
Scaffolded Development—A Reproducer Perspective

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Abstract

It is a widely shared goal, post-Modern Synthesis, that philosophical and theoretical accounts of evolution integrate development- evo-devo rather than just evo. I build an account of evolutionary units in terms of "entwined" units of heredity-development that I have called "reproducers." Peter Godfrey-Smith challenged my "reproducer perspective" in *Darwinian Populations and Natural Selection*, especially my reliance on "material overlap" to characterize reproduction. Prion, transposon, and retroviral replication, Godfrey-Smith argues, require a distinction between material and formal modes of reproduction to fully describe the "menagerie" of reproduction processes. I argue that biological development usually involves a complex set of interactions with environments that *scaffold* development-eco-devo rather than just evo-devo. Developmental scaffolding is any interaction through which development is facilitated in such a way that new skills or capacities are produced in the developing entity that would otherwise not have occurred, or would occur more slowly, or with more difficulty, or with lower probability. I take up Godfrey-Smith's challenge and characterize the HIV-1 RNA retrovirus as a reproducer and argue that my perspective enhances understanding of ways in which HIV-1 reproduction involves *scaffolded* developmental processes. These produce material relations between parents and offspring far more complex than Godfrey-Smith's distinction can support.

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