The Devoted Actor

Unconditional Commitment and Intractable Conflict across Cultures

by Scott Atran

Uncompromising wars, revolution, rights movements, and today's global terrorism are in part driven by "devoted actors" who adhere to sacred, transcendent values that generate actions dissociated from rationally expected risks and rewards. Studies in real-world conflicts show ways that devoted actors, who are unconditionally committed to sacred causes and whose personal identities are fused within a unique collective identity, willingly make costly sacrifices. This enables low-power groups to endure and often prevail against materially stronger foes. Explaining how devoted actors come to sacrifice for cause and comrades not only is a scientific goal but a practical imperative to address intergroup disputes that can spiral out of control in a rapidly interconnecting world of collapsing and conflicting cultural traditions. From the recent massive media-driven global political awakening, horizontal peer-to-peer transcultural niches, geographically disconnected, are emerging to replace vertical generation-to-generation territorial traditions. Devoted actors of the global jihadi archipelago militate within such a novel transcultural niche, which is socially tight, ideationally narrow, and globe spanning. Nevertheless, its evolutionary maintenance depends on costly commitments to transcendental values, rituals and sacrifices, and parochial altruism, which may have deep roots even in the earliest and most traditional human societies. Fieldwork results from the Kurdish battlefront with the Islamic State are highlighted.

Introduction

The Devoted Actor

"The devoted actor" is a theoretical framework developed by a group of scholars and policy makers at Artis International (http://artisresearch.com/)—a nonprofit group that uses social science research to help resolve seemingly intractable political and cultural conflicts—to better understand the social and psychological mechanisms underlying people's willingness to make costly sacrifices for a group and a cause (Atran 2010; Atran, Axelrod, and Davis 2007; Atran, Sheikh, and Gómez 2014; Sheikh et al. 2014). Our research indicates that when people act as "devoted actors" they are deontic (i.e., duty-based) agents who mobilize for collective action to protect cherished values in ways that are dissociated from likely risks or rewards. Devoted actors represent a dimension of thought and behavior distinct from instrumental rationality in resisting material compromises over such values (Atran 2015; Atran and Axelrod 2008; Berns and Atran 2012; Dehghani et al. 2010; Ginges et al. 2011). The devoted actor hypothesis is defined as follows:

> People will become willing to protect morally important or sacred values through costly sacrifice and extreme actions, even being willing to kill and die, particularly when such values are embedded in or fused with group identity, becoming intrinsic to "Who I am" and "Who We are." (Atran and Ginges 2015)

Progress in the fields of moral psychology and philosophy has mostly focused on universal Golden Rule principles of fairness and reciprocity emotionally supported by empathy and consolation (Baumard, André, and Sperber 2013; Van Slyke 2014). This is in contrast to what Darwin referred to as the primary virtue of "morality . . . patriotism, fidelity, obedience, courage, and sympathy" with which winning groups are better endowed in history's spiraling competition for survival and dominance (Darwin 1871:163; cf. Greene 2009). Nevertheless, a smaller body of research (Baron and Spranca 1997; Fiske and Tetlock 2002; Tetlock 2003) suggests that people resist attempts to compromise sacred values no matter the cost to themselves or others. In the last decade or so, experimental work that goes beyond the morality of fairness and harm suggests that religious and transcendental beliefs consolidate "community" (Rozin et al. 1999), lead to "binding" (Graham et al. 2011), provide "unity motivation" (Ray and Fiske 2011), and mobilize parochial altruists, such as suicide bombers, to give their lives for the group (Ginges, Hansen, and Norenzayan 2009; cf. Atran 2003).

The devoted actor framework integrates two hitherto independent research programs in cognitive theory, sacred values

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and "identity fusion," while drawing on key insights from sociological (Durkheim 2012 [1912]; Weber 1963) and anthropological (Turner 1969; Rappaport 1971, 1999) analyses of religion and community. Sacred values are nonnegotiable preferences whose defense compels actions beyond evident reason, that is, regardless of calculable costs and consequences (Ginges et al. 2007). Identity fusion occurs when personal and group identities collapse into a unique identity to generate a collective sense of invincibility and special destiny (Swann et al. 2012). These two programs account for different aspects of intractable intergroup conflicts; however, here and in a companion article (Sheikh, Gómez, and Atran 2016), we argue that sacred values and identity fusion interact to produce willingness to make costly sacrifices for a primary reference groups even unto death, that is, sacrificing the totality of self-interests.

There is an evolutionary rationale to willingness to make costly sacrifices for the group, even fighting to the death and against all odds. Especially when a perceived outside threat to one's primary reference group is very high and survival prospects are very low, then only if sufficiently many members of a group are endowed with such a willingness to extreme sacrifice can the group hope to parry stronger but less devoted enemies who are less committed to disregarding the costs of action. Sacred values mobilized for collective action by devoted actors enable outsize commitment in low-power groups to resist and often prevail against materially more powerful foes who depend on standard material incentives, such as armies and police that rely on pay and promotion (Atran and Ginges 2012). From an evolutionary perspective, collective actions, such as hunting and fighting, are vulnerable to defectors and thus difficult to initiate, but if some highly motivated individuals are willing to initiate activity, this may reduce the costs for others to join in, and such an "advancement in the standard of morality and an increase in the number of well-endowed men . . . always ready to give aid to each other and to sacrifice themselves for the common good, would be victorious over other tribes" (Darwin 1871:163).

Recent changes in the composition of the global jihadi[1] movement from fairly well-educated and well-off founders to increasingly marginalized youth in transitional stages of life continue to follow this evolutionary rationale (Atran and Sheikh 2015) but within a new kind of transcultural niche that leapfrogs the limits and responsibilities engendered by previous generations within territories of origin. Here, peer communities of imagined kin—bands of "brothers and sisters" drawn willy-nilly from across more than 100 countries and many more ethnic groups—commit in ritual oaths and performance of sublime acts of terror to a new world order (Atran 2014). The jihadi Caliphate,[2] whose "dreaming ecology" includes the global media landscape and whose cosmic law, or sharia, encompasses "the Everywhen"; it provides "an explanation of nature, establishes a social code, creates a basis for prestige and political status . . . acts as a religious philosophy and forms the psychological basis for life" (Cane 2002, quoted in Bird 2016). It is a transcultural framework whose implementation in action creates a new form of transcultural niche encompassing "human behavior, perception and embodiment, cultural institutions and history, social experience and symbolic life" (Fuentes 2016). Its evolutionary maintenance, while largely nongenerational and somewhat extraterritorial, nonetheless appears to rely on the sorts of costly commitments to transcendental ideals and values, rituals and sacrifices, and parochial altruism that also likely have deep roots even in the earliest and most traditional societies (Coe 2016).

