

Study shows that genetics play an important role in the attainment of education and number of offspring

January 17 2017, by Bob Yirka



A depiction of the double helical structure of DNA. Its four coding units (A, T, C, G) are color-coded in pink, orange, purple and yellow. Credit: NHGRI

(Medical Xpress)—A team of researchers with members from Iceland, the U.K. and the Netherlands has found a genetic factor that plays a role in how much education a person might attain over their lifetime and that the factor is becoming less common. In their paper published in *Proceedings of the National Academy of Sciences*, the team describes how they analyzed genomic information in a national database in Iceland and what it showed.

Prior efforts have demonstrated that the more [education](#) a person has, the fewer offspring they are likely to produce. This has caused some concern among [social scientists](#), as it suggests that we as a species might be evolving to become less intelligent beings. In this new effort, the [researchers](#) sought to determine if there might be a way to see this process at work.

To learn more, the team accessed the deCODE genetics genealogical database that the government of Iceland has been assembling—it holds both genetic and educational information for hundreds of thousands of people living in Iceland going back over a century. The researchers used data for the years 1910 to 1975 to find patterns between the number of children people had compared to how much education they had. They then compared their results genetically and found that there was a genetic factor related to a likelihood of attending school longer. They next compared that factor with the number of children people had and found that those people with a genetic propensity toward more schooling tended to have fewer children. What's more, they also found that the genetic factor had become less common over time, which meant that fewer people had a genetic tendency to attend higher education, which, they note, makes sense, because they as a group have fewer offspring.

Interestingly, the researchers also found that those people who carried genes for longer school attendance but who did not have a prolonged education still had fewer offspring on average than did those without the

[genetic factor](#).

The researchers suggest that their findings indicate that it is possible that the same genes responsible for pushing people to have more education are also at the root of IQ level, which in turn suggests that as a species, we may, indeed, be losing some degree of intelligence—by about 0.04 points per decade they calculate.

More information: Selection against variants in the genome associated with educational attainment, *Proceedings of the National Academy of Sciences*, www.pnas.org/cgi/doi/10.1073/pnas.1612113114

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