Eliminative materialism

Eliminative materialism (also known as eliminativism) argues that future scientific developments will show that the way we think and talk about the mind is fundamentally flawed. Our mental concepts are so mistaken, in fact, that we should abandon all talk of the mental, and stick to talking about brain processes instead.

This claim is not a form of reductivism; it is a form of elimination. Reduction says that there are mental properties, but they are, in fact, physical, or behavioural, or functional properties. Eliminativism says that there are no mental properties - nothing exists that corresponds to mental terms like ‘belief’, ‘desire’ and so on.

CHURCHLAND, ‘ELIMINATIVE MATERIALISM AND THE PROPOSITIONAL ATTITUDES’, §§1, 2

Folk psychology
Churchland’s argument for eliminativism goes like this. First, we are able to understand, explain and sometimes predict each other’s behaviour very successfully. We do this by referring to each other’s beliefs, desires, emotions, intentions and so on. (It is these mental states, rather than phenomenal properties, that Churchland is interested in.) But explanations, claims Churchland, require laws. What is going on is that we tacitly know and use a rich network of common-sense - perhaps rather loose - laws. For example, if someone is thirsty, they will - under normal conditions - look for something to drink. If someone believes it is raining outside, and doesn't want to get wet, they will - under normal conditions - pick up an umbrella or other covering to keep them dry. And so on. Call this body of knowledge ‘folk psychology’.

We understand what beliefs, desires, etc., are in terms of their place in this network of laws - in terms of how they relate to other mental states and behaviour. (Desires motivate behaviour, beliefs represent the world, and so on.) For Churchland, the psychological laws we use aren’t a matter of conceptual truth. Instead, folk psychology is an empirical theory about human behaviour. That we have beliefs, etc., that operate in certain ways is an empirical claim. This is the first premise in the argument for eliminativism.

Second, empirical theories can be tested, and if they turn out not to be accurate, then they should be abandoned in favour of a more accurate theory. If it were shown that our common-sense laws are actually not very good at explaining and predicting people’s behaviour, then folk psychology should be rejected. This has an important implication. The concepts of folk psychology gain their meaning from the network of laws. If we reject the laws, then we should abandon our common-sense concepts as well. Why?

Theories seek to explain some aspect of the world. Very often, these explanations
hypothesize that certain things exist, and the explanation works by appealing to these things and their properties. For example, Rutherford postulated the existence of atoms in order to explain why tiny particles changed direction when shot through thin gold leaf. Or again, biologists in the nineteenth century postulated the existence of ‘germs’ (bacteria and viruses) to explain diseases. These are examples of successful theories, and we continue to believe that these things - atoms, germs - exist. But there have also been unsuccessful theories in science. There was a theory that aimed to explain how and why things burn in terms of a substance called ‘phlogiston’. But the theory didn’t explain burning very well, and ended up having to say that phlogiston had ‘negative’ weight (it weighed less than nothing). The theory was abandoned, and with it, belief that phlogiston exists, in favour of the correct theory in terms of oxygen. Or again, the difference between living and non-living things was explained in terms of a ‘vital force’. The rise of modern biological theory in the mid-nineteenth century replaced that theory, and we abandoned belief in a vital force. If folk psychology is an unsuccessful theory, then we should abandon the claim that there are such things as beliefs, desires, etc.

Third, scientific research indicates a strong connection between the mind and brain states and processes, e.g. that behaviour is caused by events in the brain. Therefore, our common-sense theory of the mind needs to be related to a neuroscientific theory. This is the question of reduction. Will the common-sense ontology of states and processes (beliefs, desires, etc.) reduce to the ontology of neuroscience (brain states and processes)? The mind–brain identity theorist thinks it will. The dualist claims it is irreducible, but that neuroscience can’t provide a science of the mind. The functionalist thinks that it is irreducible, because neuroscience can only tell us what realizes mental states, which must be understood in functional terms. Eliminativism agrees that our common-sense ontology will not reduce, but this is because folk psychology is false. It will (or should) be replaced by a neuroscientific theory.

