

TONY CHADWICK ESSAY PRIZE 2000 WINNER

IN TWO MINDS?

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1. Introduction

This discussion arises from the need to find a role for *phenomenal consciousness* within a materialist framework. The arguments centre round the '*mind-mind*' problem (the contemporary version of the Cartesian mind-body problem), as set out in the recent work of *Ned Block* and *David Chalmers*. They have tried to separate out *two* distinct elements of '*inner*' consciousness, the '*what it is like to be*' or qualia element and the *rational/cognitive* one, defined by Chalmers as the *phenomenal* versus the *psychological*. Both philosophers are concerned that the *functionalist*¹ tradition from which they stem has no place in it for phenomenal consciousness. The key question is, does it *do* anything? If it does not, there are two possibilities:

1. It gets defined as, or reduced to, cognitive functions or brain processes, i.e. it is eliminated.
2. It is classified as epiphenomenal. The view is that phenomenal consciousness does exist, though it has no functional role. (Perhaps it is the chance product of evolutionary processes, like the red colour of blood, and we could perfectly well have evolved to function without it.)

If phenomenal consciousness *does* have a functional role, no-one has yet produced a fully coherent account of how this might operate. Though Block and Chalmers share the same starting point, they address the problem in different ways, arriving at widely differing conclusions.

2. Ned Block

Block's first insight is that the vehicle within which functional processes are incorporated - the realisation - *does* matter.² A biological system will generate a different type of consciousness from a computational one. To support this view he proposed the 'Chinese nation' thought-experiment (If each member of the Chinese nation were wired up with appropriate communication technology to mimic exactly the neuronal connections in a human brain, would the *entire system* be phenomenally conscious? No!)

His second insight is to separate the two notions of mentality traditionally conflated by functionalists - intentionality and qualia. He argues that on 'Inverted Earth', where the sky is yellow and grass red, and the inhabitants *call* the sky blue and the grass green, an earthling's cognitive perceptions would have to adjust, but his qualitative experience would not. He would remember that on earth the sky and grass, though *labelled* as on Inverted Earth, *looked* quite different.

As a logical consequence of these views, Block has defined two distinct notions of consciousness. These are as follows:

- **Access (A)-consciousness:** simply put, the ability to reason and act upon it. Babies and some animals have limited access-conscious mental states. Robots can have it. The concept yields well to propositional analysis (philosophy of mind) and functional analysis (cognitive psychology). A-consciousness, being a functional notion, characterised by what it does, operates causally.

- **Phenomenal (P)-consciousness:** a state is P-conscious if it has experiential properties. The totality of the experiential properties of a state are ‘what it is like’ to have it. Babies and animals have it, but artificial systems do not. It has no functional role, and is characterised by how it *feels*.

This may seem an odd way of slicing up mentality. However, Block’s purpose is to show that it matters whether the realisation of a functional system is biological or computational. ‘If P = A, the information processing side is right. But if the biological nature of experience is crucial, we can expect that P and A will diverge’. Block’s task is therefore to separate them conceptually.

- Block cites examples of *prosopagnosia*, where patients with partial brain damage fail to recognise the faces of close relatives. It is a cognitive ability, i.e. A-consciousness, which they lack.
- He contrasts this condition with the *Capgras delusion*, where patients recognise their relatives, but believe they are impostors, (as in ‘Invasion of the Body Snatchers’). Here A-consciousness is present but the P-conscious feeling of familiarity is absent.

The point of these examples (the interpretation of which remains controversial) is that although A- and P-consciousness normally appear together (and indeed must interact), they can be separated conceptually. Furthermore, they *must* be separated if one is to release P-consciousness from the reductionist grip of functionalism.

Block has examined attempts to incorporate P-consciousness into a functional system, and claims that they lead to conclusions which go against common sense. A currently held view is that phenomenal consciousness *arises from self-awareness* (another functional concept). Block argues that this would exclude creatures we know to be sentient - dogs and babies - from the realms of the phenomenally conscious. Thus P-Consciousness cannot be a *causal effect* of A-consciousness. He regards as ‘a bold hypothesis’ the contrary possibility - that a lack of P-consciousness *is responsible for* a lack of A-consciousness. This latter view is intuitively the most plausible, but Block explores it no further. He has rescued phenomenal consciousness, but finding no role for it, is vulnerable to charges of epiphenomenalism.

