

Chalmers, D.J. (2010) *The Character of Consciousness*. Oxford University Press

Chalmers thorough philosophical analysis Notes to Chapter 5

Part one: General arguments and critique of three “broadly reductive views, which sees consciousness as a physical process that requires no expansion of a physical ontology”

In his later book “the character consciousness” David Chalmers give a deep analysis of consciousness. Some of it is naturally very philosophically technical but there are also some chapters, which are, I think, clear and useful for other scientists.

Chalmers discuss the mental-physical relation in what he argues are the most important metaphysical views of consciousness: three “broadly reductive views, which sees consciousness as a physical process that requires no expansion of a physical ontology” and three “broadly nonreductive views, according to which consciousness involves something irreducible in nature and requires expansion or reconception of a physical ontology.”

Chalmers thinks that each of the reductive view is incorrect, while each of the nonreductive views holds some promise.

He starts with that consciousness has phenomenal properties, qualia, “there is something it is like to see a vivid green, to feel a sharp pain, to visualize the Eiffel tower, to feel a deep regret and to think that one is late” and that a solution to the hard problem of consciousness would involve an account which explains how and why physical processes gives rise to phenomenal consciousness.

He use the categories materialist, or physicalist, for a solution on which consciousness is itself seen as a physical process and nonmaterialist, or non physicalist, for a solution on which consciousness is seen as non-physical even if closely associated with physical processes.

Chalmers have three main arguments against materialism.

- a. The **explanatory** argument which mainly says that “physical accounts explain only structure and function, where the relevant structures are spatiotemporal structures and the relevant functions are causal roles in the production of a system’s behaviour”. He argues that this only suffice to explain the easy problem of behaviour and cognitive but not the hard problem conscious experiences. He admitted that this sort of argument is controversial.
- b. “It is **conceivable** that there be a system that is physically identical to a conscious being but that lacks at least some of that beings conscious states”. That is zombies are conceivable and are argued to be also metaphysical possible and then consciousness is non-physical.
- c. The **knowledge** argument. “Someone could know all the physical facts, be a perfect reasoner, and still be unable to know all of the facts about consciousness on that basis”. Or simpler how do you explain the experience of vision to one who have been blind all life?

These three arguments “all start by establishing an *epistemic gap*[what can be known JP] between the physical and the phenomenal domains” and then proceed by inferring an *ontological gap*, concerning the nature of things in the world.

These epistemic arguments against materialism descends from Descartes’ and have a general form “

- “1. There is an epistemic gap between physical and phenomenal truths.
2. If there is an epistemic gap between physical and phenomenal truths, then there is an ontological gap, and materialism is false
3. Materialism is false”.

Chalmers then look at three ways a materialist might resist the epistemic argument:

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“Type-A materialist denies the existence of the relevant sort of epistemic gap.
Type-B materialist accept the existence of an unclosable epistemic gap but denies there is an ontological gap.
Type- C materialist accepts the existence of a deep epistemic gap but holds that it will eventually be closed.”

“Type-A materialist denies the existence of the relevant sort of epistemic gap”. (Churchland 1996 Denett 1996 ref Chalmers p 29)

The obvious problem with this view is that it appears to deny the manifest that we are conscious or that there is a hard problem to explain consciousness. As Chalmers say this is a highly counterintuitive claim that begs the important question. Of course as Chalmers also argue this in itself does show it is false but needs compelling arguments. And these are often in form of analogy but not compelling to all. So as Chalmers say it comes down to intuition that consciousness exists or needs explanation shared by the large majority of philosophers and scientist.

Type-B materialist accept the existence of an unclosable epistemic gap but denies there is an ontological gap. The most common form holds that phenomenal states can be identified with certain physical or functional states and analogies are given with eg. the identity between genes and DNA which is not conceptual but discovered empirically. It is thus hold that the concepts consciousness is distinct from any physical or functional concepts, but we may discover empirically that these refer to the same thing in nature. But as Chalmers clearly argues the epistemic gap with consciousness seems to differ from the epistemic gap in other domains and all analogies. The identity between genes and DNA is not epistemically primitive as it can be deduced from complete physical truths about the world. But the identity between consciousness and physical or functional states is epistemic primitive, it is not deducible from the complete physical truth, a sort of primitive principle in ones' theory of the world. Chalmers argues that the only place that we find these sorts of primitive principle is in the fundamental of physics and is a mark of fundamental law of nature. “In effect, the type-B materialist recognizes a principle that has the epistemic status of a fundamental law but gives it the ontological status of identity. Elsewhere, identifications are grounded in explanations, and primitive principles are acknowledged as fundamental laws. It is natural to suggest that the same should apply here. If one acknowledges the epistemic primitive connection between physical state and consciousness as a fundamental law, it will follow that consciousness is distinct from any physical property since fundamental laws always connect distinct properties. So the usual standard will lead to one of the nonreductive view. By contrast the type-B materialist takes an observed connection between physical and phenomenal states unexplainable in more basic terms and suggest that it is an identity. This suggestion is made largely in order to preserve prior commitment to materialism. Unless there is an independent case for primitive identities the suggestion will seem at best ad hoc and mysterious and at worst incoherent” (for the further discussion on type-B materialists possible responses I must refer to Chalmers more technical analysis)