Why folk psychology might be false
Churchland supports the claim that folk psychology is false with three reasons.

1. There are many aspects of mental life that folk psychology cannot explain, such as mental illness, the nature of intelligence, sleep, perception and learning.
2. If we look at the history of folk psychology, it reveals no progress since the ancient Greek authors, 2,500 years ago. By contrast, neuroscientific explanations are constantly growing in scope and power.
3. We cannot make folk psychology coherent with other successful scientific theories. In particular, the central idea of ‘Intentional content’ is highly problematic.

This third objection requires some unpacking. ‘Thoughts’ are ‘about’ something, objects or events in the world. For example, I might have a belief about Paris, a desire for chocolate, be angry at the government, or intend to go to the pub. In all these cases, my state of mind is ‘directed’ towards an ‘object’, the thing I’m thinking about (Paris, chocolate, the government, going to the pub). This idea of ‘directedness’ is known as ‘Intentionality’.

Intentionality is not about intentions (to mark the difference, I shall use a capital ‘I’ for ‘Intentionality’). If I have an intention, I am ‘aiming at’ doing something. With Intentionality, it is the thought or mental state which ‘aims at’ its object,
what it is about, and no ‘doing’ needs to be involved. Beliefs, desires, emotions all have Intentionality; they are all ‘Intentional mental states’. An Intentional mental state is a mental state with Intentional content. The Intentional content of a mental state is the answer to ‘what are you thinking (about)?’

We can have different mental states with the same Intentional content if we take different ‘attitudes’ to that content. For example, I can believe I’m arriving late; I can want to be arriving late; I can fear I’m arriving late; I can be pleased I’m arriving late. An Intentional state, then, comprises a particular ‘attitude’ or ‘mode’ towards a particular Intentional content. Churchland, following Bertrand Russell, calls these mental states ‘propositional attitudes’, because the Intentional content is (usually) expressed as a proposition.

To return to Churchland’s argument: why is Intentional content a problem for reducing folk psychology to neuroscience? The reason is that it is very puzzling how anything physical could have Intentional content. Physical things are never ‘about’ anything. A particular molecular structure or physical process, described in physical terms, is not ‘about’ anything. But the states and processes of your brain are just chemical states and processes. So how could they ever be about anything? So how could Intentional mental states be states of your brain?

Churchland concludes that folk psychology does not fit in with empirically robust theories, such as neuroscience, and so we have reason to abandon it.

**THE INTUITIVE CERTAINTY OF THE EXISTENCE OF MY MIND TAKES PRIORITY OVER OTHER CONSIDERATIONS**

We can object that eliminativism is simply very counter-intuitive. What could be more immediately and directly obvious than that we have thoughts, desires, emotions, beliefs and so on? Descartes took ‘I think’ to be his first certainty, and for good reason. Nothing, it seems, could be more certain to me than the fact that I have mental states. So no argument could be strong enough to justify giving up such a belief.

But appeals to what is obvious are problematic in the history of ideas. For instance, isn’t it just obvious that the sun moves round the Earth? Just look. And yet it is false. Descartes took it as obvious that there can be no thoughts without a thinker, so he was certain that he was a thinking substance. And yet there are good reasons to believe that there are no substances whose essence it is to think, and many philosophers have argued, along with Buddhists, that there is no ‘self’. So ‘my mind’ may not be what it seems.

More significantly, the objection misunderstands Churchland’s claim. People who argued against phlogiston did not deny that things burnt; biologists who argued against vital force did not deny that things are alive. So Churchland does not deny the existence of psychological phenomena as such. He accepts that the phenomena that we conceptualize as ‘thinking’ occur; he denies that folk psychology is the correct theory of its nature. He argues that neuroscience will provide the correct account of what these are, and that explanation will have no place for concepts like ‘belief’, ‘desire’ or ‘Intentional content’.

All we can be ‘intuitively certain’ of is the existence of the phenomena we want to explain. But appealing to beliefs and desires is not appealing to the phenomena, but to a particular explanation of them. They are theoretical terms
that we should reject if folk psychology turns out to be false.

