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Organisms Can Be Proud To Have Been Their Own Designers

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Abstract: According to H. F. Osborn, one of the three authors of 'Baldwin effect', adaptive evolution may not require neither natural selection nor the inheritance of acquired characteristics. An adaptive evolutionary change in population without natural selection means that an identical adaptive change in genetically different organisms of a population can take place without a systematic difference in the reproductive value between them, and these changes can also become irreversible on the level of genome without the difference in the reproductive value involved. The mechanisms, which allow this are known and sketched in this paper. Their description requires an approach on the level of whole genome and a look to the organism as a self-organising and communicating system. Consequently, it is possible to have a theory of adaptive evolution, for which the evolution with natural selection is a special case.

Keywords: Self-organisation, autogenesis, Baldwin effect, biosemiotics, post-Darwinism, individual adaptation, functional genome, gene duplication, gene conversion, adaptive evolution

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