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Psychology of Transnational Terrorism and Extreme Political Conflict

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devoted actors, group conflict, identity fusion, political polarization, sacred values, transnational terrorism, will to fight

Abstract

Fear of transnational terrorism, along with a revitalization of sectarian nationalism, is sundering social and political consensus across the world. Can psychology help? The focus of this review is on the psychological and related social factors that instigate and sustain violent extremism and polarizing group conflict. I first describe the changing global landscape of transnational terrorism, encompassing mainly violent Islamist revivalism and resurgent racial and ethnic supremacism. Next, I explore the psychosocial nature of the devoted actor and rational actor frameworks, focusing on how sacred values, identity fusion, and social network dynamics motivate and maintain extreme violence. The psychology of the will to fight and die is illustrated in behavioral and brain studies with frontline combatants in Iraq, militant supporters in Morocco, and radicalizing populations in Spain. This is followed by a consideration of how to deal with value-driven conflicts and a discussion of how the Internet and social media encourage the propagation of polarized conflict.



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Evil is the failure to address the necessity of race war [as] a sacred mission.

—William Pierce, founder of the white supremacist *National Alliance* (interview with the author, Arlington, Virginia, 1980)

They [ISIS] are weak now because they have used up their resources, but their fighters don't retreat even if the battle is lost.

—Kurdish soldier at the battle of Kudilah (interview with the author, Makhmour front, Northern Iraq, 2016)

THE CHANGING LANDSCAPE OF TRANSNATIONAL TERRORISM

After two decades of concerted effort by government agencies and academics—chronicled in countless meetings, books, and articles—basic aspects of extremist violence remain elusive: what identifies violent extremists before they act, how they come to radicalize, what motivates their actions, when they will act, which countermeasures are most effective, and what the relationship is between violent extremism and polarized political conflict.

Terrorist groups vary in terms of organization (pyramidal hierarchies, leaderless networks, or fluid coalitions), operational scope (local, regional, or global), driving beliefs (religious, secular, or issue oriented), tactics and targets (assassination, civilian slaughter, or information warfare), ultimate objectives (societal recognition, reform, or overthrow), pools for recruitment and support (marginal, mainstream, or select), and so on (Marsden & Schmid 2011). Differences can also be considerable within extremist groups and over time. For this overview, however, a particular focus is transnational terrorism,¹ characterized as a strategy (*a*) of groups bound together by

Transnational terrorism:

the violent activity, including against nonbelligerents, of groups bound by ideological affinity, whose members form clandestine networks across nation-states

¹Ever since Europe's post-World War II leftist terrorist wave, and before ISIS, terrorism was generally conceived as the use or threat of violence, by small groups against noncombatants of large groups, for avowed political goals (McCauley 2006). But starting with with nineteenth-century anarchists and social revolutionaries, and continuing with anticolonial and antistate terror groups, a transnational dimension has been critical to justify, plan, and target operations. As Theodore Roosevelt (1904) put it (referring to the



ideological affiliation but not by internationally recognized structures of existing nation-states, which (*b*) aims to effect long-term societal change across nations in conformity with a political or religious doctrine (*c*) by persistent means of extreme violence against nonconforming civilian populations meant to destabilize and undermine the prevailing order, (*d*) while increasing conformity and support among populations susceptible to alienation from, and hostility to, that order. Effective countermeasures require potent “international coordination on diplomatic, military, legal, intelligence, humanitarian matters” (Moghaddam & Weiss 2020, p. 121).

For the first 15 years of this century, the predominant form of transnational terrorism has been offensive jihad (holy war). Through extreme violence and intimidation, but also via persuasive promotion of absolutist beliefs, the aim of jihad is to politically advance a strict and radical form of Islamic governance everywhere chaos reigns or can be created (Naji 2006). The demographic makeup of different jihadi² organizations depends on conflict dynamics. As the nature of conflict changes, so do recruitment patterns (Hamid 2017). Thus, for the Islamic State (ad-Dawlah al-Islāmiyah, also known as ISIS or ISIL), establishing the Caliphate over vast territories of Syria and Iraq required thousands of fighters to advance the Caliphate’s frontiers and defend its territory against a coalition of world powers bent on its destruction. Consequently, ISIS drew from a larger, more varied pool of potential recruits than al-Qaeda or any other jihadi group. Whereas joining al-Qaeda involved mainly self-seekers who applied for membership (Sageman 2004), ISIS has relied to a much greater extent on direct recruitment (Perliger & Milton 2016).

ISIS’s broad recruiting message for Muslim-majority countries is that endemic corruption and cronyism block economic and political life opportunities for most people, especially youth. For Muslims in the diaspora, the message is that they will always be treated with suspicion, as second-class citizens or worse, and even the best and brightest cannot expect fair employment opportunity or advancement (Atran & Hamid 2015; cf. Naji 2006). Within ISIS, even those with suicidal tendencies in societies that reject them might find a place of honor.

Muslims constitute less than 10% of France’s general population but a majority of its prison population (Lang 2014). Most inmates are young men who engaged in petty criminal activity because of opportunity costs—that is, lack of opportunity to enter the mainstream workforce and ease of opportunity to enter the criminal milieu given that friends, family, and neighbors may already be in it (as has been the case with African American male youth in some poor US urban areas; see Clark 1970). ISIS tells them that this condition stemmed from their Muslim identity, that surely they didn’t want to be criminals, and that they could become heroes by turning clandestine skills foisted on them by their host society against it to free themselves and help liberate their brethren and the world from oppression (Atran & Hamid 2015). The kernel of truth in ISIS’s argument (the structural lack of opportunity) lends credence to what is not true (that radical Islam alone can improve human life) (Leuprecht et al. 2010).

After a precipitous rise from the 9/11 attacks to a peak in 2014, when the ISIS established its Caliphate, the number of terrorist incidents and resulting deaths and injuries started to decline notably following the 2015–2016 offensive to uproot ISIS from Syria and Iraq: In 2018 there were 15,952 victims from 7,551 attacks worldwide, representing a 53% reduction from 2014 (START 2020). In the last decade, however, terrorism from the radical right has surged, accounting for

anarchists who assassinated President McKinley and several European leaders), terrorism leads to a “general loosening of the ties of civilized society, and may in America as elsewhere, ultimately require . . . the exercise of an international police power.”

²Jihadi, or *mujahid* (holy warrior), is how they refer to themselves. They believe only in offensive jihad to defend and expand the faith, rejecting the so-called greater jihad of moral contemplation as a Sufi heresy from Abbasid times (beginning in the eighth century).

ISIS: Islamic State, also known as ISIL; pejoratively called by its acronym, Da’esh, akin to “trample” in Arabic

ISIL: Islamic State of Iraq and the Levant



Supremacist:

an advocate of the dominance of a group over others by right of natural superiority based on race or ethnicity

USG: United States government

more than one-third of terror attacks worldwide (Romero 2018). Since 2014, US domestic-based attacks have outnumbered jihadi attacks (Cent. Strateg. Int. Stud. 2018). Besides an attack by an Al-Qaeda-inspired Saudi Air Force training cadet in Florida in December 2019, every extremist killing in 2018 and 2019 was linked to far-right ethnonationalist ideology or white supremacy (Anti-Defamation Leag. 2019).

Several converging factors contribute to this rise in far-right and supremacist terrorism, particularly in the United States and Europe, including (a) a wide popular resentment against immigrants from different cultural traditions, especially of Muslim origin (Lichtblau 2016), fueled by a backlash against Islamist-inspired terrorism and economic fears from the Great Recession; (b) the rapid political ascent and expanding influence of the populist radical right, which increase societal tolerance and susceptibility for extremist ideas and actions (Rosner 2018); and (c) the largely spontaneous social networking among supremacists, whose existence and resilience depends even more on Internet dynamics than is the case for radical Islamists—in particular, as this online ecology enables the formation and interconnection of self-organized hate clusters in a global networking-of-networks highly resistant to policing (Johnson et al. 2019).

Although it is generally more difficult to identify homegrown extremists than those from the outside (US Dep. Justice 2020), supremacist violence is especially likely to be overlooked in the United States and Europe because of cultural familiarity and history (i.e., dominance of supremacist ideology and support for groups like America's Klu Klux Klan well into the twentieth century; antimodernism, fascism, and Nazism in Europe; etc.); because domestic groups have legal protection; and because individuals do not need to belong to a hate group in a formal or readily identifiable way to promote and commit acts of supremacist violence (Cent. Strateg. Int. Stud. 2018). In fact, US media reports of Muslim attacks from 2006 through 2015 garnered 357% more attention than other attacks (controlling for fatalities, arrests, and type of target; see Kearns et al. 2019).

Whereas it is a crime to offer material support to a foreign terrorist organization, US constitutional protection of the right to bear arms and free speech limits surveillance or interference with domestic extremism. In recent years, white supremacists were able to substantially ramp up canvassing on college campuses and communities across the country (Hill 2020). Section 230 of the Communications Decency Act of 1996 especially protects social media platforms like Facebook from legal liability for spreading false or defamatory information initiated by third-party users, such as anonymous message boards 4chan and the supremacist-oriented 8chan (now 8kun). Supremacists are also more likely than Islamists to act alone (Gill et al. 2014). Prevention of lone actions implies measures like those geared to forestall rampage shootings, such as control of automatic weapons and mental health screening (Silva et al. 2020). Supremacists who act alone nonetheless usually connect through social media to the like-minded in loosely connected networks (Cai & Landon 2019). These are designedly hard to prosecute or police, because original information sources that are relayed and diffused cannot be clearly identified and assigned responsibility for any harm caused (Beam 1992).

