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Radical Apocalypticism and Iranian Nuclear Proliferation: A Systems Oriented Analysis

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Radical apocalypticism (RADAP) is a belief system, usually religious, that provides a logical framework for violent action in order to help usher in a new world order. Leaders with RADAP thinking have a distinct reasoning framework that significantly changes traditional cost-benefit calculations. It is thus imperative that analysts consider this plausible influence when evaluating Iran's nuclear weapons intentions. Yet, with a few exceptions, past and present analyses of Iran's nuclear situation have typically ignored the role of religion in shaping its leaders' political decisions.

Drawing on the tools of traditional intelligence approaches, scholarship on religious apocalypticism, and system dynamics, we explore how RADAP ideology among Iran's leadership could potentially impact the dynamics surrounding that country's nuclear weapons development efforts.

THE STATE OF INTELLIGENCE ON IRAN'S NUCLEAR PROGRAM

The control of nuclear weapons remains a most difficult and urgent international policy problem.¹ Efforts to limit the spread of nuclear weapons are fraught with controversy and conflict, particularly as they apply to Iraq, North Korea, Pakistan, and Syria, among others.

Currently, the main focus of attention on the proliferation issue is Iran. In the 1960s, under the Shah's regime, Iran began a peaceful nuclear program, with assistance from the United States and other countries, and signed the Nuclear Non-Proliferation Treaty. After the 1979 Islamic Revolution brought a theocratic regime to power, the nuclear program, including any possible military uses, was suspended because of concerns on the part of Ayatollah Ruhollah Khomeini that nuclear weapons were against the tenets of Islam. In the midst of the Iran-Iraq War (1980-1988), Iraq's use of chemical weapons prompted the Iranian government to quietly start its own nuclear weapons program. Since then, Iran has, at least on a moderate scale, figured out how to perform all the steps of the "nuclear fuel cycle" which can eventually result in a nuclear weapon: mining uranium ore, milling the ore into what is known as yellowcake, conversion of the yellowcake to uranium hexafluoride, and enrichment of the uranium hexafluoride (Iran has so far confirmed enrichment to 20 percent. Iran is also developing missiles that could deliver a nuclear weapon.² With the technical issues largely solved, all that remains are political decisions to enrich uranium to weapons grade [more than 90 percent] and then assemble a weapon).

In the state of affairs prior to June 2013, conventional wisdom in U.S. intelligence circles held that, after supporting terrorism and subversion abroad in the 1980s and early 1990s, Iran's theocratic regime has now evolved into a more cautious and pragmatic government.³ Such a

government would follow such traditional international policy goals as trade, influence, and security. A more moderate government might contemplate building a nuclear weapon with prestige and deterrence in mind (again traditional policies), but would be unlikely to pursue a weapons program to the point that the existence of the regime was endangered. According to the conventional wisdom, any actual use of a nuclear weapon would be even less likely, given the high likelihood of devastating retaliation.⁴ Iran has signed the Nuclear Non-Proliferation Treaty, under which it forgoes the development of nuclear weapons in return for international assistance with peaceful nuclear power, along with verification of peaceful use from inspectors from the United Nations' International Atomic Energy Agency (IAEA). But, Iran's relationship with the IAEA has been a troubled one. In August 2002, an Iranian opposition group, the National Council for Resistance in Iran (the political wing of the Mujahideen-e Khalq terrorist group), revealed the existence of a covert underground uranium enrichment facility at Natanz,⁵ previously unknown to the IAEA. A February 2003 IAEA visit to Natanz confirmed that enrichment was underway, raising concerns about Iran's intentions.

Then, in September 2009, Western countries announced that their intelligence agencies had uncovered a second underground enrichment facility at Fordow, near Qom.⁶ In November 2011, the IAEA issued a report in which, for the first time, it expressed "concerns about possible military dimensions to Iran's nuclear programme." In February and March of 2012 a dispute developed between Iran and the IAEA because Iran would not allow inspectors access to a military facility at Parchin, near Tehran. Eventually, after a delay, the IAEA inspectors were allowed inside, but indications were that the site had been cleaned up.⁸

The 24 February 2012 IAEA report provided evidence that Iran was accelerating its efforts at uranium enrichment. The new report showed that since the time of the IAEA's November 2011 report, Iran's production of 20 percent uranium had tripled and the number of enriching centrifuges at the Natanz Fuel Enrichment Plant had increased by 50 percent. Until the recent election of President Hassan Rouhani, Iran continued to restrict IAEA access to critical information about the intended use for these facilities. Moreover, Iran's claim to enrich uranium only to 20 percent for medical research is highly suspect, given that IAEA inspectors found particles of 27 percent uranium at the Fordow facility, and given that Iran has yet to offer a complete explanation for this discrepancy.

If Iran moves closer to producing a nuclear weapon, the international community (especially the United States and Israel) faces a difficult policy challenge, with possible outcomes ranging from a negotiated settlement in which Iran agrees to stand down from building nuclear weapons, to acceptance of Iran as a nuclear power, to a strike to delay or destroy the

program, and perhaps even a wider conflict. If the conventional wisdom regarding a trend toward pragmatism in Iran is accurate, the current policy of international sanctions, coupled with incentives for Iran to abandon its apparent nuclear ambitions, offers hope of a negotiated settlement. Yet, commentators on Iran's nuclear program have largely missed a much more dangerous possibility: that some in Iran might actually welcome confrontation with the United States, Israel, and with some nations in the Sunni world—confrontation that might even involve the use of nuclear weapons. The conventional wisdom has been wrong about Iran in the past, especially when Western observers tried to fathom the role of religion in significant episodes in the country's history, such as the fall of the Shah in 1979. As Columbia University's Robert Jervis noted,

The main difficulty was that analysts, like everyone else at the time, underestimated the potential if not existing role of religion in many societies...it still seemed inconceivable that anything as retrograde as religion, especially fundamentalist religion could be crucial...it is difficult for most people living in a secular culture to empathize with and fully understand religious beliefs—especially when the religion is foreign to them.¹⁰

The new Iranian President Rouhani proclaimed that his election was a victory of the moderates over the radicals. Since the government of Iran is complex, with many branches and individuals exercising power, examining the role that various religious beliefs play in the political and social dynamics influencing the nuclear program is important.

APOCALYPTICISM AS A CULTURAL SYSTEM

A common starting point for intelligence analysis on Iran is the assumption that the country is, as the Chairman of the U.S. Joint Chiefs of Staff, General Martin Dempsey, said, "a rational actor," and that its leaders will act to preserve their national interests. ¹¹ But, if an analyst, in using his/her own reasoning framework to determine what constitutes "rationality," relegates religion to the private sphere, the resulting assumption can be quite misleading in its analysis of what is essentially a religious culture. As sociologist Clifford Geertz established decades ago in his essay "Religion is a Cultural System," a religion is a set of symbols that creates an overarching construction of reality that seems uniquely realistic to its adherents and that instills in them powerful moods and motivations. ¹² Hence, a traditional "cost-benefit approach" that rationalizes that Iran would not use nuclear weapons, even if it had them, because of the dire consequences to its own nation, may in itself not be a "rational" conclusion, particularly if certain religious motivations influence key Iranian leaders.

"Apocalypticism" is a religious-cultural system that exists across many religions, including Shi'ite Islam in Iran. It informs an adherent's goals, motivations, self-identity, view of the world, and relationships to others. For the "moderate" apocalypticist, this worldview may compete with other conceptual systems, including political and social frameworks. For radical apocalypticists, however, all other aspects of living—morality, politics, economics, views on the environment, social relations, the ethics of violence, and even weather events—are fitted into an overarching apocalyptic framework from which they derive their meaning.

Ancient Search for New Fra

Apocalypticism as a social/theological outlook was introduced to the world by ancient Persia and adapted by Hellenistic Judaism, through which it profoundly influenced early Christianity and Islam. Each contemporary culture transforms the apocalyptic framework in particular ways, but some general features of the system have proliferated across cultures for millennia, and still persist. The primary supposition of an apocalyptic worldview is that the mundane world is profoundly broken, controlled by evil forces or "Evil." Through various means, whether a dream, vision, or even a visit from an angel, a revelation discloses that the current situation is not, and should not be, the ultimate view of reality. Instead, the recipient of the revelation understands the universe from a larger, divine point of view, recognizing that beyond Earth is a transcendent realm from which God/the divine rules. Apocalypticists want above all to bridge that gap between the present or human world and the divine world, whether by ascending to the place where the divine rule exists, or by bringing that divine rule to earth.

Most apocalyptic scenarios, including the Shi'ite apocalypticism that predominates in Iran, focus on "eschatology," speculations about a grand end to normal historical time when Evil is defeated and divine Goodness rules the universe in a new way. 15 Adherents with a passive eschatology expect this eventual end to history, but do not know when or where this will occur, so they wait patiently and hope for the advent of that era, acting out the values of their faith in the meantime. They are not "passive" in their religion or values, but only with respect to the endtime, the arrival of which is not contingent on their actions. In contrast, adherents with an active eschatology believe that some action of theirs actually triggers the intervention of divine agents (e.g., Christ, the Mahdi, angels) to end regular history and commence a new, unique era in which Evil is overcome. Not only do they hope to hasten that era's arrival, they maintain that their actions are integral to bringing it about. The new era may perhaps not be the final end to Evil, but could nevertheless be the new rule of a divinely ordered society (e.g., the millennial kingdom, the messianic rule) that vanquishes Evil in such as way as to herald its ultimate end.

For now, apocalypticists identify with the oppressed who live in a world temporarily dominated by evil. For this reason, an increased sense of oppression validates and deepens the apocalyptic worldview. In the case of apocalypticists with an active eschatology, oppression adds a sense of urgency, further motivating them to act to precipitate the endtime even sooner. Apocalypticists may experience an increased sense of persecution if they are recipients of any of the following: physical aggression, such as occurs in war; economic assaults, such as sanctions; moral attacks, humiliation, or mockery; or cultural oppression, such as of the encroachment of a countervailing culture. In this way, an apocalyptic framework becomes a self-reinforcing lens by which adherents interpret the world around them, which in turn further validates their apocalyptic view.

