

Don't blame kids if they do not enjoy school, study suggests

April 8 2015, by Jeff Grabmeier



Credit: Robert Kraft/public domain

When children are unmotivated at school, new research suggests their genes may be part of the equation.

A study of more than 13,000 [twins](#) from six countries found that 40 to 50 percent of the differences in [children's](#) motivation to learn could be

explained by their genetic inheritance from their parents.

The results surprised study co-author Stephen Petrill, who thought before the study that the twins' shared environment - such as the family and teachers that they had in common - would be a larger factor than genetics.

Instead, genetics and nonshared environment factors had the largest effect on learning motivation, whereas the shared environment had negligible impact.

"We had pretty consistent findings across these different countries with their different educational systems and different cultures. It was surprising," said Petrill, who is a professor of psychology at The Ohio State University.

The results strongly suggest that we should think twice before automatically blaming parents, teachers and the children themselves for students who aren't motivated in class.

"The knee-jerk reaction is to say someone is not properly motivating the student, or the child himself is responsible," Petrill said.

"We found that there are personality differences that people inherit that have a major impact on motivation. That doesn't mean we don't try to encourage and inspire students, but we have to deal with the reality of why they're different."

The findings appear in the July 2015 issue of the journal *Personality and Individual Differences*.

The study involved separate studies of twins aged 9 to 16 in the United Kingdom, Canada, Japan, Germany, Russia and the United States. The

study methodology and questions in each country were slightly different, but all measured similar concepts.

In all the countries, students completed a measure of how much they enjoyed various academic activities. For example, in Germany, students rated how much they liked reading, writing and spelling.

All students were also asked to rate their own ability in different subjects in school. For example, in the United States, students were asked to rate how much they agreed with statements like "I know that I will do well in reading next year."

The researchers compared how close the answers were for fraternal twins - who share half their inherited genes, on average - with [identical twins](#), who share all of their inherited genes. To the extent that identical twins' answers were more closely matched than those of fraternal twins, that suggests a stronger genetic effect.

The results were strikingly similar across all six countries with children of all ages, Petrill said. On average, 40 to 50 percent of the difference between twins in motivation could be explained by genetics. About the same percentage could be explained by what is called the twins' nonshared environment - for example, differential parenting or a teacher that one twin has but not the other. Only about 3 percent could be explained by their shared environment, such as their common family experience.

"Most personality variables have a genetic component, but to have nearly no shared environment component is unexpected," Petrill said. "But it was consistent across all six countries."

The results don't mean there is a gene for how much children enjoy learning, he said. But the findings suggest a complex process, involving

many genes and gene-environment interactions, that help influence children's motivation to learn.

"We should absolutely encourage [students](#) and motivate them in the classroom. But these findings suggest the mechanisms for how we do that may be more complicated than we had previously thought," he said.

Provided by The Ohio State University

Citation: Don't blame kids if they do not enjoy school, study suggests (2015, April 8) retrieved 16 June 2024 from <https://medicalxpress.com/news/2015-04-dont-blame-kids-school.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--