Brain imaging study maps language 'atlas'

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Scientists in the US have mapped out how the brain organises language.

Their "semantic atlas" shows how, for example, one region of the brain activates in response to words about clothing and appearance.

The researchers found that these maps were quite similar across the small number of individuals in the study, even down to minor details.

The work, by a team at the University of California, Berkeley, is published in the journal Nature.

It had previously been proposed that information about words' meaning was represented in a group of brain regions known as the semantic system.

But the new work uncovers the fine detail of this network, which is spread right across the outer layer of the human brain.

The results could eventually help those who are unable to speak, such as victims of stroke or brain damage, or motor neuron diseases.

Volunteers – including lead author Alex Huth – listened to more than two hours of stories from a US radio programme while remaining still inside a functional Magnetic Resonance Imaging (MRI) scanner.

The brain imaging data were matched against time-coded transcriptions of the stories. The researchers then used a computer algorithm that scored words according to how closely they are related in terms of meaning.

Read full, original post: Brain's 'atlas' of words revealed