

New Religious Brain Project seeks to uncover brain activation during religious and spiritual experiences

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A group of researchers at the University of Utah has launched a new project aimed at understanding how the brain operates in people with deep spiritual and religious beliefs.

The Religious Brain Project, which kicked off this week, aims to foster dialogue and understanding among people with diverse viewpoints on religion by learning how private religious experience may affect the "social brain," and how religion may affect social behavior. The new project is a broad, multidisciplinary effort that engages many religious and scientific communities from the University of Utah, Brigham Young University, Utah Valley University, and Westminster College. The project's first initiative revolves around studying the brains of people who have returned from serving missions on behalf of the Church of Jesus Christ of Latter-day Saints.

Jeff Anderson, M.D., Ph.D., an associate professor of neuroradiology at the University of Utah who is also the project's director, said the study is among the first of its kind in trying to uncover the neuroscience behind the brains of religious and spiritual people.

"Religious and spiritual stimuli are among the most profound influences on behavior that exists. The neuroscience of spirituality, however, is almost completely unknown," said Anderson. "We want to study what happens in the <u>brain</u> when someone has a <u>spiritual experience</u>."



Anderson is the principal investigator on the study along with University of Utah researchers Michael Ferguson and Jared Nielsen. In addition, Julie Korenberg M.D., Ph.D., a professor of pediatrics at the University of Utah, is consulting on the project. Researchers are currently in the process of recruiting 15 to 20 volunteers to participate in the study.

Participants selected for the study will arrange for a time to visit a University of Utah laboratory to have an MRI scan. During that procedure, researchers would provide participants with an opportunity for scripture study, prayer, and other church-produced video content that would stimulate their brains. Eligible candidates must be healthy young men and women, ages 20 to 30, who have completed an LDS mission; are active, believing members of their church; and who think they might be able to experience spiritual feelings in the controlled environment of an MRI scanner.

While the project's first study focuses on members of the Mormon faith, research will extend to other religions as the initiative continues to grow, Anderson said.

"Religious and spiritual experiences are among the most powerful influences on individuals and entire cultures. We are all shaped and defined by our experiences with religion. Yet the neuroscience of religious and spiritual feeling is almost completely unknown. We are seeking answers to fundamental questions, like "What happens in the brain during religious or spiritual experiences?" and "How is the brain changed by religious experience?" said Anderson. He added that researchers hope to find deeper discoveries related to evidence that religious people score higher on a range of pro-sociality metrics such as low criminality, donation to charity, and low divorce rates.

"One thing we would like to study is whether there are influences from core religious experiences and rituals like scripture study and prayer that



condition the brain toward pro-sociality, or whether this may emerge from more complex cultural factors," said Anderson. "We also want to understand which brain networks contribute to religious feeling. When individuals experience spiritually meaningful feelings, like enlightenment, chills, goose bumps, or equanimity, is there a characteristic response in the brain?"

Provided by University of Utah Health Sciences

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