
Biological Kinds, Physico-chemical Kinds

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Abstract

Biological classification is the bane of natural kind theorists. Biological function is the bane of physical reductionists. These two problems seem related. They have led to calls for pluralism, on the one hand, and anti-reductionism, on the other. I survey how various biological phenomena have led philosophers to these positions. Notable recent examples include biochemical macromolecules and cell types.

My claim in this paper is that the pluralist stance is unwarranted and the issue of reductionism is irrelevant. I suspect that calls for pluralism arise when we confuse the reductionists' programme with that of the natural kind theorist.

I sketch an account whereby selection treats physical kinds as parts out of which to construct functional (biological) kinds. There is no reason to suspect that the latter would straightforwardly reduce to the former, or that the classification of the latter should correspond with the classifications of the former. Indeed, there appear to be good metaphysical reasons for assuming the contrary. I will argue that physical kinds and biological kinds are different objects (different individuals), with different modal profiles, and should be subject to different (non-competing) classification schemes.

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