



White Paper on SMA Support to SOCCENT: ISIL Influence and Resolve

A Strategic Multi-Layer (SMA) Periodic Publication

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This white paper represents the views and opinions of the contributing authors. It does not represent official USG policy or position.

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Background

During FY 2014, the SOCCENT Commander requested a short-term effort to understand the psychological, ideological, narrative, emotional, cultural, and inspirational ("intangible") nature of ISIL. As shown below, the SMA¹ team really addressed two related questions: "What makes ISIL attractive?" or how has the idea or ideology of ISIL gained purchase with different demographics; and "What makes ISIL successful?" or which of the organization's characteristics and which of the tactics it has employed account for its push across Syria and Iraq.

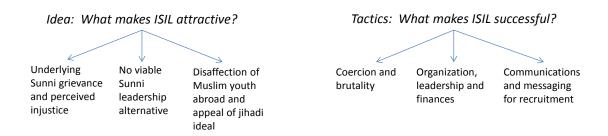


Figure 1: SOCCENT I Questions and High Level Results

The effort produced both high-level results and detailed analyses of the factors contributing to each question. The central finding was this: While military action might degrade or defeat factors that make ISIL successful, it cannot overcome what makes ISIL's message and idea attractive. The complete set of products from the effort is available by request from Mr. Sam Rhem in the SMA office (samuel.d.rhem.ctr@mail.mil).

For the follow-on effort, the SOCCENT Commander has requested an effort to address the following question:

Given that when the dust settles and some degree of durable stability has been established in the Middle East, it will no longer look as it did prior to the start of the Syrian civil war and the rise of ISIL; therefore, the question is what will the Middle East look like, and how is it likely to operate both within its own regional community and in interactions with external powers and actors, after the ISIL threat has been defeated and the Syrian Civil War has come to an end.

¹ Strategic Multi-Layer Assessment (SMA) provides planning support to Commands with complex operational imperatives requiring multi-agency, multi-disciplinary solutions that are <u>not</u> within core Service/Agency competency. Solutions and participants are sought across USG and beyond. SMA is accepted and synchronized by Joint Staff (JS/J-3/DDGO) and executed by ASD(R&E)/EC&P/RRTO.

The articles in this white paper summarize work on going and completed by different SMA-affiliated teams in response to this request. The focus is primarily on one of the regional actors: ISIL and the nature of that organization's interests, influence capabilities, support, and resolve. There has not yet been an effort to consolidate the insights presented by each of the pieces. Rather, they are presented as stand-alones from which analysts and practitioners might gain insight. A final project report including additional regional actors will be available from the SMA office in December 2015.

Framework: Dr. Allison Astorino-Courtois² (NSI)

The question posed for follow-on SMA support to the SOCCENT Commander broadens the look at ISIL undertaken during the first phase, and considers the group in the context of regional dynamics.

Given that when the dust settles and some degree of durable stability has been established in the Middle East, it will no longer look as it did prior to the start of the Syrian civil war and the rise of ISIL; therefore, the question is what will the Middle East look like, and how is it likely to operate both within its own regional community and in interactions with external powers and actors, after the ISIL threat has been defeated and the Syrian Civil War has come to an end.

Essentially, this is a question about the relations embedded in the dynamic, multi-actor system that comprises the Middle East region, and will determine the outcome of regional events. Figure 2 represents the analytic model that serves as the framework for the larger study. It posits that how the system evolves over time is a function of the interests at stake for the actors, their ability to pursue those interests, and the alignment of interests between actors.

An individual actor's ability to influence the outcome of regional events is a function of three resource factors: its capability, popular support, and resolve, relative to other actors in the system. However, how actors chose to influence the course of regional events will be a function of how well their interests can be met by specific event outcomes. We assume that actors will prefer outcomes that protect or further their interests.

The alignment of interests between actors will determine the set of potential outcomes for any particular regional or sub-regional event. However, common interests or alignments between actors may vary across events or conflicts; we cannot

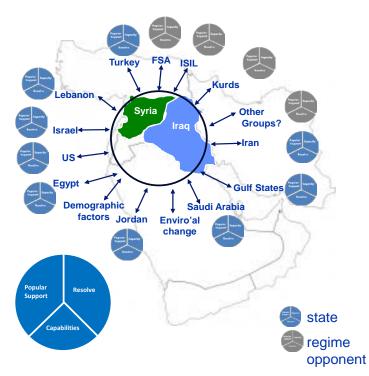


Figure 2: Analytic Framework

assume that a preference for the same outcome in one event will result in shared interests among the same actors in other events. While the alignment of actor *interests* determines possible outcomes, the distribution of actor *capabilities*, *popular support*, and *leadership resolve* across those outcomes will govern the likelihood that an outcome will emerge. The framework also accounts for the potential

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effects of exogenous factors on the region (such as environmental or demographic changes) and how these may influence the individual actors.

Analytic Framework

Evaluation of the range of possible futures that the region may see begins with identifying the relevant set of actors. The framework includes five types of actors:

- Status quo (ante bellum) regimes current state governments within recognized borders (for example, the monarchy in Saudi Arabia, the elected parliament in Turkey);
- Parasitic organizations such as trans-national criminal organizations that operate in the area;
- Government opponents challengers to the status quo from within. This includes opposition
 parties or groups who are opposed to a current government but seek change through existing
 institutions, rather than regime change (e.g., the Iraqi List in Iraq; Labour in Israel);
- **Regime opponents** groups fighting for significant change in the type of regime or political system either within or across existing borders (e.g., ISIL, Free Syrian Army); and,
- **Population groups** many of whom have limited political or ideological interests but seek mainly to survive in the midst of the conflict ranging around them.

The ability of each actor to influence the evolution of the system toward different outcomes is a function of its relative capability, popular support, and resolve.

Capability. There are many types of capabilities that an actor might use to achieve its ends in a conflict. These include: material resources and coercive capabilities (e.g., money, weapons); non-physical means of influence or coercion (such as salient narratives and persuasive messages); a reputation for horrific violence; possession of territory; and alliances including external funding sources and the allegiance of local elites. Importantly not all influence capabilities are equally relevant to all conflicts or objectives. For example, the United States is certainly the world's greatest military power, but may not have the non-physical influence capabilities needed to achieve its desired ends. Similarly, ISIL may have significant ability to control populations through the threat of horrific violence, but lack the organizational capability needed to occupy and control large population areas.

Popular Support. Some degree of popular support for or acquiescence to the programs or policies of an organization or government can be a critical enabler. Likewise, a population that does not see a leadership as legitimate or is at odds with its priorities can pose a significant barrier to action and place limits on the resolve of a government to sustain certain actions.

Resolve. Finally, a government or organization's willingness or need to fight to the bitter end for an objective or principle has been shown to a deciding factor in achieving one's preferred outcome in a conflict—even when capabilities are lacking.

The framework assumes that actors are motivated to protect and further their interests. To determine how an actor will apply its ability (capability, popular support, and resolve) to an event or conflict, therefore, we need to understand which of that actor's interests are at stake in the context of a particular event or conflict. Once we identify those actor interests, they can be linked to a specific outcome, or outcomes, where we can then construct a map that specifies the sub-set of actors that prefer different outcomes and estimate the total resources and resolve behind each outcome. This is a critical element of the framework, as, by definition, the outcomes of conflicts are not the result of a single actor's actions or desires, but are a product of the interactions of opponents. In other words, the forces that determine one or another future reflect the confluences of actors' capabilities, resolve, and popular support. How stable that outcome is likely to be, however, will be determined not so much by the resources of those who support it, but the resources of those who oppose it. By considering the resources of the actors whose interests are blocked or destroyed by a particular outcome, we can also estimate the potential durability of a particular outcome. In effect, the framework posits that the outcome of an event will be a function of the preferences of the subset of actors with the greatest resources, while the durability of that outcome will be determined by the resources of those whose interests remain unfulfilled.

Qualitative Assessments

SME Elicitation Virtual Think Tank: Ms. Sarah Canna (NSI)

Findings and Observations

During the 2014 Multilayer Assessment of ISIL effort, NSI conducted a Subject Matter Expert (SME) Elicitation study to gather insights from interviews, panel discussions, seminars, and personal communications with over 50 SMEs from the United States, the Middle East, and Europe. These findings and observations are reproduced in this white paper to set the context for understanding the magnetic appeal of ISIL. A new set of interviews will be completed during the summer of 2015 to support the current effort.

The interview questionnaire and transcripts from the 2014 SME elicitation effort are available upon request.³ CTTSO provided the Apptek Talk2Me platform to expedite the transcription of the SME Elicitation interviews. In addition, all of the data (human edited and original audio) are posted on the Web-based Talk2Me platform for the SMA study for further analytics and reporting.⁴

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This report summarizes SME findings that help us understand ISIL's intangible appeal. However, it does not attempt to adjudicate or force convergence of the findings.

Conditions: The Perfect Storm

Some SMEs described conditions on the ground as a "perfect storm" for the emergence of ISIL. The confluence of the conditions listed below allowed ISIL to rise so quickly.

- Failed states of Iraq and Syria: The power vacuum in the Sunni regions of Iraq and Syria opened the door for an alternative governing force to coalesce and gain the acquiescence and/or support of the civilian⁵ population.
- Arab world undergoing rapid change: ISIL is an expression of rising Islamist fundamentalism, declining sense of nationalism, and a sense of empowerment spurred by the Arab Spring.
- Information Age: The advent of the information age makes it easier for people to communicate across large distances, to create a platform for sharing experiences and beliefs with like-minded individuals, and to actively persuade others to sympathize with or join a cause.
- Drought: Climate change, resulting in long periods of drought over the last ten years, has severely challenged the economic and social stability in the region.
- Youth bulge: Like many parts of the developing world, Syria and Iraq are

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⁵ Civilian refers to the people living in ISIL-controlled areas.

experiencing a youth bulge that, when combined with unemployment and lack of political voice, has resulted in a reservoir of young, angry men.

On the whole, SMEs felt that these conditions made it possible for ISIL to seize the opportunity to push for an alternative form of governance in the region. However, while these conditions were extremely important, ISIL's sustainability and longevity is based on its capacity to control the population and to garner sympathy and support from the broader Sunni Muslim population both inside and outside the region.

Capacity to Control

SMEs believed that ISIL's capacity to control is based on several factors.

- Fear and coercion: ISIL has a monopoly over the use of force in areas it "governs." It uses the implicit and explicit threat of violence against civilians to ensure acquiescence.
- Provision of better governance and order: Some argue that ISIL provides better governance and essential services than what was experienced under Iraqi and Syrian rule. Furthermore, ISIL provides some degree of stability and order in a previously uncertain environment.
- Lack of a viable alternative: There are no alternative forms of Sunni-empowered governance available. ISIL draws on the power of collective Sunni identity and Sunni grievances to establish its legitimacy.
- Strong leadership: ISIL has a strong, agile, pragmatic leadership and organizational structure. It
 has a highly motivated and a dedicated rank and file under the leadership of a disciplined and
 experienced cadre, supported by consistent and compelling messaging.
- Success breeds success: ISIL's momentum and its ability to survive coalition attacks to date plays
 a role in convincing civilians and local power brokers that it will be around for the long-term,
 which reinforces support or acquiescence to ISIL, which further reinforces ISIL's capacity to
 control.

ISIL's capacity to control is largely based on its interaction with the local population. However, ISIL also enjoys sympathy, support, and recruits from the global Sunni Muslim population. SMEs interviewed felt that the primary way ISIL achieves support from the global Sunni Muslim population is through persuasive use of narrative. SMEs identified over 20 narratives ISIL uses to persuade, the most powerful of which are described below.

Persuasive Narratives

Narratives are messages that represent the ideals, beliefs, and social constructs of a group. ISIL uses them within the civilian population to consolidate control and amongst the global Sunni Muslim population to garner sympathy, support, and recruits.

Moral imperative: ISIL uses a variety of narratives to convey the idea that Muslims have a moral
imperative to support them. These narratives include the restitution of the caliphate, creation of
a utopian society based on Muslim laws and values, ISIL as a representative of the pure form of
Islam, ISIL bringing back the Golden Age of Islam, and that ISIL's caliphate will unite all Sunni
Muslims.

- Sunni grievances and victimhood: ISIL uses shared feelings of marginalization, repression, and lack of power to gain legitimacy and support. They draw on sub-narratives of victimization among Sunnis at the hands of Shias and the West to cement this powerful narrative.
- Immediacy: ISIL rejected al Qaeda's core narrative that it needed to wait for the right time to
 establish a caliphate. ISIL did it within months. ISIL touts its willingness to take action, combined
 with its success in establishing what it calls a caliphate, as evidence of their proclaimed
 righteousness.
- Reinvention of self: No matter what kind of life you led, when you convert to Islam and join the
 fight, all previous wrongdoing is washed away. ISIL offers a new start and a new sense of identity
 and purpose to anyone who joins them.
- Thrills, adventures, and heroism: Some individuals are particularly drawn to ISIL because it advertises thrills, adventures, and opportunities for heroism (and violence) that appeal to some young men's sense of masculinity.

Schools of Thought

While these factors represent areas of qualified agreement on key factors explaining ISIL support, SMEs differed on which factors were the most important, which led to two primary schools of thought regarding ISIL's longevity.

- 1. ISIL has resilient properties via its capacity to control people and territory stemming from pragmatic leadership and organization, intimidation tactics, tapping into existing Sunni grievances, and use of a well-developed narrative and media outreach to attract and motivate fighters.
- 2. ISIL is not a durable organization. It has taken advantage of a pre-existing sectarian conflict to acquire land, wealth, and power. It only attracts a narrow band of disaffected Sunni youth, is alienating local populations by over-the-top violence and harsh implementation of Sharia, is unable to expand into territories controlled by functioning states, and does not possess the expertise required to form a bureaucracy and effectively govern.

In reviewing the effort, a third school of thought emerged: that the real challenge is not ISIL the organization, but the sense of disempowerment, anger, and frustration in the Muslim world. This is evidenced by rising Islamist fundamentalism across the Muslim world combined with a declining sense of state-based nationalism. It is fueled by the perception of inequality and thwarted aspirations in addition to the conditions mentioned earlier in this chapter: failed states, demographic shifts, unemployment, drought, spread of communication technologies, etc. If the problem is larger than ISIL, then solutions that only seek to undermine ISIL's capacity to control are insufficient to address the underlying cause of conflict.

Additional Factors

This summary presents a cursory review of the many topics addressed by over 50 SMEs interviewed for this effort. In addition, the report also touches on a number of other controversial topics. These include:

• whether ISIL is primarily ideological or opportunistic;

- whether the local elite power base in Iraq and Syria sincerely supports ISIL;
- the degree to which regional Sunni Muslim states support or oppose ISIL;
- a brief look at whether the rise of other historical violent social movements could be instructive;
 and
- the ways in which ISIL in Iraq is different from ISIL in Syria.

SME elicitation through the SMA SOCCENT Speaker Series will continue. To be added to the distribution list for the series, please contact Mr. Sam Rhem at samuel.d.rhem.ctr@mail.mil.

Responses to ISIL in the Arabic Twittersphere: Drs. Randy Kluver⁶ and Jacquelyn Chinn (Texas A&M University)

Background

Coverage of ISIL social media strategy in the popular press has indicated that the organization's reach on social media is sophisticated, extensive, and aggressive. ISIL has leveraged the availability of a social media infrastructure to create easily reproducible media content and disseminate it widely. Because of the global reach of social media, this content is not geographically bound to the immediate vicinity of ISIL operations, and so it is a useful tool for creating a narrative of resistance to existing political structures, recruiting among ideological sympathizers, and generating material resources from around the world. However, short-term gains through the use of social media do not necessarily mean that the use of social media will generate long-term sympathy for the movement throughout the region, and there is a real possibility that the graphic nature of ISIL's media content will alienate large portions of the population of the region. Although there is no doubt that ISIL uses social media (as well as more conventional media) extensively and aggressively, and that has facilitated recruiting from globally diverse populations, analysis of ISIL networking patterns on Twitter indicates that the strategy is not as sophisticated or mature as news coverage would indicate. This study assessed the extent to which ISIL had broad support in the Arabic language social media space. We analyzed the extent to which ISIL ideology gained widespread traction in Arabic language Twitter activity, indicating possibilities for longterm staying power.

This study utilized the Web Monitoring System (WMS), a technology developed by Raytheon BBN Technologies and SDL plc with sponsorship from DoD/CTTSO. Our analysis captured a broad spectrum of the Arabic language Twittersphere seeded by approximately 330 influential Arabic language Twitter users, representing a cross-section of the Arabic speaking states in the Middle East, Levant, and Gulf States. User influence was determined based on a combination of numerous variables: number of tweets posted in a 24 hour period, topics of tweets, number of followers, occupation, and societal status. However, each country exhibited different characteristics of influence (e.g. varying degrees of technical, governmental, and cultural limitations). As a result, the number of profiles from any particular country is loosely based on the degree of technological saturation as well as the number of active tweeters in the Twittersphere. We also added approximately 50 ISIL users to the seed list. 90 ISIL affiliated users were initially identified, but Twitter deactivated a number of these users over the course of data collection. The WMS captures between .5-1 million tweets per day of all original content from the seed list, all retweets of these users, and all mentions of these users on Twitter.