Apocalypticists believe themselves to be privy to many cosmic secrets, which may be about eschatology, hidden spatial locations, secrets of human identity, the meaning of weather or cosmological events, and/or the "real" nature of worldly events and conflicts. Apocalyptic seers who continue to receive revelations and apocalyptic interpreters of original revelations, (e.g., Scripture, such as the Book of Revelation, or the Qur'an), may therefore accrue significant authority in their societies.

RADICAL APOCALYPTICISM (RADAP): A NEW FORMULATION

In itself, apocalypticism is neither violent nor non-violent. In their analysis of nuclear proliferation, Michael Eisenstadt and Mehdi Khalaji distinguish between "violent apocalypticism" and other forms of Shi'ism, and urges intelligence analysts to examine the influence of violent apocalypticism on Iranian politics. We refine their insight by proposing a formula identifying violent, radical apocalypticism by the presence of six core suppositions about reality that are shared by its adherents. This formula itself is transcultural, but applicable to the Iranian Shi'ite context. From this point forward, we use "RADAP" to refer to this violent, radical apocalypticism.

The first three Reality Suppositions derive from a study on religious terrorism conducted by religion scholar Mark Juergensmeyer, who examined the characteristics of religious groups that become violent. Juergensmeyer found that religious groups that characterize conflicts as "cosmic war" are more likely to be violent than those who see conflicts in limited social or political terms. He explained that for some religious groups, "Cosmic wars... are larger than life... [they] evoke great battles of the legendary past...relate to metaphysical conflicts between good and evil... are intimately personal but can also be translated to the social plane," and ultimately "transcend human experience."

According to Juergensmeyer, a religious group is likely to characterize a conflict as a cosmic war when it holds to one or more of three Reality Suppositions:

- 1. The struggle involves a defense of basic identity and dignity. It is "... of ultimate significance—a defense not only of lives but of entire cultures."
- 2. Losing the struggle is unthinkable, since it is really "taking place on a transhistorical plane."
- 3. The struggle cannot be won through human effort alone. While it seems "hopeless in human terms...the possibilities of victory are in God's hands."²¹

Although Juergensmeyer's approach is very helpful in grasping the mindset of violent religious groups, it is not entirely reliable for distinguishing peaceful from radical apocalypticists. An apocalypticist could possibly adhere to all three conditions on Juergensmeyer's list and still not be violent. For example, an apocalypticist might accept that divine Good is engaged in a cosmic struggle with the Evil that presently rules the earth, but also maintain that his/her own role is to wage peaceful, positive social change in anticipation of God's eschatological intervention.

Adherents of violent RADAP are apocalypticists who exhibit all of Juergensmeyer's characteristics of religious groups that characterize confrontations as "cosmic war," along with three additional Reality Suppositions:

4. The world comprises two starkly oppositional social groups: an in-group that belongs to the side of Good and an out-group representing Evil. The in-group members describe the out-group members in dehumanizing or demonizing terms.

For RADAP adherents, their in-group of the righteous belongs to, and acts on the side of, the cosmic force of Good. "Cosmic" here denotes a sphere of ultimate Goodness that is larger than human activity. They think that out-group members are on the side of the cosmic force of Evil to varying degrees, whether by intentional action or simply by not belonging to the RADAP group. In other words, the out-group can include those who are advancing Evil in the world, such as moderates or "hypocrites" from the apocalypticists' own religion whom they judge to be lax in their religious observance. Frequently, RADAP adherents are more upset with these moderate "traitors" than with their enemies who are outright "evil," which partly explains why al-Qaeda has killed scores more Muslims than Western victims.

RADAP adherents also tend to see members of the out-group as "other de-individuated" or stripped of personal identities, save for their out-group membership. For instance, a person is no longer "a wife," or "Sally," but

just a member of "group X." According to sociologist Anthony Stahelski, language that monolithically dehumanizes (e.g., "group X people are dogs") or demonizes the out-group members (e.g., "group X people are devils") is further evidence of social psychological conditioning towards violence.²⁴ By contrast, radical apocalypticists often describe themselves and their in-group with language that connotes piety, moral certitude, and purity.

These four suppositions are contingent on the perception that Evil is in control of the world for now and controls the groups that oppose the adherents of RADAP. As a rule, RADAP adherents thus tend to feel oppressed and persecuted. Hence, any perceived increase in oppression reinforces these suppositions and their claim that God will ultimately vindicate them.

Another supposition about reality held by RADAP adherents is:

Violence is somehow salvific and redemptive, leading to the victory of God/ Goodness.

For the RADAP adherent, violence may not only be necessary for waging the cosmic war on the side of God, it may be the very hallmark of piety.²⁵ Physical violence may be directed at the in-group, including suicide missions, and/or at the out-group. Violence may also take psychological forms of threat, intimidation, or humiliation toward the out-group.

Finally, the adherent to RADAP also typically maintains belief in:

6. Active eschatology, maintaining that he/she plays a role in triggering the advent of eschatological events, especially the intervention of divine agents to end the present era of history in favor of a unique, transhistorical era in which God rules.

None of these six Reality Suppositions is alone sufficient to indicate that an apocalyptic group is or will become violent, but apocalypticists who view reality through this full constellation of suppositions are likely to have a RADAP ideology. Hence, a key intelligence task is to assess the extent to which a group or individual embraces these Reality Suppositions.

VARIETIES OF APOCALYPTICISM IN ISLAM

All of Islam is to some degree apocalyptic, but the vast majority of Muslims do not share a RADAP belief system. In general, the Qur'an expects a judgment day (yawm ad-din) on which Allah (God) will judge the righteous, who will be rewarded in a garden in heaven, and the wicked, who will be punished in the fires of Jahim. Most Islamic religious authorities maintain a passive eschatology that does not strive to predict

the timing of this Day of Reckoning, nor do they expect that its arrival depends on the actions of humans. Until this Day, Muslims are enjoined to be faithful, to keep the five pillars, and to act as a witness to the one true God as a messenger to the rest of the world.

No reliable estimates exist of how many Muslims embrace an active eschatology, believing that they play a key role in the advent of endtime events. Likely, only a small percentage of Islamists desire the state to be ruled by Islamic law rather than secular law; this group is variously estimated as between 6–15 percent of the world's 1.7 billion Muslims. Notably, the vast majority of Muslims, including Islamists, eschew terrorism since the Qur'an clearly prohibits offensive jihad (struggle), and maintains instead an obligation towards defensive jihad, but only in cases in which Islam is persecuted by a clear aggressor (Qur'an 2:185–190; 5:32).

But, in recent decades, a new theology has emerged in both radical Sunni and Shi'a Islam that equates offensive and defensive *jihad*, doing so in apocalyptic terms, and claiming that a turning point in history has arrived. Theologians such as Sayyid Qutb and Abdullah Azzam preached that the time has arrived for faithful Muslims to wage external *jihad* since the difference between "offensive" and "defensive" *jihad* has collapsed. In their view, Islam is under constant attack through economic, cultural and political aggression from Israel, Western Europe, and America and their allies. ²⁶ Such interpreters urge the *ummah* or Muslim community to wage war against "the West" as an obligation incumbent on all Muslims at this unique, divinely ordered moment in history. ²⁷

VARIETIES OF IRANIAN APOCALYPTICISM

About 90 percent of Iran's religious adherents belong to Twelver Shi'ism, which holds that the Twelfth Imam, Muhammad al-Mahdi, went into hiding in the early tenth century C.E. but will someday return alongside Jesus Christ. Most Shi'ites expect that Jesus will defeat the *dajjal* or Antichrist, while the Mahdi will purge the Muslim world of hypocrisy and injustice and unite it in a just, Islamic empire.

In Iran, various Shi'ite groups maintain starkly divergent understandings of how this apocalyptic scenario will unfold. The senior, traditional clerics look to older apocalyptic sources that shy away from interpreting political events as signs of the end.²⁸ These clerics strongly uphold a passive eschatology, refusing to predict the timing of the arrival of the Mahdi and traditionally discouraging speculation that tries to fit contemporary events into prophecy.

By contrast, a diverse group—consisting of some from among the hardliners, war generation members, university students, newly ordained clerics, members of former President Mahmoud Ahmadinejad's cabinet,

and the rural poor—is influenced by a recent, populist brand of apocalyptic interpretation. Its advocates, many of whom lack the requisite clerical qualifications, interpret passages from the Qur'an, *hadith*, and Book of Revelation as prophecy to decode signs of the end time and to predict the location and timing of the Mahdi's arrival, when he will punish Sunni Muslims, destroy some mosques, rout the corrupt members of the *ulema*, and destroy the enemies of Islam (commonly Israel and "the Byzantines" or "the Crusaders," identified as the West, especially the United States).²⁹

Frequently, these populist apocalyptic interpreters vigorously demonize Israel as the *dajjal* or Antichrist, or "the Little Satan," and America as "the Great Satan," and characterize global conflicts as a cosmic war pitting the Shi'a against the rest of the evil world.³⁰ They espouse an active eschatology that identifies particular individuals, especially Supreme Leader Ali Khamenei, former President Ahmadinejad, and Hezbollah leader Hassan Nasrallah, as playing key roles in ushering in the end time events and the arrival of the Mahdi's kingdom.³¹

If this new, populist apocalypticism views violence against evil enemies as a legitimate and divinely mandated means of bringing about the desired endtime, it may justifiably be characterized as radical apocalypticism. To the extent that RADAP ideology influences key decisionmakers, it changes the political calculus, redefining what constitutes "rational" action. Given Iran's development of nuclear power and the possible development of nuclear weaponry, analysts must actively monitor the nature and depth of apocalyptic beliefs among the constituencies of the Iranian leadership.³²

MEASURES FOR ASSESSING EVIDENCE OF RADAP THINKING

To aid analysts in gauging the extent to which members of the Iranian leadership embrace the six RADAP Reality Suppositions, we provide six Measures that may be assessed through open source analysis (OSINT).³³ These Measures are:

- 1. Rhetoric Employing Key Symbols from Apocalyptic Scenarios, especially rhetoric suggestive of the first three Reality Suppositions about cosmic war;
- 2. Rhetoric of Eschatological Agency, which indicates the presence of an active eschatology by assigning eschatological roles to the in-group or its key leaders;
- 3. *Rhetoric of Eschatological Imminence*, which indicates the belief that the endtime is coming soon;
- 4. *Rhetoric Demonizing or Dehumanizing Opponents*, which indicates an advanced stage of social-psychological conditioning towards violence;
- 5. Rhetoric Embracing Salvific Violence, which demonstrates whether or not the religious culture positively valences violence as redemptive and pious; and

6. Money/Resources Expended Toward Apocalyptic Infrastructure, Equipment, or Programs, which demonstrates the degree to which the leader has taken concrete steps to make the apocalyptic scenario a concrete reality.