Not until April 2020 did the US government (USG) first designate a white supremacist group as a terrorist organization (Sales 2020). This was possible only because that particular neo-Nazi style group, the Russian Imperial Movement, had no identifiable domestic (US) members, although it was known to “play a prominent role in trying to rally like-minded Europeans and Americans into a common front against perceived enemies” (Hansler & Atwood 2020). The Russian government does not deem this ultranationalist group a terrorist organization.

White nationalist terrorism has copycatted jihadi terms and tactics. For example, in 2007 the Aryan Nations called for an “Aryan Jihad” to eradicate the “Judaic-tyrannical” domination of “so-called Western democratic states” (RX 2007). The link was apparent for Dylaan Roof. In 2015,



after killing nine African American parishioners in South Carolina, he declared that he was “like a Palestinian in an Israeli jail after killing nine people [who] would not be upset” (Dickey 2017). Brenton Tarrant, who in 2019 slaughtered 50 worshippers at a New Zealand mosque, posted an online manifesto extolling Roof and Anders Breivik, the Norwegian supremacist who murdered scores of youth at a leftist summer camp in 2011 to halt Europe’s “national/cultural suicide” via cultural-Marxist feminization and Islamic colonization (Berwick 2011).

The title of Tarrant’s (2019) manifesto, *The great replacement*, refers back to a book by a French philosopher that describes “white genocide” (Camus 2011). It adopts the polar logic of violent jihad, appealing to a transnational brotherhood in a struggle for survival of the fittest between one global faction (the white race) and another (the Muslim community), with no place for innocents.³ Tarrant cites the sieges of Acre (1183) and Vienna (1683), mimicking Al-Qaeda’s and ISIS’s references to historical events like the Crusades and the fall of Constantinople (1453). This intimates that psychological discounting (i.e., privileging the here-and-now over distant times or places) can be suspended to motivate missions of mass murder for a transcendental cause. The same violently exclusionary philosophy has targeted other groups: Minutes before a shooting spree in El Paso, Texas, that killed 22 people and wounded 24, the gunman published *The inconvenient truth* on the same online forum (8chan) as Tarrant’s manifesto, to end the “Hispanic invasion” rotting the country “from the inside out” (Arango et al. 2019). And in India, the Hindu extremist who assassinated Mahatma Gandhi for being too conciliatory toward Muslims is now openly venerated in publications, ceremonies, and statues across the country (Yasir 2020).

In 2020, two partially overlapping sets of events offered new and dangerous opportunities for extremist actions and ideas: the political, social, and economic disruption caused by the COVID-19 pandemic; and sustained protests across the United States and other parts of the world against racially selective, state-sanctioned brutality that have followed the social media posting of a bystander’s video from Minneapolis showing yet another unarmed African American, George Floyd, suffering death in police custody. With COVID-19, far-right and supremacist groups have become increasingly active, inciting attacks against Asians and immigrants (accused of infecting the white race), Jews (who supposedly engineered COVID-19 to destroy Christian economies and take over the world), and police and government officials (thought to represent the corrupt political order keeping the white race down) (Inst. Strateg. Dialogue 2020).⁴ During the George Floyd protests, supremacists posed as militant leftists on social media to incite race war; and armed far-right extremists, intending to bring down the USG, joined anti-racist rallies.⁵

³There has been a marked increase in anti-Semitic incidents worldwide, especially in the West, the deadliest of which have been perpetrated by supremacists and Islamists (Kantor Cent. 2019). From 2017 to 2018 there was a 13% increase globally (74% in France, 60% in Germany), and incidents in the United States doubled from 2016 to 2018. During the 2020 COVID-19 pandemic, US supremacist groups encouraged infecting Jews, blamed for the virus and the global shutdown (Margolin 2020).

⁴A particularly noxious group is the Eichmann Division, a recent offshoot of the Atomwaffen (nuclear weapons) Division that advocates mass killings (including of health care workers) and attacks on nuclear power plants and the electric grid to cause meltdown and spread of radiation. Thus far, all attempts in the United States (and most attempts elsewhere) to acquire radiological materials for dirty bombs (cesium-137, strontium-90, and cobalt-60) have come from domestic extremists prodded by their networks and included insiders working in power plants and other sensitive targets.

⁵As some protests turned violent, the governor of Minnesota claimed involvement of supremacists inciting race war. US President Donald Trump and his attorney general exclusively blamed far-left radicals, promising to designate domestic anti-fascist network (Antifa) a terrorist organization (Bump 2020). In fact, no federal law allows any domestic group to be so designated, including US Nazis. The only avowed extremists arrested at the time were so-called boogaloos who tried to bring explosives to a Black Lives Matter rally (in Las Vegas)



A key strategy of far-right terrorism is to disrupt emergency services and cause society's implosion so that a New Order can be built from the rubble, in an apocalyptic form of terrorism akin to the one professed by the Aum Shirikiyo cult, which unleashed Sarin gas in Japan as a test bed for the ultimate action of destroying the world to save it. Perhaps even more dangerous than the terrorist acts themselves, however, is the insinuation of extremes ideas and conspiracies into the mainstream. Thus, *One America Network News* (oann.com), a source for White House tweets at the time), and QAnon, a conspiracy network active on Facebook, Telegram, YouTube and 8kun, generated wide media coverage of the false claim that COVID-19 and the George Floyd protests were part of a deep state plot engineered by Jewish financier George Soros (Alba 2020).

Today, there is a markedly increased awareness of the direct dangers posed by the rapid rise of racially and ethnically motivated violent extremism, including white supremacist and antigovernment terrorism (US Dep. Homel. Secur. 2019). As with the post- 9/11 response to Islamist-inspired terrorism, however, intellectual efforts and government resources applied to preventing violence linked to transnational terrorism and extreme political conflict have not proven very effective at understanding how and why people become extremists, or in predicting and preventing violent extremism from rooting in people. This may owe, in part, to a lack of regard for the fundamental psychosocial conditions that nurture and sustain extremism.

WHAT ARE THE REAL THREATS?

The 9/11 attacks against the United States cost al-Qaeda between \$400,000 and \$500,000 (Nat. Comm. Terror. Attacks 2004), whereas the USG has spent about 10 million times that amount—several trillion dollars—in the so-called war on terror (Stimson Cent. 2018, Watson Inst. 2019). The toll in terms of lives and communities torn apart and societies and states undone is also staggering. The cascading consequences of the reactions to 9/11 have transformed the Middle East's political map, have helped to ramp up the worldwide flight of refugees to the highest levels since World War II, and have drastically changed air travel, border controls, and the way state authorities physically interact with private citizens and electronically control their personal movements and finances.

In addition, the wide latitude taken by state authorities, or accorded them by frightened publics, to prosecute so-called terrorists has served to deligitimize and smother political adversaries. This is, for example, how Russia has treated people seeking Chechnya's independence, whether fighters or not; how Turkey's government now deals with erstwhile allies, the supporters of exiled religious leader Fetullah Gulen, who preaches interfaith dialogue; how China condones incarceration and reeducation of a million or more Muslims from its western provinces, despite few terrorist attacks in China and knowledge that barely 100 Muslim Uighurs joined ISIS (Hornby 2017); how the United State officially justifies, as a first in its history, assassinating the military leadership of a sovereign country it is not at war with (Iran); and how federal guidelines enable the prosecution of individuals who threaten to spread COVID-19 for whatever reason (e.g., to keep people out of grocery stores) as terrorist "use of a weapon involving a biological agent" (US Dep. Justice 2020b).⁶ "Counterterrorism" is even the labeled means used to justify how Chile handles

and were implicated in murdering law enforcement officers (in California). Boogaloos thrived on Facebook (see, e.g., the Big Igloo Bois profile), advocating civil war and civilization's fall. Twitter also identified white nationalists posing as Antifa and calling for violence (Collins et al. 2020).

⁶A common principle governments use to define terrorism involves a threat or act of violence for ideological or political ends. Because the United States does not have domestic terrorism statutes per se, the principle

indigenous Mapuche activists seeking to protect ancestral lands from takeover by Chinese and other interests (Lagos-Rojas 2018).

Regardless of the actual likelihood of harm from terrorism (the lifetime odds of dying from foreign-born terrorists in the United States between 1975 and 2015 was 1:45,800; see Nowrasteh 2016), there are outsized psychosocial and political effects to it. Rarely in history have so few, armed with such relatively meager means, caused panic among so many (e.g., the 9/11 attackers used box cutters to down planes; ISIS forces were about the size of Norway's Home Guard, with less firepower than Belgium's military). In fact, the general population may exhibit little trauma initially, before pundits and politicians inflate a terrorist event (or reported plot) that fires up the public (Rubin et al. 2005). This destabilizes society by undermining faith in governments' ability to provide basic security, which is what scattered terror attacks in public places aim to provoke along with actions against Muslim minorities to show them that trying to live in peace can bring only pain (Naji 2006).

Overwrought reaction to terrorist attacks, or just their possibility, can lead to preposterous and dangerous outcomes. After the Boston Marathon bombing in 2013, the US Justice Department, prodded by Congress and the media, deemed household pressure cookers weapons of mass destruction when employed for terrorism. This places a kitchen pot on a level with nuclear weapons, trivializing the real means of mass destruction and rendering them less horrific and their use more imaginable (absent public education and policy discussion of such weapons).

