

# Review of: "Correlations between Socioeconomic Status (SES) and Biogeographic Ancestries: Indirect Evidence of SES Model Misspecification"

Carolina Bonilla<sup>1</sup>

<sup>1</sup> Departamento de Medicina Preventiva, Universidade de São Paulo, Brazil

Potential competing interests: No potential competing interests to declare.

Connor and colleagues identified a correlation between biogeographical ancestry (BGA) proportions and socioeconomic status (SES) across a number of epidemiological studies performed in American populations that have examined this relationship secondary to the main analysis, mostly to prevent misspecification/under-identification in regression models. The authors carried out a meta-analysis in which they found a positive correlation between European ancestry and SES, and a negative correlation between African and Native American ancestry and SES. They point out the consequences that the omission of BGA might have in economic models of SES.

The findings are somewhat expected but nevertheless important.

I have a few comments, listed below.

1. The authors mention a couple of times the existence of political sensitivity regarding this subject, which is understandable. However, the relationship between BGA and SES possibly emerged from the way that colonial societies were structured in the Americas, with Europeans at the top and individuals with progressively higher levels of non-European ancestry further down the hierarchy. This is something often considered as a reason for the adverse outcomes experienced by people of lower SES (and higher African and Native American ancestry), that would not blame marginalized individuals for their fate. I suggest the authors discuss this possibility as well.
2. "Amerindian" is a term that is not commonly used in recent times. It may be better to use "Native American" or "Indigenous American" instead.
3. On page 16, the authors describe an analysis that will test if SES and BGA correlations are 'mediated' by SIRE. It is not clear to me what 'mediated' means here; it seems that it is not a mediation analysis typical of epidemiology. Although, it would be interesting to run a proper mediation analysis if at all possible.
4. The references should be checked: some are missing, and some are not in the text.
5. Mention of Table 3 is missing in the text.
6. Table 6: the % null for European BGA should be ~12%.
7. Table 9: where it says SES indicator, which indicator was used?
8. Supplementary Materials B is missing.

