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Peer review history for:

Schroeder L, Madison P, Ackermann RR. Why heads matter in palaeoanthropology: The impacts and consequences of collecting skulls. *S Afr J Sci*. 2025;121(1/2), Art. #18481. <https://doi.org/10.17159/sajs.2025/18481>

HOW TO CITE:

Why heads matter in palaeoanthropology: The impacts and consequences of collecting skulls [peer review history]. *S Afr J Sci*. 2025;121(1/2), Art. #18481. <https://doi.org/10.17159/sajs.2025/18481/peerreview>

Reviewer 1: Round 1

Date completed: 28 May 2024

Recommendation: **Accept** / Revisions required / Resubmit for review / Resubmit elsewhere / Decline / See comments

Conflicts of interest: None

Does the review fall within the scope of SAJS?

Yes/No

Is the review written in a style suitable for a non-specialist and is it of wider than only specialist interest?

Yes/No

Do the Title and Abstract clearly and accurately reflect the content of the review?

Yes/No

Does the review provide a significantly novel perspective or significant recent advances in the field?

Yes/No

Is the objective of the review concisely stated?

Yes/No

Is appropriate and adequate reference made to other work in the field?

Yes/No

Do current debates and points of contention receive appropriate coverage?

Yes/No/Not applicable

Are gaps in the literature adequately identified?

Yes/No/Not applicable

Does the review provide direction for future research?*

Yes/No/Not applicable

Are the methodology and statistical treatment appropriate?

Not applicable/Yes/No/Partly/Not qualified to judge

Are the interpretations and recommendations aligned with the objective?

Yes/Partly/No

Please rate the manuscript on overall contribution to the field

Excellent/Good/Average/Below average/Poor

Please rate the manuscript on language, grammar and tone

Excellent/Good/Average/Below average/Poor

Is the manuscript concise and free of repetition and redundancies?

Yes/No

Is the supplementary material relevant and separated appropriately from the main document?

Yes/No/Not applicable

Please rate the manuscript on overall quality

Excellent/Good/Average/Below average/Poor

If accepted, would you recommend that the article receives priority publication?

Yes/No

Are you willing to review a revision of this manuscript?

Yes/No

Select a recommendation:

Accept / Revisions required / Resubmit for review / Decline

With regard to our policy on 'Publishing peer review reports', do you give us permission to publish your anonymised peer review report alongside the authors' response, as a supplementary file to the published article? Publication is voluntary and only with permission from both yourself and the author.

Yes/No

Comments to the Author:

This is a great essay and an important contribution. My goal in providing critical comments here is to improve an already strong essay.

-The authors should do more to articulate and acknowledge the "legitimate" reasons to collect skulls. This, as opposed to only showcasing what we might describe as the "illegitimate" reasons, e.g. scientific racism. Other reasons include the fact that the skull tends to be the most durable part of the human skeleton in archaeological contexts. Furthermore, the skull by itself was more easily transportable than collecting all post-cranial remains. Anthropologists, such as Ales Hrdlicka, thought they could establish larger and more representative racial skull collections by collecting more individuals, and skulls could be more easily transported in bags which might also be carried by mules or horses. A bit more on this is in S.J. Redman's Bone Rooms, which is already cited in the essay. We only get to any relevant counter-arguments by page 9.

-Titles of books should be underlined or italicized consistently, whatever follows the style guide of the journal. At present they are inconsistent.

-The statistical analysis of collecting patterns pre and post-1960 was especially revealing.

-pg 8, 278-280 connections to living fossil discoveries in the region is quite interesting but could be more clearly spelled out.

-Revise this passage for clarity. (305-207) "Although there were no hominin fossils at the time when scientific racism first developed into a legitimate area of inquiry, the entrenchment of scientific racism into science and especially palaeoanthropology occurred in concert with early historical hominin discoveries.

-Nice essay.

Author response to Reviewer 1: Round 1

This is a great essay and an important contribution. My goal in providing critical comments here is to improve an already strong essay.

AUTHOR: Thank you so much for your positive comments on our work and for your helpful comments!

The authors should do more to articulate and acknowledge the "legitimate" reasons to collect skulls. This, as opposed to only showcasing what we might describe as the "illegitimate" reasons, e.g. scientific racism. Other reasons include the fact that the skull tends to be the most durable part of the human skeleton in archaeological contexts. Furthermore, the skull by itself was more easily transportable than collecting all post-cranial remains. Anthropologists, such as Ales Hrdlicka, thought they could establish larger and more representative racial skull collections by collecting more individuals, and skulls could be more easily transported in bags which might also be carried by mules or horses. A bit more on this is in S.J. Redman's Bone Rooms, which is already cited in the essay. We only get to any relevant counter-arguments by page 9.

