A Social Network Approach to Understanding an Insurgency

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The study of networks, interactions, and relationships has a long history in academia. The different forms and methods of study have varied over the years and the ideas pertaining to these studies have been shaped by scholars from various fields. A network analysis of war and insurgency differs markedly from conventional approaches, a fact that might require us to rethink some of our more conventional analytical tools. War, as an extension of both policy and politics with the addition of military force, takes different forms across the spectrum of conflict. Insurgencies are one element of this spectrum. Each insurgency is unique. Few fit neatly into any rigid classification. However, interconnectedness is a new aspect related to the current wave of insurgencies. Insurgents now link with other groups throughout the state, region, or world by joining organizations that have a common objective.

Attacking these networks can be extremely difficult. Defeating a networked enemy requires a capability that possesses an array of linked resources necessary to sustain it. Conventional military thinking and strategies do not always permit such a response. No longer can analysts use just an organizational chart to describe an enemy’s configuration. Today it is much more difficult for a commander to differentiate the enemy from members of the general populace. The commander can no longer expect to face a single, consistent leader running a subordinate organization exhibiting a coherent pattern of activity.

A network analysis approach affords today’s analysts and strategists a new way of thinking. Such a dramatic shift in how we think can be difficult for organizations and individuals to assimilate. The characteristics of social network analysis is often counter-intuitive to traditional military thinking, rooted in the efficiency of a hierarchy that demonstrates a strong set of base-
line norms and subordination. Network analysis requires that we consider linkages between people, groups, units, and organizations.

**Social Network Analysis**

Social network analysts start with the simple yet powerful notion that the primary business of social scientists is to study social structure. They believe that the most direct way to study a social structure is to analyze the patterns of ties linking its members.¹ The fundamental difference between a social network explanation of a process and a non-network explanation is the inclusion of concepts and information on relationships among units in a study. Network analysis operationalizes structures in terms of network linkages among units. Regularities or patterns in interactions give rise to structures. The social network perspective views characteristics of the social units as arising out of structural or relational processes and focuses on properties of the relational systems. The task is to understand properties of the social, economic, or political structural environment and how these structural properties influence observed characteristics and associations related to the characteristics. Standard social science perspectives usually ignore relational information.²

Using a social network analysis perspective, the social environment can be expressed as patterns or regularities in relationships among interacting units.³ There are normally several goals related to these relationships.⁴ One goal is to visualize the relationships between actors and to uncover structure. A second goal is to study the factors that influence relationships, i.e., age, cultural background, previous training of those involved, or to study the strength of relationships. Third is to draw implications from the relational data, including bottlenecks where multiple information flows funnel through one person or organization. These are situations where information flow does not match formal group structure, and individuals who execute key roles may not be formally recognized by the organization. A fourth goal is to make recommendations that will improve communication and workflow in an organization.

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Parameters
Those who have used the notion of social networks to analyze relationships and linkages have found it necessary to distinguish certain features or characteristics of these networks as germane to the explanation of the behavior being sought. Essentially, there are two categories of characteristics: morphological and interactional. The morphological characteristics of personal networks refer to the “shape of the individual’s network.” These may be equated with the structural aspects of social behavior—the relationship or patterning of the links in the network in relation to one another. The interactional criteria refer to the nature of the links themselves—the behavior of individuals vis-à-vis one another. By understanding why relationships exist between actors and how actors interact, the analyst is afforded a window into the inner workings of the network.

Social network analysis provides a precise method to define important social concepts, a theoretical alternative to the assumption of independent social actors, and a framework for testing theories regarding structured social relationships. Equally relevant is the understanding of a social network approach to assessing power and its distribution in organizations. Structural perspectives on power argue that it is derived from each person’s position in the division of labor and the communication system of the organization.

The division of labor in an organization creates subunits and differentiated roles, and each subunit or position develops specialized interests and responsibilities. There is also the possibility that each subunit or position will make claims on the organization’s resources. In the contest for resources those who do well succeed on the basis of the resources they control as well as their ties with individuals who influence the allocation of resources. Control over resources, and the importance of the unit in the organization, are derived from the division of labor that affords specific positions or groups more control over critical tasks. Power comes from the control over resources, the ties one has to powerful others, and the formal authority individuals obtain because of their position in the network.

The knowledge that produces power in organizations is not only technical and related to the work process, but also the knowledge of the organization’s social system or structure. People who are well placed in the communication network tend to be the central players in terms of power and influence. Consequently, we can determine that power is a function of one’s position in the network of communications and social relations. Certainly, this is true when a position is assessed in terms of structural centrality and the power of the people with whom one is connected.

