

6 The local optimality of language

The aim of this chapter is, so to speak, to reconcile Gould and Darwin on the dual question of the gradualness and the directional quality of evolution. I wish to show that the two positions, Gould's saltationism (evolution by jumps) and Darwin's gradualism, are both valid, albeit on different timescales. The point is that macroevolution should not be confused with microevolution. By and large, differences of opinion on the emergence of language arise from mixing up two timescales. Once that is accepted, two further points, which *prima facie* seem to contradict each other, can be made: (1) that language really is an accident in the evolution of primates; like most of the innovations which characterize entire genera, its occurrence was fortuitous and was in no way a normal outcome of any evolutionary tendency; (2) that language is not due to a macromutation; it serves an adaptive function for which it is locally optimal.

6.1 Between chance and necessity

Chapter 5 left us with a problem. If we accept Gould's and Eldredge's theory of punctuated equilibria, then the direction taken by speciations is indeterminate. So the appearance of *Homo sapiens*, fully equipped with language, was an abrupt event and was in no way a response to an adaptive need. Such a way of seeing language is diametrically opposed to the view, contested in Chapter 4, that evolution towards language was gradual and slow, though inexorable. How can an exclusive choice be made between these two interpretations of Darwinian theory? To decide between them is to decide whether language, as the prerogative of our species, was fortuitous or necessary.