



**Social exclusion and conformity
as drivers and buffers of violent
radicalisation**

Nafees Hamid

**PhD, University College London,
Security and Crime Science Department**

nafees.hamid@gmail.com

This report reflects the research that will make up the doctoral dissertation of the author who was funded by The Bonnart Trust. It will be completed in early 2020 and awarded by the Security and Crime Department at University College London. The research was conducted between 2014 and late 2018 in Barcelona, Spain and involved interviews, surveys, and neuroimaging experiments with radicalised participants. The goal of the research was to use interdisciplinary methods to study how social exclusion and social influence can drive people towards and away from using political violence for their sacred values.

Glossary of terms

WFD = Willingness to Fight and Die

LIFG = Left Inferior Frontal Gyrus

DLPFC = Dorsolateral Prefrontal Cortex

VMPFC = Ventromedial Prefrontal Cortex

Disclaimer

The views expressed in this report are those of the author and do not necessarily represent those of the FBB Trust or its Trustees. Reports describe research produced by the Trust's Scholars and are published to elicit comments and further debate.

Executive summary

My PhD research over the last four years involved interviews, surveys, and social neuroscience studies to explore the role of sacred values in radicalisation. The studies were conducted in Barcelona, Spain and focused on the Sunni Pakistani and Moroccan communities there. Supporters of violent jihadist groups and causes were recruited from these populations to participate in two brain-scan studies. The first experiment revealed that social exclusion makes 'non-sacred values' more like 'sacred values' both neurally and behaviourally, including increasing the willingness to fight and die for those values. The second experiment revealed that brain regions associated with deliberative reasoning are deactivated for sacred values. Additionally, it showed that changing participants' perception of their peers' commitment to violence reduced participants' own propensity for violence. The policy implications are that social inclusion can buffer against radicalisation and that empowering local voices that reject violence can reduce the violent intentions of the already radicalised.

Background

I am part of a research consortium called Artis International. Our focus is on conducting interdisciplinary field studies related to violent extremism. Terrorism and radicalisation research suffers from a dearth of primary data. Recent meta-analysis has shown that only about half of recent research published on these topics included primary data, 78% did not use any statistics at all, and only 0.6% used experimental design (Schuurman, 2018). In contrast, all of our research involves primary data collection and combines qualitative interviews with quantitative surveys and experiments. As a group we decided to conduct the first-ever brain scan studies of a radicalised population. My task was to conduct the field interviews, design and collect the surveys, classify and recruit radicalised people for our study, co-analyse the behavioural data and co-design the neuroscience paradigm. My PhD dissertation will focus on the interviews, surveys, and behavioural results from the experiments I conducted. But both in the dissertation and here below I will discuss the neuroscience results, partially

because I co-designed the paradigms and co-generated the hypotheses we tested, but mainly because the project must be viewed holistically to understand the decisions made at each stage and to see the results in their entirety in order to draw the relevant policy implications.

My colleagues and I have been studying the role of something we call 'sacred values' in a variety of political conflicts around the world. Sacred values are defined as those that resist trade-offs with other values, especially economic or material incentives. They often take the form of moral convictions that are seemingly inviolable and non-negotiable. The construct of sacred values has a relatively long-standing tradition in sociology, anthropology and history (Rappaport, 1971) and, in the last decades, it has accumulated a compelling experimental corpus in social and political psychology (Tetlock, 2003; Baron & Spranca, 1997). In recent years, this concept has been revisited and enriched by historical and anthropological analyses (Atran & Ginges, 2012; Atran, 2010) in combination with a series of experiments carried out in the context of deep-seated political conflicts (for review, see Atran & Ginges, 2015).

Despite the label 'sacred', these values don't have to be religious. For some people, freedom of speech or individual liberty could be sacred values. In Western contexts, often the question of how government should react to terrorism falls into debates about balancing civil liberties and national security. But some people may hold civil liberty to be sacred, while others may hold national security as sacred, and yet others may hold both as sacred – thus adding a further layer of difficulty in negotiating these issues. The same dynamics apply in debates about abortion. When competing sacred values enter into a political conflict, the risk of intractability and even violence increases.

