
The Kinetic Theory of Culture

Tim Lewens*¹

¹University of Cambridge – United Kingdom

Abstract

Session: Cultural Evolution (Lewens, Buskell, Clarke)

We can usefully characterize a dominant approach to cultural evolutionary theory (Richerson and Boyd 2005) as the ‘kinetic theory of culture’, by analogy with the kinetic theory of gases. Mathematical tools are used to explain phenomena manifested by populations of humans in terms of the aggregated effects of interacting human individuals. These individuals are not each tracked in detail; rather, they are given idealized characterizations, and their behaviours are aggregated using statistical tools.

Cultural evolutionary theory has been treated to a hostile reception from thinkers with a background in the humanities and social sciences (e.g. Fracchia and Lewontin 1999, 2005, Ingold 2007). Many elements of this hostility are best understood not as reactions against the use of biological concepts of selection, mutation and so forth, but instead as reactions against the more general ‘kinetic’ approach taken by cultural evolutionary theory, and the correspondingly atomistic manner in which it conceives of cultural elements. What, exactly, is entailed by this form of atomism? The answer is surprisingly minimal, and this minimal atomism means the cultural evolutionist can fend off some, but not all, criticisms from social science.

Fracchia, J and R Lewontin (1999) ‘Does Culture Evolve?’ *History and Theory* 38: 52-78.

Fracchia, J and R Lewontin (2005) ‘The Price of Metaphor’ *History and Theory* 44: 14-29.

Ingold, T., (2007) ‘The trouble with “evolutionary biology”’. *Anthropology Today*, 23(2), 13–17.

Richerson, P.J. and R Boyd (2005) *Not by Genes Alone: How Culture Transformed Human Evolution*, University of Chicago Press.

*Speaker