Results

Our analysis revealed that response to ISIL messaging was broken down into specific sub-communities. We found that the majority of social media users rejected ISIL framing of key issues (e.g. role of *shariah*, what a *caliphate* is and its necessity, who constitutes the *ummah*, etc.). They also strongly rejected the brutality of ISIL. At the same time, this group was not necessarily pro-West in orientation either, but more so invested in the status quo of the region. The data demonstrated a great deal of content that

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was critical of the US and of its allies, in terms of specific regional action and in general sentiment toward the United States.

Other users, what we have termed "Disaffected Isolates," were not supportive of the means ISIL used to redress grievances with the status quo in Iraq and Syria. Yet, at the same time, these users were not invested in the regional status quo, in the areas of political configuration or economic structures. The group disagreed with ISIL's violent means and ideological justification for bringing about revolution in the region, yet agreed for the need for revolution and change in the region.

Finally, the community of ISIL supporters was significantly smaller than popular press coverage suggested. By following out the network of ISIL supporters on Twitter, our estimate is that that the community ranged between 4,000-6,000 *active* users (though there were isolated nodes that were larger). This is consistent with another recent study, which estimated 46,000 total ISIL supporters using Twitter during the same time frame, but with a much smaller number of active users (Berger and Morgan, 2015). Twitter consistently deactivated a profile when it reached about 6,000 followers. We hypothesize that a particular algorithm is used to deactivate extremist users that reach a particular level of influence in the network. ISIL supporters adopted messaging practices that glorified ISIL violence, ideology, and goals, and consistently promoted ISIL branding in the building of profiles. Other predominant themes included a mocking of Western attempts to understand ISIL and a caricaturing of US officials.

One of the predominant areas of disagreement centered on the notion of "caliphate."

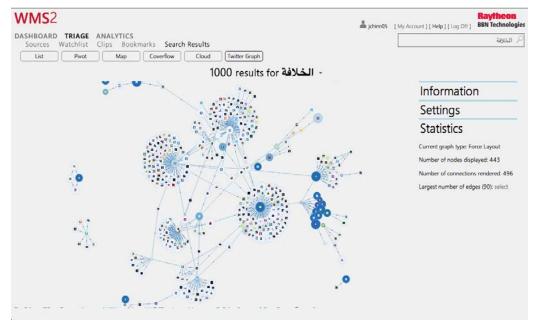


Figure 3: network analysis of the term "caliphate" indicates a number of distinct definitions in play, indicating a broad disagreement as to what constitutes a caliphate in the region.

In terms of the content of the social media, among the majority of users, the strongest themes included a strong rejection of both ISIL ideology and violence. At the same time, users also strongly rejected US

policy and hypocrisy, with a particular frustration with US inaction in Yemen in response to the al-Houthi rebellion. Syria-based users redistributed a great deal of content highlighting the plight of Syrians. This content included both a rejection of Assad and ISIL. The focus of the material was on human rights and human suffering in Syria as a result of the conflicts with Assad and ISIL.

Finally, ISIL redistribution patterns on Twitter were unique. Users typically did not retweet one another, and instead formed poorly structured, loose, and immature Twitter networks. However key referents outside of the ISIL network **that supported ISIL ideological goals** were often retweeted. We hypothesize this to be a strategy used to evade detection of the core network. However, within the community, there was a glorification of life under *sharia* and a celebration of the virtues of life within "the *caliphate.*" Women celebrated the ability to live in purity, and sympathizers celebrated ISIL brutality and conquest in the present and future. Users also frequently highlighted Western atrocities and violence in the region.

Our data also indicated that the Arabic language Twittersphere received ISIL leader Abu Bakr al-Baghdadi and al Qaeda leader Ayman al-Zawahiri differently. With the exception of ISIL users or sympathizers, the majority of influential Arabic language Twitter users consistently rejected al-Baghdadi. Conversely, opinion toward al-Zawahiri was much more varied. Within the ISIL community, there were distinct junctures in opinion. Some ISIL sympathizers demonized Zawahiri, others ridiculed him, and still others demonstrated support and sympathy toward the al Qaeda leader. This fragmentation of opinion was significant, and a key division the US can capitalize upon.

We consistently found very little support for US governmental or military involvement in the conflict across all the sub-communities of users selected for analysis. This was evidenced both in responses to President Obama's September 10, 2014 ISIL policy speech, and in broader discourse on US involvement in the region. There was widespread frustration concerning the US focus on al-Baghdadi in Iraq and complete lack of attention to al-Houthi's extremist activity occurring in Yemen. While there was a great deal of boundary spanning between communities of discourse concerning ISIL's foundational principles (indicating disagreement) in the area of public opinion towards the US, there was uniform rejection of US policy toward ISIL, US military involvement, and US policy toward the region generally.

Conclusions

As measured by social media, ISIL seems to lack sufficient support among regional leaders to build long-term political sustainability. Content across the data set indicated that there is very little agreement within the region as to ISIL's goals and strategies, although Twitter users spent a great deal of time criticizing perceived Western hypocrisy in the region. This is a theme that resonated both within and outside the region, and likely serves as a key theme used to attract foreign fighters via social media. As with other forms of media, ISIL social media tells a unitary story, of ruthlessness towards enemies but gentleness towards the *ummah*. Even though they are unlikely to change the regional view of the caliphate, small networks can still do significant damage to the community.

Twitter's efforts to disrupt ISIL communication have been effective and seem to be aimed more so at eradicating network nodes than content. Pro-ISIL content does not seem to detect attention, but large clustering around single sources of reference does. Users have attempted to adjust to this strategy by

regrouping both on social media platforms and off platforms, resulting in new accounts being generated with large numbers of instant followers. However, the constant churn in accounts makes it difficult to ascertain the exact network structure and evolution of the ISIL network.

We argue that US efforts to counter ISIL social media efforts should engage with two key strategies for influence and persuasion in the networked environment: programming and switching. Programming involves altering or countering the values and beliefs of networks. Programming networks of communication are generally easier to accomplish with key voices when the network is in its formative stages, as key nodes have the most influence in programming the values of the network. Switching involves connecting and ensuring cooperation of different networks by sharing common goals and combining resources while fending off competition from other networks.

US and ally efforts to minimize the impact of ISIL social media should do three things. First, ISIL's narrative about ISIL protection of the *ummah* against the West and/or far enemy should be undermined. The conflict of ISIS is a problem that is really about the Arab world, and not at all about the United States. While we acknowledge the geopolitical considerations concerned with eradicating ISIL, framing the conflict as the United States vs. ISIL is one that ultimately strengthens the ISIL narrative. The US and its allies must not play into ISIL themes or grant political legitimacy to the organization, as that reinforces in the minds of potential recruits and the *ummah* that it is a legitimate political movement. Second, the US should stress the duplicity of ISIL in terms of the violence it commits against citizens, and its hypocrisy and should also undermine the claims of religious authority and righteousness of the organization. Finally, predominant ISIL themes should not be ignored, but instead should be recontextualized. For example, one widely circulated tweet decried Western condemnations of beheadings by highlighting 8th century beheadings of Muslims perpetrated by Spaniards. Instead of ignoring this particular meme, we argue emphasizing that it occurred in the 8th century as a means of recontextualizing it.

Efforts to disrupt the network structure and strategy of ISIL should focus on two areas. First, ISIL's flow of communications should be disrupted. The efforts of Twitter, YouTube, and other social media companies to hinder the flow of communication seem to be having significant effect. This network disruption causes more effort to be spent trying to find the conversation than driving it for ISIL Twitter users. Organizers have been required to pay constant attention to how key users enter and exit the network. They have also been required to quickly distribute propaganda out to mass audiences before a channel is shut down, which lessens their ability to control the message. The other result of these efforts is that content quickly finds its way to the dark web, but due to the increased isolation, the impact of this messaging is minimized. While ISIL can protect it's messaging more definitively by avoiding discordant voices, it lacks the ability to influence mass audiences. Second, the US should disrupt the ISIL network by constantly switching in alternative voices to the network. The US and its allies should churn through Twitter handles, join ISIL networks and hashtags, and then counter the underlying message, much as ISIL has done with #worldcup hashtags, or other unrelated hashtags.

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ISIL Futures: An Organizational Leadership and Cyber Profile: Drs. Gina Ligon,⁷ Douglas C. Derrick,⁸ John D. Crowe,⁹ and Samuel Church¹⁰ (University of Nebraska, Omaha)

- We are identifying potential leadership succession positions and creating profiles of their leadership characteristics.
- We conducted an internal strategic analysis of ISIL to identify nine organizational leadership positions.
- We determined the knowledge, skills, abilities, and other characteristics that are important when looking for leadership successors.
- We will determine ISIL level of cyber sophistication by rating five different categories: durability, adaptability, creativity, capacity to control, and reach.

Overview

Given the dynamic nature of the organization, its leadership, and varied cyber communication tools it uses, the problem is that it is unreasonable to predict what ISIL will look like in the future without an understanding of the possible organizational psychology of ISIL, as well as how information technology/innovation magnifies the resulting organizational strengths and weaknesses. As leadership is replaced and evolves, we will provide grounded predictions of what the organization will look like in terms of structure and capacity to control via succession and cyber communication.

We are identifying potential leadership succession positions and creating profiles of their leadership characteristics. Using these leadership characteristics, and trends/historical cases to estimate various operating environments, we are generating alternative futures that highlight what the ISIL organization will look like depending on the operating environment and which leadership positions are vacated.

Deliverables

Organizational Profiles

Drawing from a team with diverse academic expertise, we examined ISIL from the organizational strategy literature, organizational psychology literature, and marketing/branding literature using unclassified primary and secondary sources. We conducted an internal strategic analysis of ISIL to identify nine organizational leadership positions (see Figure 1). This framework will be populated with our analysis for each known position holder across the four dimensions. We then will determine the knowledge, skills, abilities, and other characteristics that are important when looking for a successor (see Figure 2) for each position. We are now assessing the positions on six characteristics: credentials, religious pedigree, militant history, perceived authority, specialized technical expertise, and filial lineage.

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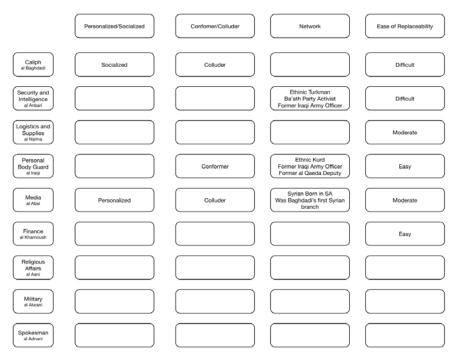


Figure 1. Initial framework, each cell will summarize current position holders

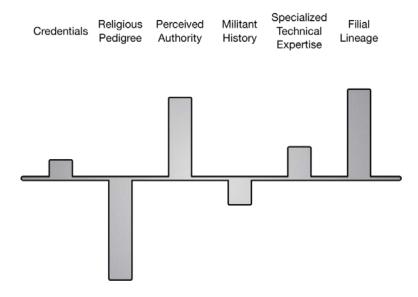


Figure 2. Analysis of national KSAOs of an organizational position

Cyber Sophistication

The level of ISIL cyber sophistication will be determined by rating five different categories: durability, adaptability, creativity, capacity to control, and reach (see Figure 3 below). Each of these categories is further broken down into subcategory attributes, e.g. durability includes use of SSL, reverse proxies, application firewalls, etc. Durability is a website's ability to stay accessible and secure. Adaptability is a website's ability to be moved from one location to another incase it were to be shut down. Creativity is measured by the ability to catch a user's attention, ease of use, and overall professionalism. Capacity to control is an organization's dependence upon foreign assets to host their website. Reach is a websites ability to be found and used, e.g. linkage to Twitter, language support, etc.

Durability	Creativity
Reverse Proxy	Number of Unique Scripts
Application Firewall	Number of External Sources
SSL	Mobile Friendly
Separate Hosts	Media Usage
Robots.txt	iOS/Android App
Adabtability	Reach
Size	CDN
Separation of Resources	RSS feed
Database Usage	Linked to Facebook
Repeated Code/Resources	Linked to Twitter
	Analytics
Capacity to Control	Language support
Account Required	
External Server Location	
External Assets	

Figure 3. Five categories of Cyber Sophistication

These five categories will give a profile of the overall cyber capabilities. A good online presence relies on a website's ability to remain running as well as being easy to find and understand. Each category is a different measurement of an organization's cyber abilities. Their capacity to adapt and solve these problems shows what level of commitment they have to the cyber domain. ISIL has shown an increase in security measures over the past year, indicating that they see their Internet presence as important. They do not simply create and post their propaganda, but strive to understand how they can improve

upon it. We determined in Phase I that they are early adopters of technology and that cyber sophistication is one of their key differentiators among others in the global jihad industry.

Comparative Integrative Complexity of Baghdadi & Zawahiri: Dr. Jason A. Spitaletta (Maj, USMCR)¹¹ (Joint Staff J7 and The Johns Hopkins University-Applied Physics Laboratory)

Introduction

An underlying assumption of what intangible characteristics make the Islamic State of Iraq and the Levant (ISIL) magnetic was that the charisma of Abu Bakr al-Baghdadi, the self-appointed Caliph, was significantly greater than that of Dr. Ayman al-Zawahiri, the successor to Osama Bin Laden and the current emir of Al Qaeda. Charismatic leadership is the result of a unique personality and/or experience that differentiate a leader from those around him or her (Yuki, Gordon, & Taber, 2002) and that these extraordinary characteristics are often regarded by followers as exemplary and/or divine in nature (Weber, 2009). Charismatic leaders typically demonstrate some combination of emotionality, activity, sensitivity to the sociopolitical landscape, intense interest in and empathy toward their followers, superior rhetorical and persuasive skills, and exemplary behavior in the form of sacrificing their personal ambitions to those of the movement (Bos, Spitaletta, Molnar, Tinker, & Lenoir, 2013). Individual charisma is often necessary to initiate revolution; however, the demonstration of the aforementioned characteristics must be tempered with the requirement to maintain operational security (Bos et al., 2013). An insurgent leader must manage both the underground components and motivate the armed component (or guerrillas), and perhaps serve as the face of the public component (Bos et al., 2013). There is therefore considerable risk presented to the charismatic leader of a violent insurgency, particularly one with such ambitious objectives as those of Baghdadi and ISIL.

Methods

While there is scant biographical data on Baghdadi, there is sufficient information on Zawahiri to serve as a comparison and/or rule out certain characteristics. Much of the information on Zawahiri was the result of an Integrated Personality Profile of Zawahiri using Post's (2005) approach that was incorporated into a chapter on underground leadership in Bos et al. (2013). To the extent possible, similar methods were used for Baghdadi but the sources were limited to media reporting along with some more in-depth analysis such as that of Ligon et al. (2014) and Barrett (2014). To help contextualize the comparison, a quantitative approach to Integrative Complexity Scoring using ProfilerPlus software was employed for 8 Baghdadi speeches (4/8/13-5/26/15) totaling 21915 words, 5 Zawahiri speeches where ISIL was mentioned (6/9/13-5/24/14) totaling 7300 words, and 6 Adnani speeches (6/19/13-3/13/15) totaling 35292 words. Integrative complexity (IC) scoring proceeds on a 1–7 scale with 7 indicating the highest degree of complexity in a selection of text (Suedfeld, 2010). Each speech was analyzed by paragraph, multiple IC scores were averaged, and the resultant mean and standard deviation were assigned to the speech. Automated approaches to IC scoring have methodological limitations, namely the tendency to elevate scores, but ProfilerPlus is nonetheless a valid means of coding and calculating scores for large amounts of data (Suedfeld & Tetlock, 2014).

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Results

A comprehensive description of the results is beyond the scope of this summary, therefore only those related to Baghdadi will be described. Baghdadi showed a mean IC of 1.77 (SD=1.42) with increasing trend in IC. While premature, this trend is consistent with many revolutionary leaders (Suedfeld & Rank, 1976). Overall, Baghdadi demonstrated a decreasing trend in IC until the two most recent releases. He demonstrated more first-person plural usage than Zawahiri, lending support to Ligon et al. (2014) finding that he is a more socialized leader. His tone seems to shift with 6/15/13 refusal to adhere to Zawahiri's ruling, with a generally negative trend bottoming out on 1/19/14 with a mean IC of 1.12 but increasing thereafter. His most recent speech entitled "March Forth Whether Light or Heavy" was his highest with a mean IC of 2.8. The speech, released in May 2015, is another call to arms to Sunni Muslims and/or a reassurance that he is still alive (Kamolnick, 2015).

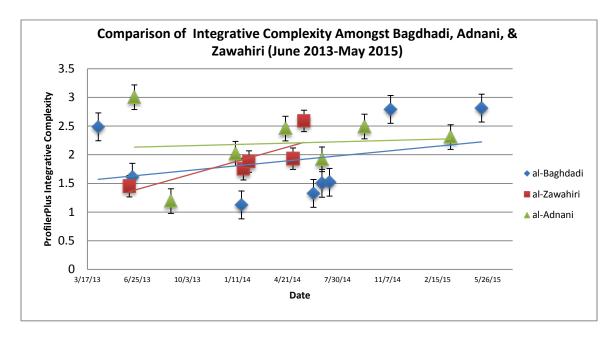


Figure 1. Plot of Mean ProfilerPlus Integrative Complexity Scores for Baghdadi, Zawahiri, and Adnani from March 2013 through May 2015.

