
Ian Tattersall

The Monkey in the Mirror

Essays on the Science of What Makes Us Human

Oxford University Press, Oxford 2002

220 pp.; USD 35.98

ISBN 0-19-851569-3

In this very personal book, Tattersall presents his views about how evolution works, underlining the current scientific knowledge, ignorance and unsupported speculations, always insisting on the necessary rigor in scientific endeavour. Tattersall recognised that the current differences which make humans uniquely human could not be understood ‘without knowing the full extent of what we share with our closest relatives’. These relatives are to be found within the hominid lineage though, presently, *Homo sapiens* is only one species. Tattersall shows how the unique cognitive capacities of modern *H. sapiens* emerged from other hominids long after they had diverged from apes.

Almost one third of this 8-chapter book is devoted to the scientific method, concepts and warnings about what science should be (‘provisional knowledge’) and should not be (‘authoritarian system’). Tattersall tackles only briefly the cognitive capacities of ‘modern’ apes.

In spite of our increasing awareness of the ‘extraordinary’ cognitive abilities unveiled in monkeys and apes, we share more common cognitive characteristics with our extinct predecessors, who made stone tools of diverse sophistication, than with present other non-human species, even chimpanzees. Tattersall contends that Neanderthals are the ‘best mirror’ to ‘discover wherein our own remarkable ... uniqueness lies’. Tattersall asserts that evolution of body form, brain size and cognitive abilities was not synchronous, instead occurring in this sequence along the millions of years of hominid radiation. He also assumes that significant behavioural innovation should ‘arise initially within a pre-existing species’, pointing out that evolution works with diversity, exaptation, neutral ‘innovations’ and emergence of new properties from ‘old’ structures. The result might be, by chance and perfectly ordinary means, an *H. sapiens*. The unique cognitive abilities of modern humans might be the result of ‘an exapted brain equipped with a neglected potential for symbolic thought’. Tattersall emphasises that ‘new structures do not arise *for* anything’ (his emphasis), making crystal clear that evolution is a blind process.

Throughout his book, Tattersall vividly develops the appearance and disappearance of Neanderthals and Cro-Magnons, leaving the ground to modern humans through a still unknown, but surely non-linear, process.

The chapter that Tattersall devotes to criticisms of evolutionary psychology somehow diverts the reader from the well-designed progression of the book. Fortunately the last chapter, ‘Futurology’, continues the theme of the first 6 chapters, with Tattersall’s talent for aphorisms being back.

The sentence ‘... whether with the bang or a whimper, the Neanderthals were gone forever’ might fit the unfortunate fate of still-living non-human primates: Tattersall, a former student of Malagasy lemurs, is likely aware that this sentence might apply some time soon to non-human primates. Tattersall instructs us that human evolution is now rather di-

forced from conventional Darwinian evolution and largely in our own hands, i.e. our own consciousness or responsibility.

After reading Tattersall's book, everyone will have clearer views of the process of evolution, whether sharing Tattersall's views or not. I'm sure that many readers will find this book a source of numerous insightful quotations, certainly I did so.

This easy-to-read, vivid, clear book should fascinate a highly significant number of readers, anthropologists, primatologists, undergraduate students, graduate students and a large proportion of laymen.

Bertrand L. Deputte, Paimpont