AUTHOR: Thank you for this comment and suggestion. We have added the following sentence to page 5: "This skull bias reflects the importance placed on skulls for racial typology, but also the durability and transportability of skulls compared to other skeletal elements."

Titles of books should be underlined or italicized consistently, whatever follows the style guide of the journal. At present they are inconsistent.

AUTHOR: Thank you for this comment. We have made the formatting consistent (underlined).

The statistical analysis of collecting patterns pre and post-1960 was especially revealing.

AUTHOR: Thank you so much!

pg 8, 278-280 connections to living fossil discoveries in the region is quite interesting but could be more clearly spelled out.

AUTHOR: We have added the following to the sentence: "Together with the coelacanth and cycad, the "Bushmen" were seen as "living fossils"—assumed to be unchanged from early human ancestors—and collected and researched as such in southern African museums"

Revise this passage for clarity. (305-207) "Although there were no hominin fossils at the time when scientific racism first developed into a legitimate area of inquiry, the entrenchment of scientific racism into science and especially palaeoanthropology occurred in concert with early historical hominin discoveries.

AUTHOR: This passage is now rewritten as follows: "Scientific racism first developed into a legitimate area of inquiry before the discovery of hominin fossils, meaning that the entrenchment of scientific racism into palaeoanthropology occurred in concert with early historical hominin discoveries."

Reviewer 2: Round 1

Date completed: 28 June 2024

Recommendation: Accept / **Revisions required** / Resubmit for review / Resubmit elsewhere / Decline / See comments

Conflicts of interest: None

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Yes/No

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With regard to our policy on 'Publishing peer review reports', do you give us permission to publish your anonymised peer review report alongside the authors' response, as a supplementary file to the published article? Publication is voluntary and only with permission from both yourself and the author.

Yes/No

Comments to the Author:

This is a solid MS and a timely one as well. The framing is important as it interweaves key historical events/narratives/practices into contemporary debates and invites the reader to reassess what has all too often been considered "accepted knowledge" in paleoanthropology in the context of what is now a very well documented suite of practices (and theory) heavily influenced by racism and bias. I am very much in support of the key assertions and overall tenor of the argument. However, the MS would be stronger, have a more robust impact, and avoid some predictable critique, if more detail and specific examples of the role of hominin post-crania in both taxonomic and functional classification/assessment were included and elaborated on. Also, I suggest expanding a bit of the discussion by using non-hominin mammalian (including primates) or other animal examples as comparisons to clarify the potential for, current use/role of, post-cranial morphology in assessing living and fossil taxa. Overall, I suggest expanding both the "Heads and species hypodigms" and "But aren't heads the best for species diagnosis" sections with the content I've just mentioned to flesh out the support for the argument overall. There could also be some expansion on the increasing disputes of cranial capacity (as proxy for brain size) as the only or primary key feature in hominin evolution (as the authors do note but do not really elaborate on), and a little more on the key role of genetic drift and gene flow, plus the lack of robust evidence for selection on much cranial morphology, esp. in the Pleistocene (such as the discussion and citations in Schroeder L, Ackermann RR. Moving beyond the adaptationist paradigm for human evolution, and why it matters. J Hum Evol. 2023 Jan;174:103296).

Author response to Reviewer 2: Round 1

This is a solid MS and a timely one as well. The framing is important as it interweaves key historical events/narratives/practices into contemporary debates and invites the reader to reassess what has all too often been considered "accepted knowledge" in paleoanthropology in the context of what is now a very well documented suite of practices (and theory) heavily influenced by racism and bias.

AUTHOR: Thank you so much for this positive comment!

I am very much in support of the key assertions and overall tenor of the argument. However, the MS would be stronger, have a more robust impact, and avoid some predictable critique, if more detail and specific examples of the role of hominin post-crania in both taxonomic and functional classification/assessment were included and elaborated on. Also, I suggest expanding a bit of the discussion by using non-hominin mammalian (including primates) or other animal examples as comparisons to clarify the potential for, current use/role of, post-cranial morphology in assessing living and fossil taxa.

AUTHOR: Overall, I suggest expanding both the "Heads and species hypodigms" and "But aren't heads the best for species diagnosis" sections with the content I've just mentioned to flesh out the support for the argument overall. There could also be some expansion on the increasing disputes of cranial capacity (as proxy for brain size) as the only or primary key feature in hominin evolution (as the authors do note but do not really elaborate on), and a little more on the key role of genetic drift and gene flow, plus the lack of robust evidence for selection on much cranial morphology, esp. in the Pleistocene (such as the discussion and citations in Schroeder L, Ackermann RR. Moving beyond the adaptationist paradigm for human evolution, and why it matters. J Hum Evol. 2023 Jan;174:103296).

Thank you so much for these helpful suggestions. We have added paragraphs to both sections and have expanded our reference list substantially. Please see the main text for these additions.