The preceding discussion provides a baseline description of social network analysis and a basic explanation of how it differs from a non-
networked perspective. Prior to elaborating on how social network analysis helps us understand and cope with an adversary, an explanation of what that adversary looks like and the evolving nature of insurgent warfare is in order.

**Insurgent Warfare . . . Adding to the Continuing Debate**

Low intensity conflict and guerrilla warfare have been more prevalent throughout the history of warfare than conventional war. The essential features of guerrilla warfare—avoiding the enemy’s strengths, clever use of the terrain, and striking at outposts and logistical support centers from unexpected locations—have changed little since the days of the Romans and Persians. What has changed is the addition of revolutionary thinking that has made guerrilla warfare a potent form of conflict for the accomplishment of political objectives.

Present-day views of an insurgency are based on an interpretation of the classic texts of insurgent warfare and the history of wars of national liberation from the late 20th century. The basic tenets of this form of warfare are found in the writings of past practitioners such as Mao Tse-Tung. Mao saw revolutionary war as protracted and organized into three phases: the initial phase of organization, consolidation, and preservation in which the insurgents builds political strength; a second phase of progressive expansion as the insurgents gain strength and consolidate control; and a final decisive phase when the leadership commits regular forces (which have been carefully husbanded to this point) culminating in the enemy’s destruction. Mao also called for clearly defined political goals and established political responsibility. As the first practitioner to define insurgency, Mao understood that war is essentially a political undertaking and that political mobilization was the most fundamental ingredient for winning the war.

The question arises, then, as to whether this view of insurgency is in keeping with the realities of 21st century insurgent warfare. As one examines the existing operations in Iraq, Afghanistan, and the overarching Global War on Terrorism, does the classical definition and understanding of revolutionary warfare square with present-day scenarios? The underlying premise of this article is that the past and the present are not so different. Features of historical insurgencies are evident today, most notably the emphasis on defeating the political will of the enemy rather than defeating the enemy’s army by means of direct combat. Like those that came before, the insurgent leaders are committed for the long haul in Iraq, Afghanistan, the Philippines, and other places where the war on terrorism is being waged.

There is distinctiveness, however, to what we are witnessing in Iraq and Afghanistan. Such a model is a revision of what happened in previous in-
surgent warfare experiences. Precipitated by failure of individual states, we see non-state actors organized (albeit loosely) across territorial boundaries and operating along pre-existing structural linkages that have been adapted to wage insurgent warfare. Additionally, in the cases of Iraq and Afghanistan an external foreign power is attempting to restore order and governance in a country that was not a former colony. Simplistically, this phenomenon is reflected in Figure 1.

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\text{STATE FAILURE} + \text{GUERRILLA INSURGENCY} + \text{EXTERNAL POWER} = \text{IRAQ \ldots and OTHERS}
\]

Figure 1. Formula for Insurgent Warfare

**State Failure**

Potentially, one of the primary centers of disorder in the 21st century will be failed states; areas where the state has either disappeared or simply become one more criminal gang. These areas represent the future for much of the world. Just as some cultures are likely to be centers of order, others will be centers or sources of disorder. Insurgent networks thrive on disorder.

State failure is “a process by which the state loses the capacity or the will to perform its fundamental governance and security functions.” Failing or failed state status is the breeding ground for instability, criminality, insurgency, regional conflict, and terrorism. Such environments can host destructive networks and various forms of ideological insurgencies. The contemporary, global security environment reflects numerous examples of this general lack of legitimate governance and civil-military cooperation. Instability flourishes under these conditions.

As important as instability might be to a national or transnational threat environment, an equally important consideration is to remember that it is only a symptom—not the actual threat. The ultimate threat is failure of the state. When examining this threat the most insidious security problem facing the nations of the world today centers on the threat to a nation-state’s ability and willingness to secure and control its territory, along with the actions of non-state actors seeking violent change within that nation-state.

The greatest security challenge today and for the near future is the combination of failing states and regional insecurity, having worldwide repercussions, and supporting the rise of terrorism. The essence, then, of contemporary warfare is asymmetry—an asymmetry of will and means. The enemy adjusts by employing unconventional strategies such as insurgent or terrorist attacks. The enemy in these contemporary conflicts is network based, flexible, and transnational in scope.
Guerrilla Insurgency

The modern insurgency is characterized by non-state actors, linked by pre-existing ties (religion, family, or tribe) that are adapted to support insurgent warfare. Such actors are intent not only on short-term goals, but possess the desire to make a long-term difference. The aims these non-state actors adopt and the resources they employ are governed not only by the characteristics related to their own movement, they are also representative of the spirit of the period and its general character. This spirit and character are defined by an unorthodox or asymmetric, networked approach aimed not at winning by the conventional defeat of the enemy’s armed forces, but rather, by directly influencing the political will of decisionmakers. Such conflicts are almost certain to be lengthy, measured in decades rather than months or years.