Baghdadi's most recent statement, while higher in IC, seems to present a rather less complex perspective on Islam, essentially equating observance with participation in jihad explicitly in support of his Islamic State (Kamolnick, 2015). While the speech may indeed expose some vulnerabilities of Baghdadi's narrative (Kamolnick, 2015), it requires deeper analysis to contextualize the relative high IC score.

Discussion

Baghdadi may be a high value target (HVT), but is not likely a high payoff target (HPT). While he has been elevated in stature by the political rhetoric (namely the work of Adnani), Baghdadi's Islamic State is not a cult of personality, however, and their structure may be less vulnerable to decapitation than other groups with more charismatic leaders. Charismatic authority rests on a commanding devotion to an

individual's sacrosanct character and the concomitant normative patterns of behavior (Weber, 2009). The smaller the group, the greater the impact a leader's charisma can have on the group. Charismatic leadership is difficult to maintain, especially as movements grow larger. Charismatic leaders must accomplish these four functions: (1) maintain the public persona of the leader, (2) moderate the effects of the psychological identification of followers with the leader, (3) negotiate the routinization of charisma, and (4) achieve frequent new successes (Post, 2005). To address the first and second, charismatic leaders must be seen and heard from on a regular basis through both staged public displays and small appearances before regular members of the group. However, the leader must balance this exposure with an aura of mystery and in some cases a sense of supernatural power (to address the third issue, above), and this requires occasional segregation or isolation from his or her followers. Such isolation has the potential to stem negative feedback from group members; it can also lead to future decisions being made without the consideration of all necessary information and a subsequent failure and internal fracture over direction. Of course, public exposure entails greater security risks (Bos et al., 2013). Despite having a self-declared Caliph, ISIL may be less vulnerable to decapitation than other groups with more charismatic leaders.

Baghdadi is likely to be perceived as more charismatic than Zawahiri; however, the relative charisma of a leader may not necessarily translate into lower-level recruitment. Furthermore, charisma is subjective, as different communities possess varied expectations from their leaders. While Baghdadi may lack the charisma of more demonstrative revolutionary leaders, he and his leadership apparatus are likely more attractive to the younger generation of Islamic extremists than Zawahiri. These analyses should be considered preliminary, as additional research is required to come to a more definitive conclusion.

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ISIL's Use of Ritualistic Decapitations as Psychological Warfare: Dr. Jason A. Spitaletta (Maj, USMCR)¹² (Joint Staff J7 and The Johns Hopkins University Applied Physics Laboratory)

Introduction

Terrorism is a deliberate, and often highly effective, manifestation of psychological warfare that exists "along the edge of a nightmare" (Linebarger, 1954, p. 1), and thus some consider terrorism its ultimate form (Sedere, Ryan, & Rubin, 2003). The purpose of terrorism is to cause terror—an unremitting, paralyzing sense of fear that permeates one's psyche (Breckenridge & Zimbardo, 2007). The use of terrorism is generally a conscious decision on behalf of an individual or group and not the result of individual psychopathology (Kruglanski & Fishman, 2006), and in the case of the Islamic State of Iraq and the Levant (ISIL) terror appears to be among their principal psychological objectives.

Terror as a Psychological Objective of ISIL

Terrorism is the confluence of violence and propaganda, where the former seeks to modify behavior through coercion and the latter through persuasion (Schmid, 2005). Terrorist organizations seek to manipulate two principal audiences: the organization's constituency (in-group) and the enemy (outgroup) (Bos, Spitaletta, Molnar, Tinker, & Lenoir, 2013). The principal objective with the former is to demonstrate strength, while the goal of the latter is to intimidate (Merari, 1993) and/or paralyze the citizenry and provoke the enemy (Bos et al., 2013). In-group messages stress violent resistance is necessary to accomplish the desired end state (in ISIL's case, the apocalypse (Kuznar & Moon, 2014)), that negation is acquiescent to tyrannical authority, and that the adversary is vulnerable. Out-group messages stress the likelihood of future attacks, the identification of all those affiliated with the government (including civilians) with the enemy, and the lack of governmental presence to provide security (Gerwehr & Hubbard, 2007) and thus exhibit political legitimacy (Gilley, 2006). ISIL not only uses language describing in gruesome detail the brutality of their actions against soldiers on the battlefield as well as prisoners (Kuznar & Moon, 2014), but also uses professional shot and edited footage in their video releases (Barnard, 2015). ISIL's use of violence-related themes describing prisoner executions and the subsequent humiliation of the groups those victims represent is unapologetic and direct (Kuznar & Moon, 2014). ISIL's use of ritualistic decapitations is staged to maximize their terrifying effect through shock by exploiting the unconscious fear of castration (Oliver, 2007). While decapitation may indeed be homage to medieval Islam (Wood, 2015), the intimacy of the act and the human revulsion to perpetrating it (Grossman, 2009) may contribute to the voyeuristic popularity of the videos (Tinnes, 2015).

Though ISIL's beheadings are a terroristic act of psychological warfare, it does not necessarily mean they do not hold religious significance. ISIL's rationalization of prisoner beheadings is a selective interpretation of *Surah* 47:4 deliberately taken out of context (Lentini & Bakashmar, 2007). While ISIL's beheadings are a terroristic act of psychological warfare, their interpretation of *Surah* 47:4 provides explicit authorization for the decapitation of prisoners and the beheading of non-Muslim captives,

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therefore reinforcing ISIL's narrative (Furnish, 2005; Quiggle, 2015; Moon, 2015). ISIL not only rationalizes but also seems to take pride in their use of terrorism. ISIL closely binds this violent imagery with Quranic references, providing a degree of legitimacy and constituted authority for their selected target audiences (Kuznar & Moon, 2014). ISIL's narrative is not ultraviolence for some psychopathological compulsion but rather a hopeful message that victory in the form of a global Caliphate must be obtained through the use of violence (Kuznar & Moon, 2014).

Psychological Effects of Terrorism on ISIL's Target Audiences

The psychological manifestation of terror is neither simple nor straightforward; different audiences will respond with various interpretations of terrorist acts (DiMaggio & Galea, 2006). Those witnessing beheadings may identify with either the victims or the aggressor based on in-group bias and not necessarily the subjective morality of the act (Schmid, 2005), so those who agree with or hold some affinity toward ISIL may not sympathize with those victimized in the videos. The psychological effect of which is terror on behalf of the witness, potential increases in affiliated behavior on behalf of the ingroup, and legitimacy on behalf of the perpetrators. The effect of such tactics is exacerbated by ISIL's effective messaging that violence is the only path to the Caliphate and its inevitable incarnation justifies terroristic behavior (Kuznar & Moon, 2014). The indiscriminate nature of some terroristic tactics often requires organizations to justify and/or explain the purpose of such operations and ISIL, like their Islamic extremist predecessors, uses selective interpretations of the Quran absent context to lend a degree of religious legitimacy for their rationalization (Lentini & Bakashmar, 2007).

Anger, an emotional state that can vary in intensity from mild irritation to intense fury accompanied by physiological and biological changes including elevated heart rate, blood pressure, and hormonal levels (specifically adrenaline, and noradrenaline) (Speilberger, 2009), may be a common reaction to viewing ISIL's decapitation videos. Anger has a particularly high commitment value, particularly when the stimulus is threating to the ego and/or in-group (McCauley, 2014), so witnessing such brutality may stimulate a desire for revenge (Oatley, 2009) for whatever act of the victim's out-group justified the ritualistic decapitation. Stillwell and colleagues (2008) contend that revenge is an aggressive act with perceived justification in pursuit of equity; however, the ensuing behavior is compromised by the inherent bias of the aggrieved. Observers may identify with either the victims or the aggressor based on in-group bias and not necessarily the subjective morality of the act (Schmid, 2005), so those who agree with or hold some affinity toward ISIL may not sympathize with those victimized in the videos.

The psychological effects of terrorism are not simply manifested in individual physiology and psychology but also in a social context. The prolonged isolation or segregation can foster a sense of humiliation or collective loss of self-esteem (Post, Ruby, & Shaw, 2002a; Post, Ruby, & Shaw, 2002b). Terror forces the individual to live under the continual threat (perceived of actual) of physical harm. It is not only the effect of previous terrorist attacks but also the anticipation of future attacks that can induce stress (Banks, & James, 2006) and thus perpetrators of terrorism can prolong the effect of an acute response as a means of population control. Terrorist organizations often seek to cause disruptive behavior by issuing an uncertain, generalized threat and this may be the case with ISIL's recent allusions to the "Army of "Rome" (Wood, 2015). The very ambiguity of the situation makes rational decision-making and assessment functions break down and can lead to panic (Smelser, 2011). ISIL, however, does not appear

to be either haphazard or arbitrary in their language (Kuznar & Moon 2014) and thus specific references to locations or peoples are generally routed in ISIL's interpretation of historical and religious context.

Conclusion

Terror is a psychological objective of ISIL and ritualistic beheadings are conscious attempts to induce terror; therefore, attempts to counter ISIL must consider the psychological perspectives of the various target audiences for whom the acts are committed. Those considerations must be sufficiently empathetic to understand not only the reactions of the victims and the innocent witnesses of the atrocities but also of the perpetrators and those they seek to recruit.

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Daesh's Image of the State in Their Own Words: Dr. Lawrence A. Kuznar¹³ (Indiana University – Purdue University, Fort Wayne)

Abstract

IPFW systematically coded all issues of Daesh's publication *Dabiq* for themes Daesh uses to define the state and its function. Dominant themes that could be exploited in light of evidence of falsehood include:

- Inclusiveness (IS includes all regardless of race, nationality, or tribe)
- ISIL leadership is just:
 - o Takes care of followers, takes counsel, is humble, kind to followers, rewards performance
- Effectively provides domestic services
- Militarily successful and capable

Introduction and Methodology

The purpose of this study is to identify how Daesh defines a state in its own terms. Understanding this provides:

- An understanding of Daesh's worldview that is compelling to it is followers.
- Elements of its worldview that may indicate how Daesh will behave.
- Logical and empirical inconsistencies in Daesh's worldview that may be exploited to erode its credibility.
- Insight into a more generally pervasive narrative that is likely to persist and influence populations in the region and abroad.

The approach used in this study would be best labeled thematic analysis. Themes are words or phrases that convey a connotative meaning in which the meaning is greater than the description implied by the word or phrase. The approach we use is systematic, transparent, empirical, and scientifically testable. The structured database upon which this paper's findings are based is accessible.

The approach employed in this study has been applied to studies of Afghan insurgent literature (Kuznar & Yager, 2012), anticipation of conflict between India and Pakistan (Kuznar, Yager, St. Clair & Stephenson 2012), North Korean missile testing (Kuznar, 2013), and violent actions initiated by Bashar al-Assad (Kuznar, 2014).

This study builds on previous research (Kuznar and Moon 2014) designed to gain general insight into what elements of Daesh's narrative might be compelling to its followers. Some themes relevant to how Daesh defines a state were identified, including: Daesh is destined, it is based on violent jihad, it is just, and it is militarily successful and capable of delivering social services.

This Effort

In this effort, research focused on how Daesh defines a state by coding themes relevant to state definition in the online monthly magazine, *Dabiq*, which serves as Daesh's primary official marketing and

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recruiting tool, and therefore arguably expresses how Daesh most wishes to be regarded as an Islamic state.

All nine issues of *Dabiq* to date were coded using the methodology outlined above, and the results compiled into a database amenable for statistical analysis. One hundred and twenty five statements in Dabiq directly related to how Daesh defines a state. Thirty-two themes were identified in these segments. The most common themes are listed in Table 1 below.

Theme	Percent statements devoted to theme
Success and Capability	16.0%
Just Leadership	12.8%
Effectively Provides Services	12.0%
Inclusiveness of Anyone Who Follows	8.8%
Violence is Necessary	8.8%
Daesh Actions Justified	8.0%
Khalifa	7.2%
Separation of followers from the world	7.2%
Shari'ah	5.6%
Punishing Wrongdoers	5.6%
Obligation of Followers	5.6%
Booty as Necessary to State	5.6%

Table 1. Most Common Themes Concerning How Daesh Defines a State in Dabig

Consistent with our earlier research, the dominant theme for Daesh that both defines and justifies its calling itself a state, is its record of military success and demonstrations of its capability and its enemies' weakness. Related to the theme of success are Daesh's claims to be able to provide civil services, and is also frequently mentioned.

Daesh also spends much time discussing how just its leadership is, especially that of Baghdadi. Specific elements mentioned of this just leadership include:

- Takes care of followers' needs selflessly
- Takes counsel
- Is aware of Daesh's situation
- Humble
- Kind to followers
- Rewards good performers

Daesh also emphasizes its inclusiveness—it is open for all "true" Muslims willing to follow their cause. Related to this theme is the theme that, a true believer must completely disassociate from all worldly attachments, especially tribe and family.

Consistent with the earlier study, Daesh emphasizes that their state must necessarily be a violent one; there is no peace to be made with enemies—their aims can only be achieved with violence. Daesh

assiduously documents Hadith to justify their definition of the state and most especially their violent actions.

Several slightly less common themes are related to the imposition of Shari'ah law as Daesh defines it (mentions of Shari'ah, punishment, obligations). One curious theme, to which three full articles are devoted in *Dabiq* (Issue 3 Shawwal July/August 2014 Modern Day Slavery; Issue 4 Dhu al-Hijjah Sept/Oct 2014 My Provision was Placed for me In the Shade of My Spear, The Revival of Slavery before the Hour), is that of the disposition of booty, especially female slaves. Daesh devotes considerable verbiage to justifying the taking of an enemy's possessions and presents it as an inducement.

There are two minor themes that recently (Issue 6 Rabi' al-awwal Dec 2014/Jan 2015) emerged that indicate potential cracks in Daesh's narrative edifice. One encourages the rank and file to not be critical of leadership, lest their own flaws be revealed, and the other encourages the rank and file to inform on those that show a lack of resolve in following Daesh's jihadist cause.

Operational Relevance

All of these themes shed light into Daesh's worldview and how they define and justify themselves as a state. However, several themes have the potential to create vulnerabilities for Daesh's credibility in the region, the eyes of their followers, and in the eyes of potential recruits. Daesh's credibility could potentially erode by exposing logical contradictions or empirical refutations of their definition of themselves. It is also important that any such refutations be delivered through credible sources, namely major Sunni institutions (such as Al Azhar Mosque in Egypt, possibly fellow Salafists such as Quradawi), and any credible sources in social media such as Mubim Sheikh among others. The themes potentially most vulnerable to refutation are listed below.

- Dominant themes that could be exploited in light of evidence of falsehood:
 - o Inclusiveness (IS includes all regardless of race, nationality, or tribe).
 - Any evidence that Daesh is exclusionary based on race, ethnicity, nationality, or tribe.
 - Just leadership:
 - Takes care of followers, takes counsel, is humble, kind to followers, rewards performance.
 - Evidence that Daesh leadership violates these prescriptive behaviors.
 - o Effectively provides domestic services
 - Evidence of Daesh's failure to deliver civil services.
 - Militarily successful and capable
 - While military solutions alone are unlikely to defeat Daesh or the more general jihadist movement it represents, clear military setbacks and territorial losses do challenge Daesh's central narrative theme.
- Themes that may be contradictory or demonstrate internal division include:
 - o Calls to conceal flaws of IS and to inform leaders of dissension indicate possible concerns with internal division.
 - A recent suggestion that the West must make a truce with ISIL contradicts the necessity of violent Jihad, although ISIL notes that no truce could be permanent.

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Impact of ISIL on Strategic Evolution of MENA Region: Shalini Venturelli, Ph.D., American University

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Evolution of MENA Conflict: Strategic Fragmentation & Strategic Impact

This qualitative study's research concept is informed by two critical gaps in current analysis: (a) the need for a new approach toward assessing strategic indicators and pathways that better explain and predict regional capacity for balancing internal stabilization against fragmentation forces in the unfolding MENA conflict; and (b) second, the need to assess the impact of ISIL on the future strategic evolution of the wider MENA region. The project seeks to address the framework gap in (a) as a foundation to effective analysis of the strategic impact in (b).

Objectives

This multilayered strategic level research project applies an original framework design to analysis of multiple new categories of qualitative data sets gathered specifically for purposes of identifying the deeper impact of ISIL on the strategic evolution of MENA, assessing stresses to the region's inherent strategic stabilization capacity, and for projecting expected pathways of regional fragmentation. Specific aims of the project are as follows: (I) Identify emerging patterns of regional transformation in the medium- to long-term stemming from ISIL-induced wider instability across the MENA region. (II) Identify critical drivers and primary indicators of progressive degradation in MENA region's 'strategic homeostasis system.' The study advances the new concept of 'Strategic homeostasis system' as an innovative and more robust model for assessment and prediction of the current MENA conflict. (III) Assess strategic intent and behaviors of powerful regional and trans-regional actors as they move to exploit the conflict environment for longer-term strategic advantage, and in pursuit of new power alliances with national and subnational power centers. (IV) Forecast evolving pathways of strategic fragmentation: assessment viability in internal stabilization mechanisms; principal pathways of expected disintegration/collapse in MENA's 'strategic homeostasis system'; and displacement of the existing system by a qualitatively different strategic dynamic. (V) Propose new concepts for strengthening U.S. influence in the region designed to: a) reinforce existing strategic homeostasis capacity by shaping strategic outcomes for regional and national security; b) attenuate virulent strategic fragmentation/collapse; c) preserve existing alliances; d) forge international consilience, and build a common strategic view among allies and international organizations; e) promote greater cooperation among regional partners in civilian and military organizations; f) develop core catalysts for regional stability and robustness, despite continuing subnational threats; g) inhibit 'strategic capture' through growing influence-dominance of the region's cultural, political, and economic geography by external powers and peer competitors.