In the aftermath of 9/11, the USG aimed to stop terrorism by means of "deterrence, disruption, and interdiction," executed by the criminal justice system and the military (White House 2002). Terrorism often differs from criminal activity, however, in that it seeks support of and recruits mainly from noncriminal populations to radically change the values of the whole society and even the world. A synthesis with evidence from intelligence agencies that has been subject to scientific scrutiny does not credit transnational terrorism with being a criminal activity or mindset (US Senate 2009), although recent trends do indicate a considerable increase in the last decade of petty criminals' involvement with Islamist terrorism in Europe and right-wing terrorism in the United States (further discussed below). In a recent study of 35 Spanish prisons comparing jihadi inmates to Latino gang members and controls (Muslim and non-Muslim common criminals), the jihadis showed significantly greater willingness to sacrifice for their group, and even more so for their values, than did all others (Atran & Gómez 2019).

Criminal justice and military interventions usually occur just after a terrorist event has occurred or when it is about to. This does little to affect what brings about terrorism in the first place. The policy focus is on rational deterrence through cost imposition: "In confronting the range of security challenges it will face in the 21st century, the United States must constantly strive to minimize its own costs in terms of lives and treasure, while imposing unsustainable costs on its adversaries" (US Dep. Def. 2006, p. 18). Such strategy is more applicable to state-on-state power rivalries competing for global economic and political market share than to conflict with nonstate actors fighting for a cherished cause. Suicide bombers, for example, who willingly sacrifice the totality of their self-interests—their lives, and even their families—are not deterred by cost imposition.

doesn't apply to domestic violent extremists. Thus, John Michael Rathbun, apparently inspired by COVID-19's ravaging of nursing homes, was charged with arson for trying to blow up a Jewish assisted-living center after posting on supremacist forums that it was "Jew killing day"; by contrast, James Jamal Curry was charged with a federal terrorism offense for spitting on a police officer responding to a domestic violence call, because he perpetrated a "biological weapons hoax" by claiming he had the virus (Khalil 2020).



Devoted actor: one who is willingly duty bound to self-sacrifice for sacred values and the group those values are embedded in

Sacred values: preferences for beliefs, objects, or practices that people are unwilling to abandon or exchange regardless of costs or benefits

Perhaps the greatest impediment to progress in coping with transnational terrorism and extreme political conflict resides in the conceptual framework that our academic and political culture privileges for interpreting human behavior and formulating social policy. Policy makers, pundits, and the public tend to see extremist events as either rational acts of crass material self-interest or mental abnormality. Academic theories often parallel such views, for example, by defining suicide terrorists as quite rational (Pape 2003, Kacou 2013) or irrational (Harris 2005, Lankford 2013).⁷

The framework for such notions in economic, political, and social science is based on the presumption that humans are rational decision makers whose goal is to maximize the (cost-benefit) utility of their decisions to behave in certain ways rather than others. This paradigm gained dominance during the Cold War as a means of formulating and evaluating domestic and foreign policy (Amadae 2003).⁸ Some influential psychologists, economists, and political scientists note the frequent failure to meet rational expectations because of limitations on cognitive processing (Simon 1997), unfamiliarity with cultural norms (Schelling 1960), resources that cannot be readily divided or disbursed (Fearon 1995), or other motivational biases (Kunda 1990) and ecological constraints (Kahneman 2011). Still, a tacit assumption seems to be that people would aim to be rationally instrumental if made aware of these limitations.

An instrumental and utilitarian approach may not suffice to explain, predict, or prevent transnational terrorism and extreme political conflict. Most radically new political developments are extremist compared to the norm preceding them (despite whatever atavistic features they may have). Simply treating terrorists as criminals or nihilists can obscure the real moral, as opposed to the lesser physical, threat (Richardson 2007). Often, the critical distinction between a terrorist movement and revolution is whether or not it wins and retains power. Overcoming entrenched power, argued French revolutionary leader Maximilien Robespierre (1794), requires “terror. . . justice, prompt, severe and inflexible; it is then an emanation of virtue.”

DEVOTED ACTORS VERSUS RATIONAL ACTORS

Recent cross-cultural experiments and fieldwork concerned with violent extremism in conflict zones around the world suggest that some of the most effective and dangerous operators are devoted actors (Atran 2016b, Gómez et al. 2017). Devoted actors are particularly likely to make costly and extreme sacrifices in defense of sacred values (Atran 2016b), and when personal identities fuse with the collective identity of a primary reference group (Swann et al. 2010) in a family-in-arms of imagined kin (Atran 2010). In fact, since World War II, insurgents willing to self-sacrifice for their cause and group have succeeded on average with up to an order of magnitude less manpower or firepower than police forces and armies dependent on material reward and penalties (promotion, pay, or punishment) (Arreguín-Toft 2001).

The notion of sacred values refers to any preferences regarding objects, beliefs, or practices that people treat as incompatible or nonfungible with profane issues or economic goods, such as belief

⁷Terrorist leaders, distinct from the would-be martyrs themselves (Hoffman & McCormick 2004), also use suicide attacks as a rationally calculated tactic for material and psychological effect (Merari 2010) and for increasing political market share.

⁸Although the rational actor framework became a scientific paradigm during the Cold War, it has been dominant in British (then American) economic and political philosophy at least since Hobbes, as well as in the war planning and policy making of Western societies more generally since the Napoleonic Wars (von Clausewitz 1832). The US National Security Council, which has set security and foreign policy since 1947, still only has regular input from military, intelligence, and economic policy attendees—not health, education, or social welfare ones.



in God or country. They tend to be highly stable and difficult to influence socially (Sheikh et al. 2013, Pincus et al. 2014). They are also insensitive to spatial and temporal discounting: Whereas in everyday affairs remote events and distant objects and places have less importance for people than what is at hand in the here-and-now, matters linked to sacred values—however far removed in time or space—are more important than mundane concerns. For example, people voluntarily abandon homes and families under great hardship to go on missions that relate to objects and events from decades, centuries, or millennia past, as with the Crusades or many early Zionists or like the volunteers from more than 100 countries who came to Syria to fight for the restoration of a long-gone Islamic Caliphate. People most willingly engage in costly sacrifices and extreme actions to protect or advance nonnegotiable values, whether religious or secular (e.g., nationalism, democracy) (Rappaport 1971, Baron & Spranca 1997, Tetlock 2003, Ginges et al. 2007, Graham & Haidt 2012).

A fused group is one in which people feel viscerally connected to one another, imbued with a shared sense of mission and collective invulnerability, and where each individual is willing to self-sacrifice for every other (Swann et al. 2012, Whitehouse et al. 2014, Gómez et al. 2020). A group of devoted actors, like a band of terrorist “brothers” mutually committed to martyrdom, often originates or develops from a prior action-oriented association: for example, people who shared combat experience or even sports teammates (Sageman 2008, Atran 2010, Whitehouse 2018).

Readiness to sacrifice for the group has an evolutionary logic: When a threat to the group is great, and prospects for survival are dim, only if an adequate number of members of the group are willing to make the ultimate sacrifice can the group resist enemies more powerful but less committed to disregarding the costs and consequences of action. This sacrificial logic is apparent in the actions of terrorist groups like Al-Qaeda and ISIS, even with the recent membership changes from relatively educated and well-off recruits⁹ to increasingly marginalized youth.

Darwin considered this sort of evolutionary logic in terms of moral virtue. According to him, virtue was not about fairness and reciprocity, as with the golden rule or the do no harm (if you can help it) principle, nor about empathy—issues dominating most recent studies of morality in cognitive, social, and neuropsychology that are at the core of the liberal democratic ethics (Baumard et al. 2013, Van Slyke 2014). By contrast, Darwin (1871, pp. 163–65) saw the virtues of “morality. . . patriotism, fidelity, obedience, courage, and sympathy” as products of “natural selection.” He conjectured that groups populated by heroes and martyrs, better endowed with such virtues, would dominate in history’s unrelenting competition for survival. Nowadays such virtues are assimilated to a propensity for “parochial altruism” (Choi & Bowles 2007). Parochial altruism is most apparent in war and other extreme conflicts where self-sacrifice occurs even if there is a way out of the conflict and probability of survival is otherwise very low.

Across history and cultures, we find that the most powerful, resilient, and enduring forms of group identity are grounded in sacred values that are immune or strongly resistant to material trade-offs, such as the absolute refusal to sell out one’s religion or country at any price (Ginges et al. 2011). Often such transcendental values, or “ultimate sacred postulates” (Rappaport 1999), are believed to be conferred by Nature or Providence and conveyed in canons and commands

⁹Ever since the nineteenth-century anarchists, science education in engineering and medical studies has been a frequent criterion of leadership in terrorist and revolutionary movements, arguably because such studies demonstrate hands-on capability and potential for personal sacrifice through long-term commitment to a course of study that requires delayed gratification. Thus, al-Qaeda was initially populated by fairly well-off, well-educated individuals, many of whom studied engineering and medicine (Bergen & Lind 2007, Gambetta & Hertog 2016). William Pierce, founder of the white supremacist National Alliance, was a physicist specializing in aerospace engineering.



whose sense one can never quite fix on, such as the belief in a sentient deity with no body or the inevitable march of history toward freedom or equality. The open texture of such beliefs, which are often literally senseless, ultimately renders them immune to logical or empirical scrutiny (Atran & Norenzayan 2004). This is as true of core religious beliefs as of the axiomatic premises of any salvational secular “-ism”: socialism, communism, anarchism, fascism, liberalism, and nationalism.

Religious or ideological consensus does not consist principally in reasoned argument or fact checking but emanates from emotional bonding in ritual communion. Costly ritual commitment to open-textured (reinterpretable) or apparently absurd beliefs deepens trust by reliably marking cooperators with sacred symbols, thus binding the group for common defense (Atran & Henrich 2010, Norenzayan et al. 2016). The more belligerent and dangerous a group’s surroundings, the more proprietary the group’s sacred values and rituals. This enhances mutual reliance within the group but exacerbates distrust and hostility toward other groups (Wilson 2002). In such cases, are not God and group one, as French sociologist Émile Durkheim (1912) memorably put it?

