

What is Consciousness?

An introduction

There is something that it is like to be conscious. It is a unique experience and cannot be described easily. It is not possible to characterize it in any physical terms; in fact to describe consciousness one requires adjectives which are only related to being conscious. We constantly seek words to sum it up but end up in a circular state. It seems to be in a different category completely from the rest of our world or even our universe. And this is perhaps the greatest difficulty in the philosophy of consciousness: how can we work out how something physical such as our brains could produce such a phenomenon?

Consciousness is not the same as being awake, because we can have conscious thoughts when we are dreaming. Also, it does not correlate with my medical training about consciousness, in which we measure levels of consciousness in sick patients.

In many ways we are unconscious of being conscious. We are a bit like fish swimming in water; it is their entire world and yet it is possible to imagine them not realizing that water even exists. It is so normal to be conscious that we tend to ignore the fact that it is an amazing and wonderful thing. We take it for granted until we are asked to describe it.

Private Access

One of the defining features of conscious states is that they are a private world. Only you are privileged to know the thoughts that you have – no one else can have them. It is subjective and no matter how skilled I am at describing my thoughts to you, I cannot really convey them properly. We always refer to examples of our own thoughts in order to try to understand the thoughts of others.

In fact there is an interesting philosophical argument that you might like to ponder and it goes like this:

- 1/ Mental states can only be privately accessed.
- 2/ No physical state can be privately accessed.
- 3/ Therefore mental states are not physical states.

Actually that might seem obvious, but many philosophers would argue that in fact mental states are just physical and that it is an illusion to think otherwise. You might be asking yourself why they would say this. It is because many people have a world view that says there is nothing more than the physical in the universe, just matter, energy and time. You might expect philosophers to have a more rigorous means of deciding this, but a priori world views do seem to heavily influence the debate on the mind.

Personhood

Consciousness involves a sense of personhood. I know who I am as an individual person. Now this might take time to develop in children but there is no doubt that as persons we are uniquely aware of our individuality. There is a continuity in my life; I am the same person that I was 10 years ago. I might have changed but I am the same unique individual. We struggle to imagine how any physical object or machine, however complex, could have this sense of personhood. It is not just that there is the continuity between myself now and as I was years ago, it is much more than that. Having a first person knowledge of “me” is something no one else can have and which has a phenomenal quality that almost defies description. And of course we know this about others too; our friends and family are persons in their own right who are individuals that we instinctively feel are not physical but entirely and uniquely ‘them’. When I speak with or write to someone, I do not believe I am addressing a physical object. I am addressing a person.

Artificial intelligence (AI) enthusiasts will maintain that some machines behave like persons and therefore cannot be said to be any different. But the difference is obvious; machines are programmed by us to appear as if they are persons when they are clearly not. When my computer speaks to me or the Sat Nav directs me to turn right at the next roundabout, I may like to fantasise about the machine being an actual person but I would of course be entirely wrong. AI may do wonderful things but the most advanced forms are merely copies of what we do, and not individuals in their own right. John Searle in a classic paper has dismissed the possibility of computers becoming conscious.¹

Sensations

Consciousness involves sensations. For example, the *way* in which I experience the colour blue. There is a ‘blueness’ about blue that it not merely registering certain wave lengths of light (as a machine might do). There is the smell of something such as the coffee I made this morning. There is the sound of the wind I am hearing around this building I am in. There at times may be an itch or a pain somewhere in my body. Such experiences of sensations are known as qualia in philosophical language.

If we go back to the experience I have of seeing the colour blue, for example; there is something very deep going on. I do not merely register a wavelength, I have a unique experience. Once again it is helpful to contrast this with what happens with a robot which registers blue (by analysing wavelengths of light). The robot might even speak and say “wow, that is a wonderful blue!”. But the robot will not have had any *experience* of blue at all, merely registering a wave length and converting the data into speech via pre-programmed zero and ones.