Aspects of Sacred Values

Humans often make their greatest exertions and sacrifices, including killing or dying for ill or good, not just to preserve their own lives or kin and kith but for an idea—the abstract conception they form of themselves, of "who I am" and "who

1. The term "jihadi" is commonly used to refer to self-declared *mujahedin* (holy warriors) of the global movement for the worldwide defense, spread, and conquest of the world by Islam ruled in accordance with a strict, literalist version of Islamic law, ethics, and administration, or sharia, that requires absolute obedience and denies that interpretation is possible (Qutb 1964). Any nominal Muslim who denies this truth or works against it is subject to excommunication (*takfir*) and may be killed as an apostate (*murtad*). Thus, "jihadis" are also commonly referred to as "tafkiris." In the jihadi-takfiri canon, the contrast between "greater jihad" as an inner struggle to submit to God and the "lesser jihad" of physical holy war is spurious. Upon the Prophet Mohammed's death, his companions (*al-salaf al-salahin*), especially the early Caliphs Omar and Othman, considered jihad only as offensive war to expand the frontiers of the House of Islam (*Dar al-Islam*) against infidels (*kuffar* and *taghut*; Naji 2004) and their House of War (*Dar al-Harb*). The idea of "greater jihad" as inner struggle appears to be a Sufi introduction from the Abbasid period (Ansary 2009). Jihadis reject Sufism as sinful (*haram*) and subject to *takfir*.

2. Abu Bakr al-Baghdadi outlined the strategy of the Islamic State as a global jihadi archipelago in his "Volcanoes of Jihad" speech on November 13, 2014: "Glad tidings, O Muslims, for we give you good news by announcing the expansion of the Islamic State to new lands, to the lands of [Saudi Arabia] and Yemen, to Egypt, Libya and Algeria. We announce the acceptance of *bayah* [allegiance] . . . the announcement of new *wilayat* [provinces] for the Islamic State, and the appointment of [leaders] for them." With the naming of governors outside of Syria-Iraq, Baghdadi was telling the world that the Caliphate was going global. These now stretch from Abu Sayyaf and Jemaah Islamiyah splinters in the Philippines and Indonesia to the Islamic Movement of Uzbekistan and al-Maqdis in the *wilaya* of Sinai, Egypt, to Jun al-Khalifa in Algeria and Boko Haram in Nigeria and Cameroon. In Libya, three *wilayat* were declared: Tripoli, Fazzan, and Barqay (which contains Darna, where whole neighborhoods of young men had earlier joined the jihads in Iraq). In this, the Islamic State is preempting al-Qaeda's claim to be the vanguard of global jihad, inspiring associated jihadi insurgencies in geographically distant and separated regions to fight for the Caliphate under one supreme leader with an eye toward eventual unification of all territories and, ultimately, the world.

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we are." This is the "the privilege of absurdity; to which no living creature is subject, but man only" of which Hobbes (1901 [1651]:29) wrote in *Leviathan*. At least since the rise of chiefdoms and state-level societies, religion has been the locus of this privilege and power of absurdity (Norenzayan 2013; Atran, forthcoming). For Hobbes, as for countless other religious and nonreligious thinkers, from Augustine to Kierkegaard (1941 [1844]) and Galileo to A. J. Ayer (2001 [1936]), the "incomprehensible" nature of core religious beliefs, such as a sentient but bodiless deity, renders them immune to empirical or logical verification or falsification (Atran 2002).

Religious consensus over values does not primarily involve fact checking or reasoned argument but ensues from ritual communion and emotional bonding (Atran and Norenzayan 2004; Turner 1969) whose symbolic signposts channel and coordinate cognitions and emotions toward preparedness for action (Downey 2016). Costly commitment to idiosyncratic and apparently absurd beliefs and associated values, cued by sartorial and corporeal markers (e.g., veils, beards, and especially more indelible marks, such as the *zabiba* on the forehead of pious Muslims generated by repeated friction with the prayer mat), can deepen trust by identifying cooperators (Moya and Boyd 2016) while galvanizing group solidarity for common defense (Atran and Henrich 2010; Norenzayan and Shariff 2008). Although all religions have a "marked idiosyncrasy" and bias in their moral message (Geertz 1973:87), the more belligerent a group's environment, the more proprietary and costly the commitment and display regarding the group's sacred values, rituals, and identifying markers, which groove and deepen the cultural niche. This channels and increases in-group reliance but also disbelief, distrust, and potential conflict toward other groups (Sosis, Kress, and Boster 2007; Wilson, 2002). By contrast, fully reasoned social contracts that regulate individual interests to share costs and benefits of cooperation can be less distancing between groups but also more liable to collapse: awareness that more advantageous distributions of risks and rewards may be available in the future makes defection more likely (Atran and Axelrod 2008). Even ostensibly secular nations and transnational movements usually contain important quasi-religious rituals and beliefs (Anderson 1983).

Thus, while the term "sacred values" intuitively denotes religious belief, in what follows, sacred values refer to any preferences regarding objects, beliefs, or practices that people treat as both incompatible or nonfungible with profane issues or economic goods, as when land or law becomes holy or hallowed and as inseparable from people's conception of "self" and of "who we are." This includes the "secularized sacred," as, for example, in political notions of "human rights" (Smith et al. 2013) or in the transcendent ideological "-isms" that have dominated political life ever since the Enlightenment's secularization of the universal religious mission to redeem and save "humanity" through political revolution (liberalism, socialism, anarchism, communism, fascism, etc.; Gray 2007).