Over the years we have looked at how sacred values have shaped conflicts between nations such as Israel and Palestine (Sheikh et al., 2013), India and Pakistan (Sachdeva & Medin, 2009), US and Iran (Dehghani et al., 2010) and with sub-state groups like the PKK and jihadist groups (Gomez et al., 2017). The general findings show that when sacred values are perceived to be threatened,

people muster the will to fight and die for them. What has been missing in our studies, however, is an exploration of the role sacred values play in individual radicalisation and disengagement from violence. It was to this end that we embarked on a series of studies in Barcelona, Spain.

Spain regularly ranks as one of Europe's top countries for radicalisation into violent jihadism, according to Europol (EU Terrorism Situation and Trend Report (Europol, 2017)). The region of Barcelona is identified as the country's primary hotspot for recruitment (Reinares & García-Calvo, 2016). In fact, it was during my fieldwork in August 2017 that ISIS-inspired terrorist attacks took place on the main street of Barcelona – Las Ramblas – and in the nearby town of Cambrils, killing 16 civilians and injuring 152 others.

As my goal was to focus on violent jihadist-linked radicalisation, I had to narrow my focus onto certain communities but diversify just enough to make group comparisons. As a result I focused on the Sunni Pakistani and Moroccan diaspora communities living in the greater Barcelona area. The Pakistani community is more recently arrived and therefore constitutes an immigrant population. The Moroccan community has been embedded longer in the region and is a mix of immigrant and second-generation people. While the Pakistanis mostly speak Urdu, Punjabi and some English, the Moroccans largely speak Arabic or Spanish. This diversity in the study populations allowed me to examine pathways to and from a similar strain of extremism while being able to distinguish between cultural factors.

Pre-survey fieldwork

My educational and work background before my PhD was in laboratory-based experimental psychology. In such environments it is crucial not to 'contaminate' one's study; that is, every aspect of a study must be consistent from participant to participant. This includes the lab itself, the research assistants and the measurements – every minutia of experience must not change over the course of the study to ensure that one is measuring only the effect of the independent variable and not introducing confounding influences from other factors. While

this makes perfect sense in the lab, it is almost impossible to follow in the field. Moreover, being dedicated to this spirit can actually inhibit one's investigations.

When I first began my research, I found myself too committed to following a strict survey protocol. Most of my initial interviews with community members were stilted. My overly formal demeanour and need to pose questions exactly as they were written created difficulties. The initial population I worked with was the Pakistani community, largely undocumented workers with limited formal education. My survey questions were worded based on studies of elite Western university students. This meant that they were verbose, technical, and complicated. The population I was speaking with couldn't make sense of what I was asking.

This challenge forced me to throw my survey aside and just talk to people. I listened to their concerns, their religious and political beliefs, their grievances, and what they thought about other subjects. It also required that I really understood the concepts that I was measuring so I could investigate them without posing formal questions. What transpired out of these interviews were new prompts and measurement that could be used to measure the same variable but this time using the language that came directly from the community and made intuitive sense to them.

An example of this was my sacred value measure itself. Normally, sacred values are measured by asking people how much money they would need to be paid to give up their position on an issue. These are called taboo trade-off questions. The idea is that a value that is sacred will not be traded off for something considered profane, such as money. Western participants can entertain the idea of giving up stances on political issues for money, even if they end up rejecting the offer of money. In Pakistani culture, and I would later find out with the Moroccans as well, the idea of trading off any value for money is in and of itself an unimaginable taboo. This makes everything seem like it's sacred, even when it's clearly not.

To deal with this issue, I had to make the trade-off for others and not themselves; that is, there had to be collective monetary or material trade-off not individual.

