"It Takes a Network": The Rise and Fall of Social Network Analysis in U.S. Army Counterinsurgency Doctrine

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Abstract

During the Iraq and Afghanistan Wars, a group of warrior-thinkers developed a new U.S. Army counterinsurgency (COIN) doctrine to fight modern "jihadist" insurgencies. Drawing heavily on social network analysis ideas, COIN principles emphasized population protection and organizational learning and adaptation. As implemented in Iraq by General David Petraeus, the doctrine greatly reduced intercommunal violence although other factors also contributed. But, COIN in Afghanistan under General Stanley McChrystal was unsuccessful in ending the Taliban insurgency. Although the Obama Administration substantially diminished the U.S. Army's counterinsurgency capabilities, social network analytic ideas persist in military policy and practices.

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1. Introduction

"It takes a network to defeat a network."
Gen. Stanley A. McChrystal (2011)

United States Navy Seal Team Six killed Osama bin Laden after social network analysis methods discovered his secret location. The Central Intelligence Agency had conducted a decade-long manhunt to find and capture or kill the Al-Qaida mastermind behind the September 11 attacks. Because bin Laden never used the Internet or telephone, all his communications with top Al-Qaida commanders relied on a courier who relayed messages to and from bin Laden's hideout in Abbottabad, Pakistan. The breakthrough came with the discovery of the courier's true identity – a Pakistani whose nom-de-guerre was Abu Ahmed al-Kuwaiti (Goldman & Apuzzo, 2011). In 2010, a CIA wiretap overheard another Al-Qaida operative conversing with al-Kuwaiti. (Disputed is the extent to which the torture of detainees also yielded relevant information, as implied in the action thriller *Zero Dark Thirty* [Rodriguez, 2013].) CIA agents tracked Kuwaiti's white S.U.V., its spare-wheel cover painted with a white rhino, to the Abbottabad compound. After months of aerial surveillance, the CIA concluded that Kuwaiti and his brother lived there, and speculated that a third man – "The Pacer," who never went outside the compound walls – was bin Laden. On the night of May 2, 2011, SEAL Team Six raided the compound and killed bin Laden, the courier, and his brother. (For details about the raid, see Schmidle, 2011; Bergen, 2012; Owen, 2012).

The hunt for bin Laden epitomized how intelligence organizations applied network analytic methods to identify and map connections among members of terrorist and insurgent organizations, and how counterinsurgency forces working as a network used that information in field operations to disrupt and destroy them. In the early twenty-first century, network ideas infused new U.S. Army counterinsurgency doctrine: "In bitter, bloody fights in both Afghanistan and Iraq, it became clear to me and to many others that to defeat a networked enemy we had to become a network ourselves" (McChrystal, 2011). This article analyzes the rise and fall of this new counterinsurgency doctrine and the persistence of social network analysis in military policy and practices.

2. Classical and Modern Insurgencies

Analysts of asymmetric warfare identified major differences between classical "Maoist" insurgencies and modern "jihadist" insurgencies (Muckian, 2006). Mao Zedong's revolutionary strategy – expressed in his aphorism "the guerilla must move among the people as a fish swims in the sea" – emphasized a hierarchical military command structure fully integrated with a parallel political hierarchy. This military-political structure mobilizes and indoctrinates the local populace in the goals of the revolution. Tactically, guerilla armies operate in small-unit formations, depend on support from local populations, and try to bleed the enemy forces through ambushes and raids on police stations and military barracks. Another Maoist saying is apt: "The enemy advances, we retreat; the enemy camps, we harass; the enemy tires, we attack; the enemy retreats, we pur-

sue" (Zedong, 1965, p. 124). Insurgents fight to seize and hold territory, eliminate local agents of the national government, and replace them with revolutionary cadres. Ultimately, the insurgency builds sufficient popular support and military strength to defeat the old regime by conventional warfare on the battlefield. Many liberation struggles applied the Maoist strategy from the1940s through the 1960s: successfully in China, Cuba, Vietnam, and Cambodia, and unsuccessfully in Che Guevara's 1965 Congo and 1966 Bolivian campaigns, and the Nepali People's War at the end of the twentieth century.

Classical insurgencies begat classical counterinsurgency doctrines that aimed to decapitate an insurgency's politico-military leaders and to dry up the sea of the people (a.k.a., winning-hearts-and-minds). During the 1948-1960 Malayan Emergency led by the Malayan Communist Party, the British forcibly resettled a half-million peasants of predominantly Chinese ancestry into 450 guarded "New Villages." This strategy denied the guerillas access to information and resources from a sympathetic population (Thompson, 1966). It's widely regarded as one of a few unambiguously successful counterinsurgency campaigns by a foreign occupying power (Nagl, 2005). Far less successful were two programs implemented by the United States during the 1955-1975 Vietnam War. The Strategic Hamlet Program, partly modeled on the British experience in Malaya, forcibly resettled more than eight million peasants into 7,000 villages. But, the South Vietnamese central government provided insufficient security against attacks by Viet Cong insurgents and the program collapsed after the 1963 South Vietnamese military coup against the Diem regime. The CIA's Phoenix Program in the late-1960s sought to "neutralize" – capture, convert, or assassinate – suspected Viet Cong cadres and their civilian sympathizers (Andrade, 1990). Carried out by local South Vietnamese militias and police, it tortured and killed tens of thousands of suspects before a U.S. congressional backlash against its abuses shut down the Phoenix Program (Valentine, 1990).

