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Neurological Correlates of Spiritual Experiences Across Different Faith Traditions

Authors: Khader I. Alkhouri, Georgios Fountoulakis

Abstract : This study investigates the neurological correlates of spiritual experiences across Buddhist, Christian, Hindu, Islamic, and Jewish traditions using advanced neuroimaging techniques. Our findings reveal both common neural substrates and unique signatures associated with various spiritual practices and experiences. Consistent activation patterns were observed in the prefrontal cortex, anterior cingulate cortex, and limbic system across traditions, while the default mode network emerged as a key player in spiritual states. Distinct neural correlates were identified for specific practices like meditation and prayer, and for mystical experiences. Long-term spiritual engagement was found to induce neuroplastic changes. The research highlights the complex interplay between brain function and spiritual phenomena, suggesting that while spiritual experiences have measurable neurobiological correlates, they are also shaped by specific practices and cultural contexts. These findings contribute to our understanding of the neural basis of spirituality and have implications for cognitive neuroscience, consciousness studies, and mental health while also bridging scientific and spiritual perspectives.

Keywords: neuroscience of religion, spiritual experiences, faith traditions, neuroimaging, meditation, prayer, mystical experiences

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