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

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התרגום ארוך מדי לשמירה

The study of cognitive differences related to ethnic groups is a sensitive topic that in the past raised criticisms about the bias of the tests regarding the cognitive abilities when they included culturally biased content. However, as far as the connection between genetic admixture and cognitive ability is concerned, the criticism of this can be less strong but still exists. The hidden scientific assumption in this study is that genetic diversity leads to improved cognitive abilities, in particular that European descent will be positively related to higher cognitive ability in combined groups of African-European-American descent, even though previous studies have shown that average results of genetic origins are obtained in mixed children. In this spirit, I examined the way the research was designed, the statistical tools and the analysis of the findings.

The attribution in the article to literacy as a "cognitive" rating is problematic. It has more to do with socioeconomic status and culture and less to do with cognition. A European origin is closer to the language in the USA, and it will be easy for them to pass the tests. This ambiguity should have been neutralized in the analyzes and not defined as a finding but as a preliminary examination step towards an explanatory model.

The analysis assumes that the ethnic distribution of the sample over the years is similar, so there is no need to examine the cognitive differences between the years. This assumption can only exist after conducting a preliminary study that will confirm this assumption and find that indeed the year is not a factor in explaining the variation in cognitive ability. It is not clear if the cognition tests were the same over the years. The variable living in a free state and living in a slave state neutralizes this effect to some extent because it depends on the year of observation. But there is also a lack of uniformity in the reliability of the reporting over the years.

Section 2.1.2.2.: Regarding the division into quartiles of percentages of European origin - it would be useful to check in ROC ANALYSIS if there is a CUT-POINT against the cognitive score. It may be appropriate to divide at least into groups. The ROC histogram can give an answer to this instead of a symmetric quartile distribution. Also, it is not clear whether there is a reference to the mother's origin and how the researchers overcame this lack of knowledge, and even though I understand that the census questions were addressed to the head of the household and the past data were divided to the same four groups. This should be noted as a limitation of the study.

Section 2.1.2.4. General cognitive ability: it is not clear from the text if a comparison was made between the results of

vocabulary and oral reading recognition with the other cognitive tests that are less culturally biased to ensure the inclusion of these parts in the test or if it is necessary to omit them.

2.1.3 I lack an examination of the distribution of the results of the cognitive test (G Score and Fitzpatrick Score). Was it checked that it is normal or symmetrical before calculating averages and standard deviations and running a regression (I assume a linear regression was run because it was not stated otherwise)?

It is interesting to examine the results in a different direction. When the assumption is that there is no "racial superiority" but rather circumstances and culture that affect the results and try to explain for example in section 3.1: why Puerto Ricans with lighter skin tones (Type I-IV) nevertheless scored worse in cognitive tests than those with darker skin tones (type V and VI). This contrasts with the finding that Puerto Ricans with higher percentages of European ancestry have higher cognitive test scores than those with lower percentages.

Table 3: Why is it that across all groups, we see that African ancestry tends to be associated with lower g-scores, while this is not the case with skin color when ancestry is also considered? Doesn't this indicate that the results are biased according to what we can see (skin color)? How can cognition tests be improved so that skin color is not a factor?

Table 4: The Black-mulatto gap remains the same in slave states also because of Table 3 we saw that the color of the skin has more meaning than the origin and not only the disdain for the slaves were not interviewed but the color of their skin as the findings in the later years show.

"Next, Table 2 presents the results for the 1850-1920 free samples…"

should be corrected to: ""Next, Table 5…"