Significant Initial Findings Summary

Significant findings have already emerged from initial stages of the study. To date, the findings can be grouped in four categories: 1) Emergence and discovery from current and prior field and observational data analysis of a 'best fit' strategic model that more effectively explains and predicts the strategic stabilization-fragmentation pathways in the MENA region and beyond; 2) Critical

environmental factors and indicators from the model that signal strategic directionality and outcomes; 3) Primary fragmentation process-indicators or dynamics and pathways suggested by the model; and 4) Key Actor assessment generated thus far on four strategic players in a larger targeted set of primary actors in the conflict.

Initial Findings 1 & 2: Discovery of New Strategic Model from Analysis of Project Data

Reported here for the first time in this interim report, the study's initial findings indicate a breakthrough discovery in the complex qualitative data, which is of significance both to research and for practical application to security decision-making. Discovery of how regional fragmentation arises in some contexts yet not in others given the same spatial and temporal scales of conflict, even within a single region, fill a critical qualitative gap in solving the regional security puzzle. Observational data and analysis in the PI's research into ISIL's evolutionary capability in Phase I, followed by this study's investigation of the MENA conflict at the strategic level in Phase II, have together allowed a striking underlying core macro-system to emerge. At the strategic level, this macro-system is a powerful regulator of both regional stability as well as fragmentation. The reason this was not earlier apparent through sustained comparative fieldwork at the micro level, is that regional strategic stabilization dynamics cannot be readily inferred from any one of the secondary subsystems components taken in isolation or together. Only when the entire cumulative weight of extensive observations over months was applied to a single region (as unit of analysis), did the functional and dynamic place of subsystems within the contours of a larger macro system become evident. In this instance, the MENA region serves as a transnational real-time experiment of unfolding region-wide conflict that can be assessed at multiple layers of significance—from catalytic agents like ISIL, to specific populations, security forces, leaders and government, and all the way up to the strategic level of powerful external states. Further fieldwork will be required to gain a more granular view of individual indicators, and for mapping subsubsystems endogenous strategic regulation.

The concept of homeostasis is well known in the physical and biological sciences and in engineering. It refers to systems that detect defined internal and external inputs and then maintain stability within set parameters – thereby regulating their own internal states. Examples include thermostat controlled temperature regulation systems and biological regulatory systems. Though never before applied to strategic and security studies to understand conflict, it's relevance to strategic analysis become clearer when applied to recent conflicts in the 21st century whereby regions are repeatedly subjected to numerous types of perturbations—from wars to pandemics, disasters, population displacement, economic collapse and external threats—yet largely remain strategically intact over the long run despite wide differential effects (e.g., South Asia-Southwest Asia region, Central America region). Periodically, however, regions that appear stable, suddenly and explosively disintegrate, leaving long-term chaos and instability in their wake (e.g., Soviet Union regional empire, East Africa region). The study proposes that an endogenously evolved

Diagram 2

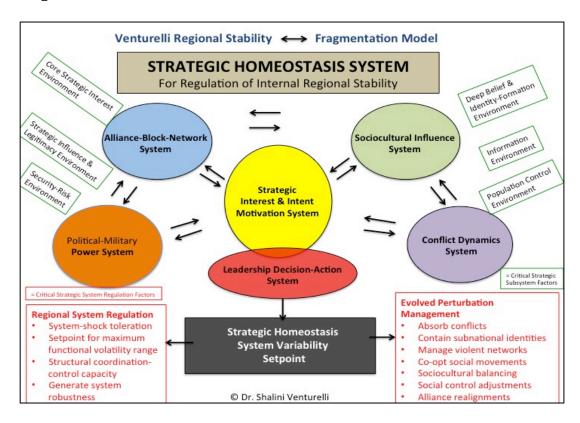
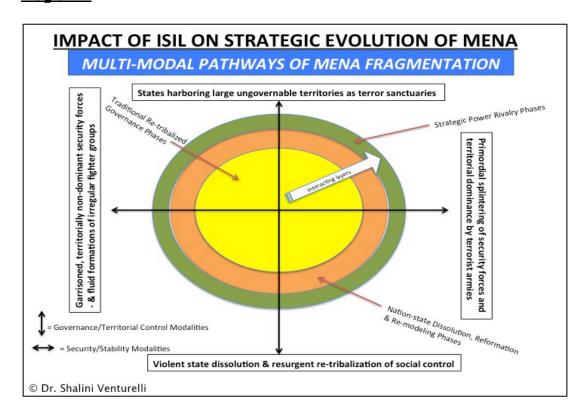


Diagram 2



sociopolitical and sociocultural system specific to the MENA region has thus far kept internal strategic parameters over time within a stable range despite the continual occurrence of volatile conflicts over the last half century.

MENA Region's 'Strategic Homeostasis System': In post-war decades, the region's underlying system has internally regulated power rivalries, conflicts and perturbations in the region's political geography to within a defined and predictable bandwidth of periodic-chronic 'homeostatic volatility.' 'Homeostatic volatility' is the study's term for a type and level of volatility internally tolerated (i.e., non-destabilizing) within any given strategic context. If it does not undermine the regional system, tolerated volatility, the study suggests, can be paradoxically functional to periodic power adjustments and is thus homeostatic to endogenous regulation and stability of a strategic ecosystem.

In the study's model (Diagram 1), we see six interacting subsystem feedback loops in the MENA region (there may be more) identified from the qualitative data to play a major role in internal regional information and monitoring. When functioning according to evolved sociopolitical modes, complex interactions among these exponential information pathways generate dynamic internal regulation of volatility, comprising core components of the region's overall 'strategic homeostasis system.' Additional subsystems may be identified at a later stage or follow-on study. But both empirical and field evidence point to a set of six powerful interacting regional subsystems seen in Diagram 1 as the colored spheres and categorized as follows: (1) political-military power system -orange, (2) alliance-power network system-blue, (3) sociocultural system-green, (4) conflict dynamics system-purple, (5) strategic interestintent motivation system-yellow, and (6) leadership decision-action system-red. Complex interactions among the primary subsystems operating in sum generate the region's 'homeostatic variability setpoint' (black box at bottom) on a long-term basis. The 'homeostatic variability setpoint' is the mechanism identified in this study (and a term developed for the purpose) to understand and predict the region's volatility bandwidth or range of conflict/upheaval that is tolerated internally by the overall strategic homeostasis system. Outside this range or bandwidth, overall regional stability begins to fracture. The study finds that, if the 'homoeostatic variability setpoint' is persistently insulted either (a) by regional volatility that does not return to its historical setpoint, or (b) by fracturation of at least two or more subsystems, then the feedback loops no longer reliably provide the type of sociocultural sensing and monitoring, nor the traditional or historically evolved, therefore functional, information flows (feedback loops) essential to endogenous regulation of strategic system-wide stability.

The study's model (Diagram 1) suggests that when <u>signaling mechanisms</u> via tangible and intangible, symbolic and non-symbolic information channels generate complex feedback interactions among primary subsystems whose <u>sensing capability</u> is operating at historical fluctuation levels, regional stability will be maintained at the strategic system's overall tolerance setpoint. Every regional strategic system can differentially tolerate and endure through conflicts, upheavals and other types of territorially-confined or region-wide insults. These include both internal and external types of stressors that are sensed and signaled, first within subsystems, and then across the strategic plane. Over time, internal stressors such as ethnic conflict, battling ideologies, violent networks, oppressive regimes, or wars and rebellions are just as smoothly absorbed through regional homeostasis regulation as are

external threats, such as being drawn into geostrategic great power rivalry, or exogenous economic, political, and sociocultural threat conditions.

What We Should Look For # 1: Critical Environmental Indicators of Future Fragmentation Identified: The study's regional stability-fragmentation model (Diagram 1) identifies six critical environmental indicators of the strategic environment that most accurately signal the onset of dysfunction in regional capacity to regulate stability: 1) Identity Environment, 2) Information Environment, 3) Population Control Environment, 4) Core Strategic Interest Environment, 5) Influence-Legitimacy Environment, and 6) Security Risk Environment. The study finds that these six critical indicators are significant predictors of fragmentation forces in play. Further deeper analysis in the study of these critical indicators allows reliable forecasts of reversible or irreversible fragmentation, and the directions or modes fragmentation and/or alternative strategic displacement outcomes.

Initial Finding 3: Preliminary Assessment of Fragmentation Dynamics Suggested in the Model

Applying the study's empirically-grounded model of the MENA region's strategic system to the current unfolding conflict, it is now possible to arrive at some initial assessments of current *strategic processes indicators* emerging in regional fragmentation dynamics. A way to map these processindicators is found in Diagram 2 and briefly outlined here. These are further elaborated in the final report. Note: *Strategic Process Indicators* in Diagram 2 are derived from *Critical Environmental Indicators* in Diagram 1 (see preceding section) in the study's strategic stability-fragmentation model. Together, they reflect initial stage findings, to be elaborated further in the next stage of analysis.

What We Should Look For # 2: Core Dynamical Forces Shaping the Region & Its Key Players-Evolving Cascade or 'Strategic Process Indicators' of Fragmentation: These include: A) Population control phases – these range from minimal perimeter controls (least effective), efficient service delivery systems (temporarily effective), absolutism of arbitrary or violent force (strongly effective), to a combination of service and coercive force (most effective) (vertical axis Diagram 2). B) Security capability phases__a combination of two or more: garrisoned vs. operationally active forces, territorially dominant/non-dominant forces, massed conventional vs. quick-reaction force strikes, strong/weak force identity; internal tribal/ethnic loyalties, centralized vs. decentralized force decision-making, hierarchical vs. diffused pathways of information across command structures, unified vs. rivaling pictures of security threat environment, and effective/ineffective culturally-contextual partner training (horizontal axis Diagram 2). C) Governance phases – Progression toward wider 're-tribalization' or reconstitution of primordial identities & power network alliances, or progression toward state-driven administrative governance (yellow epicenter ring Diagram 2). D) Nation-state re-modeling phases – Nation-state system dissolution vs. reformation; widening of ungovernable regions inside multiethnic states; nations entering into subservience compacts with complex sociocultural power centers, rival geographies; resulting dominance/weakening of 'subnational orders' (orange ring Diagram 2). E) Strategic power rivalry phases – Contestation intensity ranging from passive to forceful phases of strategic power rivalry for influence and control over the MENA region; reforming-restructuring-displacing new allianceformation (green ring Diagram 2).

Initial Finding 4: Key Strategic Actor Assessments

Among primary Key Strategic Actors targeted for the study, four core principals have undergone initial assessment to date from study data. While they generate qualitatively differential strategic effects and fall into distinct classes of key conflict players, together they demonstrate a significant common strategic characteristic: enhanced capacity to influence other actors in the regional environment. For this reason, it is safe to conclude at initial stage of analysis, that any future strategic outcome will be an integrative effect of the interests, intent, decisions, and actions of these core actors in the conflict: (A) ISIL's core mechanism of strategic advancement is continuous generation of regional system-wide entropic forces of disorder - delivered through its military, informational and influence spheres of operation. If unable to sustain generation of high pace in spiraling disorder and wider regional entropy, ISIL's evolutionary power-law capability will start to precipitously degrade. Therefore, ISIL network is seriously disadvantaged by any freezing of status-quo system-wide disorder. US and its allies do not need to resolve the conflict in the immediate or medium term. US needs only to fix volatility at current levels to allow sufficient time-in-stasis for ISIL to underdo insidious dissolution of capability. Complete reversal is unnecessary--just slowing the rate of change in regional subsystem volatility severely undermines ISIL as internal regional homeostasis stability-regulation starts to cascade through the environment. (B) Iraqi Sunni population no longer doubts outcome of conflict in Anbar and Iraq: They deeply believe ISIL will not be defeated in Anbar in the long term. Hence they must cooperate with ISIL or prepare to be destroyed as a distinct group of local and provincial tribal communities. Iraqi Sunnis believe ISIL is the least worst option for survival against a Shia dominated government, army, and growing Iranian threat. ISIL is not regarded as an equivalent threat. The tide of growing Shia capabilities is seen as the real existential threat--Shia militia, Shia dominated government, and Iran. Anbar Sunnis have given up on the Iraqi government and security forces to defend their enduring interests or even maintain current conditions. Sunnis will increasingly cooperate not just passively, but actively with ISIL. Reality of ISIL's integrated territorial control motivates working with ISIL in ways that exceed customary levels of power-network cooperation. Anbar Sunnis are prepared, even willing to ensure ISIL protection by participating in ISIL-led destruction and persecution of minorities. Cooperation with ISIL is increasingly essential to Sunnis not just for safety, but to gain access to resources, make a living, and to survive. There are no government elements or alternative power networks to fall back on. Sunni local power networks are rapidly being absorbed into ISIL systems control, thereby extending ISIL's civilian control capabilities down to local and family levels. However, if ISIL is compelled to time-in-stasis by US and becomes fixed to a specific tempo of volatility and disorder, Sunni's might consider other alliances. (C) Strategic Regional Power Player: IRAN: Like ISIL, Iran is reaping benefits from regional system-wide entropy. And like ISIL, Iran is actively generating forces of disorder to expand its organizational and structural abilities to influence both allies and adversaries. US does not need to resolve crisis in the immediate term – simply freezing current levels of volatility to allow ISIL sufficient time-in-stasis for its evolutionary gains to dissipate will make it difficult for Iran to fuel disorder under cover of wider disorder. Once rate of change in ISIL volatility is perceptible to key players, Iran's strategic gains and advances will become more challenging. (D) Strategic Regional Power Player: SAUDI ARABIA: Sunni Arab states increasingly view Saudi leadership indispensable in the war against ISIL and to contain Iranian strategic influence. They

regard US intent to dominate regional security as rhetorical in nature and therefore less reliable as sole guarantor of stability. Confirmation of realities in the unfolding event cycle, motivates them to seek alternative regional security options. This weakens US influence in the region but does not imply Sunni states will move away from US partnerships. US support is seen as vital in materiel and access to US knowledge/skills. But a strategic opening has emerged for other powerful external players, such as Russia. US may become one of many external power able to provide defense technology and skills, with European states, Russia and China competing in the medium-to-long term as alternate suppliers of know-how and technology (similar to South Asia). US-led stasis generation in conflict area will halt decline of Sunni Arab leaders' confidence in US intent, thus mitigating against expanded influence of external competitor peer states. This allows time for cooperation on long-term strategic planning with allies for broader regional security.

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How Movements Decline: Historical Insights on how Da'esh Might "End": Dr. Benjamin Jensen¹⁴ (Marine Corp University, Command and Staff College and American University, School of International Service)

Abstract

Movements like Da'esh are resilient and tend to decline only when confronted with combination of coercion, internal fracturing, and loss of resources. Force is necessary but not sufficient. Decline is often gradual and leads to a transition to a new organizational form rather than sudden collapse.

This report summarizes a five-month research effort using qualitative case comparison techniques to analyze how movements like Da'esh historically decline. The report proceeds by defining social movements. From this vantage point, it identifies commons sets of conditions associated with movement decline. These factors can help planners frame how to degrade and destroy Da'esh. Specifically, the insights can help in mission analysis and problem framing as the Coalition develops future lines of effort.

What are Movements and How Do They End?

Da'esh is not just a terrorist group. It is a movement. Movements are collective action networks. Most movements form in opposition to another group or idea. For example, the Civil Rights movement in the United States formed in opposition to racial inequality. Da'esh is a violent extremist movement whose members, outside purely economic rent-seekers, join because they are drawn to its unique oppositional narrative. This oppositional character forms a common identity for the movement and holds otherwise disparate actors together.

According to Sidney Tarrow, movements are "collective challenges [to elites, authorities, other groups, or cultural codes] by people with common purposes and solidarity in sustained interactions with elites, opponents, and authorities." Similarly, for sociologist Charles Tilly, all social movements, as forms of contentious politics, combine campaigns, repertoires, and displays. Campaigns are sustained, organized public claims directed at a target audience. Repertoires are public displays (e.g., rallies, vigils, demonstrations, etc.) and performances that enact the movement's identity. These episodes often form displays of worthiness, unity, numbers, and commitment to the cause. These activities enact the movement's identity and as such form a positive feedback loop. The more a movement acts the stronger its identity claims become for its members.

There are competing perspectives on social movements. Rational choice scholars account for social movements in terms of the expected individual member costs and benefits. ¹⁷ Applied to Da'esh, one can account for the movement's actions in relation to the expected benefits of its members. The movement

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¹⁵Sidney Tarrow, *Power in Movement: Collective Action, Social Movements and Politics* (Cambridge: Cambridge University Press, 1994).

¹⁶ Tilly, Charles (2004). *Social Movements, 1768–2004*. Boulder, Colorado, USA: Paradigm Publishers.