Our previous research indicates that when people act in defense of sacred values, they act in ways that cannot be reliably predicted by assessing material risks and rewards. This feature holds even when taking into consideration modifications and constraints on instrumental rationality, such as cognitive limitations on gathering and processing information (Simon 1997), desire to avoid cognitive dissonance (Festinger 1962) or conform to group thinking (Asch 1987), lack of cultural awareness (Schelling 1960), intrinsic indivisibility of resources (Fearon 1995), or other psychological biases and ecological constraints (Kahneman 2011). Of course, concern with instrumental and deontic (i.e., rules and obligations) matters interact in the real world to motivate the actions of individuals and groups, and any explanatory or descriptively adequate account must be able to model and predict this interaction (for recent proposals on "devoted realism" in geopolitics, see Atran, Ginges, and Iliev 2014; Turchin 2014).

Nevertheless, acts by devoted actors are not chiefly motivated by instrumental concerns, or at least those of which people are usually aware. Instead, they are motivated by sacred values that drive actions independent from or all out of proportion to outlays and outcomes. Devotion to some core values may represent universal responses to long-term evolutionary strategies that go beyond short-term individual calculations of self-interest but that advance individual interests in the aggregate and long run (Atran and Medin 2008); in nonliterate societies these may be encoded as preferences of spirits and deities (Purzycki 2016). This may include devotion to children, to community, or even to a sense of fairness (Atran and Axelrod 2008; cf. Eliade 1959).

Other such values are clearly specific to particular societies and historical contingencies, such as the sacred status of cows in Hindu culture or of the Sabbath or Jerusalem in Judaism, Christianity, and Islam. Sometimes, as with India's sacred cows (Harris 1966) or sacred forests (Upadhaya et al. 2003), what is seen as inherently sacred in the present may have a more materialistic origin, representing the accumulated material wisdom of generations who resisted individual urges to gain an immediate advantage of meat or firewood for the long-term benefits of renewable sources of energy and sustenance. Yet despite the long-standing material advantages associated with these values, unconditional devotion to sacred values in a rapidly changing world can also be materially disadvantageous: for example, when a hitherto closed commons suddenly becomes an open commons, then continued cultural commitment to values for protection of the commons may be highly maladaptive by facilitating extinction of native conservationists in areas now open to exploitation by foreign extractors (Atran et al. 2002; Atran, Medin, and Ross 2004).

Of course, the evolutionary rationale in devotion to children can be understood in terms of genetic kin selection: individuals are ephemeral, but promoting welfare of children and other kin ensure propagation of many of the individual's genes. Moreover, imagined kinship applied to larger sociopolitical groups (brotherhoods, motherlands, etc.) exploits the cognitive and emotional concomitants of this evolutionary rationale in myriad ways that may be adaptive or not (much

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like the food and sex industries exploit our evolutionary proclivities in favor of nourishment and reproduction; Atran 2010). From a historical vantage, evolutionary-based tendencies of kin selection and parochial altruism are often co-opted in state-level societies and transstate movements with dominant religions—and (ever since the French Revolution) also with salvational transcendental secular ideologies—in the creation of devoted actors.

Our empirical studies in multiple cultures and distressed zones across the world indicate that sincere attachment to sacred values entails (1) commitment to a rule-bound logic of moral appropriateness to do what is morally right no matter the likely risks or rewards rather than following a utilitarian calculus of costs and consequences (Atran 2003; Bennis, Medin, and Bartles 2010; Ginges and Atran 2011); (2) immunity to material trade-offs coupled with a "backfire effect" where offers of incentives or disincentives to give up sacred values heighten refusal to compromise or negotiate (Dehghani et al. 2010; Ginges et al. 2007); (3) resistance to social influence and exit strategies (Atran and Henrich 2010; Sheikh, Ginges, and Atran 2013), which leads to unyielding social solidarity and binds genetic strangers to voluntarily sacrifice for one another; (4) insensitivity to spatial and temporal discounting, where considerations of distant places and people and even far past and future events associated with sacred values significantly outweigh concerns with here and now (Atran 2010; Sheikh et al. 2013); and (5) brain-imaging patterns consistent with processing obligatory rules rather than weighing costs and benefits and with processing perceived violations of such rules as emotionally agitating and resistant to social influence (Berns et al. 2012; Pincus et al. 2014).

Devoted Actors Are Deontic Actors

Philosophers of moral virtue suggest that moral values may be deontological (Kant 2005 [1785]) or utilitarian (Mill 1871). Deontic processing is defined by an emphasis on rights and wrongs (Weber 1958 [1864]), whereas utilitarian processing is characterized by costs and benefits (von Neumann and Morgenstern 1944). Models of rational behavior predict many of society's patterns, such as favored strategies for maximizing profit or likelihood for criminal behavior in terms of opportunity costs (Becker 1962) and important aspects of conflict management (Allison and Zelikow 1999). But the prospects of crippling economic burdens and huge numbers of deaths do not necessarily sway people from positions on whether going to war or opting for revolution is the right or wrong choice.

For example, in one series of studies, we confronted people in the United States and Nigeria with hypothetical hostage situations and asked them whether they would approve of a solution—which was either diplomatic or violent—for freeing the prisoners (Ginges and Atran 2011). When told that their action would result in all hostages being saved, both groups endorsed the plan presented to them. When asked how many hostages they required to be saved to ensure their support (from 1 to 100), those evaluating the military option said only one hostage needed to be rescued, showing a remarkable insensitivity to scope. In contrast, those evaluating the diplomatic option required a majority of hostages to be rescued.

Most theories and models related to violent intergroup conflict assume that civilians and leaders make a rational calculation (Fearon 1995; von Clausewitz, 1956 [1832]). If the total cost of the war is less than the cost of the alternatives, they will support war. But in another set of studies (Ginges and Atran 2011), we found that when people are confronted with violent situations, they consistently ignore quantifiable costs and benefits, relying instead on sacred values. We asked a representative sample of 650 Israeli settlers in the West Bank about the dismantlement of their settlements as part of a peace agreement with Palestinians. Some subjects were asked about their willingness to engage in nonviolent protests, whereas others were asked about violence. Besides willingness to violently resist eviction, subjects rated how effective they thought the action would be and how morally right the decision was. When it came to nonviolent options such as picketing and blocking streets, rational behavior models predicted settlers' decisions. In deciding whether to engage in violence, the settlers reacted differently. Rather than how effective they thought violence would be in saving their homes, the settlers' willingness to engage in violent protest depended only on how morally correct they considered that option to be.

