

Inside the mind of a terrorist

One of the attractions of conspiracy theories is that conspiracy offers someone to blame and someone to join. It's a measure of human nature that most of us want to 'belong', but the problem is that sometimes the desire to belong can attract the disenfranchised, the discontented, the frustrated, and the downright evil. Groups that do not pose any threat to the rest of us, such as those that still believe the earth is flat, are pretty harmless and easy to dismiss as cranks. But there are certain groups that pose the greatest danger to the rest of us.

Membership of any kind of group makes individuals feel special – they are now part of an elite and thus a person of consequence. Individuals who feel they have something missing from their lives are prone to think membership of the new group means that they've found it. This is usually because they've just been told what it is they've been looking for by others who have no scruples about exploiting their insecurity and self-doubt for their own nefarious purposes.

Thousands of terrorist plots have been uncovered around the world in the last five decades, from the 1972 murder of 11 Israeli athletes at the Munich Olympics, the 1975 hostage taking at the OPEC headquarters in Vienna, the 1995 sarin gas attacks in Tokyo, and the September 11 attacks in New York and Washington. Each had their own agenda, and in each case there perpetrators were caught.

Although terrorism takes many forms – though all involve the murder of innocent civilians – they are all, by definition, intended to generate extreme terror in the name of political, religious or other ideological goals. The spectacular nature of the 9/11 attacks and the upsurge in activities by al-Qaeda, IS, Boko Haram, and a host of other groups have spurred psychologists and psychiatrists to try to understand and identify the psychological reasoning behind acts of terrorism.

Terrorism is intimidation by use of extreme violence – a new, unforeseen, and undreamt of form of warfare... and we desperately need to understand it to stop it.

Until recently, studies of terrorist attacks have focused on the *political motivation* of groups like the IRA or the Basque Separatist Party. But today's psychologists are more interested in what's going on inside the heads of terrorists to discover what drives them to carry out illogical and counterproductive acts of suicide and mass murder.

There are more than a thousand books and studies available on the psychology of terrorism and more articles on terrorism were published after 9/11 than in the previous 120 years. The U.S. Department of Homeland Security has spent \$12 million establishing *Study of Terrorism and Responses to Terrorism* (START) – a research group of more than 30 scientists who are investigating the psychological causes and impact of terrorism.

The most up to date wisdom is that the vast majority of terrorists are not mentally ill, but coldly rational people who do a cost/benefit analysis of their planned act of terrorism, and who come to the conclusion that it will be profitable, at least in terms of the cost to themselves and the likely impact of their goal.

Group dynamics, driven by charismatic leaders, are a powerful force in convincing individuals to embrace wide reaching goals and use violence to achieve them - if

necessary, sacrificing their own lives in the process. People are also drawn to terrorism for reasons that are entirely personal and often revenge-based.

Terrorist groups endow their members with ideas of self-worth and feelings of empowerment. In some cases, membership of the right group can provide a way of avenging [perceived] past wrongs, hence Islamic terrorism's preoccupation with 'the Crusader'.

Current psychological explanations for terrorism are based mainly on assumption and guess-work because so far, studies of the terrorist mind are, for obvious reasons, scarce. Even so, researchers hope that any new insights will help them prevent any future terrorist attacks.

Terrorism is centuries old. In Palestine in the first century A.D., Jewish Zealots killed Roman officials, and like the religious extremists of today, it was because they rejected the authority of a foreign secular government who imposed laws that didn't respect their religious beliefs. In the Napoleonic wars, Spanish partisans ambushed and killed French soldiers. In the second world war, members of the French Resistance targeted high ranking German officers, and in Northern Ireland, members of the IRA murdered British troops.

The rise of nationalism in Europe after WWII created a new breed of terrorist organisation – the IRA in Ireland, who bombed targets in Northern Ireland and mainland Britain. They murdered Lord Mountbatten by blowing up his boat when he was on it, they killed MP and war hero Airey Neave by blowing up his car when he was in it, and attempted to assassinate Margaret Thatcher by blowing up her Brighton hotel when Norman Tebbit was in it.

No matter what the political ambitions of of terrorist groups are, the individual members of the group will share the same culture, values and political beliefs. Most nationalists – for example the Basque Separatists – aim to either create or reclaim a homeland. Their actions are designed to garner international sympathy for their cause and forcibly coerce the existing regime to accede to their wishes. Social revolutionary terrorist organisations such as the German Red Army Faction and the Italian Red Brigade, seek to overthrow capitalism and the existing social order and replace it with a communist or Marxist state. These aims always seem to fail.