¹⁷ Mancur Olson. *The Logic of Collective Action: Public Goods and the Theory of Groups* (Cambridge: Harvard University Press, 1965). Mark Lichbach. *The Rebel's Dilemma* (Ann Arbor, MI: University of Michigan Press, 1995).

declines when the costs of membership outweigh expected benefits. These benefits may be material (i.e., lootable resources, money) or more subjective (i.e., authority, respect).

Alternatively, a relative deprivation perspective looks at the movement with respect to group motivation. If a group is denied political and/or economic access, or their physical security is threatened based on their identity, it tends to motivate collective action and resistance. Applied to Da'esh, despite its diverse membership mixing local Sunni extremists in Syria and Iraq with foreign fighters, the group perceives a collective threat to their religious identity. The movement will decline only when that collective sense of threat decreases.

Scholars working in the resource mobilization tradition analyze social movements in terms of the group's organizational acumen. ¹⁹ Social movements, to include extremist groups like Da'esh, require formal organizations that define objectives and allocate resources. These resources include material (e.g., money), moral (e.g., sense of solidarity with group objectives amongst target populations), social-organizational (e.g., strategies, networks, recruitment), human (e.g., staff, leaders, technical experts), and cultural components (e.g., ability of members to leverage contentious issues and context). Movements like Da'esh decline only when their organizational capacity unravels in multiple categories. That is, when the group is no longer able to mobilize material, moral, or human resources, it will be begin to lose members and allocate existing resources in less efficient manner.

Alternatively, a social movement's logic and success can be explained as a function of opportunity. ²⁰ Certain contexts, whether political or social, tend to be more conductive to the formation and attractiveness of movements like Da'esh. In past studies of the external opportunities that favored the rise of oppositional social movements, these windows included a political opening (i.e., possibility of changing status quo), fracturing (i.e., instability and conflict between ruling elites), and a decline in state capacity. Movements like Da'esh will decline only when the operative political window closes, elites reach consensus on how to counter them, or the state's capacity to suppress the movement increases. Of note, state capacity is a double-edged sword. Excessive coercion can lead to continued support for the movement as it puts the active and passive members in a corner.

Collective action can also be thought of as a function of framing. Framing implies that a movement like Da'esh increases its potential recruits and resources to the extent that it makes claims resonate with a target audience. Narratives that increase the legitimacy of their cause lead to more fighters and resources.²¹

According to social movement scholar Mario Diani, all of these perspectives have a common understanding of movements as meeting three criteria, "a network of informal interactions between a

¹⁸ Ted Gurr. Why Men Rebel. Princeton: Princeton University Press, 1970. James Davies. *When Men Revolt and Why - A Reader in Political Violence and Revolution* (The Free Press, 1971).

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²¹ Benford, Robert D.; David A. Snow (2000). "Framing Processes and Social Movements: An Overview and Assessment" *Annual Review of Sociology* 26: 611–639.

plurality of individuals, groups, and/or organizations, engaged in a political or cultural conflict, on the basis of a shared collective identity."²² Da'esh is a network of individuals from multiple countries engaged in a conflict based on a shared commitment to a radical form of Islam. Even local groups in Syria and Iraq that make temporary alliances with the group tend to do so by acknowledging, at least on the surface, a shared ideology. The identity holds the movement together and enables collective action.

Scholarship on how terrorist movements end exhibits a similar distinction between instrumental political logic and identity-based claims.²³ In the strategic model of terrorism, rational actors join terrorist groups for an anticipated political return. The logic of force is such that by attacking civilians terrorists expect to gain political concessions. It follows that accelerating the decline of such organizations is a function of changing the expected value of coercion (i.e., decrease their expected benefit) or raising the cost of membership (i.e., increasing the costs of terrorism). Alternatively, the natural systems model proposes that actors join terrorist groups for a social gain. They engage in terrorism as a means of participating in tight-knit group. Terrorism is less about rational incentives and more about a sense of belonging. Accelerating the decline of these types of organizations is a function of changing the assumed sense of belonging associated with membership.

A 2008 RAND Study of 648 terrorist groups that ended between 1986 and 2006 found five predominant modes of termination: through policing, military force, group splintering, political concession, or terrorist victory. The most common ends were politics, situations in which terrorist groups joined a larger political process, and policing, situations in which local police and intelligence services successfully hunted down terrorist group members. The study emphasizes the strategic model. For a group to "end," there needs to be benefits associated with joining a mainstream political process or disproportionate costs associated with membership. Following this logic, Da'esh will not decline as a movement until there is a political solution in Syria and Iraq or its members are sufficiently threatened by either local police and intelligence services.

A 2011 study by Audrey Cronin found that social calculations tend to animate participation in terrorist movements more than rational incentives.²⁵ Like the natural selection model, individuals tend to find meaning in the group. Organizational survival can, and often does, eclipse the original cause. Terrorist violence tends to undercut the professed agenda of the movement but has the alternative benefit of boosting membership, moral, and cohesion, a finding consistent with Tilly's emphasis on movement campaigns, repertoires, and displays. Cronin finds that the most common endings for terrorist organizations are either repression or implosion. Because of the cohesive nature of a movement, finding means of alienating supporters tends to create a window of opportunity for repressing the group. Applied to Da'esh, this finding implies that force alone is likely insufficient and should be accompanied by efforts to reduce group cohesion.

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²² Diani, Mario (1992). ".The concept of social movement". *The Sociological Review* 40 (1): 1–25.

²³ Max Abrahms, "What Terrorists Really Want: Terrorist Motives and Counterterrorism Strategy," *International Security*, Spring 2008, pp. 78-105.

²⁴ Seth G. Jones and Martin C. Libicki *How Terrorist Groups End: Lessons for Countering al Qa'ida* (Santa Monica: RAND Corporation, 2008).

²⁵ Audrey Cronin, *How Terrorism Ends* (Princeton: Princeton University Press, 2011).

Research Design

Between January and May 2015, a team of researchers at American University, School of International Service, and the Marine Corps University set out to study how social movements that use force to control territory historically end. The intent of the historical survey was to identify any unique configurations that might help Coalition forces accelerate the decline of Da'esh. The core assumption of the research was that Da'esh is a social movement and that insights from studying other social movements have applicability framing possible ways of countering the group.

The research proceeded by identifying possible cases of other movements that historically used force to control or deny territory. Small teams then conducted research of each of these groups using fuzzy sets. Fuzzy sets are a form of qualitative comparison used to identify common factors associated with particular outcomes. For example, Muzammil M. Hussain and Philip N. Howard used the technique to look at common factors associated with countries that experienced significant unrest during the Arab Spring. In the Da'esh study, analysts looked at coverage (how many cases exhibit the hypothesized causal configuration?) and consistency (how well does the mix of factors explain the outcome?). The intent was to identify those factors associated with accelerated decline in movements like Da'esh that used force to control territory.

Preliminary Findings

Below are some of the observations based on 44 historical cases studies subject to fuzzy set analytics: 28

- Force, whether internal or external, directed at the social movement in isolation of other activities is insufficient. In fact, attritional strategies that focus only on killing or capturing members may prove suboptimal in the long-run.
- When force is combined with general civic unrest against the movement or efforts to fracture the group from within, it produces superior results.
- Internal force appears to be superior, but only marginally, to external force in accelerating decline. When internal force is combined with amnesty programs and targeting movement leadership, it achieves the best results.
- In absence of overt force directed at movement members, campaigns that combine wedge strategies and economic targeting (i.e., cutting the movement off from local political allies and targeting the resource networks that sustain their activities) alongside efforts to undermine group cohesion could prove successful.

Combined, these findings appear to highlight a classic concept in strategic studies. Terrorist movements like Da'esh will decline when the Coalition finds ways to put them on the 'horns of a dilemma.' The phrase 'horns of a dilemma' enters military theory from the 1187 Battle of Hattin and Saladin's successful maneuvers that presented the Crusader army with a series of bad choices.²⁹ It implies

²⁶ Charles Ragin, *Fuzzy Set Social Science* (Chicago: University of Chicago Press, 2000).

²⁷ Steven Livingston and Gregor Walter-Drop (eds), *Bits and Atoms: Information and Communication Technology in Areas of Limited Statehood* (New York: Oxford University Press, 2014).

²⁸ Staffs interested in the underlying data or discussing fuzzy sets should contact the principle investigator, Dr. Benjamin Jensen: drbenjensen@gmail.com. All data is freely available and open source.

²⁹ Of note, the new Army Operating Concept calls for putting adversaries on the horns of a dilemma.

attacking a group along multiple lines in a manner that increases their uncertainty and the prospect of future declines in multiple dimensions. Applied to Da'esh, coercion, here force and the threat of future force, has compounding effects when used with other instruments of power. A comprehensive campaign can succeed when it weakens group cohesion (i.e., encourage mistrust, misinformation, and red-on-red actions), engages economic targets, and limits the capacity of a group like Da'esh to make local political alliances.

Middle East and North African (MENA) Regional Narratives about the Post-ISIL Future: Dr. Rita Parhad,³⁰ Dr. Anastasia Norton,³¹ Mr. Seth Sullivan,³² Ms. Alysha Bedig,³³ and Mr. Jordan D'Amato³⁴ (Monitor 360)

Introduction

The US Government's recent experience in Libya has demonstrated that it is critically important to think strategically about the long-term resolution of crises and the implications of military actions. Accordingly, by surfacing, measuring, and analyzing the narratives that broad populations in the Middle East hold about the future of the region, this study seeks to inform Special Operations Command Central's (SOCCENT) strategic perspective on the long-term implications of the rise of ISIL. Narratives are the historically grounded stories that reflect a community's identity and experiences, or explain its hopes, aspirations, and concerns. Such narratives help groups understand who they are and where they come from, and how to make sense of developments unfolding around them. As persistent regional conflict erodes and strengthens various elements of group identity, understanding the narratives that motivate the behavior of different actors and populations is critical to long-term strategic planning.

Methods

This study leverages Monitor 360's understanding of deeply-held Middle Eastern narratives that predate the rise of ISIL in order to identify narratives about the future of the region and illuminate how the current crisis is impacting popular views of the region's trajectory. To do so, it first identifies and measures the relative impact of narratives present within approximately 10,000 regional media sources published between September 2013 and May 2015 and assesses how those narratives are changing over time. In particular, it assesses changes in the regional conversation around June 2014, when ISIL launched its northern offensive and publicly declared a caliphate, in order to examine whether the regional dialogue now reflects more pessimism or fear about the future. It will further examine what drives shifts in regional narratives, particularly towards themes of fragmentation and instability, and will assess how the US and its actions are being perceived, relative to narratives about the future.

The methodology underpinning this analysis is a combined qualitative and quantitative approach that not only identifies the most relevant regional narratives, but also tracks and quantifies their impact over time. The process of surfacing and measuring regional narratives relies on the ability to:

- identify thousands of relevant open source and proprietary data sources and tens of thousands of data points,
- utilize an algorithm to organize the data into a network of clusters based on content similarity, and
- qualitatively curate the network to assess its relevance to the research question in order to form a narrative landscape and separate the signal from the noise.

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Shifts in that landscape inform a variety of quantitative metrics about individual narratives. Assessing a group of those metrics in tandem over time including volume, social engagement, and consistency, generates a composite score that measures the relative impact of each narrative.

Results

The existing data set contains 13 narrative hypotheses about the future of the Middle East and the role of the ISIL crisis. These narrative hypotheses reflect regional perceptions, attitudes, and beliefs about a range of topics including the future of sectarianism, ISIL's battlefield momentum, the role of the US and Iran in regional politics, and the demise of the Arab Spring.

Tracking the relative representation of each narrative over time can offer insight into how specific events relate to broader shifts in perceptions, attitudes, and beliefs about the future of the region. For example, Figure 1 below shows how the narrative landscape changes before and after ISIL's Northern Iraq offensive in June 2014.

Figure 1

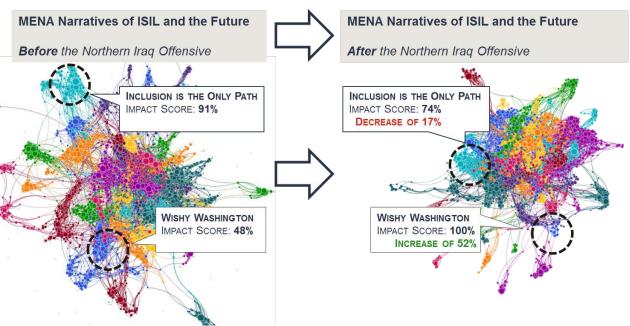


Figure 1 highlights two narrative shifts that have broader implications for understanding the future trajectory of the region. The first of these two narratives, **Inclusion is the Only Path Forward**, articulates the recognition that after years of intra-communal conflict, fostering an environment of inclusive politics is critical to stability and security. The second, **Wishy Washington**, reflects the belief that the US is an unreliable, apathetic ally that lacks strategic vision and fails to see the inextricable links between the solving the Syrian Civil War and addressing the presence of ISIL in Iraq. Tracking the change in these two narratives' impact over time yields insight into how ISIL's rise is shifting the perspective of broad populations in the region.

Insights

- Inclusion is the Only Path Forward (Decrease of 17%): Even as the need for inclusive politics grows ever stronger, analysis of the narrative landscape demonstrates that events like the Northern Iraq Offensive correlate with a measurable decrease in the impact of the "Inclusion is the Only Path Forward" narrative. This analysis suggests that in the face of ISIL military aggression, broad regional audiences are becoming less optimistic about the possibility of sustained and genuine cooperation across communal lines. Looking forward, this dynamic implies the possibility of a self-reinforcing cycle in which ISIL military aggression or divisive sectarian events undermine the likelihood of future cooperation, perpetuating further splintering of the region. Moreover, decreasing support for inclusive politics may accelerate deteriorating governance capacity of national entities.
- Wishy Washington (Increase of 52%): Significant ISIL military successes appear to intensify
 regional perceptions that the US commitment to the region is unreliable and lacks a guiding
 strategic vision. These perceptions may undermine trust in bilateral or multilateral negotiations
 and motivate regional allies to pursue independent actions in support of their national interests
 that may be contradictory to US goals. Further, this narrative dynamic may contribute to a
 feedback loop whereby ISIL can capitalize on military or psychological victories to erode support
 for future US assistance or action.

Together, these preliminary insights point to a potential future with increasing state and sectarian rivalry combined with declining state governance capacity and opportunities for US support. We will be completing this analysis over the next 45 days, in support of the larger SMA effort.

ISIL'S Evolved Irregular Threat: John Watts³⁵ (Noetic Corporation)

In 2011, Noetic conducted the Evolved Irregular Threat Project (EITP) for the Rapid Reaction Technology Office (RRTO) within the Office of the Secretary of Defense (OSD). The project's intent was to assess the potential future operational capabilities of a range of non-state actors (including criminals, terrorist networks, insurgent military forces, piracy networks, and militias) in order to broadly inform future Department of Defense (DoD) technology development efforts. The project consisted of a deep analysis of prominent irregular group's capabilities (in particular Hezbollah, LeT, and LTTE), which was then combined with emerging technology trends to create a "best of" future irregular force with near-state like capabilities. The project then conducted a series of measure-countermeasure war-games to examine the interaction of friendly and adversary capabilities. The knowledge assembled during the study provided a model for assessing the capabilities and vulnerabilities of emerging or anticipated threat groups operating across multiple domains in the urban littoral battlespace.

The project identified a number of commonalities and trends, which were predicted to become increasingly prominent amongst irregular groups in coming years. While the project sought to understand the potential threat irregular groups could pose out to 2025, evidence of the forecasts becoming real was evident within months during the overthrow of Muammar Gaddafi. Both there and later in Syria, innovative ordinary citizens built potent weapon systems using a makeshift combination of commercially available technology and surplus military equipment. Examples include the mounting of machine guns or rockets onto ATVs, remotely controlled by a computer game controller. Further evidence emerged early in the Syrian civil war where various groups battled the Assad regime with make-shift tanks, not dissimilar to those built by Mexican Drug cartels, which in some cases had remote weapon stations again controlled by commercially available computer components. While the effectiveness and lethality of these systems is questionable, they nonetheless demonstrated that irregular groups could and would innovate in order to close the technology gap when fighting a superior military force.

