

---

# Non-reductive physicalism and its discontents

Paul Ryan\*<sup>1</sup>

<sup>1</sup>University of Southampton (Southampton, UK) – United Kingdom

## Abstract

Many philosophers of biology (and philosophically minded biologists) are in a quandry. They want to endorse physicalism - the thesis that the physical facts fix all the facts. But they also want to deny reductionism, holding that biological properties are causally efficacious (biological properties feature as difference-makers in biological explanations) and multiply realizable (a biological property can be instantiated by very many physical configurations).

As is well known, Kim's causal exclusion argument can be (and often is) used to argue that if the physical facts at time t1 determine the biological facts at t1, and if the physical facts at time t1 plus the laws of physics cause the physical facts at time t2, then there is no room for any causation at the biological level (or at the level of any other 'special science'). On this view, biological properties are epiphenomenal on physical properties and have no causal efficacy. This brings trouble for those who see themselves as opposed to reductionism and who want to embrace the so-called causal autonomy of the special sciences.

The attempt to resolve this apparent incompatibility of physicalism and the causal autonomy of the special sciences has led to a good deal of philosophical horse-trading. I argue that a failure to carefully distinguish between ontological and epistemic versions of reductionism is at the heart of the disagreement.

Once we clearly distinguish between ontological (e.g. causal) and epistemic (e.g. explanation) claims, I show that we can reasonably be reductionist about ontology while being pluralist about explanation.

---

\*Speaker