

# Optimality Modeling and Explanatory Generality

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## Abstract

The optimality approach to modeling natural selection has been criticized by many biologists and philosophers of biology. For instance, Lewontin (1979) argues that the optimality approach is a shortcut that will be replaced by models incorporating genetic information, if and when such models become available. In contrast, I think that optimality models have a permanent role in evolutionary study. I base my argument for this claim on what I think it takes to best explain an event. In certain contexts, optimality and game-theoretic models best explain some central types of evolutionary phenomena.

**Subjects:** [Specific Sciences: Biology: Evolutionary Theory](#)  
[General Issues: Explanation](#)

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