

# Heritability of avoidant and dependent personality disorder traits

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Credit: Colourbox

(Medical Xpress)—A new twin study from the Norwegian Institute of Public Health shows that the heritability of avoidant and dependent personality disorder traits might be higher than previously reported. People with avoidant personality disorder are often anxious in the company of others, while people with dependent personality disorder feel more secure.

Results from previous studies indicate that [genetic factors](#) explain about one third of the individual differences in these personality disorder traits, while the remaining variation is best explained by environmental influences. These studies used single-occasion interviews only.

In contrast, the current study used two different measures of assessment at two different time-points in order to measure personality disorders

traits, and is therefore considered more methodologically sound. In 1998, 8,045 young adult twins answered a questionnaire that included questions about personality disorder traits. Some years later, 2794 of these twins took part in a structured diagnostic interview. Both identical (monozygotic) and fraternal (dizygotic) twins participated.

[Identical twins](#) share 100% of the [genetic material](#), while fraternal twins share on average 50%—meaning that they are genetically similar to other siblings. By comparing how similar the two types of [twin pairs](#) are on a particular trait, researchers can determine how much of the variation between individuals can be explained by genes and environment, respectively.

## Higher heritability when controlling for random effects

The researchers found that two thirds of the variation in avoidant and dependent personality disorder traits could be explained by genes, and that the most important environmental influences were those unique to each twin. Such [environmental influences](#) can be any that contribute to the twins in a pair being different, e.g. the influence of different friends, teachers, activities, or various life events.

"It is important to emphasize that the term heritability does not refer to individuals per se. Heritability is a statistic that relates to the population as a whole, and is expressed as a proportion of how much the total variation in a trait, such as personality disorders, is influenced by genes", says PhD student and first author of the study Line C. Gjerde.

"The strength of this study is that we have measured personality disorder traits with both a questionnaire and, at a later time-point, an interview. This provides a better estimate of [heritability](#) than studies that measure

personality disorder once and with one instrument only. The method applied in the current study allows us to capture the core of these personality disorder traits and not random effects, or effects specific to a certain time point or method of assessment", Gjerde explains.

## Implications for clinicians

The key finding that genes are so influential in the development of personality disorders emphasizes the importance of obtaining a thorough family history from patients with symptoms of such disorders. However, this does not mean that personality disorders are not treatable. Gjerde emphasizes that the strong genetic influence found in the study does not imply any form of determinism:

"If a person has a family history of [personality disorders](#), this does not necessarily mean that he or she will develop a personality disorder. Whether or not a genetic vulnerability leads to the expression of a certain trait or disorder depends on a complex interplay of both genetic and environmental factors."

The study was carried out in collaboration with the Virginia Institute for Psychiatric and Behavioral Genetics at the Virginia Commonwealth University.

**More information:** L.C. Gjerde, N. Czajkowski, E. Røysamb, R.E. Ørstavik, G.P. Knudsen, K. Østby, S. Torgersen, J. Myers, K.S. Kendler and T. Reichborn-Kjennerud (2012) The heritability of avoidant and dependent personality disorder assessed by personal interview and questionnaire. *Acta Psychiatrica Scandinavica*, pp.1-10. [DOI: 10.1111/j.1600-0447.2012.01862.x](https://doi.org/10.1111/j.1600-0447.2012.01862.x)

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