Shootings, assassinations, bombings, are the stock-in-trade tools of all these groups. In the 1970's and 1980's it was the nationalists and social revolutionaries who were responsible for most acts of terrorism, and they always claimed responsibility for their actions.

But in the last twenty five years, credit for around 40% of terrorist attacks has gone unclaimed. Anonymous attacks are now more likely to be carried out mainly by lone-wolf religious extremists operating independently of a traditionally structured hierarchical group. You don't have to be a member of a particular group to vent your hatred by blowing yourself and others to pieces in what is always considered a futile, though costly, gesture. In these circumstances, the cost/benefit analysis way of thinking will fail, because governments never give in!

In the case got the lone wolf, because there is no group infrastructure, security agencies struggle to predict attacks and track supporters. In effect, this new breed of terrorist represents an invisible enemy.

Unlike politically motivated factions, religious terrorists do not act to influence the status quo, they act to destroy the decadent West with all its wickedness in the name of Allah. Claiming responsibility is unnecessary because they believe God has sanctioned the atrocity and approves of it. This is why these terrorists are so dangerous – they are unobstructed by negative Western political reaction or human morality. Instead of fearing death they embrace martyrdom and seventy-two virgins await their arrival in Paradise.

Because of this unassailable belief in the rich rewards of the afterlife, they are willing to accept casualties in the same casual manner as western forces accept battlefield rations.

In February 1998, a fatwa was issued by the World Islamic Front, which perfectly illustrates this destructive mind-set. It reads in part 'In compliance with Gods order, we issue the following fatwa to all Muslims: The ruling to kill the Americans and their allies – civilians and military – is an individual duty for every Muslim who can do it ... to liberate the al-Aqsa Mosque and the holy mosque (Mecca) from their grip, and in order for their armies to move out of all the lands of Islam, defeated and unable to threaten any Muslim'.

Such a mind-set seems pathological and indeed, many people think terrorists are insane. Some researchers suspect extreme violence is an expression of psychiatric problems such as antisocial personality disorder, but studies of members of the German Red Army Faction, the IRA, Hezbollah, and others, have produced no evidence that terrorists are mentally ill. Even suicide bombers are sane in most respects.

After interviewing some 250 members of Hamas and Islamic Jihad in Gaza from 1996 to 1999, United Nations worker and journalist Nasra Hassan reported that none of these young would-be bombers struck her as depressive or despondent. They always discussed the attacks in a straightforward way – and were motivated by a deep religious conviction that what they were doing was right.

In 2005 an expert committee on the psychological causes of terrorism concluded that individual psychopathology was not the explanation. Terrorist leaders typically screen out such people from their organisations because their instability makes them a liability. Researchers now believe that far from being lunatics, terrorists rationally calculate the costs and benefits of their actions. This 'rational choice theory' of terrorism means that violence and the spread of terror is a calculated strategy for achieving political and religious objectives.

According to Wesleyan University terrorism expert Martha Crenshaw, autobiographical tracts from terrorists such as Sean MacStiofain, the first chief of staff of the Provisional IRA, Palestine Liberation Organisation activist Leila Khaled and the Brazilian guerrilla fighter Carlos Marighella, support this view. Their writings reveal that intellectual thinking coexists with hatred and that political theorising is a common outlet for frustration over political grievances. But when theorising hardens into dogma, it becomes dangerous. Studies of militant Islamist jihadists have revealed similar patterns.

After studying thousands of government documents, media reports and court records on 400 extremists, forensic psychiatrist Marc Sageman of the University of Pennsylvania determined that these individuals are far from brainwashed or socially isolated hopeless losers – 90% of them came from caring families and 63% had been to college. Similarly, the suicide hijackers of 9/11 were well educated – three of them attended graduate school and were the children of well-off Saudi and Egyptian families. In his 2004 book *Understanding Terror Networks*, Sageman claims they were the best and brightest of their communities in many ways – 'Terrorists are generally completely normal people... People just like you and me.'

Could it be that we are barking up the wrong tree here? Could it be that the explanation for the terrorist's willingness or their desire to blow themselves up is grounded in a more simple premise... They know they're going to die one day anyway, they don't see any future in this life in stacking supermarket shelves, so why not hurry to the next and arrive in Paradise covered in glory?

