Review of: "Facing the Facts About Test Score Gaps"

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Comments on “Facing the Facts About Test Score Gaps”

General comments:

I enjoyed reading this paper, not only because it discusses a long-suppressed topic (i.e., the role of genetic endowments in creating test score gaps) but also because the author provides empirical evidence from a thorough review of published studies that are relevant but did not explicitly talk about this topic. I admire the honesty and courage of the author in discussing this topic openly. And the paper provides a good example of how one may approach a controversial topic scientifically and persuasively.

I also think the scientific community should not deliberately try to avoid examining the role genetic endowments play in cognitive development—genetic impact is a fact, not an evil conspiracy, and with the rapid development of gene-related technology and neuroscience, someday people will discuss it openly, perhaps in a way that we can't foresee right now. Some of the rejection is nonsensical, as simple logic will force people to acknowledge the role of genetic differences. For example, people look different because of genetic differences, and our society seems to enjoy diversity in looks (as well as diversity in many other dimensions, such as cultures and lifestyles). But when it comes to things with “productivity” traits like test scores, people remain silent on the role of genetic differences. This is odd given the rapidly developed field of “beauty premiums” (e.g., Hamermesh and Biddle, 1994, and the references therein). By simple logic, if one agrees that physical appearance has productive value and that physical appearance is determined (at least partly) by genetic endowments, then one is led to the conclusion that genetic endowments affect cognitive development. Similarly, to the extent that genetic differences (at least partly) determine health outcomes and health outcomes affect cognitive development (von Hinke Kessler Scholder et al., 2013), one can’t easily ignore the role of genetic endowments on cognitive development. Moreover, even within a race group, there are a lot of genetic variations, which generate great differences in cognitive skills and socio-economic attainment. That seems OK for most people. Only when it comes to cross-race comparisons the role of genetic endowments becomes controversial. But aren’t good within-race relationships among people with different socio-economic attainment also important for society? Aren’t disparities in socio-economic status also pressing issues to address? If they are, then talking about the role of genetic differences in generating cross-race differences in cognitive development is not as serious as it seems, especially when the cross differences are smaller than within-race differences.

Lastly, I think in fact the long-suppressed topic has become not as suppressed as it was a few decades ago. Many recent

studies have started to directly examine the role of genetic endowments by exploiting genetic data (e.g., von Hinke Kessler Scholder et al., 2013; Zhu et al., 2023).

Specific comments

1. The title is a bit too vague to convey the key message of the paper, i.e., the role of genetic differences in generating test score gaps. I understand that the author might try to "hide" some controversial terms from the title so that the reader would keep reading the paper. But since the reader will see the controversial terms a few lines below, why not simply mention them in the title (or put them in a subtitle)?

2. The author provides evidence against the "environment-only" theory primarily by way of contradiction (i.e., "if the environment-only theory is true, then we should have seen such and such…but we don't see them here"). It would be nice if the author mentioned this approach in the Introduction.

3. To strengthen the arguments, the author may try some "decomposition" analysis, at least use that idea. For example, how do American Blacks and African Blacks compare? If, after netting out the influence of some regional factors, the American-Black vs. African-Black test score gap is much smaller than the US Black-White test score gap, this "difference-in-difference" comparison is already evidence against the environment-only theory.

4. The implicit assumption made in the paper is that there are only environmental factors and genetic factors that create test score gaps. Under this assumption, the author disputes the environment-only theory by arguing something like "the effect of the environment would need to be incredibly large to account for such a large difference." But there are two problems with this argument and the implicit assumption. First, it is theoretically possible for a big environmental impact, although perhaps the likelihood is small. Aren't the proponents of the environment-only theory attributing test score gaps entirely to environmental factors? So, a big environmental impact may not be surprising, at least in the eyes of the proponents of the environment-only theory. Second, in genetics, people usually talk about three factors: genetic factors (G), environmental factors (E), and G-by-E factors. So, one possibility is that even though the impact of environmental factors might be small, the G*E impact could still be large. Given these two problems, I suggest that the author refine his assumptions/arguments so that the narratives can be more persuasive.

5. The last paragraph in Section 2.2 is not very clear. Why such a feedback effect can explain "the extremely large academic achievement and IQ gaps between sub-Saharan Africa and North America/Europe/East Asia"? Some further explanations would be nice. Also, a similar feedback effect may also exist within a country. For example, in the U.S., Blacks earn significantly less than White. I wonder if a comparison of feedback effects within and cross-country may strengthen your arguments (—in particular, within a country, the impact of the environment should be much smaller than in the cross-country setting).

6. While the author states in different places that the focus of this study is placed on the U.S. Black-white test score gaps, many of the studies he discusses (e.g., in Section 2.7) are from some other regions (e.g., Africa or Europe). Some readers might think that evidence from other regions lacks the power to support a U.S. story.

7. I think keeping mentioning the term “(notable) lie” in section 3.3 might not help address the issue at hand. The use of it seems a bit personal. Other related terms, such as “openness” and “suppression” and even “(dis)honesty”, might be more objective.

References

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