Revolutionary coalitions tend to form around pre-existing nationalism, populism, or religions capable of aggregating a broad array of social classes. Such organizations may also offer selective incentives to encourage participation in various activities, particularly dangerous ones such as guerilla warfare. It is the ongoing provision of collective and selective goods, not ideological conversion in the abstract, that plays a principal role in solidifying social support for insurgents.

While pre-existing ties are the foundation, it is a common interest in addition to the institutional means to pursue it that serves as the catalysts for creating a collective identity that allows a group to embrace collective action. Collective identities draw conceptual boundaries around the genus of individuals who are similarly affected by specific circumstances. However, these conceptual maps only apply when pre-existing social ties are in place. The dual role of these social relations—as a means for assessing the validity of a collective identity, and as a means for action, or influencing others to act—accounts for the fact that formal and informal ties act together in the mobilization and unity of effort.

The full functioning of a network depends on how well, and in what ways, the members are personally known and connected to each other. This is the classic level of social network analysis, where strong personal ties, often ones that rest on friendship and bonding experiences, ensure high degrees of trust and loyalty. To function well, networks may require higher degrees of interpersonal trust than do other approaches to organization, like hierarchies. Kinship ties, be they of blood or brotherhood, are a fundamental aspect of many terrorist, criminal, and gang organizations.

External Power

Within the current insurgency model, a key variable is the presence of an external power and its efforts to restore order and governance following fail-
ure of the state, as the result of internal strife or military intervention. In the case of Iraq, arguably, what we are witnessing is a social revolution.\[^{25}\] A revolution that could not have happened without a breakdown of the administrative and coercive powers of the previous regime.\[^{26}\] Coalition forces are overseeing the transformation and reconstitution of the state, with the United States as the primary engineer. Such a transformation is atypical of social revolutions where the reconstitution of state organizations is driven from within—for example, France, Russia, China, and Iran.\[^{27}\]

The basic condition for the occurrence of a revolution is normally an emergence from within a particular society initiated by individuals or groups with a common cause, uniting leaders and followers, aimed at the overthrow of existing political and social order.\[^{28}\] Revolutions by nature are complex and multidimensional. The insurgency we see in Iraq is the result of a social revolution, precipitated by an external power. In any revolutionary crisis, differentially situated and motivated groups become participants in complex, multiple conflicts that ultimately give rise to outcomes not originally foreseen or intended by any of the groups involved.\[^{29}\] Hence, witness the rise of the insurgent resistance following the fall of Baghdad. Like the classic cases mentioned previously, success in Iraq and other conflicts will depend on the leadership. In Iraq we have the coalition-sponsored Iraqi government that counts on the exercise of popular political mobilizations for state-building purposes: the creation of armies, systems of governance, and administrative controls and oversight.\[^{30}\]

Historically, the comparative analysis of directly and indirectly ruled colonies has shown that the latter have been much less vulnerable to defeat and displacement by revolutionary forces.\[^{31}\] Indirectly ruled colonies are those where an external power sponsors indigenous elites to whom it can gradually cede power without disrupting administrative or military institutions. For example, following World War II, in Malaya and the Philippines, British and American victors governed in conjunction with indigenous elites to whom national sovereignty was eventually ceded. During and after the transition to independence, the governments of Malaya and the Philippines were able to use military force and limited reforms to defeat and contain communist guerrillas.\[^{32}\] This is generally the route the United States is taking in present-day Iraq. The transfer of sovereignty and national elections have already occurred with a goal of eventually withdrawing US and coalition forces once the Iraqi government and military are capable of defeating or containing the insurgency.

*Iraq . . . and Others*

In an attempt to analyze the situation in Iraq, one must always be cognizant of the fact that a tribal society already has at its disposal affiliated
social, economic, and military networks easily adaptable to warfighting. The methods by which insurgents are exploiting tribal networks does not represent an evolved form of insurgency, but rather, it is an expression of inherent cultural and social customs. The social dynamic that sustains the ongoing conflict in Iraq is best understood when considered in terms of tribal allegiances. It is the traditional tribal network that offers insurgents a readymade insurrectionary infrastructure. In places such as Iraq or Afghanistan, kinship historically has provided a vehicle for political organization. It has delineated conditions for individuals to come together and cooperate. In particular, kinship ties have served as a basis for political action and collective defense. For example, news about Osama bin Laden and his al Qaeda network reveal their dependence on personal relationships formed over the years with “Afghan Arabs” from Egypt and elsewhere who were committed to Islamic fundamentalism and terrorism against the United States.