Type- C materialist accepts the existence of a deep epistemic gap but holds that it will eventually be closed, for example the hard problem is solvable in principle. Nagel suggested, as the pre-Socratics could not have understood how matter could be energy and we cannot understand how consciousness could be physical but a conceptual revolution might allow the relevant understanding. [yes $E=mc^2$ came trough SR4 which lead to SR 6 which shows how consciousness is physical but in SR6 JP] And Churchland suggest it is just a psychological limitation which science will overcome.

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Or that phenomenal truths are deducible in principle from physical truth but akin to that of a complex truth of mathematics. Or that we not now grasp all of the required physical truths. Then there will appear to us that a gap exists between physical processes and consciousness but there will be no gap in nature.

But according to Chalmers despite its initial appeal type-C view is inherently unstable as he argues that “upon examination it turns out either to be untenable or to collapse into one of the other views.” (Type- A or B materialism or even type-D dualism or type F- monism see below)

Chalmers basic argument here is that “First physical descriptions of the world characterize the world in terms of structure and dynamics. Second from truths about structure and dynamics one can deduce only further truths about structure and dynamics. Third . truths about consciousness are not truths about structure and dynamics”. [does this show SR6 is not even a possible solution??? JP]

Some C-materialist suggest new physical discoveries but Chalmers claim that even “novel physical properties are postulated for their potential in explaining existing physical phenomena, themselves characterized in terms of structure and dynamics, and it seems that structure and dynamics always suffice here.” [I am not so sure perhaps SR6 solves this as the mathematical possible extension is interpreted not as physical phenomena but exactly as consciousness. JP]

Yes as Chalmers further write “One possibility is that instead of postulating novel properties, physics might end up appealing to consciousness itself in the way that some theorists hold that quantum mechanics does. This possibility cannot be excluded but it leads to a view on which consciousness is itself irreducible and it is therefore to be classed in an nonreductive category type D or type F [why not E? JP]

Current physics characterizes its underlying properties, such as mass and energy in terms of abstract structures and relations but it leaves open their intrinsic nature, which go beyond structure and dynamics in such a way that consciousness may be entailed., which according to Chalmers is precisely the position discussed under F-Monism.

Chalmers argue then that its a fundamental difference between phenomenal structure and spatiotemporal and formal structure in present physics. “ The structure of a complex phenomenal state is not spatiotemporal structure“. [Yes but perhaps not in and extended physics as he also argued above in relation to Type –F monism.JP]

But his argument that “this is reflected in the fact that one can conceive of any spatiotemporal structure and formal structure without any associated phenomenal structure; one can know about the first without knowing about the second. So the gap is as wide as ever”.

[I am not so sure about as I will come back to later. JP]

Chalmers conclusion is that type-C strategy is doomed. For when we accept that the concept of consciousness is not itself a functional concept and that physical descriptions are structural dynamic description the only possibilities are to hold that consciousness I a broadly functional concept after all (Type –A) or that there is more in physics than structure and dynamics (D-dualism or F-monism) or that materialism does not require an amplification from physics to consciousness (Type –B).

(Beginning of part 2 three broadly non-reductive views

In physics space and time, mass and charge are taken as fundamental and not further explained. And if arguments against materialism are correct we must have further fundamentals - consciousness involves something novel and fundamental in the world.

Chalmers then says the fundamental question is how these novel fundamental properties relate to the already acknowledged fundamental properties of the world, namely those invoked in microphysics. [I don't agree to it to microphysics.] He later says just what is needed is some sort of fundamental principles- psychophysical laws- connecting physical and phenomenal properties. But then he points to an immediate worry that microphysical aspects of the world are often held to be causally closed that is every microphysical state has a microphysical sufficient cause. So how are phenomenal properties to be integrated with this causally closed network. He sees three main options.

Type-D **dualism interactionism** deny the causal closure of the microphysical and there is causal gaps filled by a causal role for phenomenal properties

Type-E **dualism epiphenomenalism** accepts the causal closure of the microphysical and hold that the phenomenal have no causal role with respect to the physical network.

Type-F monism **Russelian monism** accept the causal closure of the microphysical network but hold that phenomenal properties nevertheless are integrated with it and play a causal role through constituting the intrinsic nature of the physical.

He doesn't claim any of them to be true or unproblematic but all are without clear fatal flaws.