

Watch out! Brain network calculates impact of approaching object

October 9 2017



Credit: CC0 Public Domain

A neuroimaging study of two monkeys published in *Journal of Neuroscience* identifies a brain network that tracks the location of an object approaching the face and anticipates its potential consequences

upon making contact with the body.

Using functional resonance magnetic imaging in two resus monkeys, Suliann Ben Hamed and colleagues found a [brain network](#) linking occipital, parietal, premotor and prefrontal regions that is maximally activated when a virtual cone rapidly approaching the monkey was paired with a puff of air to the monkey's cheek, delivered when the object would be expected to reach the face in a real-world setting.

Activation of this network was weak when there was a mismatch between the air puff and the location of the cone, or when either stimulus was presented by itself.

This finding suggests that the network actively used visual and to predict [tactile information](#) and enhance its processing, which may help the animal prepare for an imminent impact.

More information: The prediction of impact of a looming stimulus onto the body is subserved by multisensory integration mechanisms, *Journal of Neuroscience* (2017). [DOI: 10.1523/JNEUROSCI.0610-17.2017](#)

Provided by Society for Neuroscience

Citation: Watch out! Brain network calculates impact of approaching object (2017, October 9) retrieved 5 May 2024 from <https://medicalxpress.com/news/2017-10-brain-network-impact-approaching.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--