While not necessarily unique, this model is distinctive because it takes into consideration a networked enemy organized across territorial boundaries and borders. The fact that the organization on the surface appears to be loose, there is an ideological connection between al Qaeda operations in Afghanistan, Iraq, Yemen, and the Philippines. To date, it is uncertain as to exactly how many insurgent groups actually exist in the Iraq theater of operations. Are the groups united and working together, or are they fractured and purely focused on individual goals and objectives? Regardless, all these groups appear to have in common the ouster of the US-led coalition and the failure of a democratically based Iraqi government. Arguably, such a goal is consistent with the objectives of other insurgent groups waging revolutionary war in other locations against US forces.

The rise of these networks means that power is migrating to non-state actors, primarily because such actors are capable of organizing into sprawling, multi-organizational networks more readily than traditional, hierarchical, state-actors. There is also a new category of sovereignty-free actors. Multinational corporations, ethnic groups, bureaucratic agencies, ideologies, transnational societies, political parties, international organizations, and even sub-national social movements inhabit this realm. These entities are not bound by the traditional concerns of states, yet they have sufficient resources to initiate global action on their own authority and influence the course of global affairs.

A series of networked enclaves might become a dominant political actor within a particular state or group of states. Thus, rather than by directly competing with a nation-state, an unconventional non-state actor can indirectly co-opt and seize control of a state. This may occur if the unconven-
tional attacker—terrorists, drug cartels, criminal gangs, or a combination of such actors—utilizes crime, terrorism, direct combat, or other strategies to gain influence. This problem is compounded if the attacker has access to advanced technologies in addition to conventional weapons. The attacker can then transcend traditional criminal activity and pose a significant challenge to the nation-state and its institutions. Using intimidation, corruption, and indifference, the unconventional attacker can subtly co-opt individual politicians and government officials in an attempt to gain political control of a given geographical area or political enclave. Ultimately, such corruption may lead to the emergence of a virtual, criminal state or political entity.\textsuperscript{39}

A truly non-state actor like al Qaeda cannot, in theory, be deterred because it has no easily identifiable hierarchy or location. Without the possibility of deterrence there is not, in theory, anything that can limit its action. Such actors are an abhorrence to governments simply because they cannot be controlled, at least not by the traditional means that governments have at their disposal. Nor are terrorists generally responsible to those they claim to represent, because they often operate from the perspective of a criminal organization. Thus, they are not accountable within the international system.\textsuperscript{40}

As a consequence, there is no formal commencement or termination of conflicts; no specific territory to seize or hold; no credible government or political actor with which to negotiate; and no guarantee that any agreement between contending groups will be honored. In short, the battle space is ubiquitous. Consequently, power is no longer limited to military or police. These unconventional non-state conflicts can best be identified by their ultimate objectives. They are characterized by the organized application of coercive military or non-military action—lethal or non-lethal, direct or indirect, or a combination—intended to resist, oppose, control, or overthrow an existing government or symbol of power.\textsuperscript{41}

**The Social Network Fit With the Current Problem**

When considering the current Global War on Terrorism (specifically the operations in Afghanistan and Iraq), the dynamic guiding this analysis is that today’s environment favors the rise of networked organizations. It is a much greater challenge to conduct a counterinsurgency in a traditionally networked society. Conducting a counterinsurgency implies the defeat of the insurgent fighters at every level. It entails the disruption of all auxiliary support apparatus. This often requires identifying and arresting leaders and shadow cadre inside the existing government. Finally, counterinsurgency forces must disrupt the recruitment and indoctrination processes used to mobilize individuals and resources designed to overthrow a constituted government.\textsuperscript{42}
A network analysis approach permits a more complete understanding of how such network based “enemy” systems behave and how that behavior is affected by connectivity. The intelligence background and link diagrams that commanders build in their headquarters are rooted in the concepts of network analysis. The Intelligence Preparation of the Battlefield (IPB) is a vital command and staff function for any successful counter-insurgency. It begins with the commander’s estimate of how the enemy is fighting as well as the enemy’s strengths and weaknesses. The IPB is complemented by a staff estimate. The IPB becomes a hypothesis confirmed or denied by daily reconnaissance, surveillance, reporting, and command assessments; it evolves. The purpose of the IPB is to assist the commander in identifying targets, objectives, and friendly tactics. An IPB has a number of components based on the level of threat the commander assesses. Link diagramming of enemy cells and nodes is a key component in this process. Terrain analysis is absolutely vital as is an understanding of a population’s composition. Knowledge of the terrain and population provides commanders with an understanding of how to select the time and location for future operations, as well as the tactics to be employed. All the component parts of an effective IPB support offensive operations that keep the enemy reacting to the commander’s initiative.

