

Natural selection does not explain cultural rates of change

Rogers and Ehrlich (1) find that canoe functional design features change more slowly than symbolic ones. This they attribute to negative purifying selection in the former and to positive selection in the latter. However, if functional change had been found to be faster (a possibility that they acknowledge on pages 3417–3418), then they would equally have attributed it to positive selection. This is an insufficient foundation for inferring the existence of any particular type of process, let alone one analogous to “natural selection.”

Moreover, Rogers and Ehrlich use “cultural evolution” in both a nonscientific sense (descriptive of the general phenomena of cultural change) and a scientific sense (the principles

of natural selection). Their switching between these two senses makes it difficult to know how far their comments in regard to canoe design traits can be generalized nontrivially to other cultural phenomena.

John R. Skoyles*

Centre for Mathematics and Physics in the Life Sciences and Experimental Biology, University College London, London NW1 2HE, United Kingdom; and Centre for Philosophy of Natural and Social Science, London School of Economics, London WC2A 2AE, United Kingdom

1. Rogers DS, Ehrlich PR (2008) Natural selection and cultural rates of change. *Proc Natl Acad Sci USA* 105:3416–3420.

Author contributions: J.R.S. wrote the paper.

The author declares no conflict of interest.

*E-mail: j.skoyles@ucl.ac.uk.

© 2008 by The National Academy of Sciences of the USA