

It Runs in the Family: Siblings Closer in Age Have Similar IQ

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An ongoing debate in science is the impact of “nature vs. nurture” on intelligence— are brainiacs simply born that way or is their intelligence influenced by their environment? Although numerous studies involving fraternal and identical twins have examined this issue, the results are inconclusive. In addition, not many studies have used non-twin siblings to look at this question.

Researchers Jon Martin Sundet, Willy Eriksen and Kristian Tambs from the University of Oslo and the Norwegian Institute of Public Health, were interested in studying the effect of age difference between non-twin brothers on intelligence. To test this idea, the researchers analyzed intelligence test (IQ) scores of Norwegian men entering the military. In Norway, military service is mandatory and all applicants undergo a series of medical and psychological exams (including intelligence tests). The majority of Norwegian men apply for the military between the ages of 18 and 21 (therefore, in this study the majority of subjects were the same age when they took the IQ tests). A total of 505,440 males (born between 1950 and 1985) had their IQ scores analyzed and compared to those of their brothers.

The results, which appear in *Psychological Science*, a journal of the Association for Psychological Science, show that IQ correlations decreased as the age difference between brothers became larger. Put in another way, IQ scores for brothers who were one year apart were closer compared to IQ scores for brothers who were seven years apart. According to the authors, this indicates that family environmental factors influence the intelligence of young adults.

The authors suggest that siblings who are close together in age may have comparable IQ scores because, being so close in age, they may be having similar experiences. The authors noted “Events in society that are not necessarily related to the family may also create similarities between siblings who are in approximately the same phase of cognitive development.” The researchers add, “Furthermore, *in utero* conditions may influence the intelligence of a child, and siblings born close together are more likely to experience similar prenatal conditions than are siblings born far apart in time.”

In addition, there was a similar age-difference effect when researchers took into account family size and parental education. “Education is a useful proxy for socioeconomic status”, noted the authors, “Our results indicate that the causal factors involved in the age-difference effect on intelligence are the same or similar in different socioeconomic groups.”