Next, I realised that abstract questions were difficult to understand so I had to create case-based scenarios to measure sacredness. For example, if someone agreed that India should have no rights over Kashmir, then I'd ask:

*If instead of allowing Kashmir to belong to Pakistan or become independent the Indian Government gave large amounts of tax refunds, local aid, heavy economic investment (i.e. more jobs), and other monetary compensation to all Kashmiri families so they could live a higher material quality of life, or any other **purely financial** incentives, to stay part of India, would you find it acceptable?*

If they answered 'yes' or even 'maybe' to this question the value was not sacred; if they said 'no' then it met one criteria of sacredness. The next measure determined if the value was a moral conviction or not by asking: *What if the majority of Kashmiris wanted to stay part of India, would that make it okay for India to have ownership of Kashmir?* If participants also responded 'no' this question, the value was considered sacred.

This level of re-engineering took place across the entire survey. This meant the survey became rather long and on average took anywhere from 45 minutes to an hour to administer. In addition, as I did not know how radical the communities were to begin with, I couldn't design an *a priori* 'extremist' inventory. So, I added many measures that could potentially classify people as being radicalised. These included support for terrorist groups, support for jihadist ideology, and willingness to engage in violence, among other factors.

Surveys

As we were trying to find a sufficient number of radicalised participants for our studies, we couldn't use simple random sampling as there is unlikely to be that many radicalised people in the Barcelona area. Instead we had to be far more targeted in our sampling strategy. So we focused our efforts on men between the ages of 18 and 40 in certain poor urban neighbourhoods with a high density of Moroccan and Pakistani populations. We used a combination of convenience

and snowball sampling; meaning, we initially asked as many random Moroccan and Pakistani men to participate in our survey, then asked them to nominate their friends. The goal of this study was not to make general claims about the Pakistani or Moroccan communities in Barcelona and nobody should use our results to do so. Given the targeted nature of this sampling, the number of radicalised people we found was far higher than if we had used a representative sampling technique. In other words, the high rate of radicalised participants should not be seen as representative of the Pakistani or Moroccan communities in Barcelona.

After over 150 semi-structured interviews, the survey instrument was created. Local research assistants who I trained and supervised helped me collect the data and, in the end, 681 psychometric surveys were analysed from both the Pakistani and Moroccan communities. Overall, both samples were not only unsupportive of violent extremism but actively rejected it. We found the vast majority of people strongly disagree with jihadist groups, their actions and goals. There was more religious and political conservatism among the Pakistani community, but these were still non-violent positions. People were more willing to make costly sacrifices for their sacred values than non-sacred. They were also more willing to self-sacrifice for groups with which they highly identified. Consistent with our other research we found that the combination of holding a value as sacred and being with like-minded friends boosted willingness to self-sacrifice.

As our studies were looking to investigate how values become sacred and how to reduce violence once values sacralise, we needed some of our participants to be at an early stage of radicalisation and others to be at a more advanced stage. While there were people who could be classified as both early and advanced-stage radicals in both the Pakistani and Moroccan communities, we couldn't mix the samples due to language and cultural differences that might confound results in the brain-scan analysis. As a result, for the early-stage radicals, we recruited 38 Moroccan-origin participants who all supported causes championed by jihadist groups and said they would be willing to engage in some degree of violence for those causes. The advanced-stage radicals were 30 participants selected from the Pakistani community who are described in more detail below.

Social exclusion

For the first study we wanted to explore what could make people at the early stages of radicalisation more radicalised. We were specifically interested in the effect of social exclusion on sacralisation of values. My previous fieldwork with members of terrorist groups revealed that often people feel unmoored from their social environments before they begin their radicalisation process. Once they start to adopt extremist ideology, small acts of discrimination can often lead to large increases in their radicalisation. Based on this observation, we decided to manipulate a sense of social exclusion to see how it affected our participants.

