

# Human Uniqueness in Biology and Beyond. Some Preliminary Thoughts

ATOP Book club    February 25, 2025

1. Humans are not the pinnacle of evolution (nor of creation...).
2. Uniqueness is not a human prerogative, but must equally be ascribed to *all* species ('species specificity'). Being interested in our own species only may be slightly biased...
3. It is arbitrary to identify 'true' humans as the species *Homo sapiens*; extinct hominins might be included as well. And we don't know what evolution has still in store: our genealogical lineage may develop different traits from the ones we have right now.
4. Even if we restrict humans to the species *Homo sapiens* in its current form, the boundaries are fuzzy. Species boundaries are not rigid anyhow, due to hybridization and gene flow, the gradual nature of speciation, etc. Arguably, there is "no necessary and sufficient condition for being an organism of a certain species" (J. Dupré 2002). Species may share a network of overlapping characteristics rather than a single defining feature.
5. Thinking along such lines *Homo sapiens* is characterized primarily by (1) bipedalism and (2) a high EQ (encephalization quotient), and secondarily by many cognitive, linguistic, psychological and social traits that followed from these. Most biologists would speak about 'difference in degree' rather than 'difference in kind'?
6. Evolutionary psychology: human nature characterized by a universal 'mind-set' that was fixed some 2 mya: discrete ('modular') psychological mechanisms evolved to solve distinct problems in our evolutionary history. Depending on their input, these mechanisms produce different behavioral patterns, but as such they are "innate" and "universal". This view (though adopted in CSR) seems increasingly contested in biology.
7. Given the fact the 'humankind' does not seem to be a biological or psychological natural kind, it is possible to define what it means to be human in other ways – such as theological ones (e.g. by appealing to the *imago Dei*, or, for Christian theists, even to the Incarnation). Thus, humans may be seen as unique in ways that go beyond evolutionary explanation.