

# Liars find it more rewarding to tell truth than fib when deceiving others

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A University of Toronto report based on two neural imaging studies that monitored brain activity has found individuals are more satisfied to get a reward from telling the truth rather than getting the same reward through deceit. These studies were published recently in the neuroscience journals *Neuropsychologia* and *NeuroImage*.

"Our findings together show that people typically find truth-telling to be more rewarding than lying in different types of deceptive situations," says Prof. Kang Lee from the University of Toronto.

The findings are based on two studies of Chinese participants using a new neuroimaging method called near-infrared spectroscopy. The studies are among the first to address the question of whether lying makes people feel better or worse than truth-telling.

The studies explored two different types of [deception](#). In first order deception, the recipient does not know the deceiver is lying. In second order deception, the deceivers are fully aware that the recipient knows their intention, such as bluffing in poker.

The researchers were surprised to find that a liar's cortical [reward](#) system was more active when a reward was gained through truth-telling than lying. This was true in both first and second order deception.

Researchers also found that in both types of deception, telling a lie produced greater brain activations than telling the truth in the frontal

lobe, suggesting lying is cognitively more taxing than truth-telling and uses more neural resources.

The researchers hope this study will advance understanding of the [neural mechanisms](#) underlying lying, a ubiquitous and frequent human behaviour, and help to diagnose pathological liars who may have different neural responses when [lying](#) or telling the truth.

The team was comprised of researchers from Zhejiang Normal University, China; East China Normal University, China; Beijing Jiaotong University, China; and the University of Toronto, Canada.

Provided by University of Toronto

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