To accomplish this, all the participants played a video game called 'Cyberball'. The game involves the participant and three other players who toss a virtual ball to each other. The participants of Moroccan origin could see the images and names of the three other players, which indicated they were of Spanish origin. For half the participants, the other 'Spanish' players would at one point stop passing the ball to the Moroccan-origin participant, thus excluding them from the game. For the other half, the players continued to include the participant in the game.

Each of the participants was then put into an fMRI (functional magnetic resonance imaging) scanner where they were shown their sacred and non-sacred values on a screen, one at a time. They were asked to electronically indicate their willingness to fight and die (WFD) for each value on a scale of 1 (not at all) to 7 (martyrdom) using a joystick. We found that sacred values activated a part of the brain called the Left Inferior Frontal Gyrus (LIFG). This region had been shown to be associated with sacred value processing in a previous study conducted on American university students (Berns et al., 2012). That study theorised that sacred values affect behaviour using the LIFG to retrieve and process deontic (moral or ethical) rules rather using other areas associated with utilitarian reasoning. Our study replicates those previous results. We also found that participants who were socially excluded had increased activity in the LIFG when they were processing their non-sacred values. They also increased their

willingness to fight and die for their non-sacred values. In other words, social exclusion made non-sacred values more like sacred values both neurally and behaviourally.

This is an alarming shift as no research has yet shown how to de-sacralise a value. Once values become sacred the risk of a conflict becoming intractable are high. In addition, on an individual level, more sacred values increase propensity to violence. The question then becomes, once a value becomes sacred, how does one prevent someone from engaging in violence?

Social norms

Even if we can't de-sacralise a value, perhaps we can still pull a highly radicalised person back from the edge of violence. This is what our second neuroimaging study explored, involving participants who were more radicalised than those in the first study. After surveying 146 Pakistani men, we recruited 30 participants who explicitly supported an Al Qaida affiliate (Laskar-e-Taiba), endorsed violence against the West, endorsed armed jihad, and stated they would be willing to carry out violence in the name of armed jihad.

In the early part of this study, like the Moroccans in the first study, the participants were scanned while rating their willingness to fight and die (WFD) for their sacred and non-sacred values. These participants showed a different pattern of neural activity from the Moroccans, who exhibited the same patterns as US university students in an earlier study as mentioned above. The highly radicalised Pakistani men selected for this second study showed lower activation in the Dorsolateral Prefrontal Cortex (DLPFC), an area associated with deliberative reasoning and cost-benefit calculations. Another part of the brain, the Ventromedial Prefrontal Cortex (VMPFC), is associated with subjective valuation, such as aesthetic preferences. Normally, these two areas work in tandem when making decisions. A follow-up analysis found that these two regions were connected when participants rated low willingness to fight and die for either sacred or non-sacred values. But when they rated high willingness to fight and

die, these two regions became disconnected. This indicates that when someone is ready to kill and be killed, they are no longer using their deliberative reasoning; they have essentially disconnected this part of their brain. However, when their willingness to fight and die is lowered, their deliberative and subjective valuation regions reconnect. So how do we lower their willingness to fight and die?

In the second part of the study, while still in the scanner, the participants were shown each value again with their original rating but this time they could press a button and see the average willingness to fight and die ratings of their peers; that is, other Pakistanis from the small and tight-knit community in Barcelona. Unbeknownst to them, these average ratings were made up and were evenly split between lower, the same, or higher ratings to serve as an experimental manipulation (due to ceiling effects in the initial WFD rating, the 'higher ratings' condition had to be dropped). When the participants got out of the scanner they rated their willingness to fight and die for each value again. Interestingly, we found that people lowered their willingness to fight and die for both sacred and non-sacred values to conform to their peers' responses. This change in response was correlated with increased DLPFC activation. Deliberative pathways were re-opening.

Implications

The implications of this research are important for both domestic and foreign policy. The first implication highlights the need for social inclusion. It has been demonstrated by research in Syria, Iraq, Nigeria and Somalia that when communities face ethnic, religious or political exclusion, they are more likely to align with extremist groups. It's not that acts of discrimination or intolerance automatically make someone radicalise, but rather that it creates social fissures that extremist groups can exploit. Our research demonstrated that one of the mechanisms by which social exclusion increases propensity for violence is by making non-sacred values more like sacred values. As a result, policies aimed at increasing a sense of belonging and involvement can mitigate the likelihood of extremism taking root.

