

Review of: "The Convergence of Intelligence and Longevity"

Enzo Grossi

Potential competing interests: No potential competing interests to declare.

I read with interest the paper of Camillo Gualtieri on the convergence between intelligency and longevity.

The paper is nicely written and is a systematic and comprehensive essay of the theoretical basis of this connection. The only remark is that the analysis of what is called cognitive epidemiology is rather limited.

I would have expected a section on the longitudinal studies in which the I.Q. has been correlated with life span.

This, to me, should be the core of the paper. For example, in a cohort study conducted in 2009 with almost a million Swedish men who took a mandatory IQ test during their military service when they were around 18 years old, researchers followed up with participants during 20 years after they took the test to see who was still alive and who had died (see Batty GD, Wennerstad KM, Smith GD, Gunnell D, Deary IJ, Tynelius P, Rasmussen F. IQ in early adulthood and mortality by middle age: cohort study of 1 million Swedish men. *Epidemiology*. 2009 Jan;20(1):100-9. doi: 10.1097/EDE.0b013e31818ba076. PMID: 19234402.) In this large cohort, we found a robust stepwise relation between early adult IQ and risk of total and accident mortality in men.

Another important study is that of Catherine Calvin, a prospective cohort study based on a whole population of participants born in Scotland in 1936 and linked to mortality data across 68 years of follow-up (Calvin CM, Batty GD, Der G, Brett CE, Taylor A, Pattie A, Čukić I, Deary IJ. Childhood intelligence in relation to major causes of death in 68 year follow- up: prospective population study. *BMJ*. 2017 Jun 28;357:j2708. doi: 10.1136/bmj.j2708. PMID: 28659274; PMCID: PMC5485432). In this national population year of birth cohort followed over the life course from age 11 to age 79, higher scores on a well-validated childhood intelligence test were associated with lower risk of mortality ascribed to coronary heart disease and stroke, cancers related to smoking (particularly lung and stomach), respiratory diseases, digestive diseases, injury, and dementia.

A table summarizing most of the studies like those mentioned would be helpful in convincing the reader about the strong connection between intelligence and longevity.