

Features of Minds

In the earliest era of philosophy it was not clear whether or not the mind is located in the brain, and so it was treated as an aspect of the whole vitality of a human being. Once the role of the brain became clear, there slowly emerged a range of puzzles about the mind, and in modern times these problems have become central to philosophy. The main questions concern consciousness, higher-order thought, the unconscious, intentionality, and qualia. That is, why are minds 'aware' of the world, what is thinking about thinking, how do we think 'about' things, and why does experience have its own distinctive character?

The emergence of computers has highlighted how extraordinary **consciousness** is, since computers come close to 'thinking' (e.g. playing chess), but no one believes they are conscious. We must decide what consciousness is, but we face a shortage of useful vocabulary, because minds have always been taken for granted. A helpful thought is that we all see the difference between 'what's it like to be a computer' (nothing), and 'what's it like to be a bat?'. This also draws attention to how deeply private the mind is, and it was suggested that if the brain were so large that we could make a tour of it, we would see no sign of its consciousness. At first consciousness was seen as all-or-nothing, an internal theatre which was largely turned off at night, although the theatre didn't seem to be a defined space (despite obviously existing in time). But then it was observed that consciousness comes in degrees (if we compare the periphery and centre of our visual field), and that consciousness is always *of* something, and is always known to us by its contents, so that its connection to the world is one of its essential features (unlike a theatre). Being conscious of something is more than being 'aware' of it, since I am aware of what is behind me, but not conscious of it.

The next phase was the realisation that we have disguised beliefs and desires, which may affect our behaviour without their becoming conscious, so that the **sub-conscious** is a dark annexe to consciousness. We now see that the unconscious is indispensable to the mind, in handling sense experience and speech, for example. Modern experiments reveal that even decision-making is initiated at a non-conscious level. The phenomenon of 'blindsight' (where apparently blind people still pick up visual information) shows that some parts of our perceptual system never even enter consciousness. It remains an issue whether we can speak of non-conscious thoughts, and it is hard to locate the borders of the mind, and of consciousness.

A consciousness may seem to be a unified and seamless whole, but even early philosophers distinguished **parts** or faculties of the mind, such as reason, emotion, imagination, motivation and decision-making. More recently it is suggested that the ego or person is a distinct part of the mind, and distinguishing specialist brain areas (such as the area controlling language) contributes to a more structured view of consciousness. We even see that there are 'gaps' which are somehow filled in, such as the blind spot in our visual field. The most vivid part of the mind is where we 'focus' fully on something, as when we stare closely at an object, or struggle with a proof in logic.

It is interesting to seek the **purpose** of consciousness, given that non-conscious robots can cope increasingly well with their environments. From an evolutionary viewpoint, we would expect consciousness to bestow some advantage. A striking phenomenon is the location of our feelings of pain, which are evidently processed within the cortex, and yet feel as if they occur where the damage is. It seems that the damage can be detected where it occurs, but consciousness is needed to stimulate swift protective action, which must still be focused on the source of danger.

The other aspect of consciousness which suggests its value is the highly integrated character it gives to a large range of inputs. Thus you can see, hear, identify and act on a wasp landing on your nose in what seems like a single conscious event. In robotics they can only dream of such close integration. On the other hand, some of our simpler reactions are slowed down by consciousness, and we pull our hand off a hotplate before the pain arrives. A challenge to its value is the speculation that a '**zombie**' might be possible. That is, could there be exact replicas of humans, in behaviour as well as structure, which entirely lack consciousness? This possibility would entail that consciousness was not a mere aspect of the physical brain (which is why physicalists reject zombies), but it would also invite the thought that consciousness is an irrelevant side-effect of the brain, or not as useful as we thought.

An important feature of minds is the capacity for **higher-order thought**, which is a good candidate for what distinguishes 'advanced' animals such as humans. This feature seems to make self-awareness and criticism possible, it may distinguish what we call 'persons' from other creatures, and some thinkers suggest that it is the actual source of consciousness. A simple animal would be aware of the world, but thinking about this awareness might be what results in consciousness. A decent theory of higher thought must avoid a regress, which would result if the higher level were said to be 'conscious' of the lower level.

Assuming that the brain gives rise to consciousness, its **cause** is currently unknown. Since consciousness comes in degrees, any account must be continuous with explanations of non-conscious brain events, but it must also explain the impression of smoothness and unity we experience, and fit with its vivid experiential character. Different brain structures, or distinctive chemical behaviour, or subatomic quantum effects, are all offered as candidates.

A striking feature of the mind is '**intentionality**' (the fact that thoughts are always *about* something), and it is even said that 'intentionality is the mark of the mental'. A recent rival for this leading role in consciousness is the '**qualia**' involved in experiences, which are the raw qualities of redness, or the smell of onions, or the feeling of grief. If we build a robot, it looks easier to make it represent things, and thus be 'about' them, than it does to make a robot have a favourite colour, or dislike a feeling. Hence the explanation of qualia has been called 'the hard problem'. A shadow of a tree is 'about' the tree, so the intentionality of mind is intrinsic in character, rather than just a relation (and thoughts, unlike shadows, can be about imaginary things). Language is also about things, so the study of linguistic meaning throws some light on the intentionality of the mind. An important question is whether intentionality has to be conscious. If not, then a non-conscious machine might exhibit a degree of intrinsic intentionality.