We have to ask ourselves therefore whether the experience, the qualia, of seeing a colour is a non-material event. Materialism, (which has nothing to do with shopping), is the view that all that there is in the universe is matter and energy. What we sense strongly and may even conclude, is that conscious experiences such as qualia are non-material events. This is known as “The Hard Problem” of philosophy of mind, a phrase from the philosopher David Chalmers.²

¹ Searle, John. 1983. Can computers Think? From Minds, Brains and Science, pp. 28-41. Harvard University Press.

² Chalmers, David. Consciousness and its Place in Nature. From Blackwell Guide to the Philosophy of Mind. Blackwell. 2002

There is a famous thought experiment by the philosopher Frank Jackson known as 'Mary's room'.³ Mary is a neuro-scientist who knows absolutely everything about vision. In fact she knows every physical fact about the process down to the sub-atomic level. Yet, Mary has been brought up and stayed in a room that is entirely black and white with no colour, all her life. She has never seen colour. She of course knows all that there is about the process of colour vision but never experienced it.

She is then brought out of her room and she experiences colour in the world around her. This is a completely new experience. She has added to her knowledge of vision the actual phenomenal experience of colour vision. This is a new form of knowledge. We can state the situation as follows:

- 1/ Mary knows all the physical facts
- 2/ Mary does not know all the facts.
- 3/ The physical facts do not exhaust all the facts.
- 4/ Materialism is therefore false.

Materialism is the belief that the only things in the universe are purely physical ones. It seems, from Mary's experience, that such a belief is false because the conscious experience of colour vision cannot be reduced to something physical. Philosophers do argue over this endlessly but many would indeed agree with this assessment.

Correlation of person and brain

The thought experiment 'Mary's Room' brings up the issue of brain activity and consciousness. For every thought there is some activity of the brain associated or correlated with it. We can see this with MRI scans. The big question is this: is the neuronal activity all there is or is it merely correlated with consciousness?

When my car is driven from A to B it is taking part in the journey. But that is not all there is; it is I who am driving it. What if anything drives the brain?

Emotions

Consciousness of course also involves emotions such as sadness, fear, anger, hopes and love. These are deeply personal and real. In fact like all of consciousness, it is very difficult to categorize such emotions with any form of physical order or terminology.

Emotions are 'about' something and they have content. This 'aboutness' is known as *intentionality* among philosophers. Can these thoughts be merely physical? How can a physical object be *about* something? When we look at physical things in the universe we know that they exist and they interact with other physical things. They may have complex relationships - think of the weather systems for instance, or the way molecules interact in the human body. However we cannot say that any of these things are 'about' anything other than that they exist in such relationships. An emotion, in contrast has aboutness – such as the grief after losing a loved one or the anger towards that bully at school or the love for that person you want to marry.

Emotions are also surely distinct from physical events in that they have clear and non-physical attributes when we feel them. This is like the discussion we had about qualia; there is something it is like to have an emotion such as joy. Joy is uniquely personal and it is hard to see how it could be reduced to something physical.

³ Jackson, Frank. 'Epiphenomenal Qualia'. *Philosophical Quarterly*. (1982) 32:127-136

Beliefs

Beliefs are an essential part of our conscious lives and also have this sense of 'aboutness'. If I believe that Tolstoy is a better writer than Dickens, then I am more likely to read his novels. This belief may perhaps be justified by me giving examples of both writers and analysing them. But in the end my belief that Tolstoy is better at writing is a subjective thing that is not reducible to facts or indeed anything physical. A belief stands on its own somehow. How could it be reducible to neurones signalling one another – even if such neuronal activity is correlated strongly with having the belief? Can a physical event or events in my brain can have beliefs?

We also have the question of whether a belief can affect the brain in order to do something (such as bring my umbrella). If a belief is not physical then how can it affect something physical such as the brain?

This is 'the' crunch question in philosophy of mind; can a non- physical thing such as a conscious belief have any effect on a physical object such as the brain?

Free-will

As individuals we have a strong sense that we have choice and can freely decide to do different things. As such we believe, rightly or not, that we have a degree of autonomy. We have a sense that we can choose to buy a certain article or to go up to someone to speak to them, for example. We award people who choose to do brave things in war, and give them medals, because we feel they could have chosen to do otherwise. We punish people who do bad things because we believe they could have chosen another course.