Our research with political leaders and general populations shows that sacred values—not political games or economics—underscore seemingly intractable conflicts such as those between the Israelis and the Palestinians or between Iran and the Western allies that defy the rational give-and-take of businesslike negotiation (Atran et al. 2007; Dehghani et al. 2010; Ginges et al. 2007, 2011). Consider the Israeli-Palestinian conflict, where rational cost-benefit analysis says the Palestinians ought to agree to forgo sovereignty over Jerusalem or the claim of refugees to return to homes in Israel in exchange for an autonomous state encompassing their other pre-1967 lands because they would gain more sovereignty and more land than they would renounce. They should support such an agreement even more if the United States and Europe sweetened the deal by giving every Palestinian family substantial, long-term economic assistance. Instead, research with psychologists Jeremy Ginges and Douglas Medin and political scientist Khalil Shikaki reveals that the financial sweetener makes Palestinians more opposed to the deal and more likely to support violence to oppose it, including suicide bombings. Israeli settlers also have rejected a two-state solution that requires Israel to give up Judea and Samaria or "recognize the legitimacy of the right of Palestinian refugees to return" (in an agreement not actually requiring Israel to absorb the refugees). But Israelis, too, were even more opposed if the deal included additional long-term financial aid or a guarantee of living in peace and prosperity (Ginges et al. 2007).

To be sure, these studies involve mostly "emic" elicitations of willingness to act (Weissner 2016) expressed by people

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from "the inside" (Bloch 2016). Nevertheless, "etic" or "outside" observations and measures of actual behavior that are not based on information elicited from informants tend to confirm the relevance of inside observations and measures of mental models (Atran et al. 2002) to the prediction and interpretation of outside findings. For example, another series of studies—with psychologists Morteza Dehghani, Rumen Iliev, and Sonya Sachdeva—indicates that a relatively small but politically significant portion of the Iranian population believes that acquiring nuclear energy (but not necessarily nuclear weapons) has become a sacred value in the sense that proposed economic incentives and disincentives backfire by leading to increased and more emotionally entrenched support (Dehghani et al. 2010). Here, it appears that sacred values can emerge for issues with relatively little historical background and significance when they become bound up with conflicts over collective identity—the sense of "who we are." For a minority of Iranians (11%–13% in these experiments), the issue had become a sacred subject through association with religious rhetoric and ritual (e.g., Iranian women marching and chanting in favor of "nuclear rights" while waving the Quran). This group, which tends to be religious, rural, and close to the previous presidential regime (Ahmadinejad), believes a nuclear program is bound up with national identity and Islam itself, so that offering material rewards or punishments to abandon the program only increases anger and support for it. Until the current round of nuclear negotiations with Iran (spring–summer 2015), the ratcheting up of sanctions had been accompanied by increases in construction of nuclear facilities, the level of nuclear enrichment, uranium output, and the total stockpile of low-enriched uranium, and this, in spite of the pressure on the country exerted by economic sanctions, with plans for 10 "new" enrichment sites touted shortly after the last round of sanctions.

Sacred values do not make people opposed to any sort of compromise. Instead, they appear to invoke specific taboos protecting these values against material trade-offs. Offering people materially irrelevant symbolic gestures can work where material incentives do not. For example, Palestinian devoted actors were more willing to consider recognizing the right of Israel to exist if the Israelis offered an official apology for Palestinian suffering in the 1948 war. Similarly, Israeli settlers were less disapproving of compromising sacred land for peace if Hamas and the other major Palestinian groups symbolically recognized Israel (Atran and Ginges 2009; Ginges et al. 2007).

Our survey results were mirrored by interviews with political leaders conducted with political scientists Robert Axelrod and Richard Davis (2007). For example, Mousa Abu Marzook, the deputy chairman of Hamas, said no when we proposed a trade-off for peace without granting a right of return. He became angry when we added in the idea of substantial American aid for rebuilding: "No, we do not sell ourselves for any amount." But when we mentioned a potential Israeli apology for 1948, he said: "Yes, an apology is important, as a beginning. It's not enough because our houses and land were taken away from us and something has to be done about that." His response suggested that progress on sacred values might open the way for negotiations on material issues rather than the reverse. We obtained a similar reaction from Israeli leader Benjamin Netanyahu. We asked him whether he would seriously consider accepting a two-state solution following the 1967 borders if all major Palestinian factions, including Hamas, were to recognize the right of the Jewish people to an independent state in the region. He answered, "OK, but the Palestinians would have to show that they sincerely mean it, change their anti-Semitic textbooks." Making these sorts of wholly intangible symbolic but possibly sincere gestures, like recognition of a right to exist or a sincere apology,[3] simply does not compute in any utilitarian calculus. And yet the science suggests that these gestures may be the best way to cut through the world's symbolic knot.

More systematic understanding of what kinds of symbolic gestures involving sacred values are likely to be effective in conflict prevention and resolution, including signatures of emotional sincerity, could provide novel possibilities for breakthroughs to avoid or lessen conflict. In a meeting of senior Iranians, Saudis, Israelis, Americans, and British arranged by members of our team and Lord John Alderdice (Convenor, UK House of Lords) at the University of Oxford on the nuclear issue in early September 2013, we informally monitored expressions of devotion to values, including emotional attachment, and suggested opening negotiations via a symbolic gesture evoking sacred values rather than political positions. In response we received a message that Iran's President Rouhani would publicly acknowledge the Holocaust in New York (which US and Israeli officials told us would be a positive development for negotiations).

Sociopolitical groups often have "sacred rules" for which their people would fight and risk serious loss/death rather than compromise. In another study with a representative sample of more than 700 adults (no gender differences) in the West Bank and Gaza, we asked,

> What if a person wanted to carry out a bombing (which some . . . call suicide attacks) against the enemies of Palestine, but his father becomes ill, and his family begs the chosen martyr to take care of his father; would it be acceptable to delay the attack indefinitely?