3. David Chalmers

Chalmers, originally a mathematician, systematises the views of Block, then, by a process of relentless logic, pushes them into the outer reaches of speculative metaphysics. Chalmers’ *two concepts of mind* are as follows:

- **Psychological consciousness:** Explanation of behaviour via cognitive science. Includes (functional) properties such as self-consciousness and self-monitoring deliberately omitted by Block for the purposes of clarity. Also included is Block’s A-Consciousness, redefined as awareness.
- **Phenomenal consciousness:** ‘What it is like to be’, qualia, how we feel.

For Chalmers, the *psychological* mind-body problem has been dissolved. There remain empirical problems, but there is nothing mysterious about them. However, we have not explained *why* psychological properties are accompanied by phenomenal ones. He calls this the ‘*mind-mind*’ problem.

He discusses the Great Divide, traditionally between:

- a. Those who think that neuroscience & cognitive science will ultimately provide an explanation of consciousness. This is the *easy problem*.
- b. Those who believe that inner experience remains unexplained by albeit elegant reductive theories. This is the *hard problem*. Chalmers is firmly in the **b.** camp.

Chalmers' starting-point is the *irreducibility* of phenomenal consciousness. '(P)henomenal consciousness is distinct from any physical or functional property and does not need to have a function to be central to our mental lives'. He bases his very close-textured arguments on *supervenience*, a logical relation between two sets of properties:

B-properties - the *high-level* properties - and *A-properties*, the more basic *low-level* properties.

B-properties supervene on *A-properties* if no two possible situations are identical with respect to their A-properties, while differing in their B-properties.

- **Logical supervenience** is based on logical or conceptual possibility, the logic of 'possible worlds'.
- **Natural supervenience** is based on natural or empirical possibility, the laws of nature. It is a more restrictive notion.

Chalmers claims that *logical supervenience*, underpinned by *Kripkean*³ considerations of *a priori necessity*, provides a fully coherent framework for arguing that the physical facts about the world *do not* fully determine consciousness. 'The world has phenomenal properties that are not fixed by the properties that physics reveals'.

- **Psychological** consciousness is *logically* supervenient on the fundamental laws of physics, so *reducible*.
- **Phenomenal** consciousness is *naturally* supervenient only, so *irreducible*.

The zombie argument. This thought-experiment is designed to separate phenomenal experience *conceptually* from the cognitive aspects of mind, for the purpose of establishing its existence. Searle accepts the *logical possibility* of a silicon-based zombie with phenomenology necessarily missing. Block imagines a zombie with either A-Consciousness or P-consciousness missing (depending on whether it is biological or artificial). Chalmers' zombie is far more bizarre - a flesh-and-blood, functionally identical isomorph of Chalmers himself, minus the rich inner life! Zombie Chalmers is '*awake*, able to report the contents of his internal states', etc. 'He will be perceiving the trees outside, in the functional sense, and *tasting the chocolate* in the psychological sense' (my italics). The incoherence of non-phenomenal taste and awakesness arises from Chalmers' conviction that phenomenal consciousness *must be* inexplicable and irreducible. He thus postulates a metaphysically *and logically* impossible creature, using *a priori* reasoning not as a means of clarification but as a straitjacket to make empirical facts fit his preconceived view.

Chalmers does realise that the Kripkean concepts he has used to bolster his case will also undermine it. Kripke's *a posteriori necessity*⁴ is designed to give an account of the necessary

connections between the fundamental laws of nature, which one discovers empirically. If, as Chalmers believes, (phenomenal) consciousness is 'a natural phenomenon, subject to fundamental natural laws', neuroscience etc. should ultimately explain how it *necessarily* works. Chalmers counters possible objections by appealing to the Knowledge Argument⁵ to claim that Kripke's *metaphysical* and *logical* possibility amount to the same thing. (On Kripke's view, a zombie would be logically but not metaphysically possible. Chalmers' zombie is *logically impossible* as well because of its non-phenomenal 'qualia'.)

Having prised apart psychological and phenomenal consciousness, Chalmers is now obliged to bond them back together again, so as to embark on a new, non-reductive theory of phenomenal consciousness. Here, greatly over-simplified, are his speculations.

