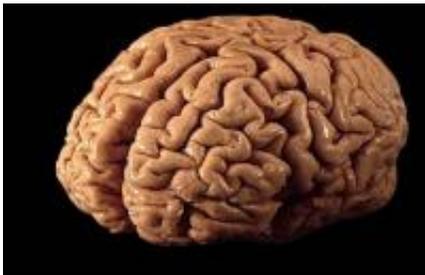


Scientists discover area of brain that makes a 'people person'

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Cambridge University researchers have discovered that whether someone is a 'people-person' may depend on the structure of their brain: the greater the concentration of brain tissue in certain parts of the brain, the more likely they are to be a warm, sentimental person.

Why is it that some of us really enjoy the company of others while some people are detached and independent? In an effort to explore these questions, Maël Lebreton and colleagues from the Cambridge Department of Psychiatry, in collaboration with Oulu University, Finland, examined the relationship between personality and brain structure in 41 male volunteers.

The volunteers underwent a brain scan using [Magnetic Resonance Imaging](#) (MRI). They also completed a questionnaire that asked them to

rate themselves on items such as 'I make a warm personal connection with most people', or 'I like to please other people as much as I can'. The answers to the questionnaire provide an overall measure of emotional warmth and sociability called social reward dependence.

The researchers then analysed the relationship between social reward dependence and the concentration of grey matter (brain-cell containing tissue) in different brain regions. They found that the greater the concentration of tissue in the orbitofrontal cortex (the outer strip of the brain just above the eyes), and in the ventral striatum (a deep structure in the centre of the brain), the higher they tended to score on the social reward dependence measure. The research is published in the [European Journal of Neuroscience](#).

Dr Graham Murray, who is funded by the Medical Research Council and who led the research, said: "Sociability and emotional warmth are very complex features of our personality. This research helps us understand at a biological level why people differ in the degrees to which we express those traits." But he cautioned, "As this research is only correlational and cross-sectional, it cannot prove that brain structure determines personality. It could even be that your personality, through experience, helps in part to determine your [brain structure](#)."

Interestingly, the orbitofrontal cortex and ventral striatum have previously been shown to be important for the brain's processing of much simpler rewards like sweet tastes or sexual stimuli.

Dr Murray explained: "It's interesting that the degree to which we find social interaction rewarding relates to the structure of our brains in regions that are important for very simple biological drives such as food, sweet liquids and sex. Perhaps this gives us a clue to how complex features like sentimentality and affection evolved from structures that in lower animals originally were only important for basic biological survival

processes."

The research could also lead to new insights into psychiatric disorders where difficulties in social interaction are prominent, such as autism or schizophrenia.

"Patients with certain psychiatric conditions often experience difficulties in feeling emotional closeness, and this can have a big impact on their life. It could be that the cause of these difficulties is at least partly due to [brain](#) structural features of those disorders," said Dr Murray.

Source: University of Cambridge ([news](#) : [web](#))

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