3. Apologies perceived as hedged and insincere risk backfiring, as when Japan's government apologized to China for war crimes committed in World War II yet continues to honor war criminals at Yasukuni Shrine, or when Japan offered compensation and apology for its abuse of Korean "comfort women" but still denies the "Japanese people" were at fault. By contrast, consider British prime minister David Cameron's apology for killings on "Bloody Sunday" in Northern Island, which led the Republic of Ireland to invite the Queen of England for a first official visit: "There is no doubt, there is nothing equivocal, there are no ambiguities. What happened on Bloody Sunday was both unjustified and unjustifiable. It was wrong" (BBC News 2010).

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> What if a person wanted to carry out a bombing (which some . . . call suicide attacks) against the enemies of Palestine, but his family begs him to delay martyrdom indefinitely because there was a significantly high chance the chosen martyr's family would be killed in retaliation; would it be acceptable to delay the attack indefinitely?

Palestinians tended to reason about political violence in a noninstrumental manner by showing more disapproval over a delay of a martyrdom attack to rescue an entire family than over a delay of a martyrdom attack to take care of an ill father. These findings indicate that when people are reasoning between duty to war or to family, they are not making instrumental decisions but decisions based on perceptions of moral obligations that can change as a result of instrumentally irrelevant alterations in context (Ginges and Atran 2009).

If people perceive that a sacred rule was violated, they may feel morally obliged to retaliate against the wrongdoers even if the retaliation does more harm than good. But such moral commitment to sacred values ultimately can be the key to the success or failure of insurgent or revolutionary movements with far fewer material means than the armies or police arrayed against them. Ever since the nineteenth-century anarchists, science education in engineering and medical studies has been a frequent criterion of leadership for these movements because such studies demonstrate hands-on capability and potential for personal and costly sacrifice through long-term commitment to a course of study that requires delayed gratification. Al-Qaeda, like other revolutionary groups, was initially formed and led by fairly well-off and well-educated individuals, the majority of whom studied engineering and medicine (Bergen and Lind 2007; Gambetta and Hertog 2007).

The Importance of Identity Fusion and Group Dynamics

Our fieldwork with captured and would-be suicide terrorists and political and militant leaders and supporters in violent conflict situations suggests that some behaviors that punctuate the history of human intergroup conflict do indeed go beyond instrumental concerns. Historical examples include the self-sacrifice of Spartans at Thermopylae, the Jewish Zealots in revolt against Rome, defenders of the Alamo, the Waffen SS "volunteer death squads" during the Soviet siege of Budapest, some cohorts of Japanese Kamikaze, and the jihadi pilot bombers of 9/11 (Atran 2010; Ginges et al. 2011). Such events exemplify that humans fight and kill in the name of abstract, often ineffable values such as God, national destiny, or salvation (Atran and Ginges 2012). Ever since World War II, on average, revolutionary movements have emerged victorious with as little as 10 times less firepower and manpower than the state forces arrayed against them (Arreguín-Toft 2001).

Although sacred values may operate as necessary moral imperatives to action, they are not sufficient. Group morality does not operate simply from ideological canon or decontextualized principles that drive decisions and actions, but it is almost always embedded and distributed in social groups, most effectively in intimate networks of "imagined kin" (Atran 2010, 2011). Knowledge of the moral imperatives that drive people to great exertions toward one political goal or another as well as the group dynamics that bind individuals to sacrifice for one another in the name of those values both appear indispensable to extreme actions where prospects of defeat and death are very high, as with terrorism and revolution.

Thus, our working hypothesis is that extreme parochially altruistic action occurs and devoted acts are created when self-identity becomes fused with a unique collective identity and when identity itself is fused with sacred values that provide all group members a similar sense of significance (Kruglanski et al. 2013). Important values may influence extreme behavior particularly to the extent that they become embedded or fused with identity and internalized. When internalized, important moral values lessen societal costs of policing morality through self-monitoring and blind members to exit strategies (Atran and Henrich 2010).

There is more to group dynamics than just collections of people, their behavior, and ideas. There is also the web of relationships that make the group more than the sum of its individual members (Dunbar, Knight, and Powers 1999; White and Johansen 2006). It is this networking among members that distributes thoughts and tasks that no one part may completely control or even understand (Atran et al. 2002; Sperber 1985). Case studies of suicide terrorism and related forms of violent extremism suggest that "people almost never kill and die [just] for the Cause, but for each other: for their group, whose cause makes their imagined family of genetic strangers—their brotherhood, fatherland, motherland, homeland" (Atran 2010: 33).

In this vein, the theory of "identity fusion" (Swann et al. 2012) holds that when people's collective identities become fused with their personal self-concept, they subsequently display increased willingness to engage in extreme progroup behavior when the group is threatened. As such, fusion can help us better understand part of the complexity of group dynamics that leads to action when privileged values are threatened (for examples of fusion measures, see Sheikh, Gómez, and Atran 2016). Fusion theory differs from various social identity theories in emphasizing group cohesion through social networking and emotional bonding of people and values rather than through processes of categorization and association, thus empowering individuals and their groups with sentiments of exceptional destiny and invulnerability. In recent cross-cultural experiments, Swann et al. (2014) find that when fused people perceive that group members share core physical attributes and values, they are more likely to project familial ties common in smaller groups onto the extended group. This enhances willingness to fight and die for a larger group that is strongly identified with those values, such as a religious "brotherhood."

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We have preliminary evidence collected in Lebanon (Sheikh et al. 2014) regarding the way priorities among sacred values translate the relationship between fusion with a group and parochial forms of self-sacrifice for that group. We surveyed a convenience sample of Sunni, Shia, and Christian Maronites, measuring fusion with their religious group, their attitudes toward sacrifices for the group (e.g., risking safety of the family to fight for the group or risking one's job to fight for the group), and scores on a version of the moral foundations questionnaire that we adapted for use in previous research in Lebanon and Morocco and informed by moral foundations theory (Graham et al. 2011). We found that the effect of fusion with religious group on willingness to engage in parochial sacrifice for that group was moderated by different moral concerns: fused participants who valued parochial values (e.g., purity, respect for authority and tradition) more so than universal values (e.g., concern for welfare of others, fairness) showed greater willingness to make parochial sacrifices, but fused participants who valued universal values over parochial values showed less willingness to make parochial sacrifices. We anticipate that in times of threat, morals of loyalty to the group and deference to authority gain over other basic morals such as care and fairness.

