

Should have asked Hamlet: Study finding Danish genes foster happiness needs some work

There's a happiness gene; the Danes have it and the French don't [report](#) economists Eugenio Proto and Andrew Oswald at the University of Warwick. But their reasoning and experimental methods leave much to be desired.

More specifically, the economists attribute the difference to the length of one single gene, which regulates the amount of the neurotransmitter serotonin in the brain. Those countries with fewer short versions of the gene in the population (the Danish) are self-reportedly happier than those who have more frequent short genes (the Italians and French).

The Brits, who [covered the story most widely](#), seem to fall in the middle as do Americans, probably because we are a mix of peoples, some with short variants and some with long. Professor Oswald told the [Daily Mail](#) 'many individual Americans were happy but they tended to be descended from immigrants who came from countries like Denmark in the first place. He said: 'There was a direct correlation between the (US) individual's reported happiness, and the levels of happiness in the country their ancestors had come from. 'Our study revealed an unexplained correlation between the happiness today of some nations and the observed happiness of Americans whose ancestors came from these nations.'"

But the study is flawed for many reasons. Although they claim to have controlled for a myriad of confounding factors that are well known to affect happiness measures like wealth, health, age and marital status, that is an impossibly tall order.

Secondly, as we have talked about frequently on this site, there is no single complex human trait or behavior attributable to a single gene. [The serotonin gene that Proto and Oswald use as their genetic proxy for happiness has been studied in depth and found to have very small, if any affect on the biological processing of serotonin.](#) It is probably linked to mood in some way along with potentially thousands of other genes.

Finally, the populations in the study who provided the genetic frequency and those that supplied the happiness data were different. The authors simply took a gene study and overlaid the results on reported happiness and well-being data. So, the person whose genetic status was analyzed and whose happiness data were analyzed were different. This makes the evidence much less robust. And aside from the American data, they analyze based on geography rather than lineage. There are many people of Danish ancestry in Britain, for example, but that data is left out of the analysis.

Although this study is not all it's cracked up to be is exciting that economists are beginning to include genetic data in their analyses. Personally, I think they bring an interesting twist to whatever data they look at, and they are historically not afraid of making big, controversial assertions. Think of the popularity of [Steven Levitt](#) is an economist. [Stephen Dubner's Freakanomics](#).

Proto and Oswald do note that this is a very preliminary study. They've not formally published, but [they do write that "](#)

contrary to our own presumptions, it seems there are reasons to believe that genetic patterns may help researchers to understand international well-being levels.”

Behavioral genetics is going to become a fascinating line of research. But it’s still too new to go near claims like the ones this paper makes and ones reported in British press. Perhaps their true worth lies in sparking discussion of what constitutes meaningful research in the field.

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- [Intelligence genes: Elusive but real](#), Genetic Literacy Project
- [Genetics of intelligence: many, many genes with tiny effects](#), Genetic Literacy Project