some

information when it has the ability to react on the basis of that information, or, when it attends to that information, or when it can integrate that information exploit it in the sophisticated control of behavior. We sometimes say that an action is conscious precisely when it is deliberate. Often, we say that an organism is conscious as another way of saying that it is awake.

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. In each case, an appropriate cognitive or neurophysiological model can clearly do the explanatory work. If these phenomena were all there was to consciousness, then consciousness would not be much of a problem. Although we do not yet have anything close to a complete explanation of these phenomena, we have a clear idea of how we might go about explaining them. This is why I call these problems the easy problems. Of course, 'easy' is a relative term. Getting the details right will probably take a century or two of difficult empirical work. Still, there is every reason to believe that the methods of cognitive science and neuroscience will succeed.

The really hard problem of consciousness is the problem of experience. When we think and perceive there is a whirl of information-processing, but there is also a subjective aspect. As Nagel (1974) has put it, there is something it is like to be a conscious organism. This subjective aspect is experience. When we see, for example, we experience visual sensations: the felt quality of redness, the experience of dark and light, the quality of depth in a visual field. Other experiences go along with perception are different modalities: the sound of a clarinet, the smell of mothballs. Then there are bodily sensations from pains to orgasms; mental images that are conjured up internally; the felt quality of emotion, and the experience of a stream of conscious thought. What unites all of these states is that there is something it is like to be in them. But the question of how it is that these systems are subjects of experience is perplexing. Why is it that when our cognitive systems engage in visual and auditory information-processing, we have visual or auditory experience: the quality of deep blue, the sensation of middle C? How can we explain why there is something it is like to entertain a mental image, or to experience an emotion? It is widely agreed that experience arises from a physical basis, but we have no good explanation of why and how it so arises. Why should physical processing give rise to a rich inner life at all? It seems objectively unreasonable that it should, and yet it does. If any problem qualifies as the problem of consciousness it is this one.

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Questions on The Hard Problem of Consciousness

1. What is the easy problem of consciousness? Give one example.

2. Why is the easy problem '*easy*'?

3. What is the hard problem of consciousness?