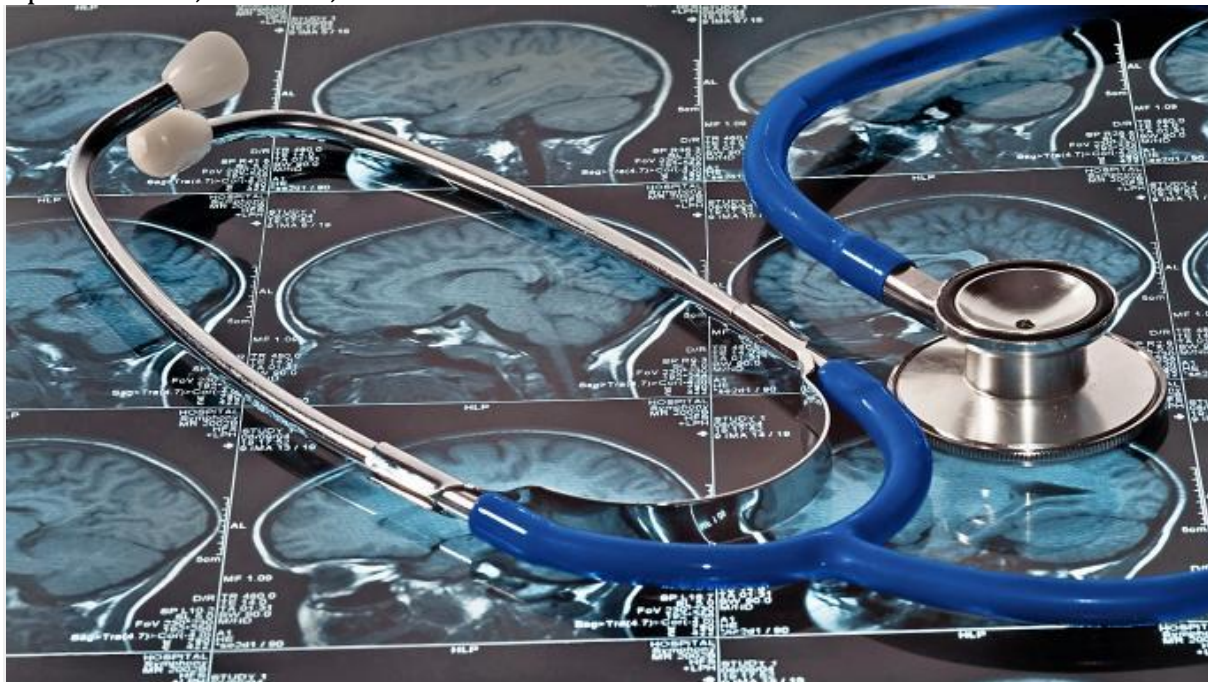


Zapping 'honesty muscle' makes humans tell the truth

Tom Whipple, Science Editor

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Scientists found honest people had more activity in their brain's dorsolateral prefrontal cortex GETTY IMAGES

Maybe John Humphrys should be allowed to zap the brains of his political interviewees. According to the latest neuroscience research, if he did so, he would have a significantly better chance of getting a straight answer.

Scientists have found a part of the brain that they liken to an "honesty muscle" and shown that electrically stimulating it could make people become more honest.

Past research has looked at the difference between brain activity in people lying and those telling the truth. It found a signal in a part of the brain called the right dorsolateral prefrontal cortex. In those being honest, there was more activity.

This intrigued Christian Ruff, from the University of Zurich. "We thought, 'Perhaps this is an area that overcomes temptation, something like an honesty muscle,'" he said. "We thought if we can strengthen it, we can make people more honest. And lo and behold we did."

For the research, published in the journal *Proceedings of the National Academy of Sciences*, 145 people were given a task that tested their honesty. They rolled electronic dice and were trusted to record the result themselves. However they were not given

incentives to be honest and there was no penalty for lying. Some outcomes got them money, some did not — and lying throughout would have gained them more than £70.

The scientists discovered that while you would expect half of all rolls to be successful, according to participants 68 per cent were. However, if they stimulated the right dorsolateral prefrontal cortex, the average number of apparently successful rolls fell to 58 per cent.

Professor Ruff wants to see if everyone is susceptible. “What I found very interesting was that we could see a small proportion who lied every time, and took money on every occasion,” he said. These pathological liars accounted for about 10 per cent of people.

“Others lied occasionally, but for them it seemed to be a conflict. This was a very interesting insight into human nature.” It may be that everyone becomes more honest with brain stimulation, or it may be that there needs to be an internal battle first — and the pathological liars are immune. In which case, some of Humphrys’ interviewees could be beyond help.