The second study showed weaknesses of 'strategic communications' and how they could be improved. Strategic communications in this context are any form of messaging that can reduce the pull of terrorist organisations. These usually come in the form of online videos and social media campaigns referred to as counter or alternative messages. The goal of some of these messages is to prompt self-reflection; in fact, one of the US State Department's campaigns was called 'Think Again, Turn Away'.

However, our findings show that for highly radicalised people, sacred values deactivate areas of the brain associated with deliberative reasoning. As a result such messages are being targeted towards a part of the brain that is not 'online' to be affected by them. Moreover, sacred values vary from person to person, including in our sample, rendering yet another blow against the effectiveness of mass-distributed messages.

Instead, our findings show that altering perceptions of social norms can be sufficient to reduce propensity towards violence. If extremists believe that their 'in-group' does not endorse violence, they then lower their personal willingness to engage in violence. Most extremists come from communities that already do not believe in political violence. Instead of bombarding communities with messages from the outside, the research indicates that empowering the non-violent voices within communities could be a more effective strategy.

On another note, there still remains a subset of the public who think that radicalisation can be attributed to mental illness. Those who espouse this view believe that psychiatric solutions like administering certain kinds of medication to those at various stages of radicalisation should be considered. While testing this claim was not the goal of our studies, every participant who took part in the brain scans was given a battery of tests by a clinician measuring their IQ, personality traits, and neuropsychiatric disorders. All of the participants spanned what psychologists call the 'normal distribution'. There was no indication of mental illness and nothing either behaviourally or neurally indicated any form of pathology. These results further underline how radicalisation emerges out of the

social environment and therefore must be dealt with using good social policies and not ones that attempt to reduce the problem to individual pathologies.

Overall, the research points to the need to better understand radicalisation at a local level. Radicalisation happens in small networks of friends hanging out in cafes, football fields, and parks. As these networks discuss and debate, their values move towards sacralisation. There are many things that societies can do to mitigate the danger this poses. Firstly, there should be an emphasis on social inclusion as feelings of exclusion increase sacralisation and violent intentions. Secondly, the voices of locals who do not endorse violence should be amplified so non-violence becomes normalised. By empowering communities and making them feel like they belong, we essentially increase the social immune system that can mitigate against outbreaks of radicalisation.

Publications from this research

Hamid, N*, Pretus, C*, Atran, S, Crockett, MJ, Ginges, J, Sheikh, H, Tobeña, A, Carmona, S, Gómez, Á, Davis, R & Vilarroya, O (2019). Neuroimaging 'will to fight' for sacred values: an empirical case study with supporters of an Al Qaeda associate. *Royal Society Open Science*, 6(6), 181585.

* *Co-first authors*

Pretus, C, Hamid, N, Sheikh, H, Gómez, Á, Ginges, J, Tobeña, A, Davis, R, Vilarroya, O & Atran, S (2019). Ventromedial and dorsolateral prefrontal interactions underlie will to fight and die for a cause. *Social Cognitive and Affective Neuroscience*, 14(6):569-577.

Pretus, C*, Hamid, N*, Sheikh, H, Ginges, J, Tobeña, A, Davis, R, Vilarroya, O & Atran, S (2018). Neural and behavioural correlates of sacred values and vulnerability to violent extremism. *Frontiers in Psychology*, 9, 2462.

* *Co-first authors*

References

Atran, S (2010). *Talking to the enemy: violent extremism, sacred values, and what it means to be human*. Penguin UK.

Atran, S & Ginges, J (2012). Religious and sacred imperatives in human conflict. *Science*, 336(6083), 855-857.