APPLYING THE RADAP MEASURES TO THE IRANIAN LEADERSHIP

At the time of this writing, just after the election of President Rouhani, predicting the future dynamics of Iran's leadership, especially given the complexity of the country's decisionmaking apparatus, is impossible. Alongside executive, legislative, and military branches (such as the President, Cabinet, Parliament, and Armed Forces), functions a parallel clerical system (Guardian Council, Expediency Council, Islamic Revolutionary Guards Corps [IRGC], and Supreme Leader). In fact, however, a decision about whether to proceed with the building of a nuclear weapon would be made as part of an ongoing struggle for power among four factions which operate across the government and military:

- 1. the war generation, sometimes called the principalists, including the IRGC and the former President, who defended the country during the war with Iraq in the 1980s and believe that the conservatives have become corrupt and it is time for new leadership;
- conservatives, including the senior clerics and the Supreme Leader, who took control after the fall of the Shah in 1979 and want to maintain their power and privileges;
- 3. pragmatists, who are willing to make compromises to promote state-controlled economic growth; and
- 4. reformers, who want more democracy and the rule of law.³⁴

While which faction President Rouhani will best represent is unclear, all factions support a peaceful nuclear program; on a weapons program they vary from willingness to put off having a nuclear bomb indefinitely (pragmatists and reformers) to pushing ahead (war generation and perhaps conservatives). For all practical purposes, the IRGC (mostly comprising representatives of the war-generation) is in control of any nuclear weapon and missile programs, but the Supreme Leader retains ultimate control over decisions affecting the regime's expediency.

Even given the diffuse nature of power in Iran, which is divided among so many factions and governmental bodies, a RADAP framework of thinking shared by a few key individuals (especially the Supreme Leader, leaders of the IRGC, the influential cleric Mesbah Yazdi, etc.) could have a profound impact on what constitutes a rational action with respect to Iran's nuclear intentions. Discerning the presence and extent of RADAP thinking in the leadership is difficult, however, since analysts must rely largely on Open

Source Intelligence (OSINT). A nascent methodology of six measures for assessing through OSINT (including speeches, blogs, lectures, films, and publications) may be used to assess the nature and extent of violent RADAP thinking among Iran's key leaders.

Space here only allows for a brief, illustrative application of the six measures of RADAP to the public speeches and actions of former President Ahmadinejad, followed by an even briefer summary of the initial findings on Supreme Leader Khamenei. We urge a fuller application of this methodology to the available rhetoric and actions of President Rouhani, as well as the Supreme Leaders and other key figures who are vital to Iranian nuclear deliberations. In comparison to the analysis of the religious beliefs of former President Ahmadinejad, the change in Iranian leadership could spell an opportunity for renewed negotiations with America and its allies.

1) Rhetoric Employing Key Symbols From Apocalyptic Scenarios and Cosmic War. Although not necessarily heard that way, President Ahmadinejad's 2011 speech to the United Nations was apocalyptic. He first listed at length the sins of America, before explaining the only way to overcome evil in the world: "All of us should acknowledge the fact that there is no other way than the shared and collective management of the world in order to put an end to the present disorders, tyranny, and discriminations worldwide..." The statement fulfilled two of Mark Juergensmeyer's conditions for characterizing a struggle as cosmic war, since it presented this new order as worldwide in scope, involving the basic dignity of the world. The statement fulfilled two of Mark Juergensmeyer's conditions for characterizing a struggle as cosmic war, since it presented this new order as worldwide in scope, involving the basic dignity of the world.

Ahmadinejad then explained that the new "management of the world" will come about through the leadership of the Mahdi:

A future... will be built when humanity initiates to trend the path of the divine prophets and the righteous under the leadership of Imam al-Mahdi, the Ultimate Savior of mankind and the inheritor to all divine messengers and leaders and to the pure generation of our great Prophet.

The creation of a supreme and ideal society with the arrival of a perfect human being who is a true and sincere lover of all human beings, is the guaranteed promise of Allah. He will come alongside with Jesus Christ to lead the freedom and justice lovers to eradicate tyranny and discrimination, and promote knowledge, peace, justice freedom and love across the world. He will present to every single individual all the beauties of the world and all good things which bring happiness for humankind.

Today nations have been awakened.³⁷

Ahmadinejad presented this worldwide eschatological rule as "guaranteed" because Allah has promised it. Losing this struggle against worldwide tyranny appeared to be unthinkable for Ahmadinejad, since he maintained that it will be won by divine forces, the Mahdi and Jesus Christ. This statement fulfilled all of the Indicators derived from Juergensmeyer's conditions for characterizing a struggle as a "cosmic war." If taken at face value, Ahmadinejad believes that the scope of the Mahdi's guaranteed rule will be universal, exceeding all earlier political states and religious authorities. Analysts should consider whether his loyalty to this vision exceeded his loyalty to the interests of the nation of Iran itself.

- 2) Rhetoric of Eschatological Agency. In an earlier 2005 address to the United Nations that featured similar themes, Ahmadinejad claimed that a divine green light enveloped him while he spoke to the United Nations.³⁹ This divine light has symbolic importance in Shi'ism, since it is the element passed on from the Prophet Muhammad to members of his family, the Imams—including the Mahdi. This light imbues Shi'ite Imams, unlike Sunni Imams, with infallibility and divine omniscience. Hence, Ahmadinejad apparently saw himself on a divinely guided mission to pave the way for the Mahdi's arrival, which is suggestive of an active eschatology. Analysts should keep in mind that this need not be only a divine figure; in recent decades, followers in both Sunni and Shi'ite Islam have seen various human claimants to the title of the Mahdi.
- 3) Rhetoric of Eschatological Imminence. Ahmadinejad's 2011 statement to the United Nations, "Today nations have been awakened," pointed to the imminence of his eschatology: the end is soon. In fact, so soon that Ahmadinejad was well-known to save an empty seat for the Mahdi at cabinet meetings. The U.N. speech thus functioned for Ahmadinejad as both an invitation to the nations and as a warning that a new, apocalyptic political order is coming soon.

Members of Ahmadinejad's former cabinet shared his belief, and they produced a widely circulated documentary titled *The Coming is Soon*, which interpreted contemporary political events as the fulfillment of eschatological prophecy about the coming kingdom of the Mahdi. The documentary identified specific signs, drawn from a long tradition in Shi'ism of "greater signs" and "lesser signs" that precede the arrival of the Mahdi; these include a revolution in Yemen and the death of King Abdullah of Saudia Arabia (*The Coming*). The film also strongly suggested that Ahmadinejad should be identified with a prophesied figure who will conquer Jerusalem, and the Ayatollah Khamenei with another prophesied figure who will hand over the flag of Islam to the Mahdi, in coordination with Hezbollah's Nasrallah (*The Coming*).

- 4) Rhetoric Demonizing or Dehumanizing Opponents. Ahmadinejad and other Iranian leaders have, since 1979, regularly demonized America as "The Great Satan" and Israel as "The Little Satan." The former President has also dehumanized Israel as "dirty vermin," "a dead rat," "a stinking corpse," and "filthy bacteria." These statements fulfill Anthony Stahelski's criteria of "other de-individuation," through "demonizing" and "dehumanizing" language that indicates social psychological conditioning towards violence. 41
- 5) Rhetoric Embracing Salvific Violence. Shi'ism has always attached a high degree of esteem to martyrs who are willing to die in order to protect Islam, in imitation of their martyred heroes Ali, the first true Imam and son-in-law of Muhammad, and Hussein, son of Ali and Muhammad's daughter Fatima (680 C.E.). In the time of the Iran-Iraq war (1980-1988), Ayatollah Khomeini exploited this Shi'ite love of martyrdom, giving out hundreds of thousands of plastic "keys to paradise" for participants to wear around their necks as a reminder that martyrs go to heaven. 42 Estimates of those willing to act as martyrs—counting the volunteer Basij force made up of women, young men, and children as young as 12—ranges to as high as a few million over the eight year period. Hundreds of thousands went to the front lines in "human waves" that preceded the army in combat, walking directly to their death in seeking to awe and deter Iraqi forces. 43 Among these were children, who bravely but tragically cleared the minefields by walking or rolling over the earth after they had wrapped themselves in blankets to try to keep their body parts minimally together for burial.⁴⁴

As President, Ahmadinejad imitated Khomeini in his rhetorical embrace of the martyrdom of the people, passionately referring to Iran as "a nation of martyrs" and praising the nation's "culture of martyrdom." As early as 2005, he appeared on Iranian TV saying, "Is there art that is more beautiful, more divine and more eternal than the art of martyrdom?...A nation with martyrdom knows no captivity.... The message of the (Islamic) Revolution is global and is not restricted to a specific place or time...it will move forward." In 2007, he spoke to student Basij members and referenced the death of a martyr named Fahmideh in the Iran–Iraq war, stating that "today millions of Fahmidehs are standing fresher and more prepared." He then claimed the Basij forces could disrupt shipping in the Strait of Hormuz. Recently, he publicly honored martyrs and met with their families. The Center for Strategic and International Studies estimates the present size of the Basij at 90,000 active members and one million people that could be mobilized.

The concept of "salvific violence" applies not only to self-martyrdom, but also to violence against the enemy in the name of religion. The IRGC, charged with furthering the ideals of the Islamic Revolution, is well-known to have engaged for decades in global terrorism, whether alone or through proxies such as Hezbollah, including an attempted assassination of the Saudi Ambassador on American soil.

