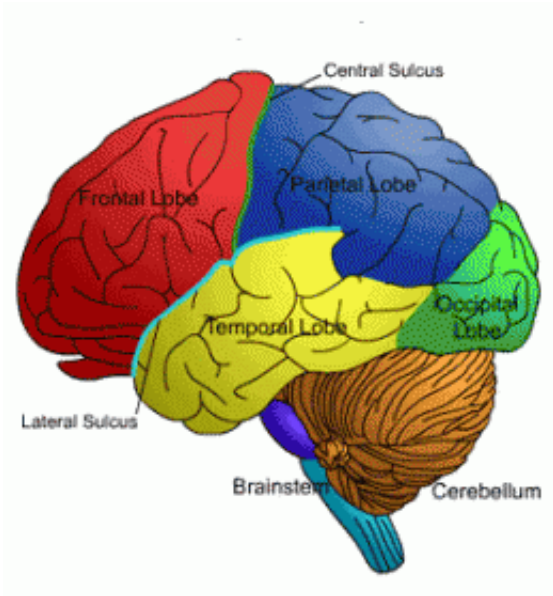


The neuroscience of erogenous zones

September 11 2013



Brain diagram. Credit: dwp.gov.uk

Our erogenous zones are a little odd. There are certain areas of our bodies, which if touched gently, create erotic feelings, while other adjacent body parts do not. For example a woman may enjoy having her neck or ear lobe stroked, but not her cheek or forehead. Why is that?

Led by a [neuropsychologist](#) from Bangor University's School of Psychology (Prof Oliver Turnbull), and in association with the University of the Witwatersrand, South Africa, a team decided to examine a previously untested theory proposed by a neuroscientist (Vilayanur Ramachandran) in the late 90's. The theory was that our

erogenous zones lay next to genital areas in one of several body 'maps' within our [brain](#) - and that touching one part caused a 'leakage' of sensation to nearby sections of the map. For example, as the foot lay next to the [genitals](#) in the primary somatosensory cortex (or S1) map, that was why feet were erogenous - as though the sensation of touching the feet was leaking through and causing the erogenous sensation.

A set of investigations to test the theory also revealed some interesting statistics about what men and women perceive to be erogenous.

The neuropsychologists were surprised to realise that no one else had conducted a systematic survey of erogenous zones. However, their analyses did not support Ramachandran's theory that S1 was responsible for the erogenous sensations. In part outcome was because, we simply don't appear to find feet erogenous to the touch, and also - statistically - nor do the feet 'cluster' together with the genitals body parts. In addition, direct stimulation to S1 (in neurosurgery) does not appear to produce erogenous sensation.

Prof Turnbull explains: "I think that there may be something in the hypothesis that there's a 'leakage' between adjacent parts of a brain map, but there are several [brain regions](#) responsible for processing touch, and Ramachandran may have chosen the wrong brain area". Instead, Prof Turnbull believes that the most likely brain region lies in an older and more basic part of the brain than S1, known as the insula. This area is 'wired' in all of us at an early stage of our development, and is responsible for both emotion and receiving the sensation of slow touch.

To establish whether there were links between S1 and erogenous zones, people were asked to rate 41 [body parts](#) on a scale of how erogenous they were; from not erogenous to the highest stimulation capacity. The survey revealed that we all find pretty much the same areas of our bodies to be erogenous or not, despite age, race, culture, gender or sexual

preference. There is even less difference between men and women than the popular press or popular culture might lead us to believe. Prof Turnbull explains: "We're actually pretty stable across all humans, as regards the main erogenous zones. There are modest differences between men and women, but they have – I believe – been exaggerated".

More information: Turnbull, O., et al. Reports of intimate touch: Erogenous zones and somatosensory cortical organisation, *Cortex*. [DOI: 10.1016/j.cortex.2013.07.010](https://doi.org/10.1016/j.cortex.2013.07.010)

Provided by Bangor University

Citation: The neuroscience of erogenous zones (2013, September 11) retrieved 23 April 2024 from <https://medicalxpress.com/news/2013-09-neuroscience-erogenous-zones.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>
--