Compare this to well-reasoned social contracts that manage individual interests for mutual benefit. Reasoning by backward induction—an eminently rational move—yields realization that a better deal someday may be available. This encourages defection before others realize what the future may hold (Atran & Axelrod 2008). To avoid this potentially lethal threat to the group, even avowedly secular nations and movements assiduously deploy important religious-like beliefs, ritual, and symbols (Anderson 1983). Consider the “unalienable rights of life, liberty and the pursuit of happiness” for which American colonists—then the world’s wealthiest people per capita—would sacrifice “our lives, our fortunes and our sacred honor”: Thomas Jefferson’s initial draft of the Declaration of Independence held these rights to be “sacred” before rationalizing them as “self-evident” (Boyd 1950, pp. 243ff.). American and European revolutionaries implemented “universal” rights through just war, social engineering, and economic competition (Hunt 2008). But for nearly all of prior human history no such rights existed: Slavery, genocide, infanticide, cannibalism, repression of minorities, and exploitation of women were more common fare.

Today, the very meaning of equality and freedom and the political means needed to achieve them remain open to wide interpretation and to competing notions of what is tolerable or taboo. Current forms of polarized political conflict familiar in the West—over a southern border wall in the United States (to block immigration, including refugees), Brexit (Britain’s withdrawal from the European Union to recover sovereignty and security), the Yellow Vests movement in France (against economic inequality and elite governance), or Catalan independence (electoral freedom to end Spain’s centuries-old “occupation”; see Giménez Barbat 2019)—share two crucial features with more violent conflicts, such as the fight with ISIS (Gómez et al. 2017), the faceoff with Iran (Dehghani et al. 2010), or the struggle between Israelis and Palestinians (Ginges et al. 2007). These common characteristics are the entrenchment of contested issues, regardless of material aspects, in non-negotiable sacred values (like God, nation, culture, sovereignty, freedom, democracy, and equality) and the belief that one party, because of its seemingly contrary values, wants to exclude the other party from political or social life, or—for the most extreme militants—from life itself (Hoffer 1951).

THE IMPORTANCE OF IDENTITY FUSION, SOCIAL NETWORKS, AND GROUP DYNAMICS

Knowing how sacred values affect decision making, by invoking moral judgments and choices that disregard or discount material interests, may be necessary to explain many extreme and costly behaviors, but not sufficient. The influence of sacred values on extreme behavior may also depend on the extent to which they become part of one’s identity and are embedded in one’s primary



reference group. Internalized in this way, belief in sacred values reduces society's costs of policing moral transgressions through self-monitoring, and it blinds people to offers to exit the group, however reasonable, rewarding, or even life-saving they may be.

Our studies of suicide terrorism and violent political extremism suggest that people don't kill and die just for a cause, but also for one another—their brotherhood, fatherland, motherland, homeland. They sacrifice for a group of mostly genetic strangers whose cause binds them to an imagined family where kin psychology holds powerful sway (Atran 2010). As the “Oath to Jihad” (*ba'yah*) of Harkat ul-Mujahedin, a Pakistani affiliate of al-Qaeda, has it, “Each martyr has a special place, among them are brothers as there are sons and those even more dear” (cit. in Atran 2004, p. 79).

In line with these observations, the theory of identity fusion holds that when the self- concepts of a collection of people wholly merge with a group identity, then each person in the group becomes willing to sacrifice for every other and to engage in extreme pro-group behavior when the group is threatened (Swann et al. 2012). Individuals and groups become imbued and empowered with a fighting spirit tied to sentiments of invincibility and exceptional destiny. Identity fusion resembles social identity theory (Tajfel & Turner 1979) but emphasizes the kin-like bonding of people and values ritualized in oaths and acts that often involve shared pain and suffering (Whitehouse 2018), rather than the (conceptual and emotional) evaluation of one's self-image as belonging to one group compared to others. Field studies indicate that radicalization often involves fusion via “born-again” identity change within tightly clustered social settings: family life, sporting activity, neighborhoods, workplace, school, prison, refugee and diaspora communities, and social media cliques (Sageman 2008, Atran 2010). This indicates that a public health approach, rather than a strictly criminal one, may be more appropriate (Alcalá et al. 2017).

Extremist leaders of whatever political or religious persuasion—especially those who are charismatic (more often than not, well-educated) and whose personal passion for cause and group captivates members—are often important in fusing groups around polarizing ideas and in driving action against other groups (Stern 2020). Mass recruitment, however, depends on peer-to-peer relationships. For example, reports from West Point's Combating Terrorism Center (Perliger & Milton 2016) and the Soufan Group (2014) indicate that most of the people who joined ISIS arrived in bunches. This was also true for those joining al-Qaeda (Sageman 2004, Atran 2010), although, as mentioned above, ISIS employs more direct recruiters. Even those recruited via the Internet often link up with friends to enlist (Hamid 2020). These cohorts involve preexisting social ties that typically cluster in particular towns and neighborhoods (Perliger & Milton 2016). If recruitment mainly involved individual interaction with social media or recruiting agents, there would be a more diffuse enlistment pattern.

The Paris and Brussels attacks of 2015 and 2016 demonstrate how ISIS increased the efficacy of its operations by increasing reliance on local networks of preexisting social relationships (Atran & Hamid 2015, Hamid 2018). In 2014, ISIS sent back at least 21 operatives from Syria to attack soft (civilian) targets in Europe. All were French speakers, most of them from France and Belgium and others from France's former North African colonies. They returned as individuals or in pairs. All attacks were planned by ISIS's external operations arm, EMNI [aka Amn al-Kharji (external security)]. All failed, save one, largely owing to the absence of local networks to facilitate operations. By contrast, the lethal outcome of the attacks in Paris (November 2015) and Brussels (March 2016) involved a pervasive European network of overlapping, preexisting local social ties. This network included people with no direct complicity in planning or execution or even knowledge that attacks would occur. A dozen individuals involved in both sets of attacks, including the two EMNI attack leaders, came from different local recruitment pools in France and Belgium.

Identity fusion:

merging of individual and group identity, wherein the willingness to self-sacrifice for each other creates a sense of inviolable solidarity

EMNI: an intelligence unit of the Islamic State responsible for external operations, including terrorist attacks beyond Syria and Iraq



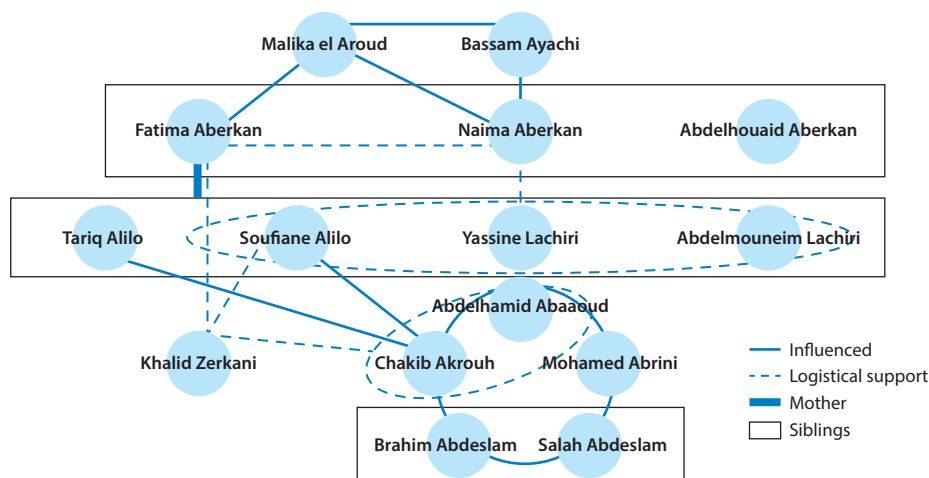


Figure 1

Family influence network of Fatima Aberkan, the Belgian “Mother of Jihad.” Fatima’s brother, Abdelhouaid, helped facilitate Ahmed Shah Massoud’s assassination on September 9, 2001, which Osama Bin Laden believed would gain him the support of the Taliban for the 9/11 attacks. In 2015, Fatima was condemned to 8 years in prison for investing her entourage with jihadi ideology, and she was condemned again in 2016 as leader of a terrorist group that helped recruit numerous individuals into Khalid Zerkani’s network, which exploited family, friends, and underworld connections in France and Belgium to set up the attacks. While in Syria, she sent messages to her circle in Belgium encouraging them to travel to Syria to fight. One of her sons died in Syria; another was jailed for terrorist activities. Two daughters went to Syria. Fatima’s sister, Naima, was also tried and condemned for jihadi activities. Figure adapted with permission from Hamid (2018); copyright 2018 Artis International.

Network analysis indicates that women often are key social connectors that maintain terrorist networks. Women tend to fall under the radar of security services focused on those actively engaged in criminal acts (making women an ideal stealth weapon for terrorist groups; see Bloom 2011). The role of women also changes as a function of conflict dynamics. Thus, al-Qaeda has primarily been a clandestine group that foments spectacular acts of violence in multiple venues to gain attention and audience, and it relies mainly on young men (Junger-Tas et al. 2012) who are more prone to violence than women and are traditionally more solicited for war (Van Vugt et al. 2007). By contrast, ISIS sought to build a territorial state, which requires women to be populated and maintained. Once ISIS declared its Caliphate, between one-fourth and one-third of all who joined were women (Atran & Hamid 2015). A few became key links between ISIS in Syria and local European communities, like Fatima Aberkan in Brussels’ Molenbeek neighborhood (**Figure 1**).