6) Apocalyptic Infrastructure, Equipment or Programs. Under Ahmadinejad, the Iranian government purportedly spent \$120 million⁴⁸ refurbishing and supporting the Jamkaran shrine outside of Qom, Iran, site of the Mahdi's appearance in popular expectation. Qom has, in effect, become a factory for popular apocalypticism, with some Iranian estimates claiming that up to 31 million pilgrims a year visit the Jamkaran shrine.⁴⁹ While this figure is probably high, the shrine is definitely crowded each week with pious visitors fervently hoping for the Mahdi's return, with some claiming to receive answers to prayers and miraculous physical healings. Publishing houses in Qom, many of which are government sponsored, pour out large numbers of recent publications predicting the coming of the Mahdi and providing apocalyptic interpretations of current times.⁵⁰ In addition to these efforts to promote popular mahdism in Qom, the government is building the "Mahdi Highway" from the Iraq-Iran border to Qom. 51 Clearly, apocalypticism and mahdism are not only spiritual ideas in Iran; they have been translated into concrete infrastructure and programs through governmental spending. Intelligence analysts should seriously consider not only the theological impact of this rampant populist apocalypticism on the 50,000 clerics from 70 countries presently training in Qom, but also that the selection of the site for the (previously secret) uranium enrichment facility of Fordow could have religious valences as the future home of the Mahdi.

In sum, an analysis of RADAP measures in Ahmadinejad's public speeches suggests a strong adherence to a RADAP worldview. Spurred by Ahmadinejad, the proliferation in the last six years of popular apocalyptic Shi'ite mahdism is unprecedented in degree throughout Iran, Lebanon, and Iraq. As religion scholar David Cook described the situation, the popular Shi'ite messianic literature has never been as "copious, publicly available, detailed, or socially explosive," concluding that, "[Shiite m]essianism is slipping free of the control of the religious establishment, and it is increasingly used by lay preachers to interpret current events and to compel their followers to take action—often according to a radical agenda." 52

Of course, Ahmadinejad may have promoted this theology simply out of a calculated political move, since it undermined the power of the senior clerics.⁵³ But this conclusion must factor in that he has consistently exhibited this theology since the Iran–Iraq war, including during his time as Mayor of Tehran (when he created the Mahdi bus route to take pilgrims to Qom after his arrival, and also published the Mahdi's likely route through Iraq and Iran). Whatever Ahmadinejad's actual religious

convictions may be, analysts should take note that in any case he continues to appeal to the deeply held radical apocalypticism of others in the government and the population, who, though definitely constituting a minority in the nation, could still make a major impact in a plausible "black swan" event, such as populist religious protests.⁵⁴

IRANIAN RELIGION, POLITICS, AND THE ROLE OF THE SUPREME LEADER

The extent to which popular Shi'a apocalypticism and mahdism can actually influence Iranian politics not only depends on which leaders share the RADAP view, but also on their position regarding the proper relationship of religion—especially *sharia* or Islamic law—and politics. The Iranian government's clerical elements are not in agreement on the ideal relationship between religion and politics. In 1979, Ayatollah Khomenei put forward the new principle of *velayat-e faqih* or "the guardianship of the jurist" that established the Supreme Leader as both the leading (religious) jurist and the ruler of the republic; however, he first had to overcome oppositional senior clerics who felt that *sharia* law should not be implemented by the political regime before the arrival of the Mahdi. ⁵⁵

With Khomeini's victory, his successor, the Supreme Leader Ayatollah Ali Khamenei, has had power through *velayat-e faqih* as the leading jurist over Iran's political constitution and standing *sharia* law. That is, he has the religious and legal power to alter or reverse any *fatwas* or decisions by other jurists on the basis of "expediency" for the Islamic Republic. Furthermore, he has enormous religious authority, based on the fact that, until the Mahdi's return, he is the representative of the infallible Hidden Imam and of the Prophet Muhammad. Hence, no single person has more power to determine the course of Iran's nuclear weapons program or its possible future use.

Unfortunately, determining Khamenei's views on the development of nuclear weapons is not easy, since he has espoused widely contrasting views. According to a 2009 internal IAEA report, Khamenei endorsed Ayatollah Khomeini's 1984 decision to start a secret nuclear weapons program, saying "this was the only way to secure the very essence of the Islamic Revolution from the schemes of its enemies... and to prepare it for the emergence of Imam Mahdi." Such rhetoric would seem to suggest that Khamenei supports a nuclear weapons program as part of an active eschatology, which could indeed be dangerous to countries that Iran opposes. By contrast, much more recently, in 2011, Khamenei strongly iterated in a speech that Iran would not actually use nuclear weapons, saying, "We believe that using nuclear weapons is haraam [sinful] and prohibited and that it is everybody's duty to make efforts to protect

humanity against this great disaster."⁵⁸ While this appears to be a change in a peaceful direction, the quote concerns only the use of nuclear weapons. In fact, Khamenei's statements since 2009 have dropped earlier language rejecting the production and stockpiling of nuclear weapons, focusing only on the prohibition of the use of nuclear weapons; this point is worrying to some observers. Furthermore, the traditional Shi'ite obligation of *taqiyya* or lying in order to protect Islam, as well as the Supreme Leader's right to overturn all previous opinion at any point based on the expediency of the Islamic regime, greatly compounds the difficulty of interpreting his actual position. ⁶⁰

Identifying whether Khamenei shares the RADAP worldview would provide additional information in analyzing his stance on nuclear weapons but this is also difficult to discern. He typically aligns himself with the senior clerics, 86 of whom are elected as the Assembly of Experts, which can appoint as well as remove the Supreme Leader from office. The senior clerics were clearly opposed to Ahmadinejad's promotion of popular mahdism and RADAP, and Khamenei seems sympathetic to their concerns, since he arrested at least 25 members of the former President's Cabinet and charged them with "sorcery." These "sorcerers" included the producer of *The Coming is Soon* video, as well as Ahmadinejad's family member and Chief of Staff, Esfandiar Rahim Mashaei, whom Ahmadinejad unsuccessfully groomed to be his successor.

However, an investigation using our proposed Measures suggests that the Supreme Leader may share some of the former president's RADAP views, even as he must continually appease the senior clerics who could remove him from office. For instance, the normally reserved Khamenei has more recently given speeches similar to Ahmadinejad's UN speech, saying: "a sweeping Islamic movement with Iran at its epicenter will ultimately eliminate the domineering materialistic policies of the arrogant powers."62 Thus, he characterizes the scope of the struggle as cosmic and as a matter of basic dignity, and moreover assumes that his side will definitely win: "Islam has reached a turning point in its immense movement forward, which will bring about highly significant changes in the world and terminate the existing hegemonic power structures."63 For Khamenei, this is "the century of Islam," in which conventional rules change and past history does not apply, since: "the history of the world, the history of humanity has reached a major historical turn. This is the dawn of a new era across the entire world."64 His characterization of the impending break with history is complete enough to be termed eschatological, and has in fact already begun. Since he sometimes allows himself to be called "the Deputy of the Mahdi" in the media, analysts should investigate whether he holds an active eschatology. Like Ahmadinejad, he demonizes his opponents, such as America "The Great Satan," and also dehumanizes

them, telling a youth conference from seventy nations: "We all oppose the cancerous tumor of Israel." Finally, despite the outcry of the senior clerics, he took months to remove from circulation *The Coming is Soon* video that predicts that he is the eschatological figure who will hand over Islam's flag to the Mahdi.

THE NEED FOR AN INTERDISCIPLINARY SYSTEMS-ORIENTED ANALYSIS

Having established at least the plausibility that RADAP ideology could play a role in Iran's decisionmaking calculus, the task from this point forward is to explore how that influence might impact the dynamics surrounding Iran's nuclear development efforts and further negotiations with the U.S. and its allies.

The tools of system dynamics help develop insights about how the structure of the system (causal links, feedback dynamics, etc.) has shaped the past and how decisionmakers might employ those insights to influence the future. Such an approach is useful with problems involving complex interactions and feedback among multiple actors with conflicting agendas and goals.⁶⁶

As long as Iran's nuclear weapons intentions and capacities remain unclear, each nation with concerns will act according to its respective goals, values, ideology, and perceptions. These actions collectively create a system of complex feedback dynamics wherein each nation applies its own calculus to respond to its perceptions of the current state of affairs, which in turn affects how others respond, further impacting the situation and prompting more action. The outcome from such a system can be counterintuitive and potentially disastrous.

A distinctive feature of system dynamics is its provision of a language and iconic representation of systems that is accessible to non-modelers. The methodology has found its way into a variety of problem contexts, including environmental management, national energy policy, public health, education, business management, and national security.

In its fullest implementation, a system dynamics study involves the development of a running simulation model that can be used by decisionmakers to gain insight about the sometimes counterintuitive nature of the problem they hope to address. But many studies stop short of developing a fully functional simulation model and instead focus on developing a qualitative model of the systemic causal structure behind the problem and then gleaning insights from that model. The model is represented using a causal loop diagram (or "influence diagram") and accompanying narrative. The causal loop diagram (CLD) and narrative together comprise a *dynamic hypothesis*, since together they provide an informed but provisional explanation of the dynamics behind the system's behavior.

The qualitative model can be used to explore possible futures that might plausibly emerge from the hypothesized structure. Hence, even though the future cannot be reliably predicted from a qualitative model, the skilled analyst can employ it to identify important dynamics that could have a significant influence on how the future might unfold. For example, R. G. Coyle⁶⁹ used influence diagrams to explore the dynamics associated with counterinsurgency warfare. Jac A. M. Vennix⁷⁰ described several case studies in which qualitative system dynamics models were used to develop insights and consensus among stakeholders in complex business problems. Coyle and M. D. W. Alexander⁷¹ illustrated the use of qualitative system dynamics as a "rapid analysis" tool for articulating and exploring the forces and interactions behind a nation's drug trade.

What follows is a description of the qualitative model, "unfolding" a causal loop diagram that elucidates the dynamics behind the evolving international interactions associated with the Iranian nuclear program.

PART I: POTENTIAL GROWTH IN RADAP IDEOLOGY AMONG THE IRANIAN LEADERSHIP

Setting the Scene for RADAP (Figure 1)

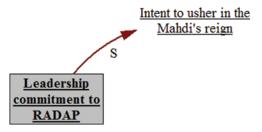


Figure 1. Setting the scene for RADAP. RADAP adherents see themselves as having a critical role in ushering in the Mahdi's reign. (Color figure available online.)

Within a Shi'a Islamic religious context, RADAP adherents believe they have a critical role in creating conditions that will usher in the Mahdi's global reign. This is represented for the Iranian leadership in the simple causal loop diagram in Figure 1.⁷² This diagram includes two named *system variables*: *Leadership commitment to RADAP* and *Intent to usher in the Mahdi's reign*. These are quantities that, over time, can change in level.

