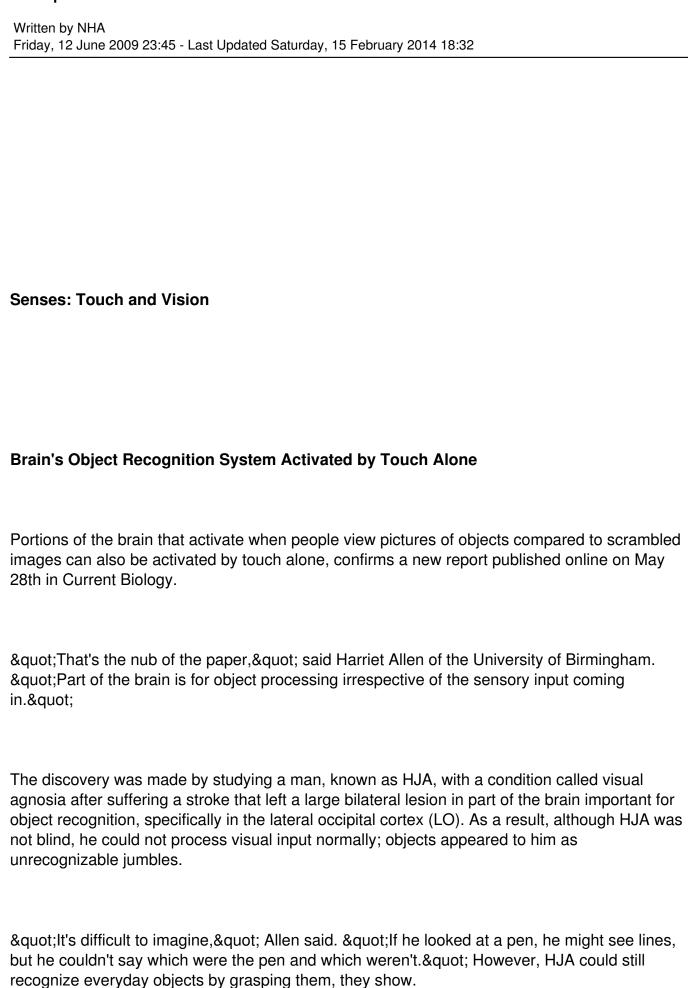
Perception & Senses - Touch and Vision



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In the study, the researchers had HJA and control participants observe pictures of objects and scrambled images while they were being scanned by fMRI, which measures brain activity based on changes in blood flow). Participants were also scanned while they touched objects with one hand.

Within a subset of the regions found in control participants, HJA showed activity only for tactile objects, they report, suggesting that these regions are specifically involved in successful multi-modal recognition. The results show that activation of dorsal LO by tactile input is not secondary to visual recognition. Rather, it can operate directly through the sense of touch.

"Our data indicate, for the first time, that at least some regions in the LO can be activated normally from touch, even when input from ventral LO is lesioned and visual recognition is prevented," the researchers wrote. "This is consistent with estimates of effective connectivity from fMRI that have implied that there are direct connections between somatosensory cortex and LO."

When asked to recognize objects based on touch, early blind participants also show activation in similar brain regions, earlier studies have shown. However, they said, in those who are blind the LO may be recruited to process information differently than it does in sighted people. " Here we provide evidence for dorsal LO activation being driven, in part, directly from touch in a normally developed brain. "

Sources

Cell Press, May 28th, 2009 in Medicine & Health / Neuroscience http://www.physorg.com/news 162744208.html

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