

Birth order has no meaningful effect on personality or IQ, massive study reports

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University of Illinois psychology professor Brent Roberts and postdoctoral researcher Rodica Damian conducted the largest study yet of birth order and personality. They found no meaningful relationship between birth order and personality or IQ. Credit: L. Brian Stauffer

For those who believe that birth order influences traits like personality

and intelligence, a study of 377,000 high school students offers some good news: Yes, the study found, first-borns do have higher IQs and consistently different personality traits than those born later in the family chronology. However, researchers say, the differences between first-borns and "later-borns" are so small that they have no practical relevance to people's lives.

The analysis is reported in the *Journal of Research in Personality*.

"This is a conspicuously large sample size," said University of Illinois psychology professor Brent Roberts, who led the analysis with postdoctoral researcher Rodica Damian (now a professor of psychology at the University of Houston). "It's the biggest in history looking at birth order and personality."

The analysis found - as a previous large-scale study did - that first-borns enjoy a one-IQ-point advantage over later-borns, Damian said. The difference is statistically significant but meaningless, she said.

The analysis also revealed consistent differences in personality traits between first-borns and later-borns - first-borns tended to be more extroverted, agreeable and conscientious, and had less anxiety than later-borns, for example - but those differences were "infinitesimally small," amounting to a correlation of 0.02, Roberts said.

"In some cases, if a drug saves 10 out of 10,000 lives, for example, small effects can be profound," Roberts said. "But in terms of [personality traits](#) and how you rate them, a 0.02 correlation doesn't get you anything of note. You are not going to be able to see it with the naked eye. You're not going to be able to sit two people down next to each other and see the differences between them. It's not noticeable by anybody."

The study controlled for potentially confounding factors - such as a

family's economic status, the number of [children](#) and the relative age of the siblings at the time of the analysis - that might skew the results, Damian said.

For example, wealthier families tend to have fewer children than other families, and so have a higher proportion of first-borns who also have access to more resources that may influence their IQ or personality, she said.

Many previous studies of birth order suffered from small sample sizes, Damian said. Many compared children with their siblings - a "within-family" design that some assert is better than comparing children from different families, as the new analysis did.

"But such studies often don't measure the personality of each child individually," she said. "They just ask one child - usually the oldest, 'Are you more conscientious than your siblings?'"

The results differ depending on whom you ask, she said.

"Another major problem with within-family studies is that the oldest child is always older," Roberts said. "People say, 'But my oldest kid is more responsible than my youngest kid.' Yes, and they're also older."

An ideal within-family study would follow the families over time, collecting IQ and personality data from each child when he or she reached a specific age, the researchers said.

The team also evaluated a subset of the children in the study - those with exactly two siblings and living with two parents. This allowed the researchers to look for specific differences between first- and second-borns, or second- and third-borns.

The findings confirmed those seen in the larger study, with specific differences between the oldest and a second child, and between second and third children. But the magnitude of the [differences](#) was, again, "minuscule," Roberts said.

"The message of this study is that [birth order](#) probably should not influence your parenting, because it's not meaningfully related to your kid's [personality](#) or IQ," Damian said.

More information: "The associations of birth order with personality and intelligence in a representative sample of U.S. high school students," is available online: [www.sciencedirect.com/science/ ...
ii/S0092656615000525](http://www.sciencedirect.com/science/.../S0092656615000525)

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