Nations and Intelligence

Authored by

mohammad looti

June 5, 2026

The relationship between nations and intelligence has been researched from various aspects. Estimates of average national (in the sense of countries) cognitive abilities have been done in several literature reviews of worldwide IQ testing and of international student assessment studies. Especially the IQ data collections have been criticized on various grounds. Various factors have been proposed as explaining the differences with controversially some studies arguing for a role of genes or race while others see them as entirely environmentally caused. A large number of studies have used the data sets in order to research associations to other factors such as national differences in economic growth, democracy, crime, and health, with many arguing for differences in average national intelligence being an important explanation for other national differences.

Data sets

"Average IQ values in various European countries"

The 1981 article "Average IQ values in various European countries" by V. Buj is the only international IQ study that over a short time period has compared IQs using the same IQ test. It was probably done in the 1970s in the capital cities or in the biggest town in 21 European countries and Ghana. Rindermann (2007) states that it is of dubious quality with scant information regarding how it was done. The correlations with the other measures of national intelligence, except the PISA student assessment study, are good.

"IQ and the Wealth of Nations"

The 2002 book IQ and the Wealth of Nations by Richard Lynn and Tatu Vanhanen listed average national IQ for the nations of the world. A literature review listed IQ tests from 81 nations. In 104 of the world's nations there were no IQ studies and IQ was estimated based on IQ in surrounding nations. Scores were adjusted for several factors such as the Flynn effect.

"IQ and Global Inequality"

The 2006 book IQ and Global Inequality by Lynn and Tatu revised the scores from the previous book. A new literature review listed IQ tests from 113 nations.

"A systematic literature review of the average IQ of sub-Saharan Africans"

The 2009 article "A systematic literature review of the average IQ of sub-Saharan Africans" by Jelte M. Wicherts, Conor V. Dolana, and Han L.J. van der Maas in a critique of "IQ and Global Inequality" reviewed the literature on IQ tests in sub-Saharan Africa. Including a number of studies excluded in "IQ and Global Inequality" it found a higher average IQ of 82 for sub-Saharan Africa.

"National IQs updated for 41 Nations"

The 2010 article "National IQs updated for 41 Nations" by Lynn revised "IQ and Global Inequality" and presented new calculated national IQs for 25 countries which had previously only been estimated from neighboring nations IQs and revised national IQs for 16 countries.

International student assessment studies

There are a number of international student assessment studies:

International Association for the Evaluation of Educational Achievement-Reading-Study (1991)
Trends in International Mathematics and Science Study (TIMSS) (1994-1995, 1999, 2003)
Programme for International Student Assessment (PISA) (2000-2002, 2003, and 2006)
Progress in International Reading Literacy Study (PIRL) (2001)

Rindermann (2007) states that the correlations between international student assessment studies and measures of national IQ are very high. Using the same statistical method used to measure the general intelligence factor (g) he finds evidence for that the "student achievement assessments and intelligence tests primarily measure a common cognitive ability". The international student assessment studies have the advantages of standardized testing over a short time period. The IQ-data collections have the advantage of including older people and more developing nations. Lynn and Mikk (2009) similarly find a high predictive ability and correlation between the latest PISA 2006 and the national IQs from the two books.

The Flynn effect

The Flynn effect is the continual increases in measured IQ that have been observed worldwide. It may recently have ended in some developed nations.

Limitations and criticisms of the data sets

Rindermann (2007) writes that the mixture of many different tests and the not always clear representativeness of the samples seem to be the most serious problems. Furthermore, the measurement years vary which is problematic due to the Flynn effect. Using the same adjustment for all nations is likely sometimes incorrect because since the 1970s developing nations have seen higher increases than the developed world. The method of averaging neighboring countries for an estimation for the many nations that did not have measured IQs, while having a high correlation (0.92) with the measured results in the case of the 32 nations that changed from the estimated to the measured categories between the two books, is likely problematic since some research indicates that absence of IQ tests indicates conditions such as poverty or war that may affect IQs. "In addition, some errors in the data have been observed".

As noted above, the article "A systematic literature review of the average IQ of sub-Saharan Africans" (2009) argued that a number of studies showing higher IQ values for sub-Saharan Africa had been excluded by "IQ and Global Inequality". Regarding four studies comparing and finding agreement between Lynn's estimated national IQs and the student assessment tests, they disagree regarding sub-Saharan Africa but write "these four studies appear to validate national IQs in other parts of the world." Richard Lynn and Gerhard Meisenberg (2009) replied that "critical evaluation of the studies presented by WDM shows that many of these are based on unrepresentative elite samples" and that a further literature review, including taking into account results in mathematics, science, and reading, gave "an IQ of 68 as the best reading of the IQ in sub-Saharan Africa". Wicherts and colleagues (2010) in another reply made several examinations of unrepresentativeness and stated: "In light of all the available IQ data of over 37,000 African testtakers, only the use of unsystematic methods to exclude the vast majority of data could result in a mean IQ close to 70. On the basis of sound methods, the average IQ remains close to 80." Consequently some later studies using IQ data have checked their results against data from both sources. The claim that the tests are culturally neutral and unbiased has been criticized.