Migration toward Radicalism: RADAP's Framing Capacity and the External Environment (Figure 2)

Individuals or groups come to embrace RADAP as a result of a complex milieu of psychological and environmental factors. Randy Borum⁷³ has

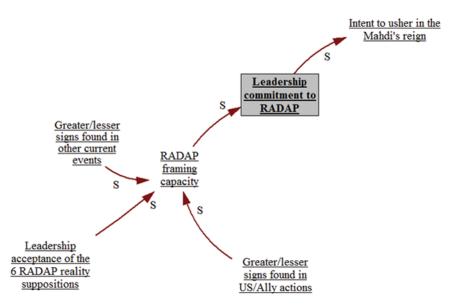


Figure 2. RADAP's framing capacity and the external environment. Commitment to RADAP ideology is the result of embracing the six RADAP Reality Suppositions and the extent to which external events are seen to fulfill signs of the Mahdi's return. (Color figure available online.)

summarized a taxonomy of social processes whereby individuals or groups are "radicalized" toward violence and terrorism. Most pertinent to the present discussion is *Framing Theory*, which describes how:

... movements and social collectives construct, produce, and disseminate meaning. This is a recursive process in which the movement's idea entrepreneurs attempt to frame messages in ways that will best resonate with interests, attitudes, and beliefs of its potential constituency. Then, as people accept the movement's frames of references, they increasingly come to identify with the collective movement.⁷⁴

This theory suggests an ongoing conversation in which existing and potential adherents to an extremist ideology such as RADAP engage in a process of "debate" and "dissemination" that challenges them to evaluate how well that ideology squares with their own experience and perceptions of the environment. The more credible the explanation provided, the greater the "framing capacity" of the ideology, and the greater the "conversion rate." The RADAP framing capacity in Figure 2 affects the level of *Leadership commitment to RADAP* and is itself directly affected by the extent to which the prominent belief system and environment create conditions whereby RADAP's interpretation of the environment "... resonate(s) with interests, attitudes, and beliefs..." among the Iranian leadership.⁷⁵

Figure 2 shows three particular factors that impact RADAP's framing capacity, the most important being the *Leadership acceptance of the six RADAP Reality Suppositions* mentioned earlier. Again, these suppositions are:

- Juergensmeyer's three "cosmic war" suppositions (the scope of the struggle is cosmic, bigger than just humans; there is total certitude about winning; winning the struggle occurs on a divine plane of reality)
- the enemy is inherently evil
- violence is salvific and a legitimate means to trigger the endtime
- the faithful are instrumental in creating circumstances for the Mahdi's return (active eschatology)

Leadership acceptance of the six RADAP Reality Suppositions exerts an S-polarity causal influence on the RADAP framing capacity, meaning that increases in this variable will increase that capacity.

The RADAP framing capacity is also enhanced by the extent to which external events are interpreted as fulfillments of greater or lesser signs of the Mahdi's return, as identified in popular apocalyptic Shi'ite interpretation. Some of these are Greater/lesser signs found in U.S./Ally actions (a principal source for Iranian RADAP propaganda), and others are Greater/lesser signs found in other current events.

Closing the Loop: The Self-Reinforcing Lens Created by RADAP Ideology (Figure 3)

RADAP is an all-encompassing worldview that interprets all of life in light of the RADAP framework. As the ideology takes root and gains momentum in a group, it provides a lens for reinterpreting events and others in ways that reinforce its fundamental tenets. This self-reinforcing cycle is shown in Figure 3 where causal links are added to show that when *Leadership* commitment to RADAP increases (S polarity) the degree to which Greater/ lesser signs are found in current events and Greater/lesser signs are found in U.S./Ally actions also increases. In addition, the greater the Leadership commitment to RADAP, the greater (S polarity) the Leadership acceptance of the six RADAP Reality Suppositions, which in turn enhances (S polarity) the RADAP framing capacity of the ideology. This dynamic builds momentum toward the belief that RADAP reliably gives meaning to the current state of affairs and to Iran's own position as the nation that is uniquely appointed to initiate the Mahdi's reign. Figure 3 also adds some new notation. The three circular arrows labeled as "R1a-R1c" represent three reinforcing feedback loops. Each of these is a closed chain of cause-effect that "feeds back" on itself to reinforce or amplify changes. Each loop represents a feedback dynamic that that can build momentum toward ever greater influence in RADAP among the leadership.

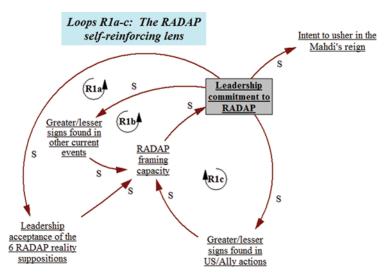


Figure 3. Three reinforcing feedback loops R1a–R1c. The RADAP Self-Reinforcing Lens. (Color figure available online.)

Summary of RADAP Dynamics (Figure 3)

Any growth in the influence of RADAP ideology in the Iranian leadership would be the result of a long-term process of dialogue, debate, and dissemination in which potential adherents must weigh RADAP's framing capability against other competing frameworks. If RADAP ideology gains a significant foothold among the Iranian leadership, the self-reinforcing nature of the ideology implies that significant momentum toward ever more RADAP influence could develop (see the reinforcing feedback loops R1a–R1c in Figure 3). Actions by Western nations could fuel this dynamic.

PART II: DYNAMIC IMPLICATIONS OF THE CONVENTIONAL WISDOM

Especially with the recent election of the more moderate President Rouhani, whether Iran has any current nuclear weapons ambitions is unclear. If it does, no international consensus exists regarding how to address the situation. Among the U.S., its allies, and even China and Russia, however, several common beliefs exist about Iran's strategic culture, goals, decisionmaking calculus, and interactions with the rest of the world. These beliefs may be summarized as follows:

1. Any Iranian nuclear ambitions are rooted in part in its desire for (a) security from its adversaries (i.e., Israel, the U.S., etc.) and (b) a prominent leadership role in the Islamic world, particularly in order to advance its version of "the Islamic revolution."

- 2. The risks of an Iran with nuclear weapons include the potential to (a) ignite a nuclear arms race in one of the most volatile parts of the world; (b) provide nuclear weapons technology to terrorist groups; (c) enable Iran to project power and serve as a "bully" in the region; and (d) potentially attack its enemies.⁷⁶
- Iran's leadership is a "rational actor" when faced with the potential of its own annihilation, in that the leadership will act to preserve the nation and government.

The dynamics that emerge from these beliefs are outlined in Figures 4–8.

Iran's Nuclear Program as a Path to Regional Influence (Figure 4)

Figure 4 shows Iran's strategy for achieving regional influence through the development of nuclear weapons. This diagram highlights feedback loop B1: Iran's pursuit of regional influence. The circular label "B1" indicates that this is a balancing feedback loop. The italicized text ("Iran's pursuit of regional influence") next to the loop label provides a brief description of the dynamics represented by that feedback loop. Unlike reinforcing feedback, which builds momentum and creates an unstable environment, balancing feedback provides a self-correcting force that can drive the system toward some equilibrium. Because of this, balancing feedback loops are sometimes called goal seeking loops. Loop B1 represents Iran's efforts to develop nuclear power in order to achieve a (perhaps not fully articulated) level of regional influence. The greater the Influence gap between Iran's current influence and its desired level of influence (represented by the variable Iranian goal: High regional influence), the greater (S polarity) will be Iran's nuclear development effort, which over

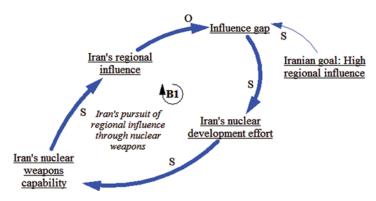


Figure 4. Iran's motivation to pursue nuclear weapons to enhance its regional influence. (Color figure available online.)

time increases (S polarity) *Iran's nuclear weapons capability*, thereby enhancing (S polarity) *Iran's regional influence* and reducing (O polarity) the *Influence gap*, closing the loop.

Loop B1 also includes an example of an O polarity causal link. That is, when the causal variable changes, the affected variable will move in the OPPOSITE direction (all other things being equal). In this case, the greater *Iran's regional influence*, the less the *Influence gap* between Iran's actual and desired level of regional influence.

Iran's Nuclear Program as a Path to National Security (Figure 5)

Under the assumptions of the conventional wisdom, which disregards religious influences, Iran might pursue nuclear weapons if it perceives threats from some of its adversaries. Figure 5 adds a second balancing feedback loop (B2: Iran's response to external threats) to Figure 4 in order to represent the dynamics associated with this second goal. This loop is shown with bold arrows. The greater *Iran's fear of aggression by its neighbors*, the greater the leadership's motivation to accelerate (S polarity) *Iran's nuclear development effort*, thereby enhancing (S polarity) *Iran's*

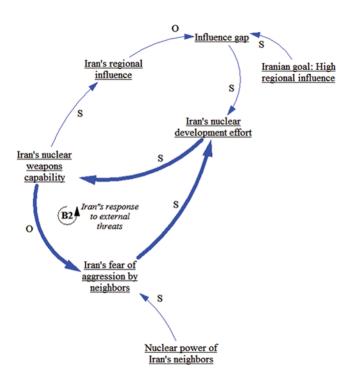


Figure 5. Iran's pursuit of nuclear weapons as a path to national security. (Color figure available online.)

nuclear weapons capability, reducing (O polarity) Iran's fear of aggression by its neighbors, closing the loop.

The Regional Response to a Nuclear Iran (Figure 6)

Were Iran to pursue nuclear weapons, the risk is that neighboring countries will pursue nuclear weapons in order to create a deterrent to Iranian aggression. This is represented as loop B3: Regional response to mitigate Iranian threat in Figure 6. This outermost loop involves the four variables around the outside boundary of Figure 6. This has the unintended consequence of igniting a self-reinforcing regional arms race in which Iran's nuclear capabilities result in growing nuclear programs among its neighbors, which in turn creates a growing threat to Iran, motivating even more efforts at nuclear weapons development. Loop R2: Regional nuclear

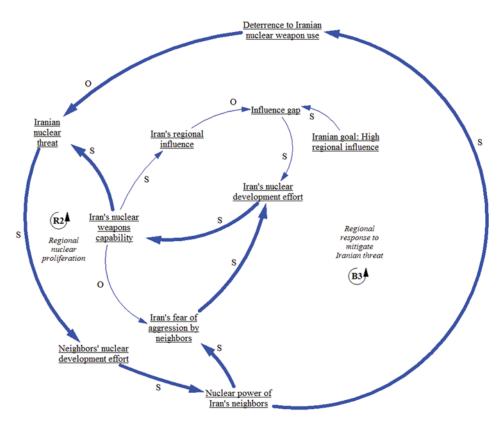


Figure 6. The Regional Response to a Nuclear Iran: Loop B3 represents the motivation for Iran's neighbors to respond in kind to Iran's nuclear program—i.e., to provide a deterrence against a nuclear Iran. Loop R2 represents the unintended consequence of this action—a self-reinforcing regional nuclear arms race. (Color figure available online.)