Considerations of commitment to comrades and cause bear directly on some of the world's most pressing concerns. Indeed, in recent remarks, President Obama (Payne 2014) endorsed the judgment of his US National Intelligence director: "We underestimated the Viet Cong . . . we underestimated ISIL [the Islamic State] and overestimated the fighting capability of the Iraqi army. . . . It boils down to predicting the will to fight, which is an imponderable" (Ignatius 2014). Yet if the methods and results suggested by our research ultimately prove reliable, then predicting who is willing to fight and who is not and why could be ponderable indeed and important to the evaluation and execution of political strategy.

In this regard, Whitehouse et al. (2014) provide evidence that fusion with a family-like group of comrades in arms, which can be felt as even stronger than genetic family ties, may have underpinned the willingness of recent revolutionary combatants in Libya to fight on even in the face of death and defeat. But apart from this single study of fighters in the field, fusion studies have concerned mostly student populations in hypothetical scenarios rather than populations in actual conflict zones and have neglected the role of sacred values in generating devoted actions. Accordingly, in our companion article (Sheikh, Gómez, and Atran 2016), we present empirical studies with Moroccans and Spaniards to assess the relationship between sacred values, identity fusion, and costly sacrifices, including willingness to fight and die. In these companion studies, people expressed "parochial altruism" the most when they were fused with a kin-like group of like-minded friends and felt that a cherished value they considered sacred was under threat (see Graham and Haidt 2013). Specifically, we interviewed and tested Moroccans in two neighborhoods where we had earlier carried out anthropological fieldwork (Atran 2010) and that had previously been associated with terrorist actions and were currently associated with high volunteer rates for the Islamic State.

Subjects expressed willingness to make costly sacrifices for the implementation of strict sharia when they were fused with a kin-like group of friends and considered sharia law as sacred. They were also most supportive of militant jihad. Complementing this experimental study in the field, an online study showed that Spaniards who were fused with a kin-like group of friends and considered democracy as sacred were most willing to make costly sacrifices for democracy after being reminded of acts of jihadi terrorism (although overall level of willingness to sacrifice among Spaniards was significantly lower than among Moroccans supportive of militant jihad). They were also more likely to consider their own group more formidable and jihadis as weak, which may facilitate costly actions against the "enemy." These results corroborate previous findings among Americans and Palestinians that devoted actors are most likely to commit themselves to extreme actions of parochial altruism if they perceive themselves to be under existential threat from outside groups (Sheikh et al. 2012).

In the sweep of cultural evolution, movements that develop psychological mechanisms to promote devoted actors are more likely to succeed because they exploit evolved psychology (e.g., kin selection) in evolutionarily novel ways. The interaction of identity fusion and sacred values seems to be one such case, where the psychology of kin selection combines with bonding rituals (e.g., sacred oaths, *bayat*, to the brotherhood, *ikhwaniyah*, of jihad and its leaders) to inextricably cement individuals to the group via a shared spiritual and moral mission.[4]

The Global Jihadi Archipelago

A New Type of Transcultural Niche

Jihadis span the population's normal distribution: there are a few psychopaths and sociopaths and some brilliant thinkers and strategists (Atran 2006; Sageman 2004). Unlike the founding members of al-Qaeda, today's jihadi wannabes are mostly self-seeking young adults in transitional stages in their lives—immigrants, students, people between jobs or mates

4. Although individuals and collectivities sincerely deny the material benefits of sacred values, because (from a psychological and evolutionary perspective) recognizing these benefits would render them susceptible to trade-offs and buyouts, in fact individuals and collectivities often gain materially in important ways from promoting sacred values, such as particular interpretations of Islam, or Kurdeity, or liberal democracy. Thus, young men in a society whose political legitimacy is traced through strict patrilineal descent might benefit by strengthening the honor code to control of women's sexuality; Kurds having suffered under rule by other ethnic groups and who have benefited from greater autonomy in Kurdish Iraq may enjoy material benefits by protecting Kurdish autonomy; people in liberal democracies, particularly young women, may see many direct threats to personal and material well-being from jihadi terrorism and threatened imposition of sharia law; and so forth.

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or having left their native homes and looking for new families of friends and fellow travelers (Atran et al. 2014). For the most part they have no traditional religious education and are "born again" in their late teens or 20s into a radical religious vocation through the appeal of a meaningful cause, camaraderie, adventure, and glory to which young people are especially prone (Atran 2010; Sageman 2008). The path to radicalization can take years, months, or just days, depending on personal vulnerabilities and the influence of others. About three of every four people who join the jihad do so with friends, about one in five through their families, and the relatively small remainder join by themselves or through some form of direct discipleship or recruitment (Atran 2011; Bond 2014; Kathe 2014). Occasionally there is a connection with a relative or an acquaintance who has some overseas association with someone who can get them a bit of training and motivation to pack a bag of explosives or pull a trigger, but the Internet and social media can be sufficient for radicalization and even operational preparation.

Soccer, paintball, camping, hiking, rafting, body building, martial arts training, and other forms of physically stimulating and intimate group action create a small cultural niche: a bunch of buddies who become a "band of brothers" in a glorious cause (Atran 2010). It usually suffices that one or a few of these action buddies come to believe in the cause, truly and uncompromisingly, and for the rest to follow even unto death. This is in contrast to exaggerated notions of "command and control" organizations sending recruiters to "brainwash" unwitting minds into joining well-structured organizations. Standard counterterrorism notions of "cells" and "recruitment"—and to some degree even "leadership"—often reflect more the psychology and organization of people analyzing terrorist groups than terrorist groups themselves. Of course, some inspirational leaders such as the late Osama Bin Laden or more recently Abu Bakr al-Baghdadi, "Prince of Believers" (*Amir al-Muminin*) and self-declared Caliph of the Islamic State, demand formal oaths (*bayat*) of loyalty and agreement with their strategic vision and have ultimate control over operational decisions; however, enlistment into the group is often elective, especially for foreign volunteers, and tactical decision making is generally decentralized.