However, not all terrorists come from financially and socially solid backgrounds. When Israeli social scientists conducted post-mortem profiles of 93 Palestinian suicide bombers, aged 17 to 22, the scientists found that the bombers were uniformly uneducated, unemployed and unmarried. According to political psychologist Jerrold M. Post of George Washington University, no matter what their background, what seems to be a common denominator for all terrorists is a willingness to subordinate their individual identity to a collective one.

Previous studies on the malleability of members of groups have shown how easy it is for individuals to become submerged in the larger organism of the group. Examples of the phenomenon are apparent in charismatic Christian churches – particularly in the US – at music festivals and in even in hypnotism shows, so the group dynamics explanation would seems to be an important factor.

A growing number of researchers are coming to the conclusion that terrorism can be best understood as a function of group psychology. It is against the group dynamics context that the terrorist's rationale begins to makes sense, possibly because the benefits of terrorism are generally those of the group and not the individual.

Charismatic leaders play an important role in setting these goals and convincing followers to embrace them. According to an article by Post in eJournal USA, Palestinian suicide bomb commanders tell their recruits 'You have a worthless life ahead of you, you can do something significant with your life, you will be enrolled in the hall of martyrs...'

A powerful incentive for disorientated and confused young men if ever there was one! The bombers will then be ready to embrace the larger aims of their mission even though it will be at ultimate personal cost.

In 2003, Massachusetts Institute of Technology graduate student Nichole Argo interviewed 15 Palestinians in Israeli prisons who had gone on failed suicide missions. Each had placed the interests of their society above their own.

Osama bin Laden convinced the 9/11 attackers to embrace his cause and sacrifice their lives for it. Like any religious cleric, bin Laden regularly used verses from the Koran to validate acts of extreme violence.

In Middle Eastern cultures, individuals are indoctrinated with extremist political goals very early in life. From interviews with 35 incarcerated Middle Eastern terrorists, Post and his colleagues learned that adults routinely teach children to hate the enemy – Israel – and to believe in the destruction of Israeli forces. One interviewee told how he was taught by the Imam at his mosque that the enemy had effectively evicted Palestinians from Palestine.

In a minority of mosques in both Europe and the Middle East, radical Islamist preachers repeat the same messages of hatred and promote the use of violence against the despised infidel. From a psychological perspective, constant repetition of these ideas means reinforcement – the process can exert an almost hypnotic effect on vulnerable, inexperienced or dissatisfied minds. When those minds – disappointed with the world into which they were born and in which they live – continue the discussion outside the mosque

or over the Internet, or in secretive rooms above kebab shops in Birmingham and London, is it any surprise that mere thought eventually turns into action?

Thousands of young Muslims poured into Syria and joined IS when they were promised a God-given opportunity of making something of themselves. The chance of being a founder member of a new and glorious Caliphate was for many, too good an opportunity to pass up.

The rules of the Caliphate would be simple to understand, unlike those of the complex world they left behind. What's not to like about being an AK47 toting soldier of fortune in a brave new world where the former shelf-stacker is now the master, with the power of life and death over others? And if it all goes wrong... there's always the short cut to Paradise.

In interviews carried out by Post's team, militant Islamist terrorists from Hezbollah and Hamas justified suicide terrorism by reframing it as martyrdom, or self-sacrifice, in the name of Allah. Thus, such acts fulfilled another socially prescribed goal by underscoring the depth of an individual's faith. Social context is also critical to this idea. The researchers found that religiously motivated Islamist terrorists were more committed to self-sacrifice than less religious perpetrators, whose objectives were purely political.

The Chechen rebels who held more than 800 Moscow theatre goers captive for 58 hours in October 2002 were equally committed to self-sacrifice for the supposed 'greater good.'

Psychologist Anne Speckhard of the Free University of Brussels in Belgium interviewed 11 of the hostage survivors in 2004, and discovered that the Chechen 'freedom fighters' knew precisely what they wanted – independence and an end to the harsh occupation of Chechnya. But at the same time, it was their religious beliefs that motivated them to become martyrs for their cause – nothing was more important to them than dying for their homeland. During the siege, one terrorist reportedly said 'All of us have the same fate here... We are here to die.' Terrorism was thus used as a means to fight back and to find personal meaning and justice where they were previously absent.

As with conspiracy theorists and extremist right wing political parties such as the English Defence League or the British National Party, joining a radical group provides a sense of community, power and identity to people who might otherwise feel alone, powerless, unimportant and ignored. One of the prisoners interviewed by Post's team declared armed action proclaims that 'I am here, I exist, I am strong, I am in control... I am on the map.'

