Brain scans look for Christmas spirit

A series of scientific studies in the weirder end of the spectrum can be found in the Christmas edition of a Danish medical journal.

The warm and pleasant feeling we call ‘the Christmas spirit’ fascinated two Danish researchers so much that they recently set up a pilot study to explore it further.

"The Christmas spirit is a well-known but complex emotional element of the Western human psyche. The feeling is so strong that it can cause a feeling of joy and pleasure at an otherwise cold, dark and hectic time of the year," they write in their pilot study ‘The Cerebral Representation of the Christmas Spirit’.

“This feeling arises even without pharmacological assistance, although consumption of pastries and hot drinks help sustain that feeling.”

The study is a cross-cultural, functional magnetic resonance (fMRI) study, which is among the more unusual, though not insignificant, studies in a highly Christmassy December issue of the Danish medical journal ‘Ugeskrift for Læger’ – The Journal of the Danish Medical Association.

For most, Christmas provides a welcome oasis in the long, dark winter. But not everyone enjoys this time of year. Some people are almost immune to the Yuletide spirit.

Christmas in the brain scanner

With a sample size of no less than four people, they set out to locate the Christmas spirit in the fMRI scanner.

The four participants were placed in the scanner while being shown pictures that are known to create a Christmassy feeling.

Two Danes, who both grew up with Danish Christmas traditions, displayed a great increase in brain activity when faced with the Christmas stimuli. They had a strong response in the frontal, parietooccipital and subcordial areas of the brain. In other words, seeing pictures of Christmas lights and snow got them into the most almighty Christmas groove.

The two other participants were born and raised in Denmark with Indian and Pakistani backgrounds and no Christmas traditions. Their brain activity levels remained neutral and only visual areas of the brain were activated.

Therapeutic and commercial potential

So the conclusion is that you can only get into the Christmas spirit if you have experienced it before and are able to associate lights, snow and mistletoe with happy evenings with your family.
The researchers are keen to point out that this is merely a pilot study, but that the findings are promising. They believe this new insight could be useful therapeutically as well as commercially – for instance to assess how new products affect people’s Christmas spirit.

Do all dictators have a moustache?

Another study in the December issue of *Ugeskrift for Læger* asks if dictators have a “higher prevalence of partially-treated supralabial hirsutism (PTSLH), also known as a moustache, than non-dictatorial heads of state,” as the Swedish and Australian researchers write in their article.

They set out to study whether dictators like Hitler and Stalin are more likely to have a moustache than others, and whether there is a reason to worry about moustached men such as policemen or Movember supporters creating dictatorships.

“To test the hypothesis that PTSLH is a risk factor for becoming a dictator, we studied its prevalence among state leaders in the 20th century,” the article says.

They looked at 139 dictators, 122 of their political predecessors in the same countries, 122 of the dictators’ successors in the same countries, plus 76 Nobel Peace Prize winners.

The researchers found photos of all the dictators and compared them with the faces of their predecessors and successors.

The results showed that having a moustache is not a requirement for being a dictator. Out of the 139 dictators, 49 had a moustache (35 percent), 85 did not have a moustache (61 percent), while five changed their facial hairstyle during their dictatorship.

This rather quirky issue of *Ugeskrift for Læger* also includes a study which shows that healthy old boys footballers get an increase in bowel movement from eating roast pork with parsley sauce, and one that says you shouldn’t sunbathe for more than 20 minutes if you want to avoid burning your buttocks.

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Read the Danish version of this article at videnskab.dk [8]

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Is it all an illusion or is ?the Christmas spirit? real? (Photo: Colourbox) [9]
A group of Swedish and Australian researchers set out to study whether moustaches have a tendency to end up on dictators. (Photo: Colourbox) [10]
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