Paper 3: Peer Revision

The purpose of this assignment is to (1) accrue more feedback for the author so they can improve their scientific report; and (2) make every student think critically about what worked well and did not work well in their peers' reports, to help their own writing.

Each student (or reviewer) will read and comment on TWO papers from their peers, focusing primarily on their Results section. Both of these two papers will be randomly assigned and double-blinded, meaning the names of reviewers and authors will not be shared with each other (I will coordinate the return of the reviewer comments). Our goal is to:

(1) demonstrate our understanding of the author's intent and findings,
(2) provide 2-3 major comments regarding where additions or edits can lead to a paper of higher clarity and interest *to a general audience*,
(3) Optional: Additional minor comments can be shared (regarding typos and sentence structure), but are not necessary (if there are a lot, then perhaps make that a major comment). You do NOT need to edit their hard copies directly, but if you would like to, I will return hard copies to the authors.

Below, I've provided an example of a peer revision from my upper-level *Human Evolutionary Genomics* course – the actual paper being reviewed is linked under Week 11's lab if you are interested.

I have also provided a notes page for you, where you can add comments to help you build your peer reviews.

I expect the peer review to be roughly one page long. You do NOT have to comment on every possible revision you can see. Read the paper, think about what are the main 2-3 things you think can help their paper the most, and write major comments focused on those items. We're focused on big picture revisions rather than little details. *Be respectful in your writing* → focus on what you could not understand and why it was difficult to understand (specific examples from text are great, remember to reference L. ##) – if you have a suggestion, feel free to share to help them out. If you think the paper is really good, state that, but then think a bit further – there's usually something that can make this paper a bit more understandable and interesting. What would you have been interested in hearing more about? Are there further discussion points you would find interesting for them to dive into?

Submit Peer Review using the Assignment Upload link on Blackboard. Make sure the filename format is as follows: "Author<AuthorLetter>_PeerReview.docx". The peer review is due at the end of Week 11 lab, but if you need more time, you can request a free extension to a date of your choice no later than midnight of Week 12M. Hard copies of the papers must be returned before the end of lab, but you're welcome to drop by my office to look at them further as needed. If you additionally did grammar edits on the hard copies (NOT required), I will return to that student.

Example Peer Review:

In this paper, the author aimed to replicate the finding of Neanderthal/Denisovan admixture in non-African populations but not in sub-Saharan African populations by analyzing the archaic admixture levels in East African populations from 9000 BP to the present day. They found that the levels of archaic ancestry slightly decreased over time, but the present-day Southern Khomani San population was found to have significant levels of Neanderthal admixture. I think the introduction really set the stage for your paper, gave me a thorough background on the region and population groups you analyzed, and helped me understand the rationale behind your research question. Your description of the specific ancient and present-day Eastern African populations you chose and their significance in relation to your study was also incredible! Lastly, I really liked how you tied in the concepts of ancestral history, agricultural expansion, and migration to explain the trends in your results.

Major Comments:

- The Khomani San population seemed to have a D-statistic value that is significantly different from zero ($Z = 3.128$, Table 2). This was not explicitly stated in your results/discussion section. While you explained how the San group contributed ancestry to Eastern African populations, which were later replaced by the Bantu groups of the West during the agricultural expansion, I still found something to be missing. It was not made clear to the reader that the present-day Southern Khomani San population had significant Neanderthal admixture levels in the Results section. I think it would be worth reflecting on why present-day Southern African populations have significant Neanderthal ancestry and what this could mean for future research on ancient Southern African populations.
- I think you need to tweak the formatting of your paper a little bit. I believe the section headers (e.g. L. 4, 9, 21) are to be in bold. Also, the tables and figures should be referenced in the appropriate sections and should be moved to the end of the text portion of your paper. Moreover, the table titles and legends should be included before the table and the text inside the table should be centered. I would also like to bring your attention to the order and labelling of the D-statistics values in Table 2. It is unclear which data are referring to Neanderthal/Denisovan admixture and all/only transversion SNPs. Lastly, I found some sections like the one-line summary (L. 5-7), abstract, and table legends to be slightly repetitive. Being concise and precise wherever possible will improve the quality of your paper even further!

Minor Comments:

- P. 1, L. 27-28: Cite the articles that provide evidence for this claim.
- P. 3, L. 80: Provide the full form for BP in your figure legend.
- P. 3, L. 91: I would also suggest adding a Z-score range.
- P. 6, L. 143: Was this observed in all African populations or was it limited to a certain geographical/ethnolinguistic group?