
The Creativity of Natural Selection? Darwin, the Synthesis, and Since

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Abstract

Stephen Gould argued that "the creativity of natural selection" is the "essence of Darwinism." I agree with his emphasis on the issue of creativity, but would put the point this way: The question as to whether, and in what sense, natural selection is "creative" has been a central theme in the history of evolutionary biology. However, "Darwinians" have answered the question very differently, in ways that reflect important conceptual and empirical developments. Darwin answered it one way. Contributors to the evolutionary synthesis answered it a very different way. And post-synthesis developments occasioned still different responses. I will discuss how the case for the creativity of natural selection shifted from the period of the synthesis, to the 1970s and early 80s. Earlier, the point was to emphasize the importance of selection relative to chance mutation, with the emphasis on mutation. Later the point was to emphasize the importance of selection relative to chance more generally, not just chance mutation but random drift as well.

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