**FOLK PSYCHOLOGY HAS GOOD PREDICTIVE AND EXPLANATORY POWER**

Churchland criticizes folk psychology for its explanatory failures concerning mental illness, sleep, learning, etc. But we can object that this is unfair. Folk psychology is not intended to be a theory of these aspects of mental life, so it is no criticism that it does not explain them. It is only meant to explain human behaviour; or even more specifically, human action. Here, it is incredibly successful. By contrast, neuroscience is almost useless at predicting whether you’ll study hard for your exams or explaining why you went to the cinema last night.

Furthermore, folk psychology is the basis of developments in psychology that have extended its predictive and explanatory power. For instance, ideas about unconscious beliefs and desires have become part of folk psychology. The Greeks used an idea of fixed and unchanging ‘character’, whereas now we tend to appeal more to the situation someone finds themselves in. The importance of situation is a finding in recent empirical psychology, and there are many such findings and theories that use folk psychological concepts and ideas. To eliminate the concepts of beliefs, desires, etc., from psychology would do away with much scientific psychology as well as folk psychology.

Eliminativism could reply that these points are not very strong. First, we need to know how human action or behaviour relates to the rest of mental life. To have very different sorts of theories explaining different aspects of the mind is unsatisfactory. Second, the developments in folk psychology are relatively superficial. Our folk psychological explanations of behaviour are still far less powerful than the kinds of explanations we find elsewhere in the sciences. The only way to address this problem is to look to neuroscience.

**THE ARTICULATION OF ELIMINATIVE MATERIALISM AS A THEORY IS SELF-REFUTING**

Churchland’s argument starts from the premise that folk psychology is an empirical theory. This is why we can think about proving that it is false and eliminating its concepts. But there is good reason to suppose that this is a misunderstanding. We can argue for this indirectly.

Eliminativism presents arguments, which are expressions of beliefs and rely on beliefs about what words mean and how reasoning works, in order to change our beliefs about folk psychology. Yet eliminativism claims that *there are no beliefs*. So what does eliminativism express, what is it trying to change? If there are no beliefs, including no beliefs about meaning, no beliefs linked by reasoning, then arguments for eliminativism are meaningless. An argument for eliminativism refutes itself – it concludes that there are no beliefs but it presupposes that there are beliefs.

Eliminativists reply that this objection begs the question. It presupposes that the correct theory of meaning is the one that folk psychology gives. Compare the nineteenth-century argument between people who thought that to be alive required some special energy, a ‘vital force’, and those who said there was no such force. The vitalists could argue that if what their opponents said was true, they would all be dead! Yet now we know there is no special ‘vital force’, that
life arises from ordinary chemical reactions. Eliminativism simply claims that we need a new theory of what it means to assert a claim or argument.

But we can press the objection. Eliminativism is eliminating Intentional content. The very ideas of meaning, or ‘making sense’, of ‘true’ v. ‘false’ belief, or ‘reasoning’ itself, are to be rejected, as they all rest on Intentional content. Claims and arguments are all ‘about’ something. The analogy with vitalism fails. Anti-vitalists accepted that they needed to be alive to make their claims, but offered an alternative account of what ‘life’ is. Eliminativists claim that they do not need Intentional content to make their claims. Without having some alternative account of meaning which doesn’t use Intentional content, this is what is inconceivable. We cannot conceive that folk psychology is false, because that very idea, ‘folk psychology is false’, presupposes the folk psychological concept of Intentional content. At least until we have another, better theory of meaning, the assertion that eliminativism is true undermines itself.

On this view, folk psychology turns out not to be an empirical theory (which might be wrong), but a condition of intelligibility, a condition for thinking, reasoning, making claims at all. So we can’t eliminate it. That means that mental states and properties must exist and be either reducible or irreducible. If Churchland is right that we cannot reduce intentional content to neuroscience, this isn’t an objection to Intentional content. It is an argument in favour of the irreducibility of mental properties.