1. *Principles of coherence*, so-called independent *psychophysical* laws, link the observed regularities between *cognition* (the psychological) and the *phenomenal*.
2. All the *physical* facts about the world, including *psychological* consciousness, are logically supervenient on the *physical*.
3. Perhaps the *phenomenal* facts about the world (merely naturally supervenient on the physical facts) are logically supervenient on postulated *protophenomenal* properties, separate from but parallel to the fundamental physical properties, inherent in *all* matter, at sub-particle level.
4. Perhaps there are *two* types of basic properties - the *material/physical* and the *protophenomenal*.
5. The '*principle of organisational invariance*' suggests that '(C)onsciousness arises in virtue of the *functional organisation* of the brain. On this view, the chemical and indeed the quantum substrate is *irrelevant* to the production of consciousness.'
6. Chalmers wonders what the ultimate physical facts might be, if they are capable of generating *both* protophenomenal and physical properties - *perhaps discrete packets of information?*

The implications of views 1 - 6 are as follows:

- a. 3 labels Chalmers as a *panpsychist*.⁶
- b. Chalmers describes himself as a *naturalistic dualist* (4) He says this is a form of property dualism, though some might consider him a substance dualist.
- c. 5 & 6. If the substrate of consciousness need not be biological, Chalmers is logically committed to the possibility of *Strong Artificial Intelligence*.⁷ Indeed, he thinks that Block's 'Chinese Nation' might well be conscious! Somewhat tongue-in-cheek, he speculates on 'What it is like to be a thermostat'!

One must take Chalmers' speculations seriously, if one accepts his basic premise - that phenomenal consciousness is *in principle* irreducible. However:

- i. one can reject Chalmers' basic premise. *If* consciousness is a natural phenomenon, *then* it is investigable by empirical means. Redefining it *a priori* is armchair philosophy! The problem is an *epistemological*, not an *ontological* one.
- ii. one can question his psychological/phenomenal definitions in view of the contradictions his zombie reveals.

- iii. one can question Chalmers' definitions of supervenience. It is not entirely clear why *natural* supervenience is insufficient to explain consciousness. Perhaps it could be beefed-up with a little Kripkean rigidification?
- iv. one can attack Chalmers' claim that consciousness need not be biological.

By separating out phenomenal consciousness as they have, both Block and Chalmers have painted themselves into an epistemological corner. Neither has found a plausible solution to the 'hard problem', i.e. a role for qualia. A more 'integrationist' approach is required.⁸

4. A way forward?

Phenomenal consciousness *implies* subjectivity, and vice-versa. Subjectivity is an epistemological inconvenience, but an intrinsic part of nature, so there is nothing *inherently* inexplicable about it. Any future investigation must start from the premise that *phenomenal consciousness is a biological fact*, but not a *separate* fact. Tyler Burge⁹ believes the notion of phenomenal consciousness is the *core notion* of consciousness, and Nicholas Humphrey¹⁰ argues that subjectivity ('boundedness') and sensation ('what it is like for *me*') are the key factors in the evolution of the mind.

In Descartes' time people did not live long enough for the brain diseases of old age to be observed, with the accompanying disintegration of personality. It was natural to conceive the mind as a manifestation of a mysterious ontology, and we have been reluctant to abandon this flattering view of our species. 'A *picture* held us captive. And we could not get outside it, for it lay in our language and language seemed to repeat it to us inexorably.'¹¹ We must refocus our traditional picture of the mind, if we are to discover whether there really is a 'hard problem' after all.

Notes (NOC refers to *The Nature of Consciousness*. See *Sources*)

1. Functionalism attempts to combine the psychological and the behavioural. The 'black box' of the mind is the product of complex functional systems which interact causally, but *need not* be biologically based. Consciousness is characterised by the *role* it plays, i.e. by what it *does* rather than how it *feels*. Computational systems become the modelling template.
2. John Searle also holds this view, but he and Block differ widely in methodology.
3. See *Sources*
4. 'Water = H₂O' is a necessary truth which is not known *a priori* but must be learned empirically, i.e. *a posteriori*.
5. Does Mary, a neuroscientist who has grown up in a black and white environment, acquire new *knowledge* when she first sees red? If so, the phenomenal and the cognitive are separable. See Frank Jackson, NOC ch.36.
6. Panpsychism - the view that mind (/ 'soul' / 'spirit') is inherent in everything.
7. The view that machines might ultimately develop consciousness, including phenomenal consciousness.
8. See Guzeldere, NOC introduction, and Flanagan, ch. 19.
9. NOC ch. 24.
10. See *Sources*
11. Wittgenstein, *Philosophical Investigations*, para. 115.

Sources

1. David Chalmers, *The Conscious Mind* (OUP 1996)
2. Block, Flanagan & Guzeldere (eds.) *The Nature of Consciousness* (MIT 1997) - particularly chapters 19 - 24, on 'The Function of Consciousness'. Most of the key articles in the literature, from Nagel onwards, can be found in this volume.
3. Nicholas Humphrey, *A History of the Mind* (Vintage 1992)
4. Saul Kripke, *Naming and Necessity* (Blackwell 1980)