

Peer Review

Review of: "Dietary Heritages at the Dawn of Humankind in Sub-Saharan Africa"

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The general thesis of this manuscript is very broad and seeks to take a 'big picture' approach to the ways in which diet and culture became intertwined during the evolutionary history of our species. I admire and appreciate the authors for attempting such a broad review of a very complicated subject. However, the manuscript itself needs another round of editing before I can legitimately provide a review. Many sentences are difficult to interpret. For example, on page six, this sentence appears: "Both genetic and fossil evidence place the origin of our species at about 200,000 years ago in Africa, but there is much debate on the dietary adaptations of the robust SSA Lower Pleistocene *Paranthropus*, an ape-like hominin, a genus of extinct hominin, and hominin lineage." I just don't see how the diet of *Paranthropus*, a side-branch of the human family tree, relates to the emergence of *Homo sapiens*. There are many other statements in this manuscript that need to be revisited and cleaned up.

Also, there are some significant factual errors. For example, on page 3 of the introduction, we are told that the oldest evidence for stone tool use is at Gona ~2.6 Ma, seemingly ignoring the 3.4 Ma evidence at Dikika and the 3.3 Ma Lomekwian tools from Kenya. That said, in Section 4, page 18, the authors contend that, "Humans started using hand-held tools to process meat over 3 million years ago, rudimentary but crucial technology crucial [sic]." Another example is found on page 7, where the authors contend that Early Pleistocene hominins consumed "maize, sorghum, pearl millet, sugarcane, millet, and grass (*Panicum maximum*)."

Maize was domesticated in southern Mexico ~9000 years ago, and sugarcane was domesticated in New Guinea/Southeast Asia around the same time. While pearl millet is from Northern Africa, it is also a domesticate that is quite different from its wild ancestor, and "millet" is a general term that covers species from Asia and Africa. The only factual part of this statement is that grasses were potentially consumed by early hominins, though *P. maximum*, if the species existed in the Early Pleistocene, would have been one of many grass species eaten.

Again, this manuscript needs another round of serious editing before it can be peer-reviewed. I applaud the authors for trying to tackle a subject of this size, but when you take on broad, holistic themes such as those here, you have to make sure that all of the pieces are meticulously organized.

Declarations

Potential competing interests: No potential competing interests to declare.