In some societies, social pressure also plays a part. When asked why they joined, many of Post's interviewees responded that everyone was doing it and not to belong would mean being ostracised. This is a distant echo of the prehistoric need to abide by, and support, the needs of the group. To rock the boat is a severe impropriety, and historically, dissenters are often driven from the group and thus denied the safety and communal benefits that membership of the group provides.

Psychologist John Horgan of Pennsylvania State University spoke to one ex-activist who had a similar explanation... 'I just sort of slid into it – I had the feeling I was being sucked in by the group.'

In addition to providing a sense of belonging and power, a terrorist organisation can provide a means of vengeance for past humiliations. 'What drives people to such acts of violence is a long history of humiliation and an overwhelming desire for revenge', according to Palestinian psychiatrist Eyad El-Sarraj, who, before his death, directed the Gaza Community Mental Health Program. El-Sarraj says that many suicide bombers during the

second intifada from 2000 to 2005 had watched family members killed, beaten and humiliated.

More than 70% of some 900 young Muslims in the Gaza Strip interviewed by psychologist Brian K. Barber of the University of Tennessee had suffered severe trauma during the first intifada from 1987 to 1993. Many of these teenagers had been tear-gassed by Israeli soldiers or had experienced attacks while in school or at home. Studies of the backgrounds of other terrorists also indicate trauma was the most important reason that drove them into the underground movement.

In other cases, family strife may be a significant factor. Criminologist Lorenz Boellinger and his colleagues at the University of Bremen in Germany probed the backgrounds of 250 people who had been suspected or convicted of terrorist activity – they read trial records and spoke to prison officers and also to seven of the terrorists and found that many of the activists had experienced stress early in life from poor family attachments or other social problems. Their interviewees seemed to compensate for life's disappointments and feelings of powerlessness by subscribing to a reality that was starkly defined by friends and enemies.

Terrorism is not just about violence, of course. As the name suggests, it's also about spreading fear, as expressed in the Chinese maxim 'Kill one, frighten ten thousand.' In many instances, this psychological tactic succeeds very well. After 9/11, for instance, 330 million Americans experienced high levels of psychological distress.

Researchers hope that by understanding terrorists' motivation, they will be able to turn the tide. By probing the collective psyches of the terrorist groups, they aim to find new ways to thwart recruitment of additional group members, to introduce dissent into terrorist societies, to facilitate escape from terrorist life and perhaps to strip group leaders of their powers. By disrupting terrorist bonds, such tactics could eventually halt a lot of terrorist attacks.

If this plan is to succeed, it will be a very long term solution to a centuries old problem first ignited by the Crusades (1095 – 1492) and forgotten about by the west. In the middle east, the hatred has been passed down from father to son to grandson for so long it will be near impossible for it to be magicked away by political initiatives and intelligence services' propaganda.

Terrorists justify violent actions by focusing only on the end result – their moral judgement is driven by an obsession with only the outcome. Put another way, their moral judgement is rooted solely in the success of an action rather than the moral necessity of committing that action – they justify their violent acts with the logic that the end justifies the means.

While most people judge a moral action by both its intention and its outcome, terrorists ignore motive. Violent extremism carries with it abnormal forms of moral cognition which are almost certainly shaped by cultural and/or religious beliefs.

There is always a trade-off between intention and outcome and just how the terrorist makes this moral calculation is not yet fully understood. Typically, normal adult moral judgement depends on the ability to assemble and collate information about goals and consequences. But when goals and consequences conflict, moral judgement can find itself overridden by emotional chaos.

In a study published in May 2017 in the scientific magazine *Nature*, researchers conducted a series of cognitive and psychological tests on 66 Colombian right-wing paramilitaries, all of whom were imprisoned for committing terrorist acts. All had been convicted of an

average of 33 murders. A control group of 66 non-criminals and 13 incarcerated non-terrorist murderers were also included in the study. Evaluations included assessments of moral cognition (morality), IQ, aggressive behaviour, and emotion recognition. The results revealed that terrorists exhibit higher levels of aggression and lower levels of emotion recognition than non-terrorists. The same is true of violent criminals.

Importantly, the team found it was the difference in moral cognition that most strongly distinguished the terrorists from other groups, suggesting that distorted moral cognition may be an indication of the terrorist mindset. Terrorists primarily focus on outcomes, rather than considering both intentions and possible outcomes – the terrorist's moral code prioritising ends over means. This pattern of skewed moral judgement is an important component of the terrorist profile. Terrorists will deem it appropriate to carry out any act, no matter how base, to achieve the aim.