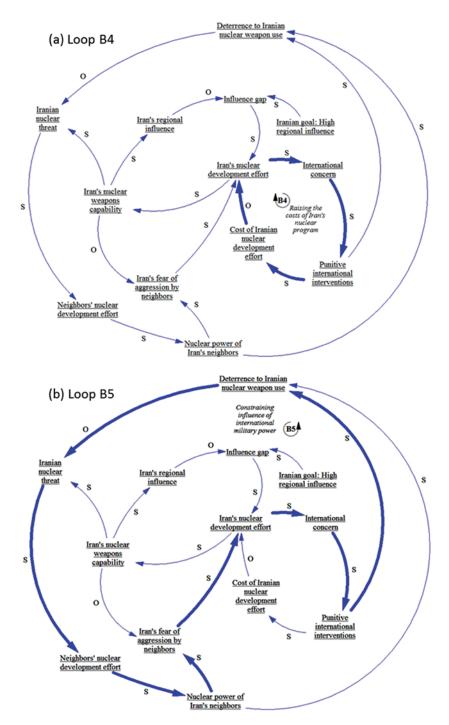


Figure 7. Response of the Broader International Community (U.S. and Allies). Part (a): Loop B4—Motivate Iran to back away from nuclear ambitions by raising the costs (financial, social, etc.). Part (b): Loop B5—The threat of military action of the international community will serve as a deterrent to Iran's use of nuclear weapons. (Color figure available online.)

proliferation in Figure 6 involves the following causal chain: Increases in the Iranian nuclear threat will increase the Neighbors' nuclear development effort. This results in greater Nuclear power of Iran's neighbors, and exacerbates Iran's fear of aggression by neighbors. As a result, Iran's nuclear development efforts increase, eventually enhancing Iran's nuclear weapons capability, increasing the Iranian nuclear threat even more.

The Response of the Broader International Community (Figure 7)

Iran's past noncompliance with the Nuclear Non-Proliferation Treaty and its lack of cooperation with the UN's International Atomic Energy Agency led to punitive international interventions by the U.S. and its allies (Figure 7), including: economic sanctions, covert attacks on nuclear resources, and public rhetoric renouncing Iran's activities. In addition, more extreme actions, including overt military strikes, were not ruled out. According to conventional wisdom, these actions will "raise the costs" of an Iranian nuclear weapons program and serve as a deterrent. Assuming Iran is a rational actor, once these costs exceed the perceived benefits of its nuclear ambitions, Iran should lay them aside. This is represented in Figure 7a by the bold arrows circumventing loop B4: Raising the costs of Iran's nuclear weapons program. In addition, the military capabilities of an international community that is united in its opposition to any Iranian ambitions to develop nuclear weapons would presumably provide a significant deterrence to Tehran's use of nuclear weapons, should it achieve nuclear weapons capability. This is shown in Figure 7b by the bolded arrows defining loop B5: Constraining influence of international military power.

Summary of the Dynamics Surrounding the Conventional Wisdom (Figure 8)

As seen in Figure 8, the conventional wisdom about Iran's motivations for pursuing nuclear weapons and the consequences (intended or otherwise) of actions by its neighbors and the broader international community comprise a complex set of interacting feedback dynamics. Some of these dynamics represent Iran's goals (regional influence and national security, loops B1 and B2). Other dynamics represent the intended countervailing force exerted by Iran's neighbors and the international community to deter aggression by a nuclear Iran (loops B3–B5). Loop R2 represents the potential for a runaway regional nuclear arms race. To predict which of these loops will dominate in the future is impossible. But, if the countervailing influence of loops B3–B5 weakens in any way, the potential for a nuclear Iran (loops B1–B2) and a subsequent regional arms race (R2) increases.

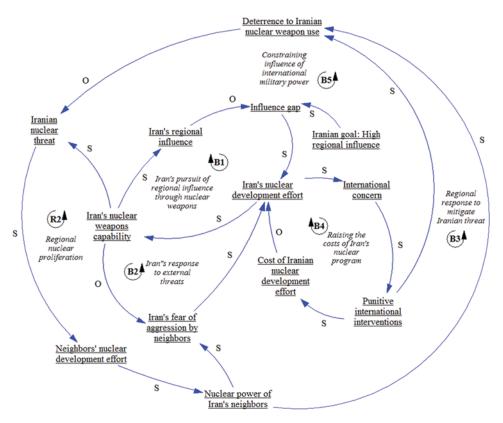


Figure 8. Summary of the Conventional Wisdom Dynamics. A complex set of interacting feedback dynamics. (Color figure available online.)

PART III: RADAP AS A POTENTIAL GAME CHANGER

Mutual Interactions Between RADAP and Conventional Wisdom—The Risk of Escalation (Figure 9)

Should RADAP grow to have sufficient influence on key members of the Iranian leadership, a new set of interactions emerges. These interactions imply that each set of dynamics (RADAP and conventional wisdom) impacts the other in ways that mutually reinforce entrenched misperceptions. This in turn could precipitate actions that could rapidly escalate into a disastrous international crisis.

Figure 9 combines the RADAP dynamics (Figure 3) with the conventional wisdom dynamics (Figure 8) and introduces three new variables and several new bolded causal links to articulate the relationship between RADAP dynamics and the dynamics associated with conventional wisdom. At the top of the figure, three bolded causal links lead from *Intent to usher in the Mahdi's reign*. These represent the fact that a growing level of a

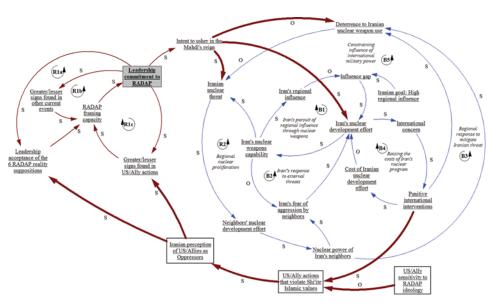


Figure 9. Mutual interactions between RADAP and Conventional Wisdom. The Risk of Escalation. (Color figure available online.)

RADAP-fueled *Intent to usher in the Mahdi's reign* will increase *Iran's nuclear development effort* and embolden Iran toward more aggressive behavior. The deterrent effect of retaliation (loops B3 and B5) or the cost-based calculus associated international sanctions (loop B4) will be minimized, since a new calculus is in play—a calculus that no longer holds as paramount the survival of the Iranian state, but that cherishes foremost the impending reign of the Mahdi. Each of these three bolded causal links works to counteract one or more of the countervailing feedback dynamics that (under conventional wisdom) might keep Iran's ambitions in check (loops B3–B5).

The bolded link from the *Intent to usher in the Mahdi's reign* to the *Iranian nuclear threat* also serves to amplify the influence of the runaway regional nuclear arms race (loop R2). Since R2 is a reinforcing loop, this means that a growing influence of RADAP ideology adds momentum to a dangerous dynamic that can overcome the mitigating influence of the balancing feedback associated with the conventional wisdom (B3–B5). Tracing the logic on Figure 9, as the *Leadership commitment to RADAP* increases, the *Intent to usher in the Mahdi's reign* also increases, which leads to higher *Iranian nuclear threat*. This will in turn increase regional *Neighbors' nuclear development effort* and eventually the *nuclear power of Iran's neighbors*. All of this will feed *Iran's fear of aggression* by its neighbors. As a result, this fuels *Iran's nuclear development effort* even more, and subsequently, *Iran's nuclear weapons capability* and hence *Iran's nuclear threat*.

At the bottom of Figure 9 are three new variables:

- 1. *U.S./Ally sensitivity to RADAP ideology*—This represents the extent to which the U.S. and its allies take into account Iran's potential interpretation of U.S./Ally actions as a violation of its Islamic values.
- 2. U.S./Ally actions that violate Shi'ite Islamic values—As the U.S. and its allies act to curb Iran's ambitions, or in the broader efforts against terrorism, they run the risk of allowing actions that significantly challenge the identity or values of Shi'ites. Examples of such actions would be: physical abuse and humiliation of prisoners, killing of women and children or other innocents (by accident or otherwise), or burning copies of the Qur'an.
- 3. *Iranian perception of U.S./Allies as oppressors*—This is a direct result of U.S./Ally Actions that violate Shi'ite Islamic values.

The third of these variables has a direct causal influence on the *Leadership* acceptance of the six RADAP Reality Suppositions because four of the six are closely linked to an identity of oppression (Juergensmeyer's three cosmic war suppositions and the characterization of the enemy as Evil). In addition, the perception of the U.S. and its allies as oppressors encourages the interpretation of their actions as fulfilling some of the greater or lesser signs that the Mahdi's return is imminent.

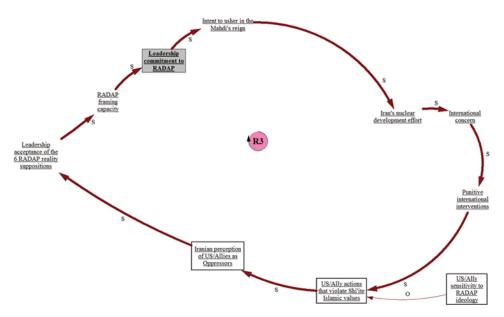


Figure 10. Fueling Momentum toward Entrenched Positions. An example of Reinforcing Feedback between RADAP Dynamics and Conventional Wisdom. (Color figure available online.)