For the first time in history, a massive, media-driven political awakening has been occurring, spurred by the advent of the Internet, social media, and cable television: on the one hand, this may motivate universal respect for human rights; on the other hand, it may enable, say, Muslims from Sulawesi to sacrifice themselves for Palestine, Afghanistan, Chechnya, Iraq, or Syria. When perceived global injustice resonates with frustrated personal aspirations, moral outrage gives universal meaning and provides the push to radicalization and violent action. But the popular notion of a "clash of civilizations" between Islam and the West (Huntington 1996) is woefully misleading. Violent extremism represents not the resurgence of traditional cultures but their collapse as young people unmoored from millennial traditions flail about in search of a social identity that gives personal significance and glory. This is the dark side of globalization.

Especially for young men, mortal combat with a "band of brothers" in the service of a great cause is both the ultimate adventure and a road to esteem in the hearts of their peers. For many disaffected souls today, jihad is a heroic cause—a promise that anyone from anywhere can make a mark against history's most powerful country and its perceived allies. But because would-be jihadists best thrive and act in small groups and among family, friends, and fellow travelers—not in large movements or armies—their threat can only match their ambitions if fueled beyond actual strength. Publicity hyped by political and media frenzy is the oxygen that fires modern terrorism (Atran 2013), filling a transcultural niche whose ecology ranges over a media landscape (where competition for resources is a struggle for control of information) and a geographical archipelago that spans the globe.

Going Forward

Thus far, discussion of our studies has focused mainly on expressed willingness to make costly sacrifices for fused groups and sacred causes. Although the enduring and seemingly intractable nature of the conflicts from which we have drawn our subject populations suggest a strong relationship between expressed and actual willingness to make costly sacrifices, here we have no direct measures to confirm the relationship (although we do have outcome measures that involve lesser material sacrifices). In what follows, however, the subjects are militants and frontline combatants whose expressed willingness to make costly sacrifices, including fighting and dying, is directly confirmed through participant observation of their actions.

In this regard, in March 2015, we completed the first round of study in Kirkuk, Iraq, with captured fighters from the Islamic State and with Kurds in the frontline areas between Mosul and Erbil. Together with Artis colleagues Lydia Wilson, Hoshang Waziri, and Hammad Shiekh, we found that the Kurds demonstrate a will to fight that matches the Islamic State's. When we asked the Islamic State prisoners, "What is Islam?" they answered, "My life." Yet it was clear that they knew little about the Quran, or Islamic history, other than what they had heard from al-Qaeda and Islamic State propaganda. For them, the cause of religion is fused with the vision of a caliphate—a joining of political and religious rule—that kills or subjugates any nonbeliever. By contrast, the Kurds' commitment to Islam is surpassed by their commitment to national identity; theirs is a more open-minded version of Islam. They have defended Yazidis and Christians as well as Arab Sunnis, who make up the bulk of the more than 1 million displaced persons in Iraqi Kurdistan. But perhaps what most reveals commitment by the Kurds is how they hold the line with so little material assistance (Atran and Stone 2015).

We interviewed and tested (on fusion, sacred values, costly sacrifices) 28 Kurdish combatants and 10 noncombatants

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(e.g., suppliers, medics, etc.) in battle areas 1 to 3 km from forces of the Islamic State (Atran and Stone 2015), including respondents randomly chosen among special forces (Zerevani) from the front at Mosul Dam, Peshmerga fighters from the Kurdistan regional government at (the now depopulated village of) Rwala on the Mahmour front, and Kurdish soldiers from a joint Kurd-Arab Sunni unit of the Iraqi Army at the Qeremerdi forward outpost. Using our standard experimental procedures (Sheikh, Gómez, and Atran 2016), we found that 36 respondents are fused with "Kurds," 35 with "family," 23 with "close, family-like group" of comrades, and 14 with "Islam." But in rankings of relative importance of identity fusion, 21 respondents reported that fusion with "Kurds" trump all other forms of identity fusion, three privileged Islam, only one respondent considered fusion with "family" as foremost, and no respondent held that "close, family-like group" is primary. There were also more than twice as many expressions of devotion to "Kurdistan" ($N = 23$) as sacred values than to democratic values of "electoral democracy" and "free speech" ($N = 10$) as sacred values for which respondents are willing to fight and die.[5] Finally, all but one person who held "Kurdistan" as an sacred value was fully fused with "Kurds," indicating that defense of "Kurdeity" (as the Kurds themselves term their commitment to fellow Kurds as well as to defense of "our Kurdistan homeland") is the most important obligation in life, deserving of costly sacrifice unto death, if necessary (i.e., 22 respondents, several of whom had been previously wounded, would be willing to die and sacrifice their families in defense of Kurdeity versus three who would be willing to sacrifice Kurdeity and family for Islam and one who was willing to sacrifice Kurdeity and Islam for family.

Indeed, we frequently have encountered devoted actors who clearly demonstrate emotional ties to family and concerns for self yet show their willingness to sacrifice these important interests. For example, one Kurdish fighter told us that during an Islamic State offensive that took his village, he had a (tragic) choice: to go into the village before Islamic State forces had established control and take his family out or to help stabilize the front to prevent the Islamic State from advancing. The choice, he said, haunts his every waking hour. In this short exchange he demonstrated the pain of trading off his familial obligations for the sake of fighting for Kurdeity (and we have found similar sentiments expressed, and acted on, in our interviews with fighters from the Islamic State and al-Qaeda's Jabhat an-Nusra, but not in interviews with the Iraqi army).

