

Sacred values underlying conflict proneness: A neuroimaging study of religious and nationalist radicals

ABSTRACT:

The main focus of the project was to discern plausible neuroimaging signatures of sacred values within politically radicalized individuals. We studied extreme commitment to sacred values using behavioral scores and fMRI scans among supporters of radical Islam from different neighborhoods in and around Barcelona, Spain. We obtained brain activity signals in radicalized individuals as they indicated their willingness to fight and die (WFD) for sacred and non-sacred values, as well as observed peers' ratings for the same values or during transient lab-situations of social exclusion in two different samples. We observed diminished activity in dorsolateral prefrontal cortex (dlPFC), inferior frontal gyrus and parietal cortex while participants conveyed WFD for sacred relative to non-sacred values, regions that have previously been implicated in calculating costs and consequences. These differences could not be attributed to differences between sacred and non-sacred values in emotional intensity, familiarity or salience. An overlapping region of dlPFC was active when viewing conflicting ratings of sacred values from peers, to the extent participants were sensitive to peer's influence, indicating that it is possible to induce flexibility in the way people defend sacred values. These findings from a sample of extremists from Pakistani origin, were partially replicated in a second sample of radicalized individuals from Morocco origin: processing sacred vs. non-sacred values was associated with activity in the left inferior frontal gyrus (lIFG), an area previously linked with sacred value processing in non-radicals, and WFD scores negatively predicted activity in a right frontoparietal network, in line with our aforementioned findings. Eliciting transient feelings of social exclusion through an online toss-ball game, increased WFD for values that were not initially sacred, whereas sacred values remained high. That is, mundane values became more similar to sacred values in terms of WFD after social exclusion. Neurally, excluded participants exhibited more similar levels of left inferior frontal gyrus (lIFG) activity between the sacred and non-sacred values compared to included participants. In addition to that, survey-based analysis with supporters of Catalan secessionism and pilot fMRI scans with feminist radicals were also obtained. Our results are consistent with a view that individuals motivated by an extreme commitment to sacred values rely on neurocognitive decision tracks that may render them insensitive to material tradeoffs. Such information may help to better policy for defense.

Keywords

Sacred values, fMRI, Radicalism, Will to fight, Secessionism, Nationalism

Published Work:

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Tobeña, A. (2018). Entrenched catalonia: A secessionist venture trapped on an ethno-political draw. *Psychology*, 9, 460-471. doi: 10.4236/psych.2018.93028

Tobeña A. (2017). Secessionist urges in Catalonia: Media indoctrination and social pressure effects. *Psychology*, 8, 77-96. doi: 10.4236/psych.2017.81006

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