

Peer Review

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

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The manuscript presents an analysis of the possible relationship between certain traits associated with so-called “human modernity” and the management of animal resources prior to domestication. The proposal is thought-provoking, but it is reasonable to assume that changes in human population traits stem from a complex set of external and internal factors: the one examined here may be among them, but it would only constitute part of the explanation.

Two fundamental issues must be considered from the outset. First, the nature and tempo of changes in human traits: without adequate control of these variables, the **proposed analytical endeavour** becomes difficult to sustain. Second, the inherent diversity of the process, since “human modernity” is not a homogeneous construct and requires **the assessment** of its multiple variants.

The management of faunal resources also exhibits considerable variability, which further complicates the analysis. Regarding domestication, the first step is to define precisely what is meant by this process. It may be assumed that effective domestication requires at least three vectors of human control: over animals’ reproductive behaviour, their diet, and their mobility. To this, one might add a broader reflection on domestication itself, given that it profoundly transformed human diet and social organisation.

The author is aware of several challenges inherent to the proposal, among them the difficulty of identifying domestication processes—plural—archaeologically, since each species presents its own needs and dynamics that shape its trajectory. The case of reindeer is illustrative: their mobility retains patterns similar to free-ranging herds, in contrast with species such as cattle, goats, sheep, or pigs. In the case of horses, the author notes the existence of an ongoing debate, reinforcing the idea that without understanding the tempo of the process, it is impossible to evaluate its impact on human traits. This issue may also extend to dogs.

Furthermore, although the earliest domestication of aurochs is situated in the upper courses of the Tigris and Euphrates, cases of intentional hybridisation between wild aurochs and domestic cattle are known from various parts of Europe. This feedback phenomenon requires nuancing the idea of a linear “navigation” of domesticated animals, as proposed by the author. The hypothesis is supported by recent genomic data, whose absence in the manuscript represents a significant limitation given its central role in current understandings of domestication processes.

The main value of the work lies in the formulation of a hypothesis that contributes to a debate still in need of further analytical elements. Among its strengths are a solid command of the bibliography—stronger in some areas than in others—and the integration of perspectives from evolutionary biology, domestication theory, and archaeology.

Nevertheless, the hypothesis is weakened more by the absence of evidence than by clear contradictory data, and the argumentation contains a degree of speculation. A more explicit methodological framework would have been desirable. Given the complexity of the topic, it would be necessary to incorporate into the debate critical scenarios that include the chronology of the processes, the influence of socio-demographic pressures, the economic capacities of communities, and dietary changes.

Overall, the manuscript puts forward a stimulating hypothesis within an interdisciplinary debate, but it requires greater conceptual precision, a more clearly defined methodological framework, and a more robust integration of data. Exploring the relationship between human modernity and pre-domestic animal management demands controlling the diversity and tempo of the processes involved and integrating social, economic, and ecological factors to achieve a stronger empirical foundation.

Declarations

Potential competing interests: No potential competing interests to declare.