Atran, S & Ginges, J (2015). Devoted actors and the moral foundations of intractable intergroup conflict. *The moral brain: a multidisciplinary perspective*, 69-86.

Baron, J & Spranca, M (1997). Protected values. *Organizational behavior and human decision processes*, 70(1), 1-16.

Berns, GS, Bell, E, Capra, CM, Prietula, MJ, Moore, S, Anderson, B, Ginges, J & Atran, S (2012). The price of your soul: neural evidence for the non-utilitarian representation of sacred values. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 367(1589), 754-762.

Dehghani, M, Atran, S, Iliev, R, Sachdeva, S, Medin, D & Ginges, J (2010). Sacred values and conflict over Iran's nuclear program. *Judgment and Decision Making*, 5(7), 540.

Europol (2017). *EU Terrorism Situation and Trend Report (TE-SAT) 2017*. Available at: <https://www.europol.europa.eu/activities-services/main-reports/eu-terrorism-situation-and-trend-report-te-sat-2017>

Gómez, Á, Lopez-Rodriguez, L, Sheikh, H, Ginges, J, Wilson, L, Waziri, H, Vázquez, A, Davis, R & Atran, S (2017). The devoted actor's will to fight and the spiritual dimension of human conflict. *Nature Human Behaviour*, 1(9), 673.

Rappaport, RA (1971). The sacred in human evolution. *Annual review of ecology and systematics*, 2(1), 23-44.

Reinares, F., and García-Calvo, C. (2016). *Estado Islámico en España*. Madrid, Spain: Real Instituto Elcano. Available at: <http://www.realinstitutoelcano.org/publicaciones/libros/Informe-Estado-Islamico-Espana.pdf>

Sachdeva, S & Medin, D (2009). Group identity salience in sacred value based cultural conflict: an examination of the Hindu-Muslim identities in the Kashmir and Babri Mosque issues. In *Proceedings of the 31th Annual Conference of the Cognitive Science Society (CogSci)* 31(31), 11-14.

Schuurman, B. (2018). Research on Terrorism, 2007–2016: A Review of Data, Methods, and Authorship. *Terrorism and Political Violence*, 1-16.

Sheikh, H, Ginges, J & Atran, S (2013). Sacred values in the Israeli–Palestinian conflict: resistance to social influence, temporal discounting, and exit strategies. *Annals of the New York Academy of Sciences*, 1299(1), 11-24.

Tetlock, PE (2003). Thinking the unthinkable: sacred values and taboo cognitions. *Trends in cognitive sciences*, 7(7), 320-324.



This is the fourth in a series of Braunthal Reports.

The Braunthal Reports are named after the Founder of The Bonnart Trust. Freddy Bonnart-Braunthal set up the trust in 2002 to *“establish and maintain scholarships at universities in the United Kingdom for research at the postgraduate level into the nature of racial, religious and cultural intolerance with a view to finding a means to combat it”*.

Freddy had personal experience of prejudice. At the outbreak of WWII he was studying economics at LSE and was evacuated to Cambridge, but in 1940 he was labelled an ‘enemy alien’ and interned to a camp in Canada for 10 months. He was eventually allowed to return to Britain to fight against Nazism. On joining the army in 1943, he changed his name to Frederick Bonnart. However, he was determined that his original name be preserved and associated with the actions of the Trust – hence we are calling these papers The Braunthal Reports.

The Braunthal Reports are based on analysis and recommendations drawn from the dissertations submitted for a doctorate by the Scholars funded by The Bonnart Trust. They are freely available and can be downloaded from the trust website. www.fbbtrust.org.uk

About the author

Nafees Hamid is a Fellow at Artis International, an Associate Fellow at the International Centre for Counter Terrorism – The Hague, and a Bonnart Trust PhD candidate in the Security and Crime Science Department at University College London. His research includes ethnographic interviews, survey studies, social network analysis, and psychology and neuroscience experiments with mostly European members of jihadi organisations, their friends and families, supporters of such networks, and the general communities from which they originate.