While ISIL's claim to be a reborn Caliphate is arguable, thanks to the inclusion of many ex-Baathist party members in its ranks and the seizure of Iraqi government and military equipment, it has become a close approximation of an actual state. It controls territory, manages the economy, generates a relatively large revenue stream, and regulates the population and society it controls. If we are to examine

http://defensetech.org/2011/07/10/rebel-tech-four-wheelers-and-rockets/

³⁵ john.watts@us.noeticgroup.com

³⁶ Alan Taylor, "DIY Weapons of the Libyan Rebels", *The Atlantic*, Jun 14, 2011,

http://www.theatlantic.com/photo/2011/06/diy-weapons-of-the-libyan-rebels/100086/

³⁷ Steve Johnson, "Libyan Rebels Build Nifty Remote Control Guns", *The Firearm Blog*, June 23, 2011, http://www.thefirearmblog.com/blog/2011/06/23/libyan-rebels-build-nifty-remote-control-guns/

³⁸ John Reed, "Rebel Tech: Four Wheelers and Rockets", *Defense Tech*, July 10, 2011

³⁹ Robert Beckhusen, "Playstation-Controlled DIY Tank May Be The Wildest Weapon Yet In The Syria War", Wired, October 12, 2012, http://www.wired.com/2012/12/rebel-armor/

⁴⁰ Mitch Swenson, "Check Out These Homemade Kurdish Tanks: They're Terrible", War is Boring, https://medium.com/war-is-boring/check-out-these-homemade-kurdish-tanks-86459f92e161

irregular states with near state like capabilities, ISIL is currently at the pinnacle. Yet, there has been a very low level of innovation demonstrated by ISIL to date in open reporting. After the seizure of Iraqi military bases, it was feared that with access to high-end conventional weapon systems ISIL would be near unstoppable. This has thankfully not eventuated, and, in fact, since the seizure of that equipment they have suffered some high profile and notable military defeats. Air strikes have certainly degraded some of their capabilities, and no doubt the large equipment's vulnerability to such strikes limits ISIL commander's willingness to deploy them. Nonetheless, ISIL has not only failed to innovate effectively to increase their military lethality as other irregular groups have, but have also failed to fully employ the conventional assets at their disposal.

This analysis is not limited to use of military force. The EITP effort mapped non-state groups across a spectrum of control, from coercive (combat capabilities) through administrative (governance capabilities) to persuasive (political and propaganda capabilities). The analysis used the same methodology as EITP, mapping capabilities and then building a center-of-gravity model to better understand the nature of the threat and allow like-for-like analysis. The objective, however, is not to identify a specific defeat mechanism but to understand the broader and future implications. Irregular groups learn from each other's experiences and adopt successful tactics and techniques. By separating out capabilities and innovations and examining their potential broader utility, we can generate an idea of characteristics that will shape other irregular threats in the coming years.

Coercive Capabilities

As discussed above, when compared with historical near-state irregular groups, ISIL has demonstrated lower levels of combat innovation. Whereas the Liberation Tigers of Tamil Elam (LTTE) were able to build a crude air force by modifying civilian platforms, ⁴¹ ISIL reportedly has several helicopters and even fighter jets ⁴² (Mi17, UH-60 Blackhawks, MiG-21s ⁴³) from the seizure of Iraqi military bases, yet do not appear to have used them. Issues of maintenance and military readiness are likely key factors in their limited use, which may be a reflection of the lack of a state support, or a lack of intent or ability to invest in the capability. ISIL did appear to be utilizing seized heavy artillery, but targeting by US air strikes has degraded their stockpile and their vulnerability seems to have reduced willingness to deploy them. ISIL has evolved existing tactics to create combat effects by other means, for instance utilizing waves of suicide bombers in lieu of artillery bombardment and using armored vehicles as Vehicle Borne Improvised Explosive Devices (VBIED) ⁴⁴ to reduce the risk that they are stopped before reaching their target. They have also revived older techniques such as tunneling under hard points and using

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⁴¹ Paul French, "The Tamil Tigers", *Air-force Technology*, September 14, 2007, http://www.airforce-technology.com/features/feature1270/

⁴² Dave Majumdar, "Syrian Military Claims to Have Destroyed Two ISIS MiGs", *USNI News*, Aviation, October 22, 2014, http://news.usni.org/2014/10/22/syrian-military-claims-destroyed-two-isis-migs

⁴³ Bill Roggio, "Islamic State Documents Takeover of Syrian Airbase", Long War Journal, August 27, 2014, http://www.longwarjournal.org/archives/2014/08/islamic_state_photos.php

⁴⁴ "ISIS Captured 2300 Humvee Armored Vehicles from Iraqi Forces in Mosul", *Agence France Presse*, *The Guardian*, May 31, 2015, http://www.theguardian.com/world/2015/jun/01/isis-captured-2300-humvee-armoured-vehicles-from-iraqi-forces-in-mosul

subterranean explosives to destroy them.⁴⁵ These tactics may be highly effective, and only possible by a group that has a cadre of deeply committed fighters, but the underlying concept remains essentially conventional. Another ISIL combat strength, 'terror shock value,' turns their strength of effective application of persuasive capabilities (information operations) into a combat multiplier, but again it is not a new concept.

The most distinctive feature of early ISIL tactics was that it constituted a hybrid⁴⁶ form of conventional and irregular tactics. It could be argued that the innovation is present not in either form of combat, but in the melding of the most effective elements of both. It could also be argued that while other irregular groups, including those they have fought against, have utilized more 'innovative' home made weapon systems, those systems have not proven effective on the battlefield and thus ISIL are right not to adopt them. Another potential reason could be that ISIL's effectiveness and territorial gains have meant that they haven't needed to be innovative to succeed. Yet, they have been defeated in a number of high profile battles (Kobani, Tikrit).⁴⁷ Whether combat innovations could have given ISIL the edge to win in those battles is instructive either way: if high-end or innovative capabilities could have tipped the battle, then perhaps their inability to think creatively and adapt is a potential weakness. Conversely, if they are unlikely to have been decisive, then perhaps we currently place too high a value on irregular innovation.

ISIL's irregular/conventional hybrid approach could be explained by the make-up of the group: a blend of extremist terrorists and former Baathist state officials. Considering the influx of fighters from around the world, however, it is surprising that there is not a higher degree of creativity evident. Robotics and home-made precision guided rockets were key focal points in the EIT Project, and Hezbollah has already provided an example of a sub-state group utilizing drones during combat. 48 Yet, while ISIL has used the technology as part of their persuasive efforts, it is not clear that they are yet using them for battlefield surveillance, direct attacks, or other tasks. While many future irregular groups will seek to emulate ISIL's success, it is unlikely that they will gain new ideas on waging combat from this case study.

Administrative Capabilities

ISIL is certainly not the first irregular group to seek to govern the area they control, but they appear to have had a detailed plan to achieve it from the outset. This has been comprehensive and aided to a large degree by the presence of former Baathists officials in their ranks. They have sought to shape society through not only issuing laws, religious interpretations, and decrees, but in setting up schools and managing the administrative functions of a ruling government. While their execution and effectiveness

⁴⁵ Marcus Weisgerber, "ISIS is Using Tunnel Bombs in Iraq", *Defense One*, June 8, 2015, http://www.defenseone.com/threats/2015/06/isis-using-tunnel-bombs-iraq/114730/?oref=search_JIEDDO

⁴⁶ Bryan Price, et al, "The Group that Calls Itself a State The Evolution and Challenges of the Islamic State", Combating Terrorism Center, West Point, December 16, 2014, https://www.ctc.usma.edu/posts/the-group-that-calls-itself-a-state-understanding-the-evolution-and-challenges-of-the-islamic-state

⁴⁷ Jessica Lewis McFate, "The ISIS Defense in Iraq: Countering an Adaptive Enemy" Institute for Study of Warfare, *Middle East Security Report*, no. 27, May 2015, http://www.understandingwar.org/report/isis-defense-iraq-and-syria-countering-adaptive-enemy

⁴⁸ Peter Bergen, Emily Schneider, "Hezbollah Armed Drone? Militant's New Weapon", *CNN*, September 22, 2014, http://www.cnn.com/2014/09/22/opinion/bergen-schneider-armed-drone-hezbollah/index.html?iref=allsearch

at running governmental services is questionable,⁴⁹ their approach will likely provide a model for others in the future. The establishment of structured and hierarchical governance⁵⁰ also gives a perception of legitimacy and real depth.

One of ISIL's greatest innovations is the way they have financed and funded their activities.⁵¹ Even before it managed to gain control of large portions of Western Iraq, ISIL was being referred to as the world's richest terrorist group.⁵² Through seizure of primary resource extraction sites, basic refining, smuggling, looting of antiquities, taxing of populations under their control, and seizure of banks and other assets, ISIL is able to generate large revenues,⁵³ which, importantly, is independent of State backing. This means that ISIL is free to pursue its own goals free of State-sponsored constraints, limitations, or directions. In particular, ISIL's detailed book keeping⁵⁴ and expense tracking has been a key characteristic of their approach. While the resources available will differ in other regions or contexts, ISIL's planning for administrative governance and approach to revenue generation and application will likely provide a model for other groups in the future.

Persuasive Capabilities

ISIL has become the world's best-known and most infamous terrorist group because of its persuasive capabilities. Its use of social media to identify and connect with potential supporters, recruit, broadcast its own narrative, and shock and horrify its adversaries has been well covered, ⁵⁵ At a deeper level, its ability to develop a cohesive narrative that suits its purpose, produce slick and high quality vehicles for that narrative (Dabiq, online videos), and distribute them globally surpasses any other group in history. Their approach is not without precedent. Other national movements or protest groups (Free Tibet, East Timorese independence) have in the past been very successful in keeping their issues in the public eye and pushing for political change. Arab groups fighting Israel (Fatah, Hezbollah, Hamas, et al.) have long been skilled at manipulating specific incidents and violence generally to their own ends. Al Qaeda and other Islamic Extremists have used video sermons and violence to spread their message and gain support for over a decade. But none have done it as comprehensively and with such sophistication as

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⁴⁹ Ghaid Sary, "Inside Mosul: Residents Recount How IS Took Over Their Lives", *BBC News*, Middle East, June 9, 2015, http://www.bbc.com/news/world-middle-east-32957861

⁵⁰Michael Fitzsimmons, "Governance, Identity and Counterinsurgency: Evidence from Ramadi and Tal Afar", March 2013, Strategic Studies Institute, pp 123-126, http://www.strategicstudiesinstitute.army.mil/pdffiles/pub1150.pdf ⁵¹ Financial Action Task Force (FATF), *Financing of the Terrorist Organisation Islamic State in Iraq and the Levant (ISIL)*, February 2015, www.fatf-gafi.org/methodandtrends/documents/financing-of-terrorist-organisation-isil.html ⁵² Terrence McCoy, "ISIS Just Stole \$425 M, Iraqi Governor Says, and Became the 'World's Richest Terrorist Group", *The Washington Post*, June 12, 2014 http://www.washingtonpost.com/news/morning-mix/wp/2014/06/12/isis-just-stole-425-million-and-became-the-worlds-richest-terrorist-group/

⁵³ United Nations, Analytical Support and Sanctions Monitoring Team, "The Islamic State in Iraq and the Levant and the Al-Nusrah Front for the People of the Levant: report and recommendations submitted pursuant to resolution 2170(2014)", November 2014 http://www.un.org/en/ga/search/view_doc.asp?symbol=S/2014/815

⁵⁴ Hannah Allam, "Meticulous Bookkeeping Bolster's ISIL's March on Baghdad", *Sydney Morning Herald*, July 4, 2014, http://www.smh.com.au/world/meticulous-bookkeeping-bolsters-isils-march-on-baghdad-20140704-zsvyf.html

⁵⁵ Jacob Siegel, "ISIS is Using Social Media to Reach YOU, Its New Audience", *The Daily Beast*, August 31, 2014 http://www.thedailybeast.com/articles/2014/08/31/isis-s-use-of-social-media-to-reach-you-its-new-audience.html

ISIL. It could be argued that there is no true innovation in the way they have done this, and that they have just improved upon and enhanced existing approaches. But either way, the use of carefully developed, targeted, and well produced narrative vehicles spread through social and traditional media will be a model all irregular groups will seek to utilize in the future. The fact that ISIL has been able to use the 'terror shock value' that this persuasive capability provides as a combat multiplier on the ground further reinforces the benefits of this approach. This trend was forecasted through the Evolved Irregular Threat Project as a key future characteristic of future irregular warfare and, in this area at least, ISIL has demonstrated what an evolved irregular threat will look like.

The Strategic Dimensions of the Competition between the Islamic State of Iraq and the Levant and al-Qaeda: Dr. Daveed Gartenstein-Ross,⁵⁶ Ms. Bridget Moreng, and Mr. Nathaniel Barr (Valens Global)

Abstract

- Al-Qaeda and ISIL have developed strategies and tactics that differentiate one from the other, even where the strategy plays no direct role in their dyadic conflict.
- Al-Qaeda has adopted a covert approach that limits its short-term risk as part of a long conflict.
- ISIL's strategy is much riskier than al-Qaeda's as they establish their proto-state through extreme violence and bold military actions focused more on short-term objectives.
- Though ISIL has captured much of the media attention, al-Qaeda remains a powerful and formidable organization that embraces the current narrative of its demise.
- Al-Qaeda's strategy is more likely to succeed in the long-run if it remains clandestine and risk-averse.

Introduction

The Islamic State of Iraq and the Levant (ISIL) and al-Qaeda (AQ) share a common objective: the establishment of a caliphate that unites the peoples of the Muslim world under a government ruled by *sharia* law. AQ has enjoyed primacy among jihadist groups toward this goal for well over a decade though a strategy of committed, covert, and incremental undermining of the regimes in the Middle East and North Africa region (MENA). The rise of ISIL has challenged AQ's primacy through their audacious and violent military strategy, purposeful poaching of AQ affiliates, and the broadcasting of a winner's message.

Each group's global strategy is shaped in part by the other. ISIL sees AQ as too cautious and has adopted a strategy that juxtaposes itself against AQ, culminating the establishment of an actual proto-state. AQ observes the challenges that ISIL faces through its action—primarily ISIL's take-all-comers approach and use of extreme violence—and believes that ISIL's boldness will only subject the fledgling group to counterattacks and eventual defeat. The competition between al-Qaeda and ISIL is likely to create vulnerabilities for both organizations, and thus opportunities for the US to exploit them. Our study outlines groups' strategic doctrines, their current strategies and tactics, and possible ways in which the competition will play out.

Al-Qaeda's Strategy

Al-Qaeda's methodology emphasizes a quiet presence and deliberate movement across multiple areas of operation. In order to protect its operations, al-Qaeda has systematically sought to conceal the size of its network and to downplay its capabilities across the MENA region. The group has pursued this objective by masking its involvement in emergent theatres of combat, establishing covert relationships with unacknowledged affiliate organizations, and frequently working through front organizations that do not possess the potentially divisive al-Qaeda moniker. The group's meticulous model for growth has

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enabled it to entrench itself across several theaters while garnering support within the broader jihadist movement. AQ is willing to accept narratives of its decline to deflect attention on its activities.

AQ's post-Arab Spring organizational plan is defined by three critical elements. First, AQ has implemented a population-centric approach, which includes the gradual implementation of *sharia* law, in order to gain popular support from the jihadist community and the Muslim population more generally. Second, AQ works and cooperates with other militant groups on the ground in order to embed itself within the fabric of local communities. Third, AQ employs a cautious military strategy and covert growth model. Its efforts to expand through clandestine networks and front organizations are intended to reduce the organization's exposure to counterinsurgent forces, including the United States and Sunni regimes in the Middle East, and to allow the group to expand its presence without alienating local populations. Effective implementation of these strategies has positioned AQ to destabilize weak Arab governments and seize control of ungoverned spaces in the anarchic MENA environment.

ISIL's Strategy Against al-Qaeda

ISIL's approach to global jihadism is largely the opposite of AQ's. The group attempts to dominate the jihadist landscape, forcefully implements austere *sharia* law in the areas it controls, employs a largely indiscriminate military strategy, and maintains an overt presence in its areas of operation. ISIL's strategy against al-Qaeda largely centers around two methods: 1) publicly exposing al-Qaeda's areas of vulnerability through anti-AQ messaging, and 2) appealing to al-Qaeda's affiliates with aims of poaching groups, members, and potential recruits from AQ's orbit. In employing these two strategies, ISIL seeks to present itself as the sole legitimate jihadist group, and absorb AQ's network into its own.

Much of ISIL's current competition with al-Qaeda takes form in anti-AQ messaging via social and conventional media in order to delegitimize the organization. ISIL's objective in this regard is to employ an "out with the old, in with the new" narrative about al-Qaeda, hoping to sway the broader jihadist movement to its side. The group often criticizes al-Qaeda for its failure to re-establish the caliphate and its unwillingness to immediately implement *sharia* law in its areas of control. To further this message, ISIL advertises its state-like structure, its successful implementation of strict *sharia* law, and its ability to provide for and protect Islamic State citizens. In doing so, the group presents itself as the more successful of the two, and therefore the most attractive group to join.

ISIL has largely appealed to other jihadist networks by creating the perception that it has momentum. This strategy has been implemented in Africa, where ISIL seeks to snatch up AQ affiliates across the continent. By creating the common perception that the group enjoys constant success, it increases its chances of gaining the allegiance of intact jihadist networks that it can fold into its own. ISIL drives this narrative of winning through its audacious military strategy of coordinated offensives on multiple fronts, risking long-term stability for the perception of momentum.

