
Faith found to reduce errors on psychological test

March 6, 2009
Courtesy University of Toronto
and World Science staff

At least for one type of test, belief in God can help reduce mistakes and anxiety, according to new research that also shows distinct brain activity patterns in believers.

In two studies led by University of Toronto psychologist Michael Inzlicht, participants performed a Stroop task, a well-known psychological test that assesses cognitive control. Meanwhile, electrodes measured brain activity in the test-takers.



At least for one type of test, belief in God can help reduce mistakes and anxiety, according to new research that also shows distinct brain activity patterns in believers. (Image: Tou Touke)

Compared to non-believers, Inzlicht found, religious participants showed significantly less activity in a part of the brain called the anterior cingulate cortex. This structure is believed to help modify behavior by signaling when attention and control are needed, usually as a result of some anxiety-producing event like making a mistake.

The stronger their religious zeal and faith, the less cell activity in that zone—and the fewer errors subjects made, Inzlicht and colleagues reported. They detailed the findings in the current online issue of the research journal *Psychological Science*.

The anterior cingulate cortex might be thought of as an “alarm bell” that rings when someone “has just made a mistake or experiences uncertainty,” said Inzlicht. “We found that religious people or even people who simply believe in the existence of God show significantly less brain activity in relation to their own errors. They’re much less anxious and feel less stressed when they have made an error.”

These correlations remained strong after taking into account for personality and cognitive ability, Inzlicht remarked. The findings, he added, show religious belief has a calming effect on its devotees, which makes them less likely to feel anxious about making errors or facing the unknown.

The Stroop task measures a person’s ability to inhibit one reaction in order to do or say something else that gives a correct answer. For instance, a test-taker might be asked to quickly state the color ink in which a word is printed, though the word itself names a different color.

Inzlicht declined to extrapolate too much from the test results to real life, cautioning that anxiety is a “double-edged sword” that is sometimes necessary and helpful. Excessive

anxiety may leave you “paralyzed with fear,” he noted, but “it also serves a very useful function in that it alerts us when we’re making mistakes.” Without that, “what impetus do you have to change or improve your behaviour so you don’t make the same mistakes again and again?”

* * *