

## Religious belief 'not linked to intuition or rational thinking': study

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Religious beliefs are not linked to intuition or rational thinking, according to new research by the universities of Coventry and Oxford.

Previous studies have suggested people who hold strong <u>religious beliefs</u> are more intuitive and less analytical, and when they think more analytically their religious beliefs decrease.



But new research, by academics from Coventry University's Centre for Advances in Behavioural Science and neuroscientists and philosophers at Oxford University, suggests that is not the case, and that people are not 'born believers'.

The study - which included tests on pilgrims taking part in the famous Camino de Santiago and a <u>brain stimulation</u> experiment - found no link between intuitive/<u>analytical thinking</u>, or cognitive inhibition (an ability to suppress unwanted thoughts and actions), and supernatural beliefs.

Instead, the academics conclude that other factors, such as upbringing and socio-cultural processes, are more likely to play a greater role in religious beliefs.

The study - published in *Scientific Reports*—was the first to challenge a growing trend among cognitive psychologists over the past 20 years that has attempted to show that believing in the supernatural is something that comes to us 'naturally' or intuitively.

The team started by carrying out an investigation on one of the largest pilgrimage routes in the world - the Camino de Santiago de Compostela, in northern Spain.

They asked pilgrims about the strength of their beliefs and the length of time spent on the pilgrimage and assessed their levels of intuitive thinking with a probability task, where participants had to decide between a logical and a 'gut feeling' choice.

The results suggested no link between strength of supernatural belief and intuition.

In a second study, where they used mathematical puzzles to increase intuition, they also found no link between levels of intuitive thinking and



supernatural belief.

In the last part of their research they used brain stimulation to increase levels of cognitive inhibition, which is thought to regulate analytical thinking.

This involved running a painless electrical current between two electrodes placed on the participant's scalp, to activate the right <u>inferior frontal gyrus</u>, a part of the brain that controls inhibitory control.

A previous brain-imaging study had shown that atheists used this area of the brain more when they wanted to suppress supernatural ideas.

The results showed that while this brain stimulation increased levels of cognitive inhibition, it did not change levels of supernatural belief, suggesting there is no direct link between cognitive inhibition and supernatural belief.

The academics say that it is "premature" to explain belief in gods as intuitive or natural.

Instead, they say their research supports a theory that religion is a nurture-based process and develops because of socio-cultural processes, including upbringing and education.

Leading author Miguel Farias said:

"What drives our belief in gods - intuition or reason; heart or head? There has been a long debate on this matter but our studies have challenged the theory that being a religious believer is determined by how much individuals rely on intuitive or analytical thinking.

"We don't think people are 'born believers' in the same way we



inevitably learn a language at an early age. The available sociological and historical data show that what we believe in is mainly based on social and educational factors, and not on cognitive styles, such as intuitive/analytical thinking.

"Religious <u>belief</u> is most likely rooted in culture rather than in some primitive gut intuition."

**More information:** Miguel Farias et al, Supernatural Belief Is Not Modulated by Intuitive Thinking Style or Cognitive Inhibition, *Scientific Reports* (2017). DOI: 10.1038/s41598-017-14090-9

## Provided by Coventry University

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