

Peer Review

Review of: "Does Palaeolithic Resource Management Leading to Domestication Explain Human “Modernity”?”

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Pp. 1-9.

What is the problem statement/question to be addressed? The introduction is lengthy and goes straight to the case of the reindeer on p. 10. I suggest you shorten the introduction, clarify the problem statement, relegate the next 6 or so pages to pertinent background information, and then discuss the methods to be used. Since this paper is concerned with animal domestication, state that upfront.

P. 3. The characterization of hunter-gatherers as incapable of manipulating the productivity of resources is simplistic. There is a sizeable body of literature on plant-based intensification that would be good to cite here. Information on p. 6 supports the concept that Paleolithic hunter-gatherer intervention with regard to wild species is on the domestication continuum.

Throughout: Needs extensive citations (including Darwin!). Many of the article's assertions are citable, especially in the first 5 pages.

P. 7. 'Agricultural production of food quantities required to support local populations of high density is relatively easy, removing the need for nomadism and allowing people to invest energy in the construction of permanent settlements (villages, towns, cities) from durable materials.' This statement presupposes that intensive agriculture is without cost to hunter-gatherers, a 'no brainer' if you will. There is ample ethnographic evidence to the contrary, which should be factored into this discussion.

P. 16. Structure the animal 'case studies' so that they are clearly related to and sum up toward the hominin domestication hypothesis on p. 16.

Also, the assumptions in this section are profound:

“Unable to attribute that relatively sudden appearance of “modern” humans in Europe to evolution, that meme had ascribed the change from robust to gracile hominins to a speciation event in sub-Saharan Africa, leading to a cognitively superior species that replaced all human populations of the world by outcompeting or eradicating them. Initially based on a hoax by a German biological anthropology professor in the 1970s[89], the replacement hypothesis has been contradicted by genetic evidence in recent years: Neanderthals, Denisovans and extant humans are one species.” I am not aware that the evolution of anatomically modern H.s.s. in East Africa and radiation outward to Asia and Europe has been definitely refuted? The author asserts that a very large-scale ‘pleiotropic domestication’ event transpired rapidly across Neandertals, Denisovans, and other robust hominins. The statement implies that rapid gracilization through auto-domestication is sort of self-evident and self-supporting. I do not perceive the evidence for this in the article as written.

Pp. 16-17: Also implied: that animal domestication was the driving force for human population increases; please cite the evidence for this, as well as evidence that large-scale agricultural production was NOT a factor.

P. 17. The taphonomic logic section seems not to follow here; an abrupt transition. This can be addressed by organizing the article as discussed above: introduction, working problem statement, background information, methods, results. Then the discussion and conclusion will be clearer to the reader.

Overall: The paper is an ambitious attempt to link animal domestication with transformative changes in hominin physiology, social organization, reproduction, technological behavior, and settlement. I recommend that the author a) clarify the aim and organization of the paper, b) be alert to the need to cite sources throughout, and c) exercise caution in sweeping statements/generalizations.

Declarations

Potential competing interests: No potential competing interests to declare.