

Review of: "Deep roots of admixture-related cognitive differences in the USA?"

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Potential competing interests: No potential competing interests to declare.

This paper examines the relationship between genetic ancestry and cognitive ability in contemporary Americans, as well as in 19th and early-20th century Americans. It finds that cognitive ability is positively related to European ancestry and negatively related to African ancestry – though not consistently in Puerto Ricans. These findings are in line with the previous literature. The paper's methodology is suitable and its conclusions are appropriately caveated. I would ask the authors to address the following minor points:

1. They write: "This interpretation, which was fundamentally flawed due to a failure to recognize the impact of range restriction in ancestry on magnitudes of correlations ..."
Please elaborate. Why was there range restriction in ancestry in the relevant studies?
2. They write: "These studies also find small-to-modest correlations between ancestry and scores but demonstrate that such correlations are consistent with a large effect (B) of ancestry on cognitive ability". Please elaborate. Why are "small-to-modest correlations" consistent with "a large effect" of ancestry?
3. They write: "if differences are due to subculture effects common to all Black Americans, then they would not be proportional to genetic ancestry among this group". Is it not possible that some black Americans are more exposed to certain subcultures than others, and that this correlates with how European they look?
4. The authors control for a measure of appearance in Table 3, namely skin colour scores predicted from genotype. But I was wondering whether controlling for appearance makes sense in this context? Is it possible for, say, two black Americans to have the same amount of European ancestry but substantially different skin colours? Assuming low measurement error, wouldn't ancestry and skin colour be highly collinear?
5. In the Discussion, the authors could elaborate on the interpretation of their findings. Perhaps they could comment on the possibility that the association between European ancestry and cognitive ability is attributable to non-random mating in the past whereby whites who mated with non-whites had above-average cognitive ability.