Possible Near-Term Futures

The competition between AQ and ISIL may result in one of several possible near-term futures:

Future 1: ISIL remains brutal while AQ network goes darker

The most likely future is that ISIL will remain a largely overt, brutal organization while AQ becomes more covert, exploiting its adversaries' willingness to view it as a spent force. Because AQ has traditionally been a covert and clandestine actor, the group sees ISIL's ostentatious approach as a strategic opportunity to rebrand itself as a more moderate organization. Osama bin Laden famously wanted to rebrand AQ prior to his death, believing that the rashness and brutality it had become known for—particularly through the actions of the Islamic State's predecessor, al Qaeda in Iraq—had caused it to lose support in the Muslim world. ISIL's emergence on the world stage has presented AQ with an opportunity to reinvent itself in order to gain more support throughout the MENA region. The group is therefore likely to de-emphasize its brand, increase the use of shadow groups that lack an obvious AQ affiliation, and rekindle a robust relationship with Sunni states like Saudi Arabia, Qatar, and Kuwait. AQ is content for ISIL to continue to draw the military attention of global and regional actors and takes few steps to directly combat ISIL. Meanwhile, ISIL's insistence on proto-statehood and continued use of excessive violence exposes this group to continued coordinated counterattacks that are likely to degrade the organization significantly from its current standing. A lack of palpable momentum will in turn result in the loss of support of foreign fighters and affiliates to AQ.

Future 2: Increased overt competition

AQ may feel pressure from ISIL to become more overt, both organizationally and militarily, which may result in strategic outbidding between the two groups. In this scenario, both AQ and ISIL may be incentivized to conduct attacks against regional governments, and perhaps against the West in order to showcase their abilities. The competition between the two organizations may force AQ to become more overt than it has traditionally been, including the declaration of its own caliphate, that its affiliates more explicitly adopt the al-Qaeda brand, reaffirm allegiance, and ask its associates to publicly pledge allegiance to the organization. This exposes both groups to military operations from local and global powers with AQ and ISIL openly engaged in a three-way war. Therefore, this scenario is less likely than the first.

Conclusion

AQ's strategy better positions it for the long-term, but ISIL's rise poses challenges that could severely weaken AQ in the short-term, limiting the ability for it to exploit its long game. ISIL's continued use of brutality will cause the international community to focus upon it, while AQ will continue to maintain its strength in the shadows with some MENA states possibly supporting it as the lesser of two evils. It is essential that the US understand the shape of both networks in order to exploit cleavages in the broader jihadist movement in the context of the AQ/ISIL competition.

⁵⁷ Jason Burke, "Osama bin Laden Considered Rebranding al-Qaida, Documents Reveal," *The Guardian,* May 3, 2012.

Quantitative Assessments

Syria Stability Study Initial Overview of Findings: (TRADOC G-27 Athena Study Team Data Science, Models, and Simulations Operational Environment Laboratory)

Summary of Syria Stability Study

Special Operations Command Central (SOCCENT) and the Strategic Multi-Layer Assessment (SMA) J39 office requested that the TRADOC G-27 Operational Environment Laboratory conduct an Athena simulation on the factors that will affect political, military, economic, and social stability within Syria once a durable peace has been established post-ISIL.

This report provides an initial overview of the conditions and assumptions, insights, and results from Athena simulation runs.

The study used the Athena simulation to consider four potential Use Cases for Syria over a simulated five-year period.

Conditions and Assumptions

SOCCENT and the SMA team directed the Athena study team to assume that a Train and Equip mission of the Moderate Syrian Opposition (MSO) in Syria is successful and that some degree of durable stability has been established in the country. Accordingly, the Athena study set the following conditions in order to examine the four potential Use Cases:

- The start date for all Use Cases was 01 January 2018;
- ISIL had been militarily defeated and the remnants of its forces numbered no more than 1,500 in Syria.
- The Moderate Syrian Opposition (MSO) are well trained and well equipped and number at least 3,000.
- The economics in Syria have recovered from the civil war and are at a level similar to those of 2010.
- Regional countries have organized into Sunni and Shia blocs:
 - o the Shia bloc is led by Iran, with a sizeable Lebanese Hezbollah component in Syria allied with the Government of Syria.
 - o the Sunni bloc is led by Saudi Arabia and deploys expert military trainers, rather than its own force group, to train MSO groups in Syria.
- Sunni and Shia bloc countries intervene in Syria with either Low or High intensity and the
 Government of Syria responds to these interventions with either Low or High intensity,
 designated as No War Footing or War Footing, respectively. For the purposes of this study,
 intensity refers to the amount of money and manpower used by an actor. The four Use Cases
 examined with the Athena simulation are referred to as Low-No War Footing, Low-War Footing,
 High-No War Footing, High-War Footing.

Insights

Based on the four Use Cases examined, three insights were gleaned from an analysis of the results from Athena simulation runs:

- 1. The Government of Syria is economically vulnerable and requires roughly \$4 billion annually in international assistance and remittances in order to field a proficient military force while also providing governmental services such as healthcare and infrastructure development. With less than \$4 billion annually in economic assistance, the Government of Syria will likely reallocate funds away from non-military government services in order to support the sustained deployment of military forces in the country. This will have a detrimental effect on the support it receives from the population in the areas already under its control.
- Raqqa City, Raqqa Governorate, and Deir al-Zour Governorate will likely remain outside the
 control of the Government of Syria regardless of the actions taken by the Government of Syria—
 no actor will control these areas. High intensity military interventions from Sunni and Shia bloc
 countries in these areas would provide a moderate degree of economic stability.
- 3. A "peace accord" between the MSO and any successor group to ISIL, where both groups do not fight each other, would further erode the control of the Government of Syria. Should these two groups no longer attrit each other's forces, the Government of Syria would likely lose control of Aleppo within three years.

Results

In all Use Cases, the Athena simulation placed Raqqa City and Raqqa Governorate outside the control of the Government of Syria. No actor controls these areas for the duration of the simulation in any Use Case. In three out of four Use Cases, the Athena simulation placed Deir al-Zour Governorate outside the control of the Government of Syria. In the Low-War Footing Use Case, the Government of Syria is able to take control of Deir al-Zour after one year and is able to maintain control of the governorate for the remainder of the simulated five year run.

In both the Low-No War Footing and High-No War Footing Use Cases, the Government of Syria is unable to deploy forces nationwide between 55 and 62 weeks from the start of the simulation. The government is economically unstable and can only contest control of some geographic areas.

In both the Low-War Footing and High-War Footing Use Cases, the Government of Syria is able to deploy forces nationwide after 62 weeks from the start of the simulation but the government remains economically unstable. It is, however, able to contest control of all geographic areas of Syria.

When the Government of Syria initiates airstrikes on areas that are held by non-governmental forces opposed to the Government of Syria, there is little effect on the control of the areas where airstrikes take place. For example, if Raqqa City falls under control of the MSO, airstrikes by the Government of Syria do not dislodge the MSO from control.

The Government of Syria has tenuous control of Suwayda Governorate in all Use Cases.

Analysis of the ISIL Influence Network: Mr. Randall Munch, Mr. Chris Worret, Mr. Cody Moreno, Mr. David Miles (TRADOC G27 [TBOC])

Summary of ISIL Influence Network Study

In support of Special Operations Command Central (SOCCENT) and the Strategic Multi-Layer Assessment (SMA) effort led by the J39 office, TRADOC G27 Training Brain Operations Center (TBOC) conducted an analysis of a subset of the ISIL network that disseminates information in order to influence others.

The intent of this analysis was to produce a proof of concept product showing how social media analysis can be combined with social network analysis and critical factors analysis in order to identify key nodes, vulnerabilities, and potential friendly force actions to exploit these vulnerabilities within the ISIL network.

Analytic Process and Results

G27 (TBOC) used key word searches to identify and study samples of English-language Twitter data from ISIL members who had large numbers of followers. After reviewing content and identifying ISIL members with large numbers of followers on Twitter, G27 selected one Twitter account and identified a network of people related to that account. G27 then imported the network into the Organizational Risk Analyzer (ORA) software and conducted social network analysis (SNA) of this network. G27 also conducted critical factors analysis to identify potential vulnerabilities in ISIL's use of social media and potential friendly element actions (FEAs) to exploit them.

It is assumed that if G27 is able to conduct this process with limited resources, a coordinated, whole of government effort could achieve significant effects by applying this same process to a larger data set.

A more detailed description of the analytic process follows.

- Key word searches related to ISIL were conducted to identify supporters active on Twitter and located outside the US.
- Using the software tool "Follow the Hashtag," G27 identified top users of searches and reviewed their content.
- G27 selected one alleged ISIL member, @MuwahidahZa, with a large number of followers, then collected the usernames of the Twitter users @MuwahidahZa was following, and also his followers.
- The information was used to assess message content and create a network of people being influenced by @MuwahidahZa.
- G27 imported the resulting network of 2,079 accounts and 4,764 links into the ORA software and conducted social network analysis to identify key nodes for achieving desired effects on the network. Results are shown in Figure 1 below.
- G27 also conducted a critical factors analysis (CFA) to identify potential ISIL vulnerabilities and friendly force actions to exploit them. Results are shown in Figure 2 below.

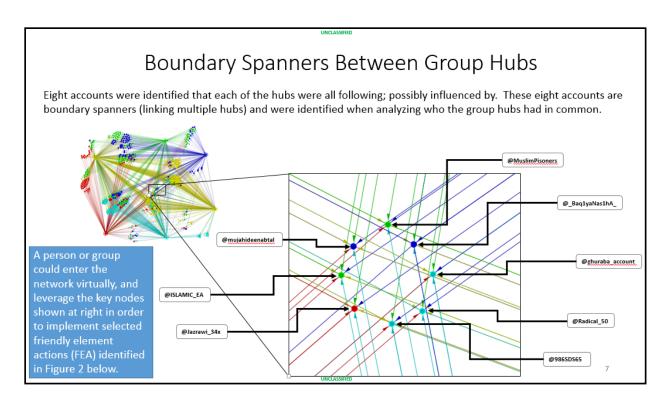


Figure 1. Key Nodes Identified through Social Media Analysis and Social Network Analysis.

Strategic Objective		CR	Specific Activities	Friendly Element Actions (FEA)
ISIL Propagation of Influence thru Narrative	Develop Narratives that resonate with target audiences	Leverage Cultural Understanding	Utilize people with local knowledge to develop narratives	Develop better narratives by leveraging a team of experts
Glossary of Acronyms: CC=Critical Capabilities CR=Critical Requirements CV=Critical Vulnerabilities IC=Information Operations MAM=military age males TA=Target Audience			Propagate narratives that align with cultural norms	Hijack ISIL narratives that could be aligned with Western values
		Gain active support of radicalized people	Disseminate videos of beheadings and other types of extreme violence	Leverage dissonance w/ Islam as a religion of peace
			Advocate ISIL as the Caliphate, with an Apocalyptic vision	Expose the truth about ISIL's origin and the gap between its propaganda and its reality
		Gain Access to MAMs (and other specific target audiences)	Militaristic Video Games	Identify high-risk persons for radicalization and provide alternate Blue social networks
KEY POINT 1: These results of critical factors analysis conducted by G27 could be further developed and refined by a team of selected experts. KEY POINT 2: Potential FEA (right) represent weys to counter SML's by maneuvering in the numarius sauce.			Use those who self-identify as being ISIL	Monitor those who identify themselves as being ISIL
			Disseminate narratives that appeal to specific desires, such as adventure.	Enlist those who joined, but then left ISIL because of dissatisfaction
	Align words, deeds, and Images	Use of Tiered IO Structure	Conduct Strategic Media Campaigns	Infiltrate ISIL networks virtually
		Use of Tiered IO Structure	Conduct Operational Media Campaigns	Infiltrate ISIL networks virtually
KEY POINT 3: Propagation of the narrative is one of many SIL strategic/perational objectives. We would need to exploit several of them simultaneously to maximize offects:		Use of Tiered IO Structure	Conduct Local Media Campaigns	Enlist those who joined, but then left ISIL because of dissatisfaction
	Use of Media	Use of Social Media	Hijack popular Western Hashtags	Highjack ISIL hashtags
		Use of Social Media	Disseminate tailored and untailored messages that resonate w/ TAs	Use Social Media Analysis, Social Network Analysis, and other types of analysis to identify narratives that resonate
EY POINT 4: These findings could be used to develop an engagement plan to maneuver with effect against		Use of Social Media	Use file sharing sites	Exploit content via file corruption
		Use of File Sharing Sites	Use accounts that hop when shut down	Identify ISIL support based on spikes in number of followers
SIL in the namative space.			UNCLASSIRED	

Figure 2. Results of Critical Factors Analysis.

Insights

Based on this proof of concept, three insights were identified during this limited-scope proof of principle effort:

- 1. The analytical process is sound. The combination of social media analysis (SMA), social network analysis (SNA), and critical factors analysis (CFA) facilitates the identification of specific friendly element actions that could be taken to exploit specific ISIL vulnerabilities.
- 2. Although these types of analytical efforts are likely occurring now within the US Government, they are probably not being conducted as part of a single, synchronized effort. Such an approach would be required to have maximum effect.
- 3. The type of analytical approach described above would support an operational approach to create desired effects on the ISIL network without deploying forces into the operational area. It represents, therefore, a form of maneuver that could be conducted now.

Recommendation

Based on this proof of concept, a small hand-selected team of experts from specific organizations using state of the art software tools could operationalize this process. The scale of the operation could then be expanded as needed to achieve desired effects on the ISIL influence network.

ISIL's Network of Regional and International Relationships: Dr. Philip B. K. Potter⁵⁸ (University of Virginia)

Key Insights

- ISIL's regional network is challenged by outsider status and reliance on foreign fighters.
- ISIL's international network is fragile because it is driven by money rather than religious or ideological legitimacy.
- ISIL's centrality in the international network of militant organizations is much more fragile than al Qaeda's was.
- ISIL is more vulnerable to military disruption than al Qaeda.

Introduction

This research seeks to identify ISIL's cooperative and competitive relationships with other militant non-state actors. The key finding to date is that ISIL's network of relationships with other militant actors is unusually complex. This is the result of specific strategies that the organization has employed to overcome structural impediments to its regional dominance. Specifically, owing to its outsider status, ISIL lacks deep roots in local communities and suffers from fraught and competitive relationships with organizations that have these roots. ISIL has countered this deficiency by relying on money (from predation and resource extraction) and expertise (from imported foreign fighters and ex-Iraqi military) to compel compliance from potential competitors. This strategy requires that the organization be perceived as legitimate in the eyes of potential foreign recruits who are needed to tip the balance of power toward ISIL and away from other regional actors. Until 2014, ISIL was able to rely on a combination of residual legitimacy from the al Qaeda mantel and sophisticated Internet propaganda to fill this need. However, a complete schism with al Qaeda leadership led ISIL to develop its own web of far-flung international affiliates in order to bolster its claims to legitimacy in this global community. We have identified over 30 such relationships, many of which were essentially purchased with cash, which have emerged in the last year alone.

ISIL's Local Network

ISIL's local network is highly fluid and presents one of the organization's most fundamental challenges. It appears that the lesson that ISIL took from the Sunni Awakening is that it is vulnerable when indigenous groups with deeper roots in the community turn against it. In response, ISIL has been relatively intolerant of independent poles of power within its sphere of operation. This has led to a dynamic in which ISIL attempts to envelope other organizations while the leadership of those organizations attempt to keep ISIL at bay. For example, we have identified cooperation, but primarily competition with Suqour al-Sham, an Islamic Front organization prominent in the Syrian civil war. Suqour al-Sham fought ISIL as outsiders, but suffered substantial damage. ISIL's organizational success, stemming largely from the expertise of Iraqi ex-military and hardened foreign fighters, allowed it to simultaneously attract those at the lower levels of Suqour al-Sham and compel the leadership at the top of the organization. This same

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model of organizational domination holds in the relationships with other regional actors such as Ahrar al-Sham and the Free Syrian Army.

The challenges are not limited to the Sunni tribes and local organizations. ISIL's history of confrontation with al Qaeda's preferred affiliate in Syria, Jabhat al Nusra, introduced competition for both legitimacy and resources. Over the past three years we have documented cooperation between al Nusra and ISIL in 2012, shifting to competition in April 2013, back to cooperation by October of 2013, and a reversion to competition by April of 2014. Even this is something of a simplification, as within these periods there exists simultaneous cooperation and competition, depending on location and circumstances.

As a result, while ISIL has a substantial set of local relationships with organizations and tribes in Iraq and Syria, because these relationships are backed by domination and coercion they are fragile and a potential liability. This stands in contrast to our general finding that substantial networks of relationships are typically durable and provide the organizations at their center with significant benefits. In the case of ISIL and its regional partners, both sides appear to view one another with a certain amount of skepticism and the belief that the relationship might not survive an organizational setback. The result is bandwagoning—when ISIL is ascendant others come toward them, but when they are in retreat their regional "allies" pull away from them as well.

ISIL's International Network

ISIL's strategy for dealing with its tenuous position in the regional network of militant actors has been to outcompete potential rivals by matching the dedication of foreign fighters with the expertise of Iraqi exmilitary. These sources of strength are, however, somewhat at odds. Both Al Qaeda and AQI have traditionally viewed ex-Baathists with skepticism, and the presence of this group challenges a narrative of legitimacy based on religious and ideological authority. Until approximately the middle of 2014, it appears that ISIL was able to paper over this contradiction by obscuring the role of elements from Saddam Hussein's regime and by borrowing al Qaeda's legitimacy within the global jihadist network. This, combined with effective propaganda that targeted less sophisticated recruits (who were less concerned with these debates), allowed the organization to maintain and even grow the flow of foreign fighters.