Members of a radical Islamist group were asked how willing they were to 'fight and die' for their ideas. Their brains were scanned during the process and the results showed that when questioned, the part of the brain that engages in evaluating costs and consequences showed reduced activity. The scientists say this shows that when it comes to values held 'sacred' to the radicals, they are immune to cost/benefit analysis. The research highlights the difficulties of trying to 'de-radicalise' someone because the region of the brain that is engaged in cost/benefit analysis is resistant to argument.

Radicalisation is thought to be a gradual process as individuals slowly become more susceptible to new ideas. First, they cut themselves off from their families and friends and thus their connection to conventional value systems. They immerse themselves in a radical religious subculture, either on their own, or with the encouragement of a recruiter. They become indoctrinated, brainwashed as their sanity is eroded to the point of mental illness.

But... why do individuals who are *not* devout Muslims ally themselves to terrorist groups?

Non muslim recruits are attracted to IS because IS closely matches the values of those who are marginalised or who suffer from anti-social personality disorders. Many IS attacks around the globe were carried out by 'lone wolves' who acted without direct orders from the IS leadership.

There is a widely and reliably reported story of two would-be jihadists who, before they left Birmingham for Syria, ordered *Islam for Dummies* and *The Koran for Dummies* to plug the gaps in their knowledge. So perhaps there is another factor at play that is even more alluring than religious radicalisation.

There can be no doubt that IS propaganda plays a key role in recruitment. Propaganda is at its most effective if the individual is looking at or reading about nothing else, and IS propaganda tends to focus not on a religious rationale for their actions, but on extreme violence.

We are frequently told how individuals who join IS often frequented bars – even gay bars. They had Western girlfriends and smoked and drank almost up to the time they committed their own act of violence. Sayfullo Saipov – the 'lone wolf' who drove a van into a crowd of people in New York in October 2017, killing eight and seriously injuring a dozen others, often swore and frequently arrived late to prayers. The 9/11 hijackers, the Nice terrorist and the London Bridge attackers were known to take alcohol, while the Westminster attacker was often high on drink and drugs, as was Michael Adebowale, the man who brutally murdered soldier Lee Rigby.

The common explanation is that this lifestyle was a cover for their real intentions. It stands to reason that they are often dissatisfied and yes, marginalised, even suggestible, and yes, even high on drugs. But how can some people become radicalised so quickly?

Jihadis seem to be drawn to a value system of aggressive machismo, that disparages ordinary work and sustains the impulse for immediate gratification. Jihadis also seem to be attracted to a culture that promotes redemption through violence, loyalty, patriarchal leadership, the reduction of women to convenient objects of pleasure, and thrill seeking to the point of martyrdom, all markers for severe psychosis – a severe mental disorder where thought and emotions are so impaired as to render the individual a stranger to reality – and extreme narcissism.

Specifically, it happens when self-esteem has been snubbed. In short, Islamic State's 'soldiers' more closely resemble the sort of street gangs with which many of its Western foot soldiers are familiar.

Much work has yet to be done, but the results of all these studies, and more, should provide invaluable assistance when it comes to recognising terrorist traits and tendencies in suspects or vulnerable young men and women.

It is equally important that we recognise the pernicious influence of religious belief. Religion is like a virus – it infects everyone who comes into contact with it, passed from parents to children and in the case of incarcerated Muslims in Britain, from prisoner to prisoner. As with any virus, extremist religion targets the weak and the vulnerable – and in prisons there are plenty of potential hosts, disenfranchised, excluded, and ripe for conversion.

It is the simplicity of radical Islam and Islamic Sharia law that protects against a complex and complicated world. This is one of the attractions of joining a collective that is governed by, and lives by, simplistic rules. It is this easy-to-understand version of Islam that is so attractive to otherwise confused individuals, many of whom live in places where the rules and morals of their own tightly knit communities are very different to the rules of the wider society.

Following a set of very basic rules, laid down centuries ago and applicable to a very different world, requires no great intellectual ability. There is no uncertainty of debate – everything is taken as literal – even instructions on how to beat your wife.

Scientists studying brain scans of Muslim extremists have concluded social exclusion is a major factor in young men deciding to become violent jihadis. The results of research carried out by an international team, including professors from University College London, may challenge prevailing beliefs that poverty, religious upbringing or mental illness are dominant causes of religiously-inspired violence.

The researchers used ethnographic surveys and psychological analysis to identify 535 young Muslim men in and around Barcelona, where IS supporting jihadis killed 13 people and wounded 100 more in the city in August 2017.

