



Connecting The Dots in Theoretical Anthropology: Was This One of The Earliest Contemplation About Homo sapiens sapiens' Fight for Survival and Interactions with Homo sapiens neanderthalensis and Homo sapiens denisova?

Peer review status:

No

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Article ID: WMC005184

Article Type: My opinion

Submitted on: 13-Sep-2016, 03:35:05 PM GMT **Published on:** 14-Sep-2016, 11:39:48 AM GMT

Article URL: http://www.webmedcentral.com/article_view/5184

Subject Categories: PRIMATOLOGY

Keywords: Ramayan, Homo sapiens sapiens, Homo sapiens neanderthalensis, Homo sapiens denisova, Ape to Man

How to cite the article: Gupta D, Ambalavanan S, Bangaru P. Connecting The Dots in Theoretical Anthropology: Was This One of The Earliest Contemplation About Homo sapiens sapiens' Fight for Survival and Interactions with Homo sapiens neanderthalensis and Homo sapiens denisova?. WebmedCentral PRIMATOLOGY 2016;7(9):WMC005184

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Source(s) of Funding:

None

Competing Interests:

None

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Abstract

Watching the documentary, "Ape to Man" (2005), make us wonder, whether the major plot in the Hindu mythological epic, "Ramayan", was one of the earliest contemplation about the fight for survival between the two evolving sub-species of human beings (anatomically modern humans and Neanderthals) and the coexistence of ape-like humans (the third hominin species: Denisovans) around the same time of human evolution. Our write-up is an attempt to make a case for critical reading and further exploring the ancient scriptures, with the possibility to find hidden answers (if any) to age-old questions, by utilizing modern day analytical methods.

Perspective

Watching the documentary, "Ape to Man" (2005), [1] make us wonder, "Is it so simple that we might have overlooked the obvious? Can it be another scenario for connecting the dots [2]?" The below-mentioned text is written, with the intent to explore the possibility, whether the major plot in the Hindu mythological epic, "Ramayan" [3], was one of the earliest contemplation about the fight for survival between the two evolving sub-species of human beings and the coexistence of ape-like humans (the third hominin/hominid [4] species) around the same time of human evolution, "Is it possible that, hidden within the ancient scriptures, the writers had documented scientific theories for posterity that needs to be unraveled by the descendants when they read those scriptures?"

Forgoing the complex debates on speciation [5] (emergence of species) or species complex [6] (unclear dividing lines between related species) or species problem [7] (difficulties in defining species) due to evolution swinging back-and-forth from panmixia [8] (random mating) to total reproductive isolation, the below-mentioned text will assume the

species as defined by the distinguishing capacity of the members within the groups ("species" [9]) to reproduce fertile progeny. Therefore, considering the evidence for potentially successful attempts of interbreeding [10-14] among Neanderthals and anatomically modern humans or Homo sapiens sapiens (HSS), the Neanderthals are termed as Homo sapiens neanderthalensis (HSN), and more recently found hominins, Denisovans, are correspondingly termed as Homo sapiens denisova (HSD).

The timeline when "Ramayan" was conceptualized or when the depicted fight for survival actually happened has not been ascertained yet; however, it can be easily visualized that modern story telling in "Ape to Man" [1] seems similar (analogous) in parts to ancient story telling in "Ramayan" [3]. Per Ramayan, Surpanakha, the sister of demon-king Ravan, initially proposed to Ram, the man-god and then to his brother, Laksman to marry her. When they declined her proposals, she became angry and instigated her brother Ravan to marry Ram's wife, Sita. The subsequent turn of events led to the abduction of Sita by Ravan and eventual fight, with Ram-Laksman and their allies (ape-leaders, ape-god and apes) on one side, and demons led by Ravan on the other side. The fight for survival may primarily rely on Freudian id [15] so it can be easily envisaged why modern story telling depicted hunger (in "Ape to Man" [1]) as bone of contention, whereas ancient story telling depicted companionship (in "Ramayan" [3]) as bone of contention. The mythological fight between two groups could have happened in any period in the ancient times. However, the presence of ape-like human ancestors (the third hominin species presumptively analogous to HSD) supposedly co-existing at the same time and allying with Ram-Laksman (presumptively analogous to nascent representation of HSS) against Ravan (presumptively analogous to prominent representation of HSN) preempts the readers to envisage the transition times during human evolution, when anatomically modern humans co-existed with Neanderthals and ape-like human

ancestors (or Denisovans). Hereafter, the ensuing conflicts during the migration and expedition [16] might have led to the "mythological" history being written as "Ramayan" and correspondingly "modern" history being explored as "Ape to Man". Although "Ape to Man" did NOT talk about Denisovans, it talked about occurrence of pedigree branching among hominid (ape-like [4]) and hominin (human-like [4]) species that could have led to the coexistence of multiple hominid/hominin species at given points of time.

It is NOT clear why the ancient writer depicted that presumptive HSS representatives collaborated with presumptive HSD representatives, even though they fought with presumptive HSN representatives. It seems reasonable that there could have been time-sensitive, time-appropriate and preferential-circumstantial collaborations among the hominin species for the sake of survival, as analogously portrayed in "Ramayan". Ram defeated Vali, the ape-king, so as to free the kidnapped wife of Vali's younger brother, Sugreev, from Vali's clutches; and subsequently, Sugreev was crowned as the new ape-king. However, apparently, none of the other ape-like humans were challenged to fight Ram. Contrastingly, for freeing his wife, Sita, Ram sought help of Vibhishan, the younger brother of demon-king, Ravan; however, Vibhishan was coronated as the next demon-king by Ram, only after ending the reign of Ravan who perished along with scores of demons. This can analogously represent that, for reasons unknown, evolutionary cycle for HSS might have realized that, at that particular point of time, HSD would have been better situational collaborators than HSN; and the eventual evolutionary success (genetically, culturally and competitively) proved that, overall, HSS had better and superior chances of survival. Besides the very slow-to-change innate genetic trait variations, it was the potential of rapidly-changing acquired cultural trait variations that might have driven the propagules of anatomically modern humans to outlast the prominent Neanderthals by competitive exclusion, during the evolutionary transition [17-18].

Among the East Asian-Oceanian modern humans [19-20], the greater percentage of genetic admixture with Denisovans (~5% compared to that with Neanderthals ~2% [12, 21-22]) might suggest that Denisovans were the collaborators and Neanderthals were the competitors; however, it could have been the other way round too. Competition and collaboration is part and parcel of all fights for survival; and irrespective of whom were the collaborators or the competitors, the anatomically modern humans have

outlived Neanderthals and Denisovans, with whom they coexisted once upon a time. Moreover, the existence of more than three hominin species can be discovered in the future, further raising the question, if all hominin species were either collaborators or competitors to anatomically modern humans, and we got lucky (genetically, culturally and competitively) to survive, question and then discover that our "presumptively" extinct hominin ancestors still survive as contributions among our genes [10-11, 23-25].

In summary, the above-mentioned analysis may be ignored as just another attempt, to answer a theory with another theory, or it may be visualized as an attempt to make a case (akin to theory-bashing and answer-improving [26]), for critical reading and further exploring the ancient scriptures, utilizing modern day analytical methods [25], with the possibility to find hidden answers (if any) to age-old questions.

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