'Word-vision' brain area confirmed

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French neuroscientists have ended a long controversy, confirming a specific area of the human brain plays a causal role in our ability to recognize words.

Humans have an uncanny ability to skim through text, instantly recognizing words by their shape -- even though writing developed only about 6000 years ago, long after humans evolved. Thus, scientists have hotly debated whether an area of the cortex called the Visual Word Form Area, or VWFA, is a specific and necessary area for recognizing words.

Functional MRI scans have shown the area activates when people read, as opposed to recognizing other objects, such as faces or houses. And people with lesions in that region lose the ability to recognize whole

words, reduced to letter-by-letter reading. But fMRI studies have not demonstrated a causal role for the VWFA, and lesions involving the VWFA invariably involved other regions as well.

Now, a patient whose surgery to relieve epilepsy specifically disrupted the VWFA has given researchers -- led by Laurent Cohen of the Hospital of Salpetriere in Paris -- an opportunity to demonstrate the region does indeed play a causal role in our ability to recognize words.

The research appears in the journal Neuron.