



“A Real Scientist Brings Fresh Air to Stale Ideology”

In the Know:

35 Myths About Human Intelligence

By Russell Warne (2020)

At a time of resurgent ideologies of race and identity, Professor Warne’s clear and honest exposition of the science of intelligence is most welcome. It reminds me of the saying on my T-shirt: “The good thing about science is that it’s true whether you believe it or not”. In this case the controversies come from the measurement of general intelligence, or g-factor. It turns out that this g-factor has been reliably measured for many decades by a wide variety of tests across cultures globally, as long as the tests contain a diversity of types of questions or tasks, which are in turn culturally appropriate.

In the United States the results, when averaged over racial groups and decades, show a hierarchy of intelligence: Asian American > European American > Native Americans > Hispanic > African American, with European Jews outperforming even the Asians. The most controversial gap is the one standard deviation IQ gap between African and European Americans, with the average African score more like 85 versus a typical European score near 100. Some advocate for suppressing this result, or not even studying intelligence at all, because society might use it to justify discrimination against African Americans and other marginalized groups.

Warne takes the opposite point of view – that this justifies compassion = more societal help for those who are disadvantaged, for whatever reason and whatever racial or ethnic background. Besides, “another way society is harmed by not studying controversial topics is that it creates a vacuum for extremists to fill” (p 293) in addition to letting “controversies linger unresolved”, leading to mistaken policies or practices. Politically Warne’s recommendation for individual assessment could generate much broader support versus the easily-exploited divisions inherent to identity politics.

One thing that is very valuable about this book is its common-sense definitions of otherwise vague concepts. Take “intelligence” for example. The g-factor, or “general intelligence”, is something that is common to all particular cognitive abilities, such as Stratum I abilities like “verbal ability, fluid reasoning, processing speed, and spatial ability” (p 344) and hundreds of narrowly defined Stratum II abilities that feed into the Stratum I abilities. The g-factor is described as the ability to “reason, plan, solve problems, think abstractly, comprehend complex ideas, learn quickly, and learn from experience” (p 2). Mathematically the existence and size of the g-factor is determined by the positive

correlations among all the Stratum I abilities using a well-developed method called “factor analysis”.

It turns out that the vaguely defined “practical intelligence” proposed by Robert Sternberg is none other than the g-factor in practice. That is, the stereotype of the absent minded professor is the exception, not the rule: most people who are successful in everyday life, no matter what their occupation, have an above average g-factor. However, Stratum I and II abilities do provide good occupational guidance. Also, the more complex the occupation, the higher the g-factor for success. And the “emotional intelligences” of Howard Gardner confuses psychological factors with cognitive abilities.

In addition, “race” is not the purely social construct that is promoted by Critical Race Theory. Warne defines it as a “a group of people with a common ancestry from the same part of the world” that “extends back thousands of years”, something akin “to an extended family” (pp 248-9). Thus real genetic differences have had time to develop, including in brain development, not just in bodily features. Thus we should not expect the IQ difference among different racial groups in the US to be entirely due to environmental and cultural differences.

However the extent to which racial differences in general intelligence, or particular cognitive abilities, are due to genetic difference versus environmental/cultural differences has been hard to pin down, even with modern human genome analysis. A key reason is that hundreds, perhaps thousands, of genes are positively but weakly correlated with intelligence; meaning that intelligence is extremely complex, genetically speaking. This helps to explain the failure of past programs of “eugenics”. Yet genome analysis is a brand-new field, so Warne expects that we’ll learn far more from future

research. All that can be said now is that racial genetic differences are likely significant, while eugenics makes sense today only for a few very specific medical conditions that depend on only a few genes.

Meanwhile today’s science of intelligence constitutes a rejection of doctrines that blame all measures of societal racial disparities on racism, such as Ibram Kendi’s claim that “racist policies are the cause of racial inequities” (p 21, “How to be an Anti-racist”). Warne says that this is only partly true and that frustration and failure will result if the science is ignored. Instead, give a helping hand to whoever needs it, regardless of racial or ethnic background, expecting that even with “equal opportunity” higher percentages of some groups will need that help. Note also that the male g-factor has a wider spread (greater standard deviation) than the female spread, so that the “glass ceiling” for women is, in fact, partly genetic, just as there is more dysfunctional and criminal behavior among men.

Warne shows us some progress on understanding the environmental and culture influences on intelligence. Higher education helps. Adoption studies have shown that consistently stimulating and supportive parenting can raise IQ by up to 5 points. However preschool programs like Head Start suffer from a “fadeout” effect (first boosting IQ, then seeing a decline to average over a few years). On the plus side, Warne notes that these programs have a poorly understood “sleeping effect” of long-term benefits.

There is also the “Flynn effect” which showed a society-wide increase of about 3 IQ points per decade in the US through the 20th century, presumably due to adaptation to an increasingly complex culture, especially increased education. Today this effect has abated in some regions, such as Scandinavia, while it has accelerated in

countries with rapidly developing economies. A downer is that brain games and test prep courses seem to help only specific abilities, not general intelligence. Another interesting result is that environmental effects are much more

modest on older adults, leaving most of the variation in IQ due to genetics, which in turn is far wider inside any one racial or ethnic group than between the averages of such groups.