Fatima Aberkan’s role suggests that radicalization is not merely about singling out radical individuals, but about identifying networks within which individuals, families, peer groups, and authority figures operate. Even in the age of the lone wolf terrorist, absolute isolation does not exist: Ideas are shared, interlinked, and made actionable even without physical contact (Schuurman et al. 2019).¹⁰

¹⁰Lone actor terrorist profiles vary. Those inspired by al-Qaeda have often been students seeking approval from authority figures; right-wing terrorists are more likely to be of limited education, unemployed, with criminal records, and with a history of mental illness (Gill et al. 2014)—tendencies also emergent in ISIS-inspired lone actor attacks in Western Europe (Basra & Neumann 2017).

We may never accurately predict which people will break out into violence or when (much as we cannot predict which steam bubbles will first rise and burst when water boils); however, we can detect some of the chief enabling conditions that are most liable to ignite a breakout: failed states, weakened or collapsed social structures, absence or corruption of moral authority, and unsettled conflict environments (where most terrorist events occur; see START 2020). The devitalized communities emanating from these conditions are liable to host any number of pathogens that further disrupt and enfeeble them. These include robbery, drug trafficking, extortion, and Robin Hood-esque variations on these crimes that gain local support as forms of social resistance in a hostile environment but actually further debilitate communities. The distress of such communities amplifies the effects of perceived unfair treatment, deprivation, and marginalization from mainstream or majority culture, and these communities become further prey to extremist notions (Van den Bos 2018). Thus, when after the largest manhunt in modern European history antiterrorist forces finally captured Salah Abdeslam, the only surviving member of the Paris attack group, in an apartment occupied by the Aberkan family in the Molenbeek neighborhood of Brussels, there was relief in the neighborhood. But there was also deep rancor directed against the police, the government, the media, and the mainstream public for having stigmatized Molenbeek as a jihadi fief.

Understanding how values become embedded in social networks and drive actions requires comprehending group dynamics (Magouirk et al. 2008, Smaldino 2014). These dynamics, in turn, involve understanding the epidemiology of how radical ideas that represent values spread within host networks (Sperber 1985, Bond & Bushman 2017). These dynamical network properties enable the distribution of thoughts and tasks in ways that that no one member or even the totality of members may completely control or even understand. The resulting diffuse structuring also makes it very hard for authorities to police and interdict developments (for case studies, see ARTIS Int. 2009, Hamid 2018). Social media only amplify these features, as with local white supremacist clusters that form online and self-organize into diffuse global networks that link up across Internet platforms and into the dark net. These clusters only strengthen and expand when governments, or single platforms like Facebook, try to take them down. One reason is that these social media hate clusters form along a power law distribution, which cannot plausibly result from, or be subjected to, top-down command and control (Johnson et al. 2019).

ILLUSTRATING FIELD-BASED RESEARCH: WILL TO FIGHT ON THE ISIS FRONTLINE AND ELSEWHERE

Providing a scientific basis for interventions aimed at preventing or parrying violent extremism requires qualitative fieldwork (Horgan 2012) to discover what people believe and do (versus prior suppositions; see Sommers 2019), which is then integrated into a more generalized theory and tested with rigorous methods (Freilich & LaFree 2016, Atran et al. 2017). It also requires attention to decision makers' perceived policy priorities, as support for terrorism research exists only because of pressing public need. Indeed, it is arguable that terrorism per se is primarily a policy-driven notion and political strategy that otherwise has no conceptual depth (i.e., it is not a natural kind in any scientifically meaningful sense). Of course, scientists must retain strong independence to avoid co-option by bureaucratic or political interests.¹¹

¹¹The lion's share of the US Department of Defense's budget for social science and cultural knowledge went to programs like the Human Terrain System Military Intelligence Program, which sought to embed experts in combat units to achieve "operationally focused sociocultural capability" (US Army Intell. Cent. Excell. 2011,



PKK: Kurdistan Worker's Party, a Marxist-Leninist organization based in the Kurdish regions of Turkey and Iraq, dedicated to creating an independent Kurdish state

To illustrate the importance of policy to basic research, and of research to informed policy, I present a series of recent behavioral and brain studies with frontline combatants, radical populations, and more typical Westerners. Our team's research in the field generally begins with interviewing political and military leaders to understand how elites may be thinking (Atran et al. 2007) and to gain access to participants in areas we want to cover (while also gauging how to avoid elite influence and expectations regarding the research). After spending time in the field with participants—including fighters, militants, and would-be volunteers for combat—for the days, weeks, or years needed to establish trust, we carry out semi-structured interviews to generate hypotheses about behavior. Next, we design experiments and measures to be initially tested in laboratory settings or online, where we can carefully control procedures and monitor results. Then, we return to the field to more rigorously probe the participants. If field results prove robust, we follow up for generality with mass surveys incorporating experimental design that are given to populations from different regions and cultures.

When, in September 2014, ISIS was at the height of power, President Barack Obama backed the verdict of his Director of National Intelligence: "We underestimated the Viet Cong. . . and overestimated the will of the South Vietnamese. In this case, we underestimated ISIL and overestimated the fighting capability of the Iraqi army. . . . It boils down to predicting the will to fight, which is an imponderable" (cit. in Payne 2014). Yet our research suggests quite the opposite: Predicting who will fight and who will not, and why, is quite ponderable and amenable to scientific study, as long as one takes seriously the sacred and spiritual dimensions of human conflict and does not restrict analysis to material and mundane costs and consequences.

In winter 2015, when the ISIS frontline was relatively stable, we found that willingness to fight and die was greatest for those who believed they were fighting for sacred values and who also perceived spiritual strength (*rubi bi gbiyyat*, in both Arabic and Kurdish) to be more important than material strength (manpower or firepower), whether of their own group, allies, or enemies (Atran 2016b). Only the secular Marxist-Leninist fighters of the PKK [Partiya Karkerên Kurdistanê (Kurdistan Worker's Party)] matched religious ISIS fighters in terms of commitment to their beliefs and willingness to sacrifice (e.g., verified numbers of wounded and killed, time on battlefield even when wounded, etc.). The United States considers both ISIS and the PKK to be terrorist organizations.

In winter 2016, we conducted a quantitative field study with Iraqi Army forces of mixed Kurdish and Arab elements, Arab Sunni militia, and Peshmerga (Kurdish militia) ($N = 60$) (Gómez et al. 2017). All subjects had participated in a fierce fight for Kudilah village, one of the first battles in the offensive to retake Mosul, the largest Iraqi city under ISIS rule (Atran 2016a). A final round of 14 studies in Spain with large online samples ($N = 6,649$) further tested hypotheses about the cognitive mechanisms underlying the frontline results. The field study critically informed the online studies, and together they revealed features of the greatest willingness to make extreme sacrifices: (a) commitment to the sacred values of fused groups and (b) readiness to forsake commitment even to family and fused groups for those values, if necessary.

Sacred values were identified by a complete refusal for any trade-offs under any conditions. To measure identity fusion, subjects were presented with series of increasingly overlapping pairs

p. 10). By September 2014, the program had cost more than \$700 million for efforts generally shunned by academia and judged ineffective or worse by many military commanders (Sterling 2010, Gezari 2015). Another problem is that much USG survey work in conflict zones is hired out to foreign (local) contractors whose procedures can be dubious (e.g., conducting and discussing surveys with many people at once) and who tend to "discover" what they think the USG wants to find.



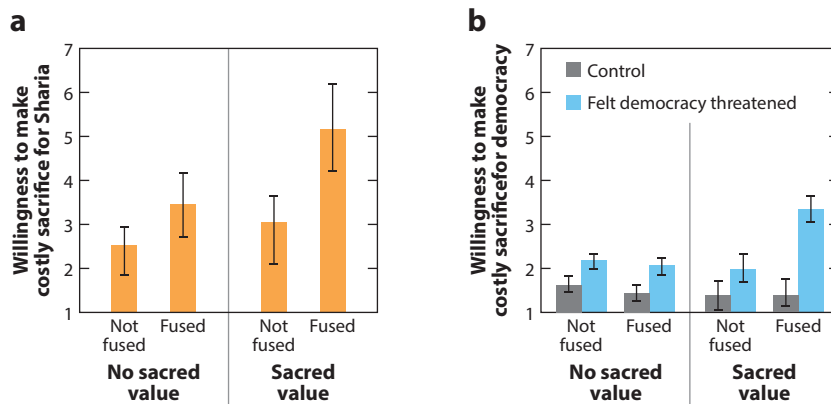


Figure 2

Interaction of sacred values and identity fusion. (a) In jihadi-supporting Moroccan neighborhoods, people who viewed strict imposition of Islamic law, or Sharia, as a sacred value and who identified closely with a kin-like group (i.e., were fused with the group) expressed the most willingness to kill and die for Sharia. (b) Spaniards reported a willingness to kill and die for democracy as a sacred value when identifying closely with a kin-like group of friends, but to a lesser extent than Moroccan participants and only under explicit threat priming. Figure adapted from Sheikh et al. (2016).

of circles (Swann et al. 2012): One circle represented the respondent, and the other circle represented a group identified with a recognizable flag or banner. Participants who chose an entirely overlapping pair were judged fused with the group, resulting in a dichotomous measure.

