

Altered brain structure in pathological narcissism

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A far-reaching disorder of the self-esteem is denoted as a narcissistic personality disorder. Persons with pathological narcissism on the one hand suffer from feelings of inferiority, while on the other hand projecting themselves to the world as arrogant, disparaging and self-absorbed. One of the key features of a narcissistic personality disorder is the lack of empathy. Although patients suffering from such a disorder are well able to recognize what other persons feel, think and intent, they display little compassion.

In this study, the team of scientists led by Privatdozent Dr. Stefan Röpke from the Charité Department of Psychiatry and Director of the [personality disorders](#) working group, have for the first time demonstrated the structural correlate of this deficit. They analyzed a total of 34 test subjects, of which 17 suffered from a narcissistic personality disorder. By means of various tests, the researchers had already revealed in a preliminary study that these patients actually exhibit a deficit of the ability to empathize. Using [magnetic resonance imaging](#) (MRI) methods, the scientists measured the thickness of the patients' cerebral cortex. The cerebral cortex forms the external nerve cell layer of the brain. The findings revealed that those subjects suffering from narcissistic personality disorder exhibited structural abnormalities in precisely that region of the brain, which is involved in the processing and generation of compassion. For patients with narcissism, this region of the [cerebral cortex](#) was markedly reduced in thickness compared to the control group.

"Our data shows that the amount of empathy is directly correlated to the volume of gray [brain matter](#) of the corresponding cortical representation in the insular region, and that the patients with narcissism exhibit a structural deficit in exactly this area," states Dr. Röpke, commenting on the findings. "Building on this initial structural data, we are currently attempting to use functional imaging (fMRI) to understand better how the brains of patients with narcissistic personality disorder work."

More information: Schulze, L. et al. Gray matter abnormalities in patients with narcissistic personality disorder. *Journal of Psychiatric Research*, 17 June 2013 (10.1016/j.jpsychires.2013.05.017).

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