The full break with al Qaeda's political and religious leadership put this model at risk. As leading jihadist thinkers such as Abu Muhammad al-Maqdisi began to publically turn on ISIL, there appears to have been a perception within ISIL that this was a fundamental threat to the global legitimacy on which recruitment relied. In response, beginning in the second half of 2014, ISIL rapidly assembled and independent international network in order to bolster its global legitimacy. However, while substantial (we have identified over 30 such relationships), the network is comparatively weak. The relationships are shallow and bought with substantial material resources from ISIL in exchange for affiliation from global actors.

Conclusion

ISIL's regional position has led it to a novel strategy that relies on one network of relationships (international) to manage another (regional). The organization draws on its resource base to incentivize

affiliates. This network of affiliates, in turn, legitimizes the organization and allows it to continue to recruit the foreign fighters that it relies on to dominate regionally. As shown in Figure 1 below, this process is precisely the opposite of the one employed by al Qaeda. As an organization, al Qaeda had a surplus of legitimacy stemming from its religious and ideological authority, but a relative deficit of resources. In response, the al Qaeda organization bestowed legitimacy on affiliates and used the resources that emerged from the resulting network to propel their operations.

Figure 1. Differing Network Affiliation Strategies of al Qaeda and ISIL



This distinction is important because it suggests that ISIL is particularly vulnerable to disruption of its ability to acquire and distribute resources. While it proved very challenging to contest al Qaeda's ideological authority and thereby undercut that organization's global position, state actors are better equipped for more traditional missions that target territory and resources. The implication is that ISIL may be relatively more fragile as the hub of the international jihadi/terrorist network than al Qaeda proved to be.

CTTSO MEADE ISIL Analyses: Dr. Dana Eyre⁵⁹ and Mr. Jordan Willcox (SoSA Corp)

Introduction

This chapter discusses a set of analyses that are being conducted as part of the Combatting Terrorism Technology Support Office's (CTTSO's) Model-Enhanced Analysis, Design, and Execution (MEADE) program. The primary purpose of the studies is to facilitate development of the MEADE approach by determining, in a real world context, how MEADE can most effectively support campaign developers. The secondary purpose—the one of most interest to readers of this report—is to support SMA in answering important questions regarding ISIL.

In the course of its SMA support, MEADE will ultimately employ a variety of models and empirical analytical techniques. The initial results, reported below, are based on two models—the US Army's integrated PMESII model (Athena) and CTTSO's Bargaining and CTTSO's Negotiation Model (BNM).

Over the course of the effort, the CTTSO analysis will:

- Explore the dynamics and possible evolution of the political-military coalitions relevant to the ISIL problem.
- Examine the interaction between information campaign, civil-military operations, and combat operations.
- Seek to understand the dynamics associated with governance and settlement guarantees in fostering stability during the conflict and after the defeat of ISIL.
- Identify the connections between the anti-ISIL fights in Iraq and Syria and the consequences of evolution in one sub-theater on the other.
- Explore the sustainability of the Assad regime, the evolution of force-ratios on Syria conflict evolution, and consequences of the sustainability of the regime on the evolution of post-conflict Syria.

Analytical Approach

The CTTSO analysis has, thus far, examined two elements of the ISIL problem and employed two different approaches.

The first analysis, which employed BNM, anticipates possible evolutions of the Middle East conflict at large, particularly the evolution of various coalitions of international actors under a variety of circumstances. This approach assumes that actors are rational utility maximizers, but that they possess imperfect understanding of other stakeholders. The model focuses on three key actor attributes: each actor's position on the issue under analysis, the level of influence each actor exerts relative to the issue, and the degree of importance (or salience) each actor attaches to the issue. It anticipates evolutions of bargaining situations based on the assumption that the value of issue positions is balanced (according to each actor's preferences) with the desire to join the "winning team," and assumes that positions will change based on this balance. If, for instance, an issue is of "high salience" (critical to the actor), the

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actor will hold to the substantive position despite many other actors having differing positions. If, on the other hand, the issue is of low salience, the actor will consider joining the "winning" team. In essence, the model seeks to anticipate the development of group positions based on the relative positions, interactor influence, and the importance attached to the issue by the various actors. It assumes that actors balance substantive position with the anticipated cost of confrontations and/or social pressure (this sensitivity being determined from a risk profile revealed by the actor's starting isolation). The model anticipates the evolution of the bargaining outcomes, it does not assume that the actors will come to an agreement or a consensus.

The second analysis, which employed Athena, seeks to acquire an understanding of the evolution of Syria. The model instantiation is similar to the one employed by TRADOC G-27; however, the analytical approach employed is quite different in terms of approach, scope, and methodology. In particular, the results here are based on a systematic search of the landscape (universe) of possible evolutions, and entailed many thousands (versus dozens) of model runs.

The analysis examined the evolution of Syria from the current time frame. For study purposes, "Day 0" was selected as approximately 1 April 2015, and the scenario represents the unclassified situation as of that date. The study sought to identify likely longer-term evolutions of the situation, based on variations in troop strength and activity in the near- and medium-term, along with variations in other key variables (e.g., level of humanitarian aid).

Caveats

The analyses presented here are subject to a range of caveats.

First, it is important to observe that the results are preliminary and may be revised in subsequent analysis. The analysis reported below is based on unclassified, open source materials. The BNM data was generated by the CTTSO team based on these materials; the Athena model by TRADOC G-27 Operational Environment Laboratory and CTTSO. All data and model instantiations are preliminary and available for review. The Athena model instantiation is comparable to the conflict representation in the TRADOC G-27 study (reported earlier in this paper).

Second, it should be recognized, as always, that the models and methods employed have both strengths and weaknesses. Athena, for instance, deals effectively with insurgency and counter-insurgency conflict, and conflict transformation / stability operations issues. However, it is not a maneuver model, and the movement of forces is defined by, and controlled by, the analyst. Consequently, Athena may underestimate the ability of forces to concentrate in given areas and achieve temporary local dominance. In a similar vein, BNM does not account for psychologically extreme commitments to positions from a "sacred values" motivation. In BNM, even those highly committed to a position are not motivated by a willingness to "die in a ditch" but, rather, are inclined to accept the costs of ostracism from a winning coalition on the issue. Consequently, this model may over-estimate the willingness of those motivated by "sacred values" to move substantive positions and join winning coalitions.

Third – and needless to say, perhaps – it must be kept in mind that model results should not be taken as "the bottom line" (i.e., model produced results are by no means sacrosanct). Models do, in fact, predict

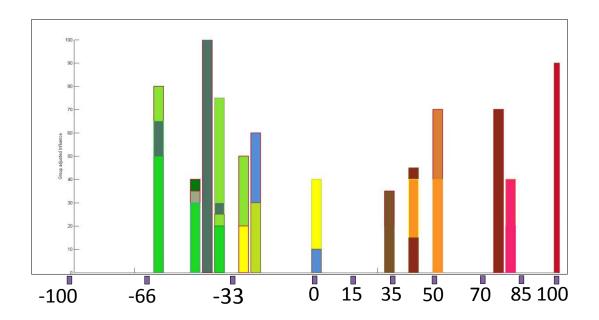
the future, but the prediction is based on theory and data they employ. Their advantage is that the structure of their predictions is clear, their disadvantage is that their results are, in turn, limited to the conditions and issues addressed by the theories used. The proper role of models, as we see it, is to support an analytical dialog. Specifically: the models should first be run to suggest possible evolutions of a situation. Despite being limited in the factors considered, the model predictions will be explicit, and will assist greatly in identifying non-intuitive behaviors, centroids of disagreement, and departure points for critical discussions. These discussions will lead, in turn, to a clarification of arguments, possibly new questions, and possibly new directions that should be explored. The role of models, thus, should not be that of oracle, but of a witting facilitator.

Analysis Result #1: International Coalition Dynamics (based on BNM)

This analysis sought to understand the possible evolution of coalitions in the Middle Eastern region with regard to the fundamental shape of the region in the future. Actor preferences for the future of the region were arrayed along a dimension of "sectarian transformation," with a Sunni caliphate vision anchoring one extreme, and a "Shia ascendency" (representing both domestic transformations in Iraq and Syria, as well as in other areas in the Middle East [e.g., Bahrain] and robustly increased Iranian influence) anchoring the other. The neutral region in between the extremes was defined as a preference for inclusive, representative, accountable government, no sectarian domination, and full participation for all populations in their respective societies.

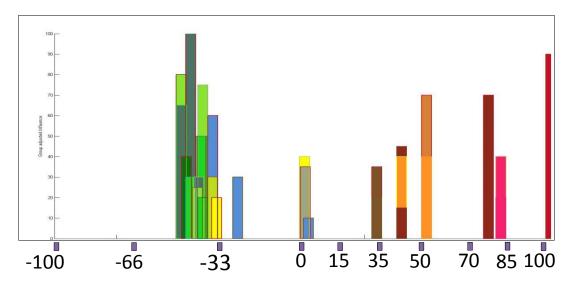
Twenty-eight actors were included in the analysis. They included all major state actors, key Kurdish factions, and key leaders and factions within Iraq and Syria. The intent of this selection was to capture "major muscle movements" (so to speak), and to provide important (albeit preliminary) insights. Our future effort will explore local coalitions, based on expanded internal (national political) actor rosters, and will develop externally vetted actor base.

The analysis sought to understand the evolution of the situation under both the current situation (with no policy changes) and under a variety of changed situations. Initial positions of actors are highlighted in Figure 1, below.



Shia actors are represented in shades of green, Kurdish in yellow, international in blue and brown, and Sunni in shades of red. The actor at 100 is ISIL. Height indicates relative influence of actors.

The "baseline" evolution (in Figure 2 below) anticipates continued consolidation by Shia actors around the restoration of obedience to the Iraqi government in the lost territories. Sunni actors, on the other hand, remain relatively unconsolidated, and are scattered across a wide range of policy positions, all the way from 'return to the status quo ante' to 'create the caliphate.'



Given the BNM's analytical framework, this finding highlights the importance of the relatively greater coherence of the Shia actors in their initial positions, and the absence of a robust alternative perspective to foster consolidation around an alternative view of the Middle East.

Additional runs explored the impact of possible policy changes by various actors. These changes involved increasing or decreasing influence, and the importance accorded to the issue by actors all

moving towards the US's desired directions. So-called "magic bullet" changes were not considered—that is, the changes explored were designed to be broadly feasible. Scenario 1 explored the potential impact of greater US influence and importance (accorded to the issue) alone. Without other changes, greater US influence actually has a potentially undesirable consequence: notably, a tightening of Shia cohesion and a tightening of Sunni cohesion, albeit at a policy position unacceptable to both the US and the Shia community. Scenario 2 explored an "empowered moderates, reduced hard core influence" set of changes. In particular, ISIL influence was reduced, moderate Syrian opposition influence was increased slightly, and Shia "hard core" obstructionist influence was reduced. The result of this was not as transformative as had been hoped. Shia actors still consolidated at a position indicative of a desire for increased Shia influence in the region. And, while there was some consolidation by Sunni actors at a policy position acceptable to the US, there was still a substantial gap with Shia actors, and a significant number of Sunni actors maintained positions resistant to settlement.

Several additional scenarios were explored—looking for sensitivities, tipping points, and other possibly non-intuitive behaviors. The common results across the baseline and all the scenarios explored suggest that a common set of insights can be drawn from this preliminary analytical effort. First, not surprisingly, it appears that a consensus on a Middle East future will not naturally emerge from the current alignment of forces. Second, it appears that simply increasing US engagement will not radically transform the situation. This finding does not imply that more US effort won't be useful; rather, it suggests that increasing US efforts, without changing the alignment of other forces, will not foster a settlement (i.e., intensity alone will not solve the problem). Substantial changes in the positions of other actors appear to capable of generating a solution space, but the presence of "veto groups" (that is, groups that hold extreme positions and value them highly) limits accommodation by groups more moderately inclined. The fundamental insight offered by this analysis suggests that a regional solution will be possible only when military and other activities substantially reduce extremist and hard core obstructionist positions (on the part of ISIL, as well as other hard core Sunni and Shia) and that supportive, diplomatic, and other change efforts foster a strong integrative vision for the region.

Analysis Result #2: Syria Evolution (based on Athena)

This analysis, based on initial (unclassified) data, produced three sets of preliminary findings.

Finding 1: Current activities by the moderate Syrian opposition (MSO), and anticipated MSO growth (5,000 per year) are anticipated to have minimal negative effect on Jabhat al Nusra (JaN), and limited negative effect on ISIL. However, they may add substantially to pressure against the regime and result in shifts of control in northern Syrian areas. Specifically: model runs indicate that an additional 9,000 troops are needed before the situation changes noticeably, and over 17,000 troops are needed before significant anti-regime progress is likely.

This analysis assumed that current strategies and deployments of MSO would be followed, which in turn assumed that MSO priorities and alliances would remain essentially unchanged. Moreover, the analysis did not address the additional impact of combat multipliers or other enabling technologies. These will be addressed in subsequent efforts.

Finding 2: An improvement in the overall situation of the population (e.g., through increased humanitarian aid) may work against US objectives. In particular, rather than produce an increase in support for the moderate Syrian opposition and an increase in pressure on the regime, a general improvement in the situation (e.g., through humanitarian aid) could serve to increase the sustainability of the Assad regime.

This analysis looked at the consequences of additional humanitarian assistance on the overall evolution of the situation based on theory embedded in Athena. The Athena model assumes that population support to various political actors is dependent on their basic affinities (the degree to which their belief structures are similar) and their overall satisfaction along four dimensions, a key one of which is "quality of life" or the level of satisfaction of basic human needs (food, shelter, water). Political support can range from strong opposition to strong support. Population groups will have "vertical relationships" with all actors—they either support, or oppose, actors based on their actor's actions and the group's situation. Groups, in the model, have expectations about desired levels of their quality of life, and the degree of support offered by the group to the actor will depend on how well their needs are met (through services) by the actors in the region.

This analysis suggests that a non-linear, unintended consequence would dominate an intended consequence. Specifically, it indicated that a general provision of humanitarian aid did, in fact, improve support for MSO; but that an improved quality of life increased the level of support for the regime on the part of both the regime's detractors and supporters, with a net result that the regime's level of support increased more than MSO's.

Finding 3: Analysis of the current situation suggests that the Assad regime can maintain control of core areas (e.g., Damascus) for at least 12 months, but that it could possibly lose control of areas in northern Syria in that period.

This analysis is based on model runs of two years duration. The model predicted which actor controlled a given region based on a balance of factors, in particular the overall security situation (the balance of forces in an area).

Model runs suggested in some circumstances changes in the northern Syria area (Idlib, Allepo, Latakia, other areas north and east of Hama) may result in loss of regime control over the areas they currently maintain or contest. This does not happen in all cases, but is within the range of feasible evolutions of the situation.

Overall: In the context of other SMA analyses highlighting ISIL's adaptability, these results suggest that the sustained struggle against ISIL will allow sufficient time for adaptive activities by ISIL and other violent extremist organizations, and will allow, in turn, for continued influence by JaN and other extremist elements, even after the defeat of ISIL. This suggests that that the most likely "post-conflict" environment will be one characterized by significantly increased social polarization, the sustained presence of violent extremist organizations, population displacement, and further economic damage, substantially above current levels. Our upcoming analysis will examine this further.

Way Ahead

These studies constitute a preliminary effort. The MEADE program anticipates continuing this analysis, responding to feedback from other members of the SMA team, and expanding the effort with additional tools (models and empirical analytical techniques).

In the near-term, for instance, the MEADE will incorporate an additional integrated PMESII model—StateSim—and will conduct additional analyses looking at the dynamics of "competitive governance" between ISIL and the Government of Iraq. This model will be embedded within CTTSO's Model Predictive Control framework.

In the medium- and longer-term, MEADE will incorporate advanced clustering techniques (for public opinion analysis), event history analysis (to understand the evolution of the fight in the region and the dynamics of regional control shifts), and evolutionary analysis (to understand the ebb and flow of fighting groups and factions as "species" in the conflict ecosystem).

Background: The MEADE Program

MEADE is a concept of operations and a supporting software framework that employs PMESII+ models, empirical data, and customized algorithms to:

- Map the human domain and critical social processes, and use models to systematically explore the evolution of a conflict, the feasibility and sustainability of possible end-states, and the consequences of potential actions.
- Explore how various factors will shape the evolution of the overall situation. MEADE is capable
 of addressing a range of PMESII factors through multiple models, taking into consideration
 group strengths, degree of inter-group polarization and enmity, rates of external assistance, and
 support.

MEADE, as an approach to the employment of models and data:

- Is grounded in explicit social science theory, and is quantitative, drawing upon a wide variety of modeling approaches.
- Explicitly considers a full range of DIME → PMESII dynamics and interactions.
- Employs parametric (landscape) analysis to characterize the universe of possible situation evolutions, and to identify tipping points, sensitivities, instabilities, and second and third order effects.
- Employs optimization to identify and explore the consequences of potential actions.

MEADE complements existing approaches (e.g., SME elicitation, social media analysis, social network analysis, and conventional campaign IPOE analysis) by:

- Expanding explicit "what if" analytical capacities beyond mere data-focused, descriptive approaches.
- Providing context for the interpretation of more narrowly-based approaches (e.g., SMA).

- Helping explore the structure and implications of more intuitively grounded approaches (e.g., SME intuition).
- Enabling the placement of social network analysis and results in a wider, full-spectrum social-economic-political-information-military environment context.
- Enabling a systematic search for "black swan" situations.