The big question is whether a purely physical object such as the brain, however complex, could have free-will. The reason this is controversial is that any purely physical system is subject to the laws of physics and cannot do otherwise than what it does. External physical conditions may affect the outcome, but there is no freedom that we can see within such a purely physical state. And quantum randomness at the atomic level does not help to explain free-will, because being random means a lack of any autonomy or real choice.

If we really do have autonomy to choose, then this is a massive argument for the non-material nature of the mind.

Morality

While not strictly part of philosophy of mind, moral and ethical thoughts are central to our very nature. All of us, apart from very few exceptions, will argue strenuously for our moral values. These are firmly held positions on such things as fairness, equality, benevolence, justice and human rights (for example). We might differ on the details but we will agree on the basic moral positions. Most of us would agree that it is simply wrong to cheat in exams or to commit murder. We take such views for granted, and we generally hold them as absolutes. They are part of our consciousness but these are views about the world and others which we feel are outside of us. They do not depend on our particular state of mind; murder is wrong – whether you or I think so or not.

Where do such values come from? The materialist will attempt to invoke such things as social Darwinism (it is good for the extended kin and thus gene survival). By doing so they demote such morality to mere survival tactics, rather than to anything universal.

And so if you think murder is wrong per se, you are already showing a strong leaning towards something immaterial and universal in the way we think. Where do such universal values come from?

Monism and dualism

It is worth defining some philosophical words that repeatedly crop up.

Monism is the view that the mind is entirely one substance. 'Substance' in these discussions does not refer to only physical things but can refer to non physical things (such as the possible non-physical mind).

Dualism is the view that the mind is distinct from the brain or body and is not reducible to certain forms of neuronal brain activity. It tends to come in two forms:

Property dualism holds that though distinct from the brain, consciousness is entirely a product of physical brain activity. The term used is often 'supervenience'. The mind is supervenient on the brain, and is in this sense immaterial, but is entirely a product of the physical neurons and cannot exist independent of them.

Substance dualism, which is the view that was held by the philosopher Descartes⁴, says that the mind is distinct and is a different 'substance' from the brain. It is a non-physical substance. It interacts with the brain and is closely linked to the brain but can exist without brain activity. The interactions it has with the brain are both ways; the brain can act on the mind and the mind on the brain.

Substance dualism holds that there is in fact something we might call a soul in each of us. The soul is the actual person and is autonomous in that the soul has free-will and is not dependent on the physical brain for decisions.

As we get deeper into the study of consciousness we realize fairly quickly that it is something to wonder at and appreciate..

DISCUSSION TRIGGER POINTS

SEE END OF NEXT PAPER

⁴ Descartes, René. 1641. *Meditations on First Philosophy*. Cambridge University Press. 1985

Mind - the Gap.

An outline of the main philosophical positions held about the mind

The mind is a curious thing. What is it? Just a product of the electrochemical circuitry of the brain? The materialist will say so and many a neuroscientist, with MRI scanner at hand, will show us some lit-up areas of our brains corresponding to particular thoughts. Is that it then? Is that conscious thought?

Well – it is clearly not as simple as that. This article is a rapid tour of the main philosophical positions concerning the mind over the past few centuries. As a mere introduction it may whet appetites to read the original works of some fine minds.

Let us start with Descartes (1596-1650). In his 'Meditations'¹ he came to the strong dualist conclusion that the mind is distinct from the body (which includes the brain). Greek philosophers held similar dualist views. As a 'thinking thing' Descartes concluded that everything physical is 'extended' – in other words the body and all else that is material has dimensions; something the mind lacks. He also concluded that the mind was indivisible, whereas all material things are divisible. These thoughts made him certain that the mind is not material; even if intimately linked to and 'intermingled with' the brain. His philosophy of mind remains powerful and many of the twists and turns of modern philosophy are based on the idea that he must be wrong; how could a non-material mind have causal effect on the material body? His claim that the mind is indivisible is supported, interestingly, by certain forms of neuro-surgery.² When the Corpus Callosum (the bundle of nerve fibres connecting the two brain hemispheres) is severed, the hemispheres are isolated from one another and yet this has no effect on the integrity of any such patient's personality or continuity as one person.