Prior field and online studies in Western Europe and North Africa suggested that although identity fusion and sacred values independently motivate the willingness to make costly sacrifices, the interaction of these two factors maximizes the willingness to sacrifice (Figure 2). In a previous study of two urban Moroccan neighborhoods with a legacy of youth involvement in militant jihad (Sidi Moumen in Casablanca, Jemaa Mezuak in Tetuan), some 30% of sampled residents scored as devoted actors, whose willingness to sacrifice was maximized through the interaction of an absolute commitment to strict application of Islamic law (Sharia) as a sacred value and the fusion to a kin-like group of comrades. In another study of Spaniards, only 12% tested as devoted actors. They considered democracy sacred and were fused to a kin-like group of friends, although few of them were willing to kill or die even when primed with threats from al-Qaeda and ISIS (Sheikh et al. 2016).

In our subsequent ISIS frontline studies, all fighters considered some values sacred and all were fused to at least one larger social group [kin-like group of comrades, Iraqi nation, Muslim *ummah* (community)] or a particular fighting group (Sunni Arab militia, Iraqi Army Kurds, Peshmerga) (Gómez et al. 2017). At least 90% of subjects were also fused with family. In a forced-choice experiment, most combatants (59%) responded that they would forsake their families rather than their sacred values. A great majority (86%) opted to forsake any and all groups for at least one sacred value. Combatants who scored highest on a scale of costly sacrifices chose value over group, as did the most devoted Spaniards in an online study.

At least since World War II, most studies of the military history and psychology of combat troops have emphasized commitment to comrades over cause (Stouffer et al. 1949, Smith 1983, Whitehouse et al. 2014). When soldiers truly believe in the sacredness of their cause, however, as is arguably the case with ISIS, PKK, Viet Cong (Moskos 1975), elements of Germany's Waffen SS in World War II (Atran 2020), or antifascist Lincoln Brigade volunteers in the Spanish Civil War

(Dollard 1944), then cause may trump group. The most committed fighters would make wrenching decisions when compelled to choose between group and value: PKK and captured ISIS fighters recounted to us that they gave up defense of their families for their cause (Kurdish homeland or Islamic Caliphate; see Atran 2016b)—a behavior that also runs counter to the evolutionary rationale of sacrifice as intergenerational investment (Azzam 2005).

In 2017–2018, we followed up with studies of young men emerging from ISIS rule in the Mosul region (Atran et al. 2018). We first asked senior policy makers in the US, British, German, and French governments what questions they most wanted answered with help from social science research. Broadly, they responded: What do people think of ISIS? What do they think of a unified Iraq? What political future do they want? What would they tolerate?

In the field, most people we interviewed initially embraced ISIS as “the revolution” (*al-Thawra*). Although many came to reject ISIS’s brutality, ISIS had imbued about half of our sample of young Sunni Arab men with its two most sacred values, for which they expressed willingness to self-sacrifice: strict belief in Sharia and in a Sunni Arab homeland, as opposed to a unified Iraq. Those believing in these values expressed significantly greater willingness to fight and die than supporters of a unified Iraq did. Whereas ISIS might have lost its territorial control, it had not necessarily lost the allegiance of the region’s young Sunni Arabs to its core values.

In addition, we found no significant support for democracy across our post-ISIS study population. In the West, elections under universal suffrage represent a late stage in liberal democracy’s development. Absent prior establishment of liberal institutions (freedom of expression, independent judiciary, minority guarantees, etc.), elections are prone to yield a tyranny of the majority. That’s how Iraq’s Sunni minority considers the Shia majority that took power under US-sponsored elections (Atran et al. 2018). Moreover, while liberal democracy has been successful in promoting consensus in industrial nation-states among people of diverse backgrounds who are unknown to each other (Anderson 1983), it may not be very effective at arbitrating across ethnic, tribal, and confessional conflicts (just as it does not help in family disputes).

The take from our field and online behavioral studies is that will to fight in lethal conflicts may remain imponderable—and associated security challenges may remain seemingly insoluble without overwhelming force—if we observe matters through the narrow focus of instrumental rationality. From an initial evolutionary vantage, we should expect kin or kin-like groups to be privileged over abstract ideals. Darwin (1871, pp. 159–60) himself puzzled over why individuals would self-sacrifice for notions that “come to be highly esteemed or even held sacred,” while also realizing that doing so would “certainly give an immense advantage” to groups populated by those who would “by their example excite . . . the spirit” of self-sacrifice in others. The devoted actor’s privileging of values over kin backs the thesis that humans forge powerful (and potentially wide-reaching) religious and political bonds by readiness to sacrifice their life and loyalty to kin for a greater abstract ideal. The word Islam itself signifies “submission” of all tribal and group allegiances to God’s word and command, whereas Abraham’s readiness to slay his beloved son to prove devotion to a sacred imperative is the principal parable of monotheism. More generally (Fukuyama 2012), subordination of family and tribe was arguably necessary for the historical formation of larger groups built upon political principles.

FURTHER BRAIN AND BEHAVIOR STUDIES

Recent brain and behavior studies with radicalizing populations complement the findings of research with combatants in Iraq and noncombatants in Spain. Previous research indicates that discrimination towards Muslim immigrants leads to their social and economic exclusion (Adida et al. 2010). Moreover, when those who feel marginalized continue to face discrimination, their support



grows for radical groups (Lyons-Padilla et al. 2015) that are seen to enhance community cohesion while promoting violence in the community's defense (Gómez et al. 2011, Alcalá et al. 2017). We wanted to find out if social exclusion increases commitment to sacred values or even leads to sacralization and sacrifice on behalf of values not initially considered sacred.

We used ethnographic surveys and psychological tests to explore the identities of 535 young Muslim men of Moroccan origin in Barcelona, where ISIS supporters murdered 13 people and maimed 100 in August 2017 (Pretus et al. 2018). The focus was on neighborhoods that law enforcement deemed susceptible to jihadi recruitment. Half of the young men ($N = 268$) showed vulnerability on all measures of extremist recruitment. Of these, 38 (whose average age was 19) who had already expressed a "willingness to engage in or facilitate violence associated with jihadi causes" agreed to a two-stage neuroimaging experiment.

In the first stage, we identified participants' sacred values and then probed their willingness to sacrifice for values. We found such willingness to be greater for sacred values (e.g., forbidding cartoons of the Prophet, preventing gay marriage) than for nonsacred but important values (e.g., women wearing a veil, unrestricted construction of mosques). In the second stage, those in the neuroimaging study played a ball-tossing game, Cyberball, against players with Spanish names. While playing, half of the study's subjects were suddenly excluded from being passed the ball.

After the game, while being scanned, all participants were asked about their willingness to sacrifice for their values, including fighting and dying. For sacred values, their brains showed greater activity in the left inferior frontal gyrus, an area associated with deontological, rule-bound decision making that we had previously found to be associated with sacred values in a mainstream US sample (Berns et al. 2012). The Barcelona-Moroccan scans revealed less deliberative, more rapid responses (consistent with duty bound rather than utilitarian reasoning) when questions concerned sacred versus nonsacred values, as well as greater willingness to fight and die for sacred values. We replicated these findings in Barcelona among immigrant Pakistani supporters of Lashkar-e-Taiba, an al-Qaeda associate (Hamid et al. 2019).

Most strikingly, among the participants excluded during the ball-tossing game, the willingness to sacrifice for nonsacred values elicited levels of left inferior frontal gyrus activity similar to those shown for sacred values. Excluded subjects also expressed greater willingness to fight and die for these sacralized values, and the interaction between value sacredness and social exclusion reliably affected the emotional intensity allied with defending the values. The neurological impact of being marginalized indicated that issues that excluded participants had previously considered nonsacred became more important and more like sacred values worth fighting and dying for.

In prior behavioral studies in Iran (Dehghani et al. 2010), we found that international sanctions—a more general, political form of exclusion—had apparently sacralized belief in the nuclear program among 11–13% of the population (mainly rural religious backers of the regime) as well as behaviors tied to the program (e.g., increased and higher uranium enrichment and production of centrifuges consistent with possible weapons development). Today, those who view nuclear development as a sacred value frequently invoke the Quran as a justification along with national rights. This implies that issues do not need to be part of longstanding cultural or political traditions to be sacralized, but in becoming sacred they often are affirmed so.

These studies suggest that social and political exclusion foster radicalization and consolidation of sacred values for which people are willing to fight and die (often prompted by a catalyst event, such as a grave insult, police brutality, or imprisonment; see Silke 2003, Khosrokhavar 2016). Other research indicates that sharing painful experiences of marginalization or direct violence favors identity fusion, which motivates self-sacrifice, including willingness to fight for the group (Whitehouse 2018). If so, policy makers might be wise to counteract social exclusion and sacralization of values to forestall radicalization.



DEALING WITH VALUE-DRIVEN CONFLICTS

As reported to the US Congress (US Senate 2010) and UN Security Council (Atran 2015), our field studies with terrorists, with populations susceptible to radicalization, and in conflict zones indicate that counternarratives that seek simply to delegitimize (rather than to reinterpret and reframe) the sacred values of others usually backfire, increasing the others' willingness to use violence. Threats or enticements to abandon or compromise values that have become sacralized usually boomerang, arousing emotions both negative (e.g., anger) and positive (e.g., joy of revenge; see de Quervain et al. 2004), inciting moral outrage (e.g., as intimidated by amygdala activity; see Berns et al. 2012), and leading to enduring conflict. Examples of this escalation would be the Israeli-Palestinian conflict (pitting Palestinians' right of return against Israelis' right to settle in Greater Israel; see Atran et al. 2007, Ginges et al. 2007) or increasingly intractable conflicts over gun rights, abortion, and immigration. These issues are currently sacred, or are being sacralized, amid an acute political polarization in which each side is thought to marginalize the other.

