
Functions in Biological Artifacts

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Abstract

Scientific research and rapid advances in technology is accelerating our ability to manipulate biological systems. The core aim of the emerging field of synthetic biology is to enable the design of living systems with new functions that do not exist in nature and the redesign of already existing functions. A recent book on synthetic biology and its promises and perils (Carlsson 2010) proclaims that biology is technology: Organisms and their constituent parts are engineerable components of larger systems, and the possible products of synthetic biology are commonly described as *living machines*. While these locutions are extremely effective when it comes to proclaiming and communicating the engineering aspirations of synthetic biology, they are also philosophically perplexing. However, little investigation has been focusing on the status of the products that synthetic biologists announce that they will construct. In this paper I explore the ontological nature of synthetic biology products. The question concerns how to conceive of synthetic biology products and what to make of their status as technology or machines. In particular I examine the notion of a biological artifact in relation to theories of function in biology and technology. I will focus on *the organisational account* (OA) developed by Mossio et al (2009) and Saborido et al (2011), which arguably accommodates the central features of proper functions and grounds them in the current capacities of the system to which the function bearers belong.

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