

The Muslim Middle East: On the Road to Peak IQ

Editorial*

Anthropologists have noticed for a long time that human societies exist at different levels of “cultural complexity” (Powell, 1888). The idea is, simply speaking, that those societies that are complex in one domain tend to be complex in other domains as well. For example, a society that has skilled craftsmen in many highly specialized trades also tends to have a complex political organization, science, and philosophy. Nations that have great achievements in one area, such as literature or theology, tend to excel also in others, such as technology, economic efficiency, and political effectiveness. It has long been recognized that the manifold trappings of civilization all correlate with each other (Murdock & Provost, 1973).

Working within a similar framework, historians have long noticed that historical civilizations have tended to rise and fall on time scales of many centuries. Culturally, Greece was the world’s leading nation in classical and Hellenistic times. Today it is a cultural backwater with scant evidence of intellectual excellence (see Table 1). During the last millennium, we have seen the dramatic rise of Christian Europe while the Muslim Middle East was declining — on all metrics including political and military might, political organization, and creativity in science and technology. In today’s world, we use a concept similar to cultural complexity when we speak of “developed” and “developing” countries, with “threshold countries” somewhere in between. These designations are founded on the experience of rising prosperity since the Industrial Revolution, an experience that created the unfounded belief that “development” is always a progression towards greater prosperity and economic efficiency — never mind that this progress is an historical anomaly for which satisfactory explanations are rarely offered.

Modern science has supported what the study of historical civilizations had already recognized at least implicitly: that the intellectual qualities of the people are a major force behind rising economic efficiency and prosperity, as well as other traits that we subsume under the term civilization. In our time, future economic growth can be predicted from two major variables: the present level of prosperity measured as per capita gross domestic product (GDP) or gross national product (GNP), and the level of “cognitive human capital”, a term describing useful skills that require intelligence (Rindermann, 2018). Whether growth regressions are run with standard methods (e.g., Weede & Kämpf, 2002) or with the most sophisticated methods (Francis & Kirkegaard, 2022), the main results are always the same: Low pre-existing per capita GDP (the “advantage of backwardness”) and high intelligence are the predictors of fast economic growth. If intelligence is a cause rather than only a consequence of economic efficiency, we can predict the future economic performance of a nation by assessing the intellectual competence of its youth. The same most likely applies to other elements of “civilization” such as innovation rate and a functioning political system.

Looking more closely at the Muslim Middle East, we see the pattern typical of less developed countries: lacklustre economies combined with low levels of scientific and intellectual productivity and innovation, and authoritarian governments with a sprinkling of “failed states” such as Libya, Yemen, and (until recently) Syria. Scores on international scholastic achievement tests such as PISA (OECD 2023, pp. 52-57) and IQ tests (www.viewoniq.org) suggest an average IQ of Arabic-speaking Middle Eastern populations in the eighties (Table 1). The important implication for these countries is that if their intelligence is rising, they are likely to get more prosperous independent of the oil price; and if the young generation’s intelligence is stagnating or declining, their economies are likely to stagnate or decline as well in the near future.

Whether the average intelligence in a country is rising, stagnating or declining is an empirical question that can be answered with international scholastic tests such as the OECD’s Programme for International Student Assessment (PISA), which conducts assessments regularly every three years, or with intelligence tests that have been developed mainly for use in the school system. The general pattern has been that in

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Table 1: Country scores on PISA 2022, average of Mathematics, Reading and Science. Countries of the MENA (Middle East and North Africa) region are compared with representative countries from other world regions. OECD mean is 500, and OECD standard deviation is 100.

Country	PISA score
<i>MENA countries</i>	
Turkey	462
United Arab Emirates	427
Qatar	422
Saudi Arabia	387
Palestine	361
Jordan	359
Morocco	356
<i>Comparison countries</i>	
Japan	533
United Kingdom	494
United States	489
Greece	436
Mexico	407
Indonesia	369

the well-studied Western countries, intelligence was rising massively during the 20th century. This is known as the Flynn effect. However, since the 1990s some of the intellectually and economically most advanced European countries (Meisenberg & Lynn, 2023) and most recently also the United States (Dworak et al., 2023, but see also Winter et al., 2024) have produced evidence for stagnating or even declining intelligence.