How then to resolve conflicts over sacred values? One possibility is to recognize, and signal respect for, the sacred values of the other side when tolerable, but also to afford opportunities for reinterpreting and reframing (as with religious canon; see Atran & Axelrod 2008). For example, in September 2013, the Oxford University's Centre for the Resolution of Intractable Conflict hosted meetings with Iranian, Israeli, Saudi, European, and US representatives. Consensus was reached that Iranian recognition of the Holocaust as a crime against the Jewish people (a sacred matter for Israelis, respected as such by attending Americans, Europeans, and even Saudis) could ease the opposition to an agreement on Iran's national right to develop nuclear energy (a sacralizing matter for Iranians; see Dehghani et al. 2010) but not nuclear weapons. Iranian President Hassan Rouhani was informed of these results, and days later he publicly declared the Holocaust a reprehensible crime against the Jewish people, helping pave the way to a nuclear accord (now abrogated by the United States).

Another example concerns Salafi preachers who sometimes succeed in diverting suicide bombers to a less violent defense of their faith. Mainstream Saudi Salafi preachers argue that although strict adherence to Sharia law and the expansion of Islam are righteous and unassailable values, they are best implemented through nonviolent efforts at persuasion—an argument apparently heeded by members of a suicide squad on the Indonesian island of Sulawesi (Atran 2010). In our neuroimaging study with Lashkar-e-Taiba supporters (Hamid et al. 2019), we found that an overlapping region of the dorsolateral prefrontal cortex was active when scanned subjects were presented with (contrived) peer ratings of unwillingness to fight and die for sacred values. Surveyed later, those exposed to the peer ratings shifted toward less willingness. This suggests that social pressure from less belligerent peers may induce flexibility in others' readiness to use violence for sacred values, provided there is no attempt to discredit those values.

Engaging vulnerable networks requires a direct involvement with youth in their communities, chat rooms, and message boards, which also provides evidence of initiatives that are failing or working (Sommers 2019). Whether jihadis or white supremacists, in Europe or the United States, most people who join extremist groups today are in their teens and twenties (HOPE not hate 2017, US Gov. Account. Off. 2017). They are frequently in transitional stages of life: students, immigrants, people between jobs or seeking mates, and so on. Having departed their homes, they look for surrogate families of friends and fellow travelers to find community and purpose in activist groups that offer excitement (Schumpe et al. 2018)—a thrilling call to glory, contrary to the moderation so often proffered by authorities (Atran 2015). The lure of community is especially acute where there are sentiments of community collapse or social exclusion, whether or not associated with economic deprivation. This suggests that our ability to deal with the realities and



challenges that youth face—the uncertainties, anxieties, hopes, and dreams—will decide whether the bane of terrorism and extreme political violence wanes, continues, or surges.

Community service work and social media interventions may both be needed for any serious effort to reduce threats from violent extremism. Kennedy (2012), a criminologist, has demonstrated the importance of community work in reducing homicide in street gangs. Granted, value-driven groups can markedly differ from gangs in terms of commitment, readiness for self-sacrifice, and disregard for material incentives, as noted above in our prison study comparison of gang members with jihadis. Still, research suggests that engagement in social networks with nonradicalized family (Koehler 2015), friends (Jasko et al. 2016), or other trusted actors hinders radicalization.

Proactive policies require going beyond considering youth as victims, perpetrators, or needy recipients of others' initiatives: What is needed are policies that afford youth the political agency to make decisions about their own futures. Regrettably, governments consider young people today mostly in terms of a youth bulge to bat down rather than a youth boom, that is, society's most creative potential source of ways to end violent extremism (Sommers 2019).

An alternative way to deal with seemingly intractable, value-driven conflict is to deploy overwhelming force to demolish the social networks and fused groups in which those values are implanted. This option may be inescapable in some cases, as with ISIS or Nazi Germany. Our research, however, suggests that one plausible means of hindering radicalization and eluding intractable conflict is to impede noxious values from developing into sacred values to begin with, including engaging against social (and political) exclusion. This could allow more standard material approaches a chance to work using the language of compromise together with material inducements, letting other less bellicose and more tolerant values compete for devotion.

COUNTER-ENGAGEMENT AND SOCIAL MESSAGING

The United States and its allies focus on countering terrorism and malign influence campaigns with counternarratives that “emphasize facts over propaganda” (Krause & Van Evera 2009) and promote “shedding light and exposing the truth” (Taylor 2018). Counternarratives often appear as alternatives to ideologies held to motivate terrorists independent of social conditions (Kim et al. 2016). Their success is frequently measured by the number of individuals who view or click on messages and videos (Reynolds & Tuck 2016), much as in advertising campaigns (in fact, advertising agencies have some of the largest contracts to run counternarrative campaigns).

There is, however, scant indication that counternarrative campaigns thwart terrorism or malign information campaigns (Rosand & Winterbotham 2019),¹² as they tend to treat ideas as being divorced from the social environment that animates and diffuses them. Rather, policy and research might better be grounded in “counter-engagement” (Hamid 2020), harnessing the passion, purpose, and fellowship of actual people in particular social contexts, as jihadi and far-right groups often do in social outreach and media messaging (Atran 2017). This contrasts with the present focus on mass messages that push negative themes about how bad the bad guys are and on

¹²Davulcu, an Artis International fellow who has developed novel algorithms for sociocultural modeling of social media, found that web traffic, which had been mostly favorable to ISIS up to that point, turned negative after ISIS posted its video of burning a caged Jordanian Air Force pilot in February 2015 (Davulcu 2017). Even al-Qaeda protested the burning as contrary to Islam. This suggests that the most effective counternarratives may spontaneously arise from peoples and cultures most attuned to, and targeted by, extremist groups (see, for example, the website “Raqqa is Being Slaughtered Silently”; <https://www.raqqa-sl.com/en/>)—and not from a priori ideas of public diplomacy functionaries or contracted advertising agencies about what people should believe.



entrapment operations to deter youth in doubt through punishment (a preferred practice of US law enforcement in these matters).¹³

Like religious beliefs and the axiomatic premises of secular ideologies, commitment to sacred values is not refutable by empirical evidence or logical argument (Atran & Axelrod 2008, Atran & Ginges 2012). Moreover, there is overwhelming evidence from cognitive and social psychology and cultural anthropology that truth and evidence—no matter how logically consistent or factually correct—do not sway public opinion or popular allegiance as much as do appeals to cognitive biases that confirm deep beliefs and core values (Flynn et al. 2017, Mercier & Sperber 2017). Thus, to combat false or faulty reasoning—as in noxious messaging—it is not enough to oppose an argument’s empirical and logical deficiencies with a counterargument’s logical and empirical coherence. A recent study suggests that warning about misinformation has little effect (Murphy et al. 2019). Evidence is mounting that value-driven, morally focused information in general (Gómez et al. 2017), particularly on social media (Feinberg & Willer 2015, Mooijman et al. 2018), drives not only readiness to believe (Crockett 2017) but also actions for beliefs (Davis 2016).

Social media can help check oppressive governments but can also help erode democratic consensus and foster corrosive moral relativity via unchecked and cascading diffusion of false reports, conspiracy theories, and other sorts of disinformation. Regrettably, social media today do more to encourage than to discourage radicalization, due to spiraling outpourings of polarizing messages that favor extreme views. First, social media reduce “the collection-action problem” associated with risk of entry in nefarious activities (Hasen 2018) by enabling people to join extremist movements without the costs of physical participation. Second, angry, spiteful, outrage-provoking, and even damage-inducing messages are more prevalent online (Crockett 2017), because individuals, groups, or states never need to actually interact with their targets or face the consequences of their behavior. Third, malign actors can easily claim that a toxic message originated from an unknown source or indefinitely many possible sources and therefore avoid responsibility for any transmitted harm. Fourth, social media encourage echo chambers that are open to messages reinforcing personal and group biases but closed to messaging allowing doubt, diversity, or contrary content that favors deliberative reasoning, compromise, and consensus.¹⁴

Internet behemoths like Google (2 billion Android users), Facebook (1.6 billion daily users), or Russia-controlled VKontakte (nearly half a billion registered users) enable masking sources of false and inflammatory messages, fail to warn of misrepresentations and lies, and actually favor toxic content with preferential placement optimizing algorithmic standards for popularity.¹⁵ Thus, before it went to the private deep web and dark net (whose contents are not hosted on public platforms, like Facebook, or indexed by standard search engines, like Google), the Daily Stormer (2017) could crow on its website, “We used to be the biggest prowhite publication in the history of the world. With six million monthly unique visitors, we trounced the circulation of the Third

¹³A US study of 580 terrorism convictions found that only 9% concerned genuine jihadi threats; 55% involved a facilitating government undercover agent. In some cases, there was no sign the convicted “terrorist” had prior sympathy for terrorism or was capable of a terror act without extraordinary inducement by the government (Norris & Grol-Prokopczyk 2015).

¹⁴Twitter’s open-follower structure makes it less prone to echo chambers compared to Facebook or Russia-controlled VKontakte (linked with Russia’s intel services) but not to polarized messaging; for example, US Democrats who use Twitter showed less support for compromise with Republicans than those who do not (Pew Res. Cent. 2020).

¹⁵An internal Facebook study on polarization of users noted that “our algorithms exploit the human brain’s divisiveness” and pushes “more and more divisive content in an effort to gain user attention and increase time on the platform” (Horwitz & Seetharaman 2020).

Reich's most popular tabloid *Der Stürmer*, which had 250,000." Unless we face the fact that the proliferation of malign forces on the Internet cannot be stymied by truth and evidence presented on supposedly neutral platforms of free expression, and that such platforms lack the ability to prevent proliferation even if they wanted to (Johnson et al. 2019), then malign forces will continue their attacks that undermine open society.