Leibniz (1646-1716) felt much the same as Descartes and remarked that if one was to go into a piece of machinery, such as an enormous mill, we could not therein find any evidence for thought – he likened this to us entering into the brain and looking amongst the 'machinery' for thoughts.³ We would not find them. Which at least makes us sit up and ask ourselves – where is consciousness within a physical system?

With the advance of an 'enlightened' materialism in the 20th century there was a vogue within the logical positivist school of philosophy for a behaviourist approach to the mind.⁴ This was an attempt to make scientific and measurable any statement we might have about thoughts. Essentially, according to this view, (now considered false by most), we can only measure and know the mind through observation of a person's behaviour. Indeed such behaviour was considered to be all there was to the mind. A pain therefore could be simply a combination of screaming, wincing and withdrawing. What the behaviourists left out however was the very essence of thought, which is an internal process that is experienced.

Type Identity theory is a view that has held sway with many philosophers of mind. This holds that an experience such as a pain simply is the firing of certain nerve fibres (such as C fibres).⁵ In other words the pain is identical to the nerve fibres firing. This is now considered unlikely by most, particularly since the work of Kripke, (1940 -)⁶, who argues convincingly that it is very likely that such a thing as pain could occur without those exact C fibres firing (such as in an alien who does not have C fibres). Likewise, he argues convincingly that it is more than likely that such a brain event as C fibres firing could occur without any pain.

The philosophical view known as *Functionalism* has prevailed in some quarters.⁷ This holds that a

mental state is a functional state of the whole organism. In other words it is something that occurs when certain internal states, with their causal relationships, occur along with the inputs and outputs that the organism experiences. This rather mechanistic view has however been more or less abandoned, particularly since Ned Block (1942 -) illustrated (in his famous 'Chinese thought experiment') how one could reproduce the exact functional states without any thought occurring.⁸

Davidson (1917-2003) is known for his *Anomalous Monism*.⁹ The problem he tried to tackle was this:

1/ The mind is causal, in other words thoughts can cause things to happen in the world. He gives the example of a submarine commander deciding to fire a torpedo.

2/Causality in the universe implies laws that must exist to account for one thing causing another.

3/The mind however is not bound by law but is free.

Now clearly these observations are incompatible. What Davidson tried to do was to free the mind from the brute physical state of brain events. He proposed that the mind is 'supervenient'; that is produced by physical brain events but not the same as them. This supervenient mind is therefore somehow free from physical laws. Kim however has convinced most that this cannot work; if the brain state, which is physical, produces thought, then the thought is inseparably linked to the physical and could not be free.¹⁰

Eliminativism is an extreme materialist view. Its chief proponent, Paul Churchland (1942 -), maintains that neuroscience will eliminate all psychological concepts as we come to understand the precise science of the brain.¹¹ As such there is no such thing as the mind – simply neurological events. This reductionist account of thought leaves one cold however. How can love be reduced to nerve action potentials? How could a belief (that eliminativism is true, for instance) be merely the firing of neurons? Indeed, could such a belief be either true or false?

Epiphenomenalism is a dualist position in that it holds the mind to be non-physical and distinct from the brain.¹² However, though the mind is produced by the brain (and is causally influenced by it), the mind has no causal effect on the physical brain or body. As such this view preserves the idea that only physical things can act on the physical. Contrast this with Descartes' dualism which demands that there is causal interaction between mental and physical – mental things both cause and are caused by physical things. As I have said, much of subsequent philosophy, including epiphenomenalism, is an effort to avoid Descartes' idea that a non-physical mind could have causal effect on the physical. However, epiphenomenalism leaves the mind in an unsatisfactory limbo – inert and unable to cause anything. This defies our common experience.