Fueling Momentum toward Entrenched Positions (Figure 10)

Embedded in Figure 9 are several reinforcing feedback loops involving RADAP dynamics and the dynamics associated with the conventional wisdom. All of these loops have the same overall effect of entrenching both Iran and the U.S./Allies in opposing and tragically misinformed perceptions of one another's actions, leading to an escalation in conflict. For illustration, Figure 10 isolates one of these important loops. The R3 loop in Figure 10 demonstrates that, as Iran's Leadership commitment to RADAP grows, it fuels actions by Iran that provoke ever greater Punitive international interventions. Unfortunately, these interventions assume an Iranian cost-benefit calculus based on the conventional wisdom, a calculus that may or may not apply to the reasoning framework of Iran's leadership at a given time. Such international interventions can unintentionally reinforce the framing capacity for Iran's RADAP ideology. At any time that RADAP thinking drives Iranian nuclear weapons ambitions, increased pressures from the international community (such as increasingly stringent sanctions or military intervention) could backfire, strengthening the RADAP's influence among Iran's leadership and deepening their resolve to develop and use nuclear weapons.

IMPLICATIONS FOR INTELLIGENCE AND POLICY

Six Reality Suppositions that distinguish violent, radical apocalypticism (RADAP) from peaceful apocalypticism have been provided herein. To aid analysts in assessing the presence and extent of these Suppositions, and hence of the RADAP worldview, six RADAP Measures obtainable from OSINT have been identified that analysts may use to evaluate evidence from the public speech and actions of individuals or groups.

A preliminary application of these Measures indicates that RADAP ideology likely shaped the thinking of Iran's former President Ahmadinejad and possibly that of the Supreme Leader, although the latter case requires fuller investigation. The recent election of the more moderate President Rouhani, a former nuclear negotiator, could bode well for American-Iranian relations. At this optimistic but uncertain time, analysts must try to ascertain the extent of RADAP thinking held by all key Iranian leaders who hold influence in any part of Iran's complicated decisionmaking system, especially with respect to nuclear weapons ambitions, as well as to continue gauging the popularity of the former President and his Cabinet.

If, in the future, RADAP influences are once again found to be at play among the Iranian leadership, as they so recently were, our qualitative systems model articulates how the assumptions of the conventional wisdom that drive current international response to any Iranian nuclear weapons ambitions could interact with the dynamics created by such a return to RADAP and elicit a set of runaway reactions that escalate crisis.

Given RADAP's "game-changing" potential, it is critical for analysts to monitor the degree of influence that RADAP exerts. Policymakers must develop a deeper appreciation for the high symbolic value that the Iranian leadership might attach to those U.S./Ally actions that violate Islamic values (including isolated incidents perpetrated by individuals, as well as punitive actions sanctioned by policy). In the presence of RADAP ideology, the symbolic significance of such actions can be amplified to dangerous levels. This would deepen resolve among Iranian RADAP adherents and lend further credibility to the RADAP worldview, potentially motivating more Iranian leaders to extreme actions. When nuclear weapons are involved, the consequences can be dire.

As President Rouhani himself put it, Iran has been embroiled in a debate between moderate and radical voices, a debate that is not isolated from actions by the U.S. and its allies. Hence, at this transitional time, the best hope for a positive international outcome entails the judicious use of punitive and preventative interventions, as well as incentives and diplomacy, all of which must be informed by a deep awareness of the contending religious worldviews in Iran.

REFERENCES

- ¹ Ian Bellamy, Curbing the Spread of Nuclear Weapons (Manchester, UK: Manchester University Press, 2005); Stephen J. Cimbala and James Scouras, A New Nuclear Century: Strategic Stability and Arms Control (Westport, CT: Praeger, 2002); Jeffrey T. Richelson, Spying on the Bomb: American Nuclear Intelligence from Nazi Germany to Iran and North Korea (New York: W. W. Norton, 2006); William Walker, A Perpetual Menace: Nuclear Weapons and International Order (London: Routledge, 2012), among many others.
- Shahram Chubin, Iran's Nuclear Ambitions (Washington, DC: Carnegie Endowment for International Peace, 2006); Michael D. Evans, with Jerome R. Corsi, Showdown with Nuclear Iran: Radical Islam's Messianic Mission to Destroy Israel and Cripple the United State (Nashville, TN: Nelson Current, 2006); Dore Gold, The Rise of Nuclear Iran: How Tehran Defies the West (Washington, DC; Regnery, 2009); Michael Ledeen, The Iranian Time Bomb: The Mullah Zealots' Quest for Destruction (New York: St. Martin's Press, 2007); Kenneth R. Timmerman, Countdown to Crisis: The Coming Nuclear Showdown with Iran (New York: Crown Forum, 2005).
- ³ For example, Robert Baer, *The Devil We Know: Dealing with the New Iran Superpower* (New York: Crown, 2008); Kenneth Pollack, *The Persian Puzzle* (New York: Random House, 2004); Ray Takeyh, *Hidden Iran: Paradox and Power in the Islamic Republic* (New York: Times Books, 2006); David E. Thaler, *Mullahs, Guards, and Bonyads: An Exploration of Iranian Leadership Dynamic* (Santa Monica, CA: RAND, 2010).

- ⁴ Michael Eisenstadt and Mehdi Khalaji, *Religion and Politics in Iran's Proliferation Strategy*, Policy Focus 115 (Washington DC: The Washington Institute for Near East Policy, 2011).
- ⁵ Ray Takeyh, *Hidden Iran*, pp. 138–139.
- ⁶ David Albright and Christina Walrond, *Iran's Gas Centrifuge Program: Taking Stock* (Washington, DC: Institute for Science and International Security, February 2010), pp. 15–17; Ali Vaez and Charles D. Ferguson, *Toward Enhanced Safeguards for Iran's Nuclear Program* (Washington, DC: Federation of American Scientists, October 2011), pp. 8, 38.
- ⁷ IAEA Report, Report of the Director General of the IAEA, Yukiya Amano, Implementation of the NPT Safeguards Agreement and Relevant Provisions of Security Council Resolutions in the Islamic Republic of Iran, 8 November 2011; at http://www.iaea.org/Publications/Documents/Board/2011/gov2011-65.pdf
- ⁸ Scott Peterson, "Iran's Parchin Complex: Why Are Nuclear Inspectors So Focused on It?" *Christian Science Monitor*, 20 April 2012.
- ⁹ IAEA Report, Report of the Director General of the IAEA, Yukiya Amano, Implementation of the NPT Safeguards Agreement and relevant provisions of Security Council Resolutions in the Islamic Republic of Iran, 24 February 2012; at http://www.iaea.org/Publications/Documents/Board/2012/gov2012-9.pdf
- Robert Jervis, Why Intelligence Fails: Lessons from the Iranian Revolution and the Iraq War (Ithaca, NY: Cornell University Press, 2010), pp. 25, 39.
- Fareed Zakaria, interview with General Martin Dempsey, *GPS* (17 February 2012), accessed 27 June 2012, at http://globalpublicsquare.blogs.cnn.com/ 2012/02/17/watch-gps-martin-dempsey-on-syria-iran-and-china/
- ¹² Clifford Geertz, "Religion as a Cultural System," in *The Interpretation of Cultures: Selected Essays* (New York: Basic Books, 1973), pp. 87–125.
- Recent scholarly paradigms of apocalypticism in antiquity inform this formulation of apocalypticism in the contemporary world, since they illuminate which elements are constitutive of the phenomenon. The most influential studies include the following: Paul D. Hanson, "Apocalypse, Genre and Apocalypticism," in *Interpreter's Dictionary of the Bible: Supplementary Volume*, 3rd ed.; K. Crim et al., eds.; (Nashville: Abingdon, 1982), pp. 28–34; John J. Collins, *Apocalypse: Morphology of a Genre (Semeia 14)* (Missoula, MT: Scholars Press, 1979), esp. pp. 5–49; Christopher Rowland, *The Open Heaven: A Study of Apocalyptic in Judaism and Early Christianity* (London: SPCK, 1982); and Frances Flannery-Dailey, "Lessons on Early Jewish Apocalypticism and Mysticism from Dream Literature," in *Paradise Now: Essays on Early Jewish and Christian Mysticism*, April Deconick, ed. (Leiden: Brill and Atlanta: SBL Press, 2006), pp. 231–248.
- ¹⁴ "Evil" here is capitalized to indicate a cosmic force, not just the cumulative effect of actions deemed by some to be evil in a society. See especially Paul D. Hanson, "Apocalypse, Genre," pp. 28–34.
- Unlike in popular culture, scholarship on apocalypticism carefully distinguishes between "apocalypticism" and "eschatology," as well as "apocalyptic

- eschatology," which consists of endtimes scenarios associated with apocalyptic literature. This last category applies best to our discussion of Shi'ite Islam in Iran, but is confusing for the non-technical reader. See John J. Collins, ed., *Apocalypse*, pp. 9, 14–18.
- Christopher Rowland, *The Open Heaven*, pp. 14, 17; also Michael E. Stone, "Lists of Revealed Things in the Apocalyptic Literature," in *Magnalia Dei: The Mighty Acts of God*, F. M. Cross, W. E. Lemke and P. D. Miller, Jr. eds (Garden City, NY: Doubleday, 1976), pp. 414–454.
- Michael Eisenstadt and Mehdi Khalaji, Religion and Politics in Iran's Proliferation Strategy, pp. 1, 6.
- While an improvement over past intelligence studies on religion and politics, Michael Eisenstadt and Mehdi Khalaji's distinction between "the traditional, conservative quietist approach," "the revolutionary activist approach," and "the violent apocalyptic approach" is confusing in its non-normative use of "apocalyptic," which basically equates "apocalyptic" with "violent," despite their note that indicates that they do not mean to do so. See Eisenstadt and Khalaji, *Ibid.*, p. 6, n. 34. The present study aligns its categories with previous scholarship on apocalypticism and provides a conceptual apparatus for distinguishing between peaceful and violent apocalypticism across cultures, beyond its application to Shi'ism or Islam.
- ¹⁹ Mark Juergensmeyer, Terror in the Mind of God: The Global Rise of Religious Violence (Berkeley: University of California Press, 2003), pp. 148–166.
- ²⁰ *Ibid.*, p. 149.
- ²¹ *Ibid.*, pp. 164–166.
- David Cook, *Understanding Jihad* (Berkeley: University of California Press, 2005), pp. 185–186.
- A study in 2009 by the Combating Terrorism Center at West Point that conservatively used only terrorist attacks for which al-Qaeda claimed responsibility determined that al-Qaeda has killed eight times more Muslims than Westerners. Scott Helfstein, Nassir Abdullah, and Muhammad al-Obaidi, Deadly Vanguards: A Study of al-Qaida's Violence Against Muslims, Occasional Paper Series (New York: CTC at West Point, 2009).
- Anthony Stahelski, "Terrorists are Made, not Born: Creating Terrorists Using Social Psychological Conditioning," *Journal of Homeland Security*, March 2004, accessed 10 January 2005, at http://www.homelandsecurity.org/journal/Search.aspx?.s=stahelski+2004; see also Mark Juergensmeyer, *Terror in the Mind of God*, pp. 167–189.
- See, for example, the chapter titled "Soldiers for Christ," in Mark Juergensmeyer, Terror in the Mind of God, pp. 19–44.
- David Cook, Contemporary Muslim Apocalyptic Literature (Syracuse, NY: Syracuse University Press, 2005), pp. 13–58; John Esposito, Islam, The Straight Path (4th ed., New York: Oxford University Press, 2011), pp. 187–236.
- ²⁷ David Cook, *Understanding Jihad* (Berkeley, CA: University of California Press, 2005), pp. 93–127.