Of those 535, 38 men – second-generation immigrants of Moroccan origin who had already 'expressed a willingness to engage in or facilitate violence associated with jihadist causes' – agreed to have their brains scanned while scientist asked them questions about behaviour and policies they considered 'inviolable' – such as introducing Islamic teaching in schools, or the unrestricted construction of mosques. Then the men played a ball-throwing game with fellow Spaniards, but were abruptly and deliberately excluded from being passed the ball. Their brains were scanned again after this exclusion exercise, and researchers

found that the neurological impact of being excluded meant that issues they had previously considered inviolable became far more important and were now deemed similar to 'sacred' and worth fighting and dying for.

The study's co-lead author, Nafees Hamid concluded that the social exclusion manipulation specifically affected non-sacred values, increasing their similarities with sacred values in terms of heightened left inferior frontal activity and greater expressed willingness to 'fight and die'.

His team linked their findings to previous research by the team on Israel-Palestinian, India-Pakistan and Kurd/IS conflicts, which found that when values deemed 'sacred' are violated, hostility becomes uncontrollable. The findings should affect national anti-extremism policies worldwide and social exclusion should be regarded as a relevant factor in motivating violent extremism and consolidation of sacred values. Counteracting social exclusion should be included in policies to prevent radicalisation.

One problem with introducing such a policy is that some Muslim communities simply do not wish to integrate with wider society, hence the preponderance of Sharia courts and arranged or forced marriages.

British-born Muslim Lewis Ludlow, a former Royal Mail worker from Rochester, was planning a terrorist outrage on Oxford Street, all the while keeping 17 appointments with the government's de-radicalisation programme, Prevent. He became radicalised after converting to Islam and attending the poppy-burning rallies of hate preacher Anjem Choudary. The 27-year-old then tried to join an ISIS group in the Philippines, but was stopped from travelling and so began hatching plans for an attack in London. He plotted a vehicle attack on Oxford Street or Madame Tussauds while, at the same time, meeting officials from the de-radicalisation programme. Among the notes Ludlow made for himself, then tore up, was one which read:

'Crowded London Areas: Oxford Street – long road with no bollards or barriers preventing a van mounting the pavement. 'Busiest time is between 11am – 12pm with Saturday being the busiest day. Wolf should either use a ram attack or use the truck to maximise death. It is a busy street, it is ideal for an attack. It is expected nearly 100 could be killed in the attack.'

Giving evidence, Ludlow, who converted to Islam at 16, told how he dropped out of school after he was bullied for nine years. He said 'I was a loner. I was on my own and it was sad. People would say they found me too strange. It was really depressing. I felt everyone hated me and I thought I would be better off dead.'

There are five theories as to why people indulge in extreme behaviour...

- 1. When shared experience promotes willingness to perform an extreme pro-group action, such as an act of violence:
- 2. When shared negative experiences cause individuals to contribute more than they would in the case of positive euphoric experiences;
- 3. When the more intense the experience, the stronger the pro-social effect;
- 4. When the effect of a shared experience on pro-social behaviour is much stronger where groups compete directly against each other instead of cooperating against another force, for example nature;
- 5. When the effects of shared negative experiences exceed those of kinship.

It has long been known that in groups of people caught up in highly charged emotional situations – soldiers, police officers, religious groups, would-be jihadis – there are those who will be prepared to make the ultimate sacrifice for the sake of the rest of the group... and what the group stands for. Perhaps surprisingly, there are some basic similarities between football fans who commit extreme acts of violence and suicide bombers – because both are motivated by the same evolutionary urges.

A recent study carried out by the National Institute for Mathematical and Biological Synthesis – NIMBioS – based at the University of Tennessee, was published in the journal *Scientific Reports* and it makes interesting reading.

The study concluded that shared negative experiences constitute a powerful mechanism that promotes pro-social behaviour that, under certain conditions, can be extremely costly to the individuals concerned. In the case of football hooliganism this could lead to arrest and imprisonment, and in the case of suicide bomber, it inevitably leads to self-sacrifice.

But this extreme self-sacrificial behaviour presents an evolutionary puzzle. How can a trait that calls for a person to make the ultimate sacrifice – especially in defence of a group of people who are not even related – persist over evolutionary time? Could it be that the willingness to fight and die for a group is motivated by something psychologists call 'Identity fusion?'

What causes identity fusion? How can we test for evidence suggesting that one powerful cause is the sharing of extreme and possibly painful and frightening experiences?

