
Biological essentialism, evolutionary theory and the roles of different sorts of essences

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Abstract

According to the consensus among philosophers of biology, biological essentialism is inconsistent with evolutionary biology. However, the anti-essentialist arguments are only targeted against *material essentialism*, i.e. the assumption that the essential properties that all taxon members share are physical. *Relational* and *teleological* essentialism are not inconsistent with evolutionary theory. I want to demonstrate, though, that it is too simplistic to claim that as the result of adopting evolutionary theory material essentialism could simply be replaced by other sorts of essentialism

This is because in different contexts essences have been ascribed different roles: *definitional*, *semantic*, *causally constitutive* and *causally executive*. None of the essences in question - material, relational, teleological - possesses all these roles. The first two roles are taxonomic, the latter two explanatory roles of essences. Teleological essences fail to play taxonomic roles, relational essences some explanatory roles. Hence instead of talking about relational and teleological essentialism replacing material essentialism we should analyse how adopting evolutionary theory changes our attitude towards the roles of essences and the properties that are supposed to bear these roles. Adopting evolutionary theory might make it necessary to delegate some roles to other properties than previously – and even if some taxa properties preserve their role, we might stop seeing these properties as ‘essential’. I will also demonstrate which the consequences of this analysis are for the role of different species concepts - are they capable of describing taxa essences and which are the roles of these essences that they can refer to?

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