These preliminary findings with frontline participants in the struggle for survival against the Islamic State suggests that, at least in this case (and quite possibly others), larger groups that are sacralized (in terms of territory, cultural history, language, etc.) can be the primary locus of identity fusion and of the interaction between identity fusion and sacred values in producing costly sacrifices, including fighting and dying. If this is so, then the primary relationship between identity fusion and willingness to fight need not be always at the level of a close, family-like group. In other words, the strongest and most powerful forms of sacrifice for group and cause need not always require a process of "upscaling" from a localized family-like cohort of comrades to an extended ideological community but may inhere in a larger, sacralized community to begin with, especially in "tight societies" that have strong social norms and strict channels of socialization (Gelfand et al. 2011). Such larger and tight societies include the geographically bounded but stateless cultural sphere of Kurdistan as well as the global jihadi archipelago where information from across the world and cyberspace narrows mightily to fit the dreaming ecology of the Caliphate—a transcultural niche, which the actors of Kurdistan are fighting unto death to defeat and the devoted actors of the Islamic State are fighting unto death to make real.[6]

Epilogue

For the future of democracy and human rights, the core existential issue may be, Why do values of liberal and open democracy increasingly appear to be losing ground to those of narrow ethnonationalisms and radical Islam in a tacit alliance that is tearing apart the European middle class (the mainstay of European democracy) in ways similar to the undermining of republican values by fascists and communists in the 1920s and 1930s? Consider the following.

"Mr. Hitler," wrote George Orwell (1968 [1940]) in his review of *Mein Kampf*, "has grasped the falsity of the hedonistic attitude to life. Nearly all western thought . . . certainly

5. Reviewers noted that in rallies for war and trance performances in small-scale societies, identity fusion may not only be a result of kin selection but also a capacity developed in bonding rituals to communicate with the spirit world or ancestors. Bonding rituals may be somewhat more "imagistic" than "doctrinal" in larger, complex societies (Whitehouse 2004), but their role in identity fusion appears to be somewhat similar. The role of sacred values in small-scale societies in promoting costly sacrifices also appears to be somewhat different. In small-scale societies, warriors often make extreme sacrifices in heat of battle; however, utilitarian constraints on ability to continue fighting are often more immediate than with large-scale societies that can acquire supplies, weapons, technical support, and so forth to make war endure. For people in more complex modern societies, being supplied from outside may allow for more deontic processing involving sacred values, although even long-term conservation practices in small-scale societies often seem to depend on a moral commitment to spiritual values that involves sacrifice of apparent self-interest and disregard of immediate needs, desires, and preferences (Atran and Medin 2008; Atran, forthcoming).

6. Because our informants were mostly frontline combatants who fight and risk their lives almost daily (or rather, nightly, as most attacks by Islamic State fighters on the forward outposts where we worked occur at night), we added willingness to torture and carry out suicide attacks to increase the variance in responses relating to costly sacrifices. All but two Kurdish fighters excluded torture and suicide attack as morally permissible, even in mortal defense of Kurdistan.

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all 'progressive' thought, has assumed tacitly that human beings desire nothing beyond ease, security and avoidance of pain." In such a view of life there is no room for greatness and glory, which as Darwin noted motivates heroes and martyrs to motivate others to survive and even triumph against great material odds. "Hitler knows . . . that human beings don't only want comfort, safety, short working-hours, hygiene, birth-control and, in general, common sense; they also, at least intermittently, want struggle and self-sacrifice" (Orwell 1968 [1940]).

Soldier for soldier, in World War II the Germany army outfought all others by any measure. German armies were destroyed only by the massive production and firepower superiority of the United States and by the massive manpower sacrifice of more than 20 million Russians. Perhaps it will come to that in the struggle against the Islamic State, but for now the means arrayed against this dynamic revolutionary movement seem feeble. A political entity preaching and practicing wildly different ideas from other nations and mass movements and that held no appreciable territory only two years ago now boasts the largest extraterritorial volunteer fighting force since World War II, with enlistees from some 100 nations. The Islamic State controls hundreds of thousands of square kilometers and millions of people and has successfully defended a 3,000-km military front against a multinational coalition of armies in ways reminiscent of the French Revolution.[7]

To dismiss the Islamic State as just another form of "terrorism" or "violent extremism," to insist that its brutality is simply "immoral," "nihilistic," or "apocalyptic" and therefore inevitably self-destructive, or to refuse to call it by the name it calls itself in the vain hope that doing so will somehow undermine it, is counterproductive and deluding. From an evolutionary and historical vantage, no developments are really deviant or extreme unless they quickly die, for those developments that continue to survive are the very stuff of historical change and evolution. From this perspective—and in the light of interviewing and running psychological experiments with Islamic State and al-Qaeda (Nusra) fighters on the ground and with volunteers from Europe and North Africa as well as those who oppose and fight them—the rise of the Islamic State is arguably the most influential and politically novel countercultural force in the world today.

So a big question seems to be, short of a massive military onslaught against the Islamic State, whose downstream consequences are likely to be as uncontrollable as they may be undesirable, what can be done? Of all those opposed to the Islamic State, only the devoted actors of Kurdeity succeed on their own turf in resisting the devoted actors of the Islamic state. But because this is a fight for the future and for young people who will be that future, what can be done to mobilize yearning youth to a countervailing cause? What dreams may come from current government policies that offer little beyond promises of comfort and security (Atran 2015)? People who are willing to sacrifice everything, including their lives—the totality of their self-interests—will not be lured away just by material incentives or disincentives.[8] The science suggests that sacred values are best opposed with other sacred values that inspire devotion, or by sundering the fused social networks that embed those values.

7. For example, an as-yet-unpublished World Bank Report made available to this author shows that there is no reliable relationship between job production and lessening of violence.

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8. In the history of modern insurgencies, there are also important parallels between the collapse and reaction to the Arab Spring and the pan-European popular uprisings of 1848 and their aftermath, the rise of al-Qaeda in the late twentieth century and that of anarchism in the late nineteenth century, and the present weakening of al-Qaeda relative to the Islamic State and the co-opting and near annihilation of the anarchists by the Bolshevists who knew better how to manage their political ambition through military and territorial management and, perhaps most critically, a positive, proactive, coherent, and compelling moral and spiritual vision (a sentiment even expressed by some from al-Qaeda's Jabhat an-Nusra fighting the Islamic State in Syria who Nafees Hamid, Richard Davis, and I interviewed in August 2015, although most still believe that Nusra's version of a *salaf jihad* (offensive jihad) "tolerant" of others will win the day).

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