

In the news

INTELLIGENT INTERACTIONS

Whether intelligence is inherited or mostly determined by environmental factors has been discussed for decades. One environmental factor that, according to many studies, positively influences IQ is breastfeeding. However, a recent publication has shown that this is only the case in children with a particular variant of the gene for fatty acid desaturase 2 (*FADS2*), an enzyme involved in the metabolism of fatty acids found in breast milk. "In the past people have had different results about whether breastfeeding improves IQ and this would sort out the reason why," said Jean Golding, an epidemiologist at the University of Bristol. (*BBCNews*, 6 November 2007)

Children who carried the C allele for *FADS2* benefited from being breastfed, whereas homozygotes for the G allele did not. "It is almost as though the G allele evolved as a protective genotype for children who might not get enough breast-milk," said developmental psychologist Linda Gottfredson of the University of Delaware, Newark, USA. (*Naturenews*, 5 November 2007)

The study provides some insight into the mechanism by which breastmilk benefits brain development. Previously, it was suggested that the association between being breastfed and IQ might not be causal, but that "either the mere physical fact of being fed by the breast or some social factor ... was responsible." (Jean Golding, *Daily Telegraph*, 5 November 2007). However, this study took such factors into account.

As with so many traits, the new findings indicate that IQ is shaped by an interaction between genes and environment. Study author Avshalom Caspi of the Institute of Psychiatry, London, UK, said that "it's not nature versus nurture that's most important, but how nature works through nurture." (*New York Times*, 6 November 2007)

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DOI:
10.1038/nrn2295