Perhaps a willingness to perform costly acts for the good of the group is a behavioural strategy that evolved in human ancestors to gain success in high-risk collective activities and conflicts between different groups. Groups whose members fused together after sharing painful experiences would be more likely to prevail in other inter-group conflicts, whereas ancestral groups that didn't fuse would have been less likely to survive. In modern groups, the willingness to sacrifice for the group would be expressed only under extreme conditions.

The researchers at NIMBioS used mathematical models to generate a series of tests and found that the effects of shared negative experience can be stronger than those of kinship.

The hypotheses were tested with different groups to examine the level of identity fusion, including US Vietnam war veterans, English Premier League football fans, martial arts practitioners and twins.

There are sound and well-understood evolutionary reasons why people behave in very different ways when they share their experiences with their peer group. Crowds of football supporters become one large organism, each fan part of the greater entity with but one aim in mind – to will their team to victory. Fans collective experience of promotion or relegation is something that can override individual personal identity.

The researchers recruited 752 football fans – half were supporters of the five most consistently *successful* and euphoria producing teams – Manchester United, Chelsea, Arsenal, Liverpool and Manchester City. The other half of the study group was made up of supporters of the five most consistently *unsuccessful* football teams – namely West Bromwich Albion, Norwich, Sunderland, Hull and Crystal Palace. The team's lack of success produced the most impatience and dissatisfaction in their fans.

The test models were intended to simulate as accurately as possible the conditions faced by our human ancestors tens of thousands of years ago. After collating and examining the results, researchers speculated that under threatening conditions, having a shared evolutionary future was probably a more decisive factor in cooperation and self-sacrifice than shared ancestry.

There have been previous studies that identified a number of paths for the evolution of cooperation, but this study introduced a novel and very powerful mechanism – acts of extreme personal self-sacrifice for the good of the future of the group.

Us and them thinking leads people to see outsiders differently. For example, when a boss tells everyone 'this is war, we must smash the competition or bury them!' they are creating a hostile environment in which survival (rather than just competition) appears to be the goal.

People who can mask their identity are more likely to behave in anti-social ways because anonymity allows people to behave badly. If an individual is an anonymous cog in a machine-like organisation, they feel less than human themselves, and so less governed by human decency.

Individuals swept up by the mob – for example a lynch mob – become capable of almost anything. Thousands of usually law-abiding Londoners became looters and arsonists during the 2011 riots because 'everyone else was doing it.' This mentality makes it easy for people to do what everyone else is doing and it dilutes personal responsibility.

An 'end justifies the means' culture, as with acts of terrorism, can also provide permission for inexcusable behaviour. Where a perceived authority figure orders you to do something, it can be difficult to refuse, particularly if not complying carries serious consequences. There are plenty of examples in history where such disobedience has proved fatal – and plenty of examples where blind obedience has proved to be equally ruinous – 'I was only obeying orders' is not actually a defence – as was proved at Nuremburg.

Philosopher Edmund Burke said, 'The only thing necessary for the triumph of evil is for good men to do nothing.' Passive tolerance of evil through inaction or indifference means that you don't need to be a perpetrator, it's enough to simply stand passively by.

Uncritical conformity to the norms of the group exerts a powerful influence over our behaviour, particularly if disobedience or being a nonconformist will result in you being ostracised from the group or fired from an organisation. In our evolutionary past, social exclusion was tantamount to a death sentence so our instincts often force us to conform.

The common expression 'band of brothers' is used to describe military and other groups engaged in violent conflict. It appears that shared negative experiences can make 'brothers' of all members of the group and create bonds stronger than those between actual brothers.

But what did alter the views of the radical group was peer pressure. If the participants were told that the overall opinion of other members of the community – for example Pakistani Muslims living in Barcelona – was less supportive of their position they would alter their views, being less likely to want to 'fight and die.' The researchers say that their findings fit in with ideas that radicals do not often abandon their core 'sacred values'. But they can become less willing to fight and die to uphold them.

To carry out the research, 146 members of a 'radical Islamist group' Lashkar et Taibar were recruited for the experiment in Barcelona. The group were selected in a survey by expressing willingness to use violence against civilians, to join a terror group or to engage in violent protest. Other religious causes they were asked to consider where over issues

such as Western military forces being expelled from Muslim lands, and for strict veiling of women in public.