It is not uncommon in today’s environment to find that articles about terrorists, criminals, and activists postulate that one grouping or another is organized as a network. However, a qualified analyst should be able to specify in more exact terms an organization’s relationships. Among other things, assessment at this level should include showing exactly what type of network design is being used; when and how members might act; where the leadership resides; and how hierarchical dynamics may be integrated with network systems. Social network analysts should be able to identify and portray the details of a network’s structure, as they traditionally do when charting an adversary’s leadership, especially if they are analyzing terrorist and criminal organizations.53

A critical requirement on today’s battlefield is the ability to make an assessment of the political and social architecture in a given area of operations, from both the friendly and enemy perspective. If analysts are to be successful they must do more than simply read field manuals. They need to develop a detailed understanding of the complexity of warfare. Specifically, it is imperative to obtain an understanding of how the enemy conducts his operations. Such an understanding provides a value-added to a network approach of analyzing what the enemy looks like and how he fights. Resistance networks often do not behave like other social networks, but by asking what kind of social network is a resistance network, one opens a window into that
organization; affording an understanding of what that network may look like, how it is connected, and how best to destabilize it.

Conclusion

The fight for the future makes daily headlines. Tomorrow’s battles are not between armies of world powers, nor are the weapons employed large formations of tanks, planes, or ships. Rather, the combatants come from terrorist networks such as Osama bin Laden’s al Qaeda, Abu Musab al Zarqawi’s insurgents, and international drug cartels. They prefer to rely on indirect irregular or guerilla warfare or episodic acts of terrorism, counting on these to wear down the will and strength of their adversaries. The other protagonists—the ones who often advance US interests—are networked, civil-society, activists fighting for democracy and human rights. 44

In the Global War on Terrorism, one of the greatest challenges facing the United States is the opposition of a fully mobilized, traditionally networked, tribalized enemy. This opposition is reflected in an insurgency that possesses an unassailable base immune from direct attack. This unassailable base is itself the social network, merging and diverging as the situation dictates. 45 The answers to what motivates and sustains such an insurgency are not readily found in traditional literature. Greater insight and better answers may be found by reexamining the dynamics of traditionally networked tribes and clans, or within the prescriptions provided by social network analysis.

It is in the concepts of social network analysis that we find the core ideas of networks and linkages; the essence of the non-linear organization that characterizes today’s insurgencies. It is by identifying patterns in these non-linear forms that provides an understanding of the organization at hand. The modern insurgency represents an evolved form of warfare that takes advantage of the capabilities that certain tribal societies demonstrate, the pre-existing and affiliated social, economic, and military networks that are easily adaptable to combat, and often extending across traditional boundaries and borders. This is the reality of today’s global environment, and it will remain so far into the future.

NOTES

3. Ibid.
8. Ibid.
10. Ibid.
17. Ibid., p. 31.
18. Of note, however, is that asymmetry is not something new. The Bolshevik revolution in Russia was an insurgency structured as a network of cells, and, in that tradition, so was the Vietcong in Vietnam. Additionally, we have seen evidence of US asymmetrical tactics in our own history, beginning with the American Revolution.
20. This is guerrilla warfare “on steroids.” A guerrilla insurgency is the strategic employment of guerrilla tactics (most commonly hit and run tactics) combined with terrorist-type acts (e.g., car bombs) to achieve a particular political and/or ideological end.
25. I have adopted Skocpol’s (1994) conceptualization of social revolutions as the “breakdown of old regimes, processes of conflict among elites and between dominant and subordinate classes, and the reconstitution of new regimes that embody fundamental political, social, and ideological changes,” p. 6.
26. The intent here is not to debate how or why such a breakdown occurred, only that it occurred.
27. Skocpol.
28. Ibid.
29. Ibid., p. 111.
30. Ibid., p. 9.
32. Skocpol, p. 307.
33. McCallister.
37. Burk, p. 28.
38. Manwaring, p. 17.
39. Ibid.
41. Manwaring, p. 8.
42. McCallister.
43. Ronfeldt and Arquilla.
44. Ibid.
45. McCallister.