

**The Adventures of
Punctuated Equilibria.**

**A Struggle for Authority in the
Evolutionary Sciences.**

By

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Signed statements regarding this thesis.

This thesis is an original work by myself. In cases where reference is made to the work of others due acknowledgment is given.

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Abstract

The theory of ‘punctuated equilibria’ was formulated by two paleontologists, Niles Eldredge and Stephen Gould, in 1972 and has been the focus of considerable controversy within the evolutionary sciences ever since. The primary intentions of this thesis are to relate the history of punctuated equilibria and to examine how it has affected evolutionary science. Several modes of analysis have been used to illuminate the history: The sociological perspectives of Pierre Bourdieu and Bruno Latour (who see scientific debate as a ‘struggle for authority’); Rhetorical analysis of some of the key documents; Communication with practising scientists via questionnaires and correspondence; Citation Analysis. Chapter 1 gives a short summary of the history and introduces the methods and socio-philosophical perspectives used to illuminate the history. Chapters 3 and 4 examine the rhetorical process by which Eldredge and Gould constructed the ‘punctuationist revolution’. Chapters 2, 3, 5 and 6 relate the history of punctuated equilibria.