Scott Atran of the University of Michigan and colleagues writing in a Royal Society journal said 'We found that sacred value choices involved less activation of brain regions previously associated with cognitive control and cost—benefit calculations. In addition, we also found that willingness to fight and die ratings were influenced by peers' opinions.'

The researchers added that 'it might be possible to induce flexibility in the way people defend their sacred values' and that the findings could be used to better understand the motivations of violent conflict.

Michael Adebolajo, 31, the man who murdered Lee Rigby in London is busy radicalising other inmates at HMP Frankland in County Durham, which also holds other infamous criminals, including child murderer Ian Huntley, Yorkshire Ripper Peter Sutcliffe and serial killer Levi Bellfield. As a result, Adebolajo has been called the most dangerous prisoner in Britain. But staff at the prison claim they do not have the resources to watch him 24 hours a day.

The bottom line is that home grown Islamic extremists have been 'brainwashing' other inmates. Adebolajo has been branded 'violent, unpredictable and a major danger to other prisoners.' Adebolajo's present purpose in life is to recruit as many Jihadis as possible. He has been given 'special category' status and has even converted non-Muslims to his twisted interpretation of Islam.

Prison sources say that he has radicalised dozens of other prisoners. One prison official said 'Adebolajo spends most of his waking hours preaching his distorted form of Islam to anyone who will listen. He sees every inmate as a potential Islamic State soldier whether they are Muslims or not. He has a big personality and is very charismatic and some of the more vulnerable prisoners will fall under his spell. He is a very dangerous individual.'

Maybe Adebolajo is insane. His internment at HMP Frankland costs the British taxpayer £1500 per week – more than the cost of a suite at the London Hilton. Surely there is a cheaper and more humane, permanent solution to this problem? Prisons in the UK are already taking steps to segregate hard line Muslim prisoners from the rest of the prison population.

In the meantime, the whole world is in this for the long haul. From the villages of Malaysia to the war-torn streets of Aleppo, from the hills and valleys of Afghanistan or the scrublands of central Africa to the bright modern cities of Paris and London, terrorism is something that affects us all. To stop it, we must first understand it. Only then will we have any chance of winning the war.

Suggested further reading:

The Terrorism Research Center

www.terrorism.com

Study of Terrorism and Responses to Terrorism (START)

http://www.start.umd.edu/about/about-start

February 1998, fatwa issued by the World Islamic Front

https://fas.org/irp/world/para/docs/980223-fatwa.htm

An Arsenal of Believers | The New Yorker

http://www.newyorker.com/magazine/2001/11/19/an-arsenal-of-believers

Martha Crenshaw, Explaining Terrorism (Political Violence)

Marc Sageman, Understanding Terror Networks

The Mind of the Terrorist: The Psychology of Terrorism from the IRA to Al-Qaeda. Jerrold M. Post. Palgrave Macmillan, 2007.

Collective Identity: Hatred Bred in the Bone Jerrold Post, Director of the Political Psychology Program, The George Washington University

http://www.au.af.mil/au/awc/awcgate/state/counter terr mentality may07.pdf

'Massachusetts Institute of Technology graduate student Nichole Argo interviewed 15 Palestinians...'

https://www.scientificamerican.com/article/inside-the-terrorist-mind/

'Psychologist Anne Speckhard of the Free University of Brussels in Belgium interviewed 11 of the hostage survivors in 2004...'

Soldiers for God: A Study of the Suicide Terrorists in the Moscow Hostage Taking Siege. Anne Speckhard in *The Roots of Terrorism: Contemporary Trends and Traditional Analysis*. Edited by Oliver McTernan. NATO Science Series, Brussels, 2004.

'Psychologist John Horgan of Pennsylvania State University spoke to one ex-activist...'

The Psychology of Terrorism. John Horgan. Taylor & Francis, 2005.

'Brian K. Barber of the University of Tennessee... severe trauma during the first intifada from 1987 to 1993...'

http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0156216

'study published in May 2017 in the scientific magazine *Nature*, researchers conducted a series of cognitive and psychological tests on 66 Colombian right-wing paramilitaries...'

https://www.nature.com/articles/s41562-017-0118

PsycInfo articles on terrorism

h t t p s : / / s c h o l a r . g o o g l e . c o . u k / s c h o l a r ? q=PsycInfo+articles+on+terrorism&hl=en&as_sdt=0&as_vis=1&oi=scholart&sa=X&ved=0ah UKEwiegYDAjYnVAhUDDMAKHZeECLoQgQMIJjAA

Other articles and books on terrorism, go to

www.start.umd.edu/publications/other pubs.asp#journal articles

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