CONCLUSION: TERRORISM AND EXTREME POLITICAL CONFLICT IN AN AGE OF COLLAPSING CULTURES

In polarized political conflict, opposing groups perceive an intense contest of irreconcilable values (van Prooijen & Krouwel 2019)—that is, about what is right and good or wrong and intolerable. These values are lodged in articles of faith (ideologies) about the duties, rights, and powers that sustain civic life (politics). Rooting in the minds and social networks of believers, they drive and regulate individual and collective life. When a conflict is experienced as an existential threat to the most cherished values that identify “what I am” and “who we are,” as represented in one’s political ideals, then extreme violence is liable to erupt (Atran & Ginges 2012). In 2018, for example, 95% of deaths from terrorism happened in countries already experiencing violent conflict (START 2020).

Intense political conflict creates conditions of uncertainty and anxiety. The result is what Durkheim called *anomie*, extending its original sense of a suicidal disposition to indicate a general condition of society represented by a breakdown of social norms and values that causes extreme distress in a population. In such conditions, people often seek cognitive simplicity (e.g., binary oppositions) and certainty (Kruglanski et al. 2006). This, in turn, favors absolute moral convictions and intolerance for less limpid or seemingly contrary beliefs (Skitka 2010), and it pushes ideologically distinct groups further away from civil debate and compromise (Lee 2015).

The current wave of supremacist and ethno-nationalist terrorism is alarming and dangerous (a 320% increase in the last five years). People on these fringes of the far right are generally less tolerant of ethnic minorities and immigrants than people on the left (Sears & Henry 2003, Rubin et al. 2014). Nevertheless, the history of political conflict and recent research suggest that a polarized mindset and readiness for violence are common to extreme parties on the left or the right (Brandt et al. 2015), secular or religious (Wright & Khoo 2019), despite their different sets of grievances (Van Prooijen & Kuijper 2020). Indeed, Western countries suffered 322 terrorist attacks in the last decade versus 1,677 between 1970 and 1980 (START 2020), with most eventful attacks during those years coming from the far left (e.g., Italy’s Red Brigades, Germany’s Baader-Meinhoff Group, United States’ Weathermen). In Europe and beyond, from the French Revolution on, wholesale massacres of Christian clerics and devotees occurred just as did anti-Semitic pogroms.

Political terror usually arises in times of social and economic stagnation or crisis, when people see their way of life threatened or their hopes for future economic improvement or political advancement blocked and then seek a new sociopolitical system of shared values (Ruggiero 2020). In the interwar years (1918–1939), extreme political movements engaging in mass violence flourished in the wake of a series of spectacular man-made and natural disasters, including World War I, the Spanish flu pandemic, and the Great Depression. The 1970s far-left terrorist groups can be traced back to the 1960s student protest movements, when maturing baby-boomers of the industrialized democracies felt alienated from the conservative or authoritarian beliefs, institutions, and aspirations of their parents’ generation (e.g., fascism, Nazism, McCarthyism).

Today, globalization’s dark side compels people in nearly every part of the world to gamble their futures in market competition, with an incessant pressure to change and innovate or



fail (what is called creative destruction) (Mishra 2017). Without traditional institutions and community structures to provide a backstop, the social and personal costs can be overwhelming, especially for societies in the developing world with almost no time to adapt and little chance to fulfill aspirations. When the spiritual values of deep-rooted religions and cultures are eclipsed by novel political institutions and socioeconomic formations that are unsettled, weak, or predatory, then countercultures of redemptive violence are apt to burst through existing lines of political fracture.

In *Escape from Freedom*, psychologist Eric Fromm (1941) reasoned that personal as well as society-wide anxiety emerges from what existentialist theologian Søren Kierkegaard [1980 (1844), p. 61] considered the “dizziness of freedom.” “Fascism and Nazism are psychologically far sounder than any hedonistic conception of life,” argued George Orwell (1940, p. 321) in reviewing Hitler’s *Mein Kampf* and its wild popularity, and “the same is probably true of Stalin’s militarized version of Socialism.” When people abruptly find themselves unbound, cut off, or no longer able to navigate traditional or familiar forms of social and economic life, they lean toward authoritarian regimes that promise to end uncertainty, as with Stalinism and Nazism in the 1920s and 1930s.

This promise, along with what Kruglanski and colleagues (2019) call “search for significance,” are motivations commonly found in studies of jihadis and their supporters as well as of militant followers of far-right populist and supremacist movements. In multi-society studies, Gelfand and colleagues found that these motivations lead to political “tightening,” that is, support for authoritarian leaders, reduced societal tolerance, and greater punishment for deviation from social norms (Gelfand et al. 2011, Gelfand 2018).

A healthy democracy depends on the relational bonds between citizens, which have been progressively fraying, especially in the United States, since the 1960s (Putnam 2001). As the Cold War wound down, inequalities in wealth, education, and access to health care as well as sentiments of relative deprivation, political exclusion, and social injustice increased markedly to levels not seen for decades (Piketty 2020). Democratic consensus within society began fragmenting into an increasing number of rival and polarizing identity groups (Fukuyama 2018). Each has sought power to redress (often real) grievances through a growing denial of others’ legitimacy—commencing with a rightward shift of the left’s formerly prototypical class of white male proletarians as women and minorities gained greater voice. As sociopolitical consensus wanes, an overriding preoccupation with individual self-interest becomes the norm, leaving many yearning for a sense of intimate community and transcendental purpose.

Today, an implicit alliance between xenophobic ethno-nationalist movements and radical Islam is pummeling democratic societies much as fascism and communism did in the interwar period. Liberal democratic values increasingly appear to be losing ground as the middle class, the mainstay of liberal democracies, shrinks (OECD 2019). According to the World Values Survey (waves 5, 6; see <https://www.worldvaluessurvey.org>), the majority of Europeans less than 30 years old do not think their living in a democracy is “absolutely important.” One survey (Foa & Mounk 2017) found that almost half of Americans lack faith in democracy, and more than one-third of young people with high incomes approve of military rule. This is presumably a response to growing social agitation tied to vast income inequality (now surpassing the levels of the nineteenth-century Gilded Age), political polarization, and unrelenting problems of cultural assimilation, racial integration, and lack of consensus in an era of identity politics.

In contrast to our studies of combatant groups in Iraq (Gómez et al. 2017) and radicalized populations in Morocco and Spain (Sheikh et al. 2016), our survey of thousands of Western European youth found that few were willing to make costly sacrifices for purportedly cherished values like democracy. A majority of eligible 18- to 24-year-olds will not even participate in national elections in France or the United States. It is this seeming lack of commitment to finding consensus around



liberal democracy's core values, rather than threats from violent extremism or outside forces, that may represent open society's gravest existential challenge.

How to maintain the unalienable rights of individuals in an open and competitive political system of mutual tolerance and respect, which is able to secure devotion to shared values that are resistant to those advanced by other devoted but malign actors, is a critical psycho-political challenge of our age.

SUMMARY POINTS

1. The goal of transnational terrorism is to degrade, and then replace, the political order by first driving people into clashing sociopolitical camps, with no room for innocents.
2. Regardless of its likelihood to create physical harm, terrorism has outsized psychological, social, and political effects on public health and policy.
3. Extreme forms of terrorism—and other highly committed revolutionary and radical forms of violence—are enacted by devoted actors defending or advancing nonnegotiable sacred values rather than by rational actors who primarily weigh material costs and benefits to achieve goals.
4. Field studies of frontline combatants, together with behavioral and brain studies of radical populations, indicate that people are more willing to fight and die for sacred than for nonsacred values.
5. In some extreme circumstances, commitment to sacred values can outweigh commitment to any group, including family and close comrades.
6. Preventing extreme violence, and resolving seemingly intractable conflict, may require addressing an adversary's sacred values rather than ignoring or denigrating them, while also directly engaging (particularly with youth) in the social networks that give life to those values.
7. Social media today do more to encourage than to discourage radicalization and extreme polarization, owing to the particular psychological and structural affordances of Internet platforms and channels in terms of networking.
8. The increasing sociopolitical polarization over values in open societies creates an existential challenge: By impeding deliberative decision making and blocking democratic consensus, these divisions deepen existing susceptibilities and widen opportunities for further degradation from terrorism.

FUTURE ISSUES

1. Insofar as social marginalization of individuals and political polarization of groups both seem to promote sacralization of nonsacred values and willingness for costly sacrifice, what underlying cognitive and neuropsychological processes might they share?
2. We know little of the cognitive processes by which mundane values become sacralized or desacralized (e.g., white supremacy was a sacred value for mainstream Americans and Europeans at the beginning of the twentieth century but is now most prevalent in society's fringes) or how these processes might be slowed or accelerated to relieve conflict.



3. How to preserve social bonds of family, community, and transgenerational continuity, especially in times of conflict and adversity in societies that favor individual decision making and cost-benefit analysis, is a psychological issue critical to liberal democracies.
4. How might use of Internet and social media help rather than hinder people's ability to tolerate contrary and diverse beliefs and opinions, achieve consensus, and negotiate solutions to conflicts?
5. Concerning the psychology of persuasion and how ideas become contagious in an era of so-called fake news, what factors disfavor recourse to reason, evidence, and truth and favor recourse to psychosocial biases (e.g., entrenched belief and confirmation biases, ingroup and authority biases, negativity focus, bandwagon effect, etc.) in promoting extreme violence? And how can these factors be parried to convince people to abandon political violence?

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