Review of: "Cross-national associations of IQ and infectious diseases: Is the prevalence of Corona an exceptional case?"

Vittorio Daniele[1]

1 Universita' degli Studi "Magna Græcia" di Catanzaro

Potential competing interests: No potential competing interests to declare.

This is an interesting paper, even though I believe that the average intelligence of populations is not relevant in explaining international differences in mortality rates (or in case rates) from contagious diseases, such as influenza or Covid-19. Moreover, in cross-countries comparison, is very difficult to measure those variables that, potentially, may have influenced the impact of covid-19 (mortality rate), for example, the use of public transportation.
It is possible that differences in mortality rates between populations depended on genetic factors, such as the resistance to some infections and diseases. A study suggested how a haplotype inherited by Neanderthals may be a substantial contributor to COVID-19 risk in some populations in addition to other risk factors (1). Moreover, it is recognised that some genetic variants inherited from Neanderthals modulate gene expression in response to viral infections (2). Since alleles derived from Neanderthals are unequally distributed among world populations and are not present in the Sub-Saharan African populations, this – at least potentially – may help to explain the lower impact of Covid-19 in Africa.

(1) Zeberg, H., Pääbo, S. The major genetic risk factor for severe COVID-19 is inherited from Neanderthals.*Nature* 587, 610–612 (2020). https://doi.org/10.1038/s41586-020-2818-3

(2) Hélène Quach et al. Genetic Adaptation and Neandertal Admixture Shaped the Immune System of Human Populations, Cell 2016. DOI : 10.1016/j.cell.2016.09.024