

How heritable is autism? Twins research suggests we may be vastly underestimating it

An analysis of DNA variants suggests the heritability of childhood behavior problems, including autism traits, is about 6 percent, researchers report in a new [study](#). When the same team looks at the heritability by analyzing twins, however, their estimate comes in at 50 percent.

The low estimate is based on a scan of genomes for known DNA variants, called single-nucleotide polymorphisms (SNPs). The researchers also looked at traits such as anxiety, depression and hyperactivity, as well as autism features, such as not being able to pick up on social cues. By comparing the variants and traits in thousands of people, researchers can identify which variants are associated with specific traits and behaviors.

For their twin analysis, by contrast, the researchers looked at the frequency of behavioral traits in identical twins — who share virtually all of their DNA — versus fraternal twins, who share only about half. Comparing the frequencies can provide an estimate of the behavior's heritability.

The new results suggest that existing genome scans do not detect many of the variants involved, and that scientists need better measures of these traits.

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The findings also may reflect an inconsistency in behavioral measures, which vary from one test to the next and can't capture the nuance of complex traits, [researcher Elise] Robinson says.

Read full, original post: [Variant analysis may vastly underestimate heritability of autism behaviors](#)