

## David Chalmers The Hard Problem of Consciousness: 342 Years On (Towards a Science of Consciousness 2014 )

History of hard problem:

Already touched upon in ancient Greeks.

Also to some extent in Descartes

Newton 1672 writes to explain perception "not so easy".

Leibniz (Monadology) perception inexplicable on mechanical ground: explanatory gap

Huxley 1866 consciousness from irritating nerve tissue as magical as Aladdin's lamp

Feigl 1967 sentience more difficult than self and sapience

Nagel 1974 What is it like to be a bat?

Chalmers on TSC 1994 : Hard problem ; catchy name ; different problems of consciousness.

"The easy problems are those of explaining cognitive and behavioral functions, such as discrimination, integration, and verbal report,... by specifying a *mechanism* that performs the function. Here, neurophysiological and cognitive modelling are perfect for the task". But "What makes the hard problem hard and almost unique is that it goes *beyond* problems about the performance of functions.... a further unanswered question may remain *why is performance of these functions accompanied by experience?*" "The really hard problem of consciousness is the problem of *experience*", such as *hearing* the sound of a clarinet, *seeing* the quality of deep blue, *thinking* about Christmas and *feeling* joy. "What unites all these states [of experiences] is that there is something it is like to be in them." So "the usual methods of cognitive science and neuroscience fail to account for conscious experience. ...To account for conscious experiences, we need an *extra ingredient* in the explanation ...something new." (Chalmers, D.J. (2010) The Character of Consciousness. Oxford University Press p. 4, 5, 13)

Argument Physical explains only easy problem, objective functions

Explaining consciousness requires more

No purely physical explanation enough

Since then

1, Materialist response (A summary from Chalmers book 2010 see e.g.

<http://www.drpilotti.info/david-chalmers.html> )

2. Nonreductive theories

1. Type A materialists, denies epistemological gap between physical and phenomenal truths

e.g. Dennet

Surprisingly unpopular over last 20 years

even arch reductionists acknowledge hard problem (Crick, Koch)

deserves developing e.g. developing a function of things we *say* about consciousness

Type B Ned Block epistemological gap between physical and consciousness

' but no ontological gap

2. **Nonreductive** : Consciousness fundamental, not reducible to physical but connected to them by fundamental laws

Less respect **Dualism** ; problem of interaction either no causal role or finding a role in physics

A role for consciousness could be in collapsing quantum mechanic wave function ( STAPP, HODGSON, CHALMERS/MCQUEEN)

**Panpsychism** Consciousness present at microphysical level (Starwson Rosenberg, Goff, Coleman Tonoi, Koch)

Russelian panpsych: consciousness intrinsic nature underlying physical structure

Constitutive P: micro consciousness adds up to our macro consciousness

Problem

Combination problem subjective, quality, structure

**Idealism** (Berkeley,Hoffman, Chopra)

Problem Need something outside our experience to explain regularities

Fundamental theories ; quasiempirical theories of consciousness: take consciousness to be fundamental and postulate fundamental laws

**Integration information theory** (Tononi,Koch) information equivalent to consciousness

**Orch OR** Hameroff, Penrose consciousness eg gravitational wave collapse

Chalmers 50-50 panpsychism - dualsim

If solve combination problem panpsychism ok

If solve causality :dualsim ok

Empirically find fundamental theory which best fits data

Also philosophical constrains