In this issue of Mankind Quarterly, Homoud Abdullah Saad Almoghyrah and his colleagues from King Saud University report about the Flynn effect in Riyadh, the capital of Saudi Arabia. The researchers identified an earlier study that had administered the Children's Intelligence Test (CIT) to a representative sample of more than 900 schoolchildren aged 9 to 15 years in 2004. They then administered the same test in the academic year 2017-2018 to a sample of more than 1300 schoolchildren of equivalent age and school grade. What they found were higher scores in the later sample, with the difference estimated at 6.6 IQ points. This is well within the range of IQ gains reported at the time when the Flynn effect was raging in Europe and other Western countries (Flynn, 1987). A lower standard deviation in the later sample suggested that in Riyadh, intelligence had been rising more strongly among the low-scorers than the gifted. Another observation was that the IQ gain was stronger in younger than in older children suggesting accelerated intellectual maturation. This is in line with similar observations in many other Flynn effect studies worldwide.

What does a study like this tell us about the future prospects of Saudi Arabia? One adage from the oil countries of the Persian Gulf (or is it the Arabian Gulf?) says: "My father rode a camel; I drive a car; my son flies an airplane; my grandson will ride a camel." It expresses the expectation that the country's present prosperity will evaporate once the oil resources are exhausted. The presence of a Flynn effect shows that this gloomy outlook may not be justified. It shows that it is still possible to raise the population's intelligence, at least in Saudi Arabia. Human capital based on high intelligence is the essential ingredient for the creation of a diversified, efficient, and sustainable economy that can be maintained even without oil revenue.

However, Flynn effects cannot last forever. "Peak IQ" is reached when the genetic limits of the population have been reached and the educational system has exhausted its armamentarium for raising children's intelligence even further. This appears to be the situation in the most developed countries of Europe today, where robust Flynn effects are lacking in cohorts born after the 1970s and economic growth

has slowed to a crawl in the first decades of the 21st century. It appears that like most other developing countries, Saudi Arabia has not yet reached this point. It remains to be seen whether ongoing educational reforms in the country can accelerate the path to Peak IQ. Nor can we even estimate how high Peak IQ will be in Saudi Arabia and other countries of the Muslim Middle East. The genetic potential of national populations can be estimated roughly from their average polygenic scores for educational attainment and intelligence (Piffer, 2019), but informative studies of this kind have not yet been done on representative populations in the Middle East. This is a fruitful area for future research.

References

- Dworak, E. M., Revelle, W., & Condon, D. M. (2023). Looking for Flynn effects in a recent online US adult sample: Examining shifts within the SAPA project. *Intelligence*, *98*, 101734.
- Flynn, J. R. (1987). Massive IQ gains in 14 nations: What IQ tests really measure. *Psychological Bulletin*, *101*(2), 171–191.
- Francis, G., & Kirkegaard, E. O. W. (2022). National intelligence and economic growth: A Bayesian update. *Mankind Quarterly*, *63*(1), 9–78.
- Meisenberg, G., & Lynn, R. (2023). Ongoing trends of human intelligence. *Intelligence*, *96*, 101708.
- Murdock, G. P., & Provost, C. (1973). Measurement of cultural complexity. *Ethnology*, *12*, 379–392.
- OECD. (2023). *PISA 2022 Results (Volume I): The State of Learning and Equity in Education*. Retrieved from https://www.oecd.org/en/publications/pisa-2022-results-volume-i_53f23881-en.html
- Piffer, D. (2019). Evidence for recent polygenic selection on educational attainment and intelligence inferred from GWAS hits: A replication of previous findings using recent data. *Psych*, *1*(1), 55–75. doi: 10.3390/psych1010005
- Powell, J. W. (1888). From barbarism to civilization. *American Anthropologist*, *1*, 97–123.
- Rindermann, H. (2018). *Cognitive Capitalism: Human Capital and the Wellbeing of Nations*. Cambridge Univ. Press.
- Weede, E., & Kämpf, S. (2002). The impact of intelligence and institutional improvements on economic growth. *Kyklos*, *55*, 361–380.
- Winter, E. L., Trudel, S. M., & Kaufman, A. S. (2024). Wait, where's the Flynn effect on the WAIS-5? *Journal of Intelligence*, *12*(11), 118.