

BIOLOGY AND ONTOLOGY: AN ORGANISM-CENTRED VIEW

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Abstract

In this dissertation I criticize and reconfigure the ontological framework within which discussions of the organization, ontogeny, and evolution of organic form have often been conducted. Explanations of organismal form are frequently given in terms of a force or essence that exists prior to the organism's life in the world. Traits of organisms are products of the selective environment and the unbroken linear inheritance of genetically coded developmental programs. Homological traits share unbroken vertical inheritance from a single common ancestor. Species are the product of exclusive gene flow between conspecifics and vertical genetic inheritance. And likewise, race is ascribed on the basis of pre-existing essential features.

In place of this underlying preformationism which locates the source of form either in the informational program of inherited genes or within a selecting environment, I suggest form is the product of an organism's self-construction using diverse resources. This can be understood as a modification of Kant's view of organisms as self-organizing, set out in his *Critique of Judgment* (1790). Recast from this perspective the meaning and reference of "trait," "homology," "species," and "race" change.

Firstly, a trait may be the product of the organism's self-construction utilizing multiple ancestral resources. Given this, homologous traits may correspond in some but not all of their features or may share some but not all of their ancestral sources. Homology may be partial. Species may acquire epigenetic, cellular, behavioural, and ecological resources both vertically and horizontally. As such, they are best conceived of as recurrent successions of self-constructed and reconstructed life cycles of organisms sharing similar resources, a similar habitus, similar capacities for sustaining themselves, and repeated generative processes. Lastly, race identity is not preformed but within the control of human organisms as agents who self-construct, interpret, and ascribe their own race identities utilizing diverse sets of dynamic relationships, lived experiences, and histories.

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