- David Cook, "Messianism in the Fertile Crescent," The Hudson Institute, 8 April 2011, accessed 10 January 2012, at http://www.currenttrends.org/research/detail/messianism-in-the-shiite-crescent
- ²⁹ Ibid.
- ³⁰ Ibid.
- This is the case, for instance, in the documentary sponsored by President Mahmoud Ahmadinejad's Cabinet, titled *The Coming is Upon Us*, 28 March 2011. An English translation is available at http://www.youtube.com/watch?.v= WwiadYT-N9k (accessed 21 February 2012).
- Michael Eisenstadt and Mehdi Khalaji, Religion and Politics in Iran's Proliferation Strategy, p. 8.
- These measures were developed through an analysis of the belief systems of over 70 apocalyptic groups, both violent and non-violent.
- ³⁴ David E. Thaler, Mullahs, Guards, and Bonyads.
- Mahmoud Ahmadinejad, "Address by H.E. Dr. Mahmoud Ahmadinejad, President of the Islamic Republic of Iran, Address before the 66th Session of the United Nations General Assembly" (New York: United Nations, 23 September 2011), p. 9.
- ³⁶ Mark Juergensmeyer, Terror in the Mind of God, pp. 164–166.
- Mahmoud Ahmadinejad, "Address by H.E. Dr. Mahmoud Ahmadinejad," pp. 10–11.
- ³⁸ Mark Juergensmeyer, *Terror in the Mind of God*, pp. 164–166.
- Mazyar Mokfi and Charles Recknagel, "Could Ahmadinejad's Mix of Mysticism and Politics Lead to a Power Grab?." *Radio Free Europe, Radio Liberty,* 5 August 2009, accessed 19 January 2012, at http://www.rferl.org/content/Could_Ahmadinejads_Mix_Of_Mysticism_And_Politics_Lead_To_A_Power_Grab/1793312.html
- Anti-Defamation League (ADL) Website, "Iran's President Mahmoud Ahmadinejad in his Own Words," 11 May 2012, accessed 24 June 2012, at http://www.adl.org/main_International_Affairs/ahmadinejad_words.htm?.Multi_page_sections=sHeading_6
- ⁴¹ Anthony Stahelski, "Terrorists are Made, Not Born."
- ⁴² Vali Nasr, *The Shia Revival: How Conflicts within Islam Will Shape the Future* (New York: W. W. Norton, 2007).
- ⁴³ *Ibid.*, p. 132.
- ⁴⁴ The Iranian daily *Ettelaat* made this report, as related in subsequent other news sources, including Matthias Küntzel, "Ahmadinejad's Demons," in *The New Republic*, 24 April 2006, accessed 1 June 2012, at http://www.matthiaskuentzel. de/contents/ahmadinejads-demons
- Memri TV Project, SHIATV, "Iranian President-Elect Mahmoud Ahmadi-Nejad: Channel 1 Iranian TV," 25 July 2005, accessed 18 May 2012, at http://www.shiatv.net/view_video.php?.viewkey=a979778923af77b40dd8&page=&viewtype=&category=

- ⁴⁶ AFP, "Millions of Iranians Ready for Martrydom," Reuters, 30 October 2007, accessed 18 May 2012, at http://www.reuters.com/article/2007/10/30/us-iran-martyrs-idUSDAH05911220071030
- ⁴⁷ Ali Alfoneh, "Iran Primer: The Basij Resistance Force," Frontline, 21 October 2010, accessed 15 June 2012, at http://www.pbs.org/wgbh/pages/frontline/tehranbureau/2010/10/iran-primer-the-basij-resistance-force.html
- Ali Reza Eshraghi and Raha Tahami (alias), "Ahmadinejad Promoted Shrine Draws Million," *Institute for War and Peace Reporting, IRN* 34 (2010), accessed 19 January 2012, at http://iwpr.net/report-news/ahmadinejad-promoted-shrine-draws-millions; David Cook, "Messianism in the Shiite Crescent," pp. 6-7.
- ⁴⁹ Ali Reza Eshraghi and Raha Tahami, "Ahmadinejad Promoted Shrine Draws Million."
- Scholar David Cook visited Qom during June 2007 and collected 48 books and pamphlets on apocalypticism and the Mahdi, plus 25 additional books at other Iranian sites, signifying a huge shift in popular Iranian expectations of the Mahdi. See David Cook, "Messianism in the Shiite Crescent," p. 103, footnote 22. The 120 million dollar figure is taken from Ali Reza Eshraghi and Raha Tahami "Ahmadinejad Promoted Shrine."
- Mazyar Mokfi and Charles Recknagel, "Could Ahmadinejad's Mix of Mysticism and Politics Lead to a Power Grab?"
- 52 David Cook, "Messianism in the Shi'ite Crescent."
- ⁵³ Bernd Kaussler, "Is the End Nigh for the Islamic Republic?" Hudson Institute: Center on Islam, Democracy and the Future of the Muslim World. 14 May 2012, accessed 15 May 2012, at http://www.currenttrends.org/research/detail/ is-the-end-nigh-for-the-islamic-republic
- This is the conclusion of Michael Eisenstadt and Mehdi Khalaji, *Religion and Politics in Iran's Proliferation Strategy*, p. 8.
- Khomeini tried and punished Ayatollahs, such as Shariatmadari, largely silencing his opponents. Other clerics who now accept that *sharia* should form some basis of the Islamic Republic still theoretically expect that it cannot *fully* be implemented until the Mahdi arrives again to reign. Mehdi Khalaji, "The Iranian Clergy's Silence," *Current Trends in Islamist Ideology*, Vol. 10, 12 July 2010, accessed 21 October 2011, http://www.currenttrends.org/research/detail/the-iranian-clergys-silence#.
- Michael Eisenstadt and Mehdi Khalaji, Religion and Politics in Iran's Proliferation Strategy, p. 8.
- Joby Warrick, "Iran's Supreme Leader Embraced Concept of Nuclear Arms, Archival Document Suggests," *The Washington Post*, 20 April 2012, accessed 24 June 2012, http://www.washingtonpost.com/blogs/checkpoint-washington/post/irans-supreme-leader-embraced-concept-of-nuclear-arms-archival-document-suggests/2012/04/20/gIQAnvMTWT_blog.html
- Ali Khamenei, The Center for Preserving and Publishing the Works of Grand Ayatollah Sayyid Ali Khamenei, "The Supreme Leader's View of Nuclear

- Energy, 13/04/2011," accessed 23 June 2012, at http://english.khamenei.ir/index.php?option=com_content&task=view&id=1442&Itemid=13
- Michael Eisenstadt and Mehdi Khalaji, Religion and Politics in Iran's Proliferation Strategy, p. 23.
- ⁶⁰ *Ibid.*, pp. 16–17.
- Saeed Kamali Dejghan, "Ahmadinejad Allies Charged with Sorcery," *The Guardian*, 5 May 2011, accessed 15 May 2012, at http://www.guardian.co.uk/world/2011/may/05/ahmadinejad-allies-charged-with-sorcery.
- Ali Khamenei, The Office of the Supreme Leader Sayyid Ali Khamenei, "Islamic Movement Will Bring about Global Change," 15 Feb. 2012, accessed 15 February 2012, at http://www.leader.ir/langs/en/index.php?.p=contentShow&id=9159
- 63 Ibid.
- Ali Khamenei, Iranian Press TV, "West Humiliated by Islamic Awakening," 31 January 2012, accessed 17 February 2012, at http://www.presstv.ir/detail/ 224141.html
- 65 Ibid.
- John D. Sterman, Business Dynamics: Systems Thinking and Modeling for a Complex World (Boston, MA: Irwin McGraw-Hill, 2000).
- ⁶⁷ Ibid.
- ⁶⁸ *Ibid.*
- R. G. Coyle, "A System Description of Counter Insurgency Warfare, *Policy Sciences* No. 18, 1985, pp. 55–78.
- Jac A. M. Vennix, Group Model Building: Facilitating Team Learning Using System Dynamics (New York: John Wiley & Sons, 1996).
- ⁷¹ R. G. Coyle and M. D. W. Alexander, "Two Approaches to Qualitative Modeling of a Nation's Drugs Trade," *Systems Dynamics Review* Vol. 13, No. 3, Fall 1997, pp. 205–222.
- ⁷² For a detailed discussion of the notation used in CLD's, see John D. Sterman, *Business Dynamics*.
- ⁷³ Randy Borum, "Radicalization into Violent Extremism I: A Review of Social Science Theories," *Journal of Strategic Security* No. 4 (2011), pp. 7–36.
- ⁷⁴ *Ibid.*, p. 18.
- Much more could be said about the nature of this ongoing process of internal debate and dissemination. In Iranian society, part of the debate occurs among the population of clerics, who in turn have influence over the culture. In addition, some of the debate occurs among the Iranian leadership (clerics and non-clerics). The complex dynamics among the various elements of the Iranian government further complicates the discussion. The details of how these dynamics work is less important to the current discussion than the fact that the external environment does have an impact on the framing capacity of RADAP ideology.
- Ash Jain, Nuclear Weapons and Iran's Global Ambitions: Troubling Scenarios, Policy Focus #114 (Washington, DC: The Washington Institute for Near East Policy, 2011).