Limitations and criticisms of the international student assessment studies

Rindermann (2007) writes that data from many developing nations are missing which is the case for more nations than for IQ data. The Flynn effect has to be adjusted for. In some nations school attendance is low. Even for the same test national organizers sometimes differ in implementation and exclusion rates differ.

Causes of the national differences

A large number of factors are known to affect measured IQ temporarily or permanently. The factors responsible for the Flynn effect may be partly or completely behind national IQ differences. See Flynn effect#Proposed explanations. Examples being that the developing world is afflicted to a greater degree than the developed world by poor nutrition (deficiency in energy, protein, and micronutrients) and infectious diseases. See also Health and intelligence.

Controversially, the two books argued for a large genetic explanation. Such a role of genetics may or may not be related to race which is itself a controversial topic. Lynn argued further for this in the books Race Differences in Intelligence: An Evolutionary Analysis (2006) and The Global Bell Curve: Race, IQ, and Inequality Worldwide (2008).

Kanazawa (2008) also argues for a genetic role. He writes that cold climate and harsh winters (the study uses mean annual temperature) as well as environment novelty (the study uses three different measure of distance from the ancestral environment in sub-Saharan Africa: ordinary distance and differences in latitudes and longitudes) have been proposed as important factors

behind the genetic evolution of human intelligence. The study found independent support for both theories and argues that they together explain half to two-thirds of variance in national IQ.

In contrast, Wicherts, Borsbooma, and Dolana (2010) criticized this and some other evolutionary studies for problems such as ignoring or assuming that the Flynn effect is equal worldwide and assuming that there have been no migrations and changes in climate over the course of evolution. "In addition, we show that national IQs are strongly confounded with the current developmental status of countries. National IQs correlate with all the variables that have been suggested to have caused the Flynn Effect in the developed world."

Eppig, Fincher, and Thornhill (2010) states that distance from Africa, temperature, and most importantly by a large margin, prevalence of infectious disease predict national IQs. Education, literary, GDP, and nutrition were not important as independent factors (however, the prevalence of infectious diseases is likely greatly affected by these factors). The authors argue that "From an energetics standpoint, a developing human will have difficulty building a brain and fighting off infectious diseases at the same time, as both are very metabolically costly tasks" and that "the Flynn effect may be caused in part by the decrease in the intensity of infectious diseases as nations develop."

Associated factors

"IQ and Global Inequality" found significant correlations between higher national IQ and a number of factors: higher Gross domestic product (GDP)/capita, higher adult literacy rate, higher gross tertiary education enrollment ratio, higher life expectancy at birth, higher level of democratization 2002 (Tatu Vanhanen's Index of Democratization), higher Human Development Index, higher Gender-related Development Index, higher economic growth rate, lower Gini index of inequality in income or consumption, lower population below the $2 a day international poverty line, lower measures of undernourishment, lower maternal mortality ratio, lower infant mortality rate, higher Corruption Perceptions Index, higher Economic Freedom of the World ratings, higher Index of Economic Freedom ratings, and more narrow population pyramid (MU Index).

A number of studies using the IQ scores from the books have found that higher average national IQ is associated with various measures of higher economic growth and economic development. At least one study did not find this association.

Jones and Schneider (2010) write that a country's average IQ score is a useful predictor of the wages that immigrants from that country earn in the U.S., whether or not one adjusts for immigrant education.
Higher national education levels and IQ have a strong positive impact on democracy, rule of law and political liberty independent from GDP according to a study by Rindermann (2008).

Voracek (2008) states that lower national IQs is associated with higher prevalence of suicide and that this is independent of the "quality of human conditions".
A study by Rushton and Templer (2009) states that lower national IQ is associated with more violent crime.
Lynn, Harvey, and Nyborg (2009) write that atheism is associated with higher national IQ.
Higher national IQ, in a study by Gelade (2008), is associated with more patents per person.
In a study by Rindermann and Meisenberg (2009), lower national IQs associated with higher HIV-infection rates, which is stronger effect than the association with low gross domestic product and low modernization.
Reeve (2009) writes that higher IQ, independent of national wealth, is associated with lower fertility rates, lower infant mortality rate, lower maternal mortality rate, fewer deaths due to HIV/AIDS, and longer life expectancy.
Both higher GDP and IQ independently reduce fertility according to a study by Meisenberg (2009) that argues that "at present rates of fertility and mortality and in the absence of changes within countries, the average IQ of the young world population would decline by 1.34 points per decade and the average per capita income would decline by 0.79% per year."