David Chalmers (1966 -) calls consciousness the 'hard problem' of philosophy of mind.¹³ Chalmers particularly concentrates on 'qualia'; the subjective qualities of conscious experience (such as what you experience when you smell a rose, see the colour red or enjoy a good wine). Qualia seem irreducible to mere neurological events. They are distinct personal experiences that are different to anything else. A robot that senses colour would not have qualia – merely the registration of certain wavelengths of light.

What about computers and artificial intelligence? Can we not envisage them having consciousness? Actually the answer appears to be a clear "No!" John Searle (1932 -), in his most famous paper 'Can computers think?'¹⁴ shows us that no matter how advanced a computer is, the information it holds and processes is derived (from us) and is based on digital symbols which cannot involve the consciousness we experience.

There is then the question of free-will. This is a serious challenge to the materialist who of course has to agree to the mind being entirely dependant on the physics of the brain and its environment.

As such it cannot be free because every brain event is determined by prior physical states. Quantum randomness does not help here either, because there is no autonomy or free-will in complete randomness.¹⁵ Many philosophers have therefore concluded that our thoughts are entirely determined and our freedom (and indeed all responsibility) is illusory. Anyone who upholds free-will is, like it or not, defending a dualist, non-material mind.

The materialist paradigm, which demands the abandonment of any sort of Cartesian dualism, is based on a prior assumption that only the physical can act on the physical. It is an unproven worldview and one which is seriously threatened by what we now know about the universe; its fine tuning and the evidence for a first, necessarily immaterial, cause.

The mind is still very much an enigma. Are we machines and nothing more? Or are we willing to accept, with Descartes, that the mind is something quite different? How we see the human race and ourselves as persons critically depends on these questions.

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DISCUSSION TRIGGER POINTS

1. What reaction do you have to any aspect of the information given in either paper?
2. What relevance do you find there is in this material to the 'God question'?
3. Do you think that holding the view that the soul is entirely separate from physical aspects of the body should be fundamentally important in a theistic worldview?

¹Descartes, René. 1641. *Meditations on First Philosophy*. Cambridge University Press. 1985

²Bogen IE: Physiological consequences of complete or partial commissural section, in Apuzzo MLJ (ed): *Surgery of the Third Ventricle*, 2nd ed. Baltimore, Md: Williams & Wilkins, 1997

³Monadology 17. In *Leibniz Selections*, ed. Philip Weiner (New York: Charles Scribner's Sons, 1951), p. 536.

⁴Carnap, Rudolph. 1932. *Psychology in Physical Language*. Originally published in *Erkenntnis*, 3:107-42, 1932/33. Behaviourism is epitomised in this classic paper.

⁵Place U.T. Is consciousness a brain process? *British Journal of Psychology* 47: 44-50, 1956.

⁶Kripke S.A. 1980. *Naming and Necessity*, pp. 144-55. Harvard University Press.

⁷Putnam, Hilary. 1973. *The Nature of Mental States*. Originally "Psychological Predicates", in *Art, Mind and Religion* pp. 37-48. Univ. Of Pittsburgh Press. A classic paper supporting Functionalism.

⁸Block, Ned. *Troubles with functionalism* In C.W.Savage, ed., *Perception and Cognition* (University of Minnesota Press, 1978).

⁹Davidson, Donald. 1970 In L. Foster & J. Swanson, eds., *Experience and Theory*, pp. 79-101. Humanities Press.

¹⁰Kim, Jaegwon. *From Mind in a Physical World* (MIT Press, 1998), pp. 29-47

¹¹Churchland, Paul. *Eliminative Materialism and the Propositional Attitudes*. From *Journal of Philosophy* 78:67-90, 1981

¹²Jackson, Frank. *Epiphenomenal Qualia*. *Philosophical Quarterly* 32:127-136, 1982

¹³Chalmers, David. *Consciousness and its Place in Nature*. From *Blackwell Guide to the Philosophy of Mind*. Blackwell. 2002

¹⁴Searle, John. 1983. Can computers Think? From Minds, Brains and Science, pp. 28-41. Harvard University Press.

¹⁵See Swinburne, Richard. 1986. The Evolution of the Soul. Oxford University Press. P. 239 – 246. For helpful discussion about quantum effects on free will.