Modern jihadist insurgencies and terrorist campaigns differ from their Maoist predecessors in basic organizational structures and strategies. In place of vertically integrated hierarchies, jihadis assemble in continually shifting networks of militants. Groups consist of numerous small, self-organized cells, as few as two or three people, and the complete network exhibits low density and low social cohesion (Knoke, 2012). A decentralized network has no core leadership and no political cadre that exerts control over the cells' militant actions. Jihadis make effective use of modern information technologies – cell phones, Internet, Websites, video clips – to recruit participants, propagandize their successful attacks, mobilize popular support, plan tactical operations, and coordinate attacks on occupying forces. The insurgency has no explicit political program for mobilizing the populace, and makes no attempt to capture and hold a territory. The insurgency's immediate aim is to drive out the foreign occupying forces by inflicting such high levels of injury and death that democratic governments will be forced to withdraw. But, the insurgents have no clearly articulated long-term goals for their nation.

At the start of the Iraq Occupation in 2003, the U.S.-led Coalition Forces deployed a counterinsurgency strategy pre-

mised on a belief that they faced a conventional Maoist insurgency. They hunkered inside large, heavily fortified forward operating bases, isolated from population centers, from where patrols emerged daily and to which they retired by nightfall. Thus, insurgent cells had the nocturnal run of urban neighborhoods and rural areas, to collect information, extort resources, and plant improvised explosive devices (IEDs) that wreaked bodily havoc on the next morning's foot patrols. The counterinsurgency attempted to capture and kill the leaders of a dozen or more major militant organizations, including Al-Qaida in Iraq, Ansar al-Islam, Badr Brigade, and Mahdi Army. But, decentralized structures rendered a decapitation strategy fruitless. Self-organizing networks were highly resilient to loss of militant foot-soldiers, because replacements were easily recruited. The tenuous connections among cells meant that picking up and interrogating individuals could not unravel the complete network.

3. Minting the New COIN Doctrine

On May 1, 2003, President Bush landed on the carrier USS Abraham Lincoln and saluted the troops at the end of combat operations under a banner proclaiming "Mission Accomplished." Soon after, the Iraq Occupation began to spiral into a morass of death squads, ethnic cleansing, banditry, terrorism, and religious insurgency that steadily worsened year after year. By February, 2007, the Iraq National Intelligence Estimate foresaw a potential civil war:

> *The Intelligence Community judges that the term "civil war" does not adequately capture the complexity of the conflict in Iraq, which includes extensive Shia-on-Shia violence, al-Qa'ida and Sunni insurgent attacks on Coalition forces, and widespread criminally motivated violence. Nonetheless, the term "civil war" accurately describes key elements of the Iraqi conflict, including the hardening of ethno-sectarian identities, a sea change in the character of the violence, ethno-sectarian mobilization, and population displacements.*
> (ThinkProgress, 2007)

Such projections of looming defeat, redolent of the 1960s U.S. debacle in Vietnam, had already impelled some members of the military to formulate a new doctrine for fighting modern jihadist insurgencies, one which made extensive use of social network analytic ideas.

In late 2005, U.S. Army Lieutenant General David Petraeus, who had commanded the storied 101st Airborne Division during the 2003 conquest of Baghdad, was appointed commander of Fort Leavenworth, Kansas, and its Army Combined Arms Center (CAC). Among other duties, he oversaw the preparation and publication of U.S. Army/Marine Counterinsurgency Field Manual 3-24, the first publication in two decades devoted to the topic. FM3-24 was the product of a team of "warrior-thinkers" – assembled by Petraeus and Marine Lieutenant General James "Mad Dog" Mattis – that culled lessons from historical "small wars" and past counterinsurgency successes and failures. They invited 80 experts to a February

2006 conference at Fort Leavenworth, including military and civilian participants "ranging from veterans of Vietnam and El Salvador to human rights advocates, who deconstructed the draft chapters and made the final product stronger" (Nagl, 2010, p. 118). The revised final draft of FM3-24, coauthored by Petraeus and Marine Lieutenant General James F. Amos, was published in December 2006, and became an instant best-seller. While commander of Fort Leavenworth, Petraeus integrated FM3-24 lessons into classroom teaching and training exercises for officers at CAC military schools.

The new COIN doctrine was "built around two big ideas: first, that protecting the population was the key to success in any counterinsurgency, and second, that to succeed in counterinsurgency, an army has to be able to learn and adapt more rapidly than its enemy" (Nagel, 2010 p. 118). These twin pillars are population-centric and enemy-centric COIN, respectively. The first pillar emphasized a clear-hold-build approach to population protection. Because "the cornerstone of any COIN effort is establishing security for the civilian populace," commanders must move quickly to shift from combat operations to building law-enforcement institutions such as police, courts, and penal facilities in the host nation (Petraeus & Amos, 2006, p. 1-23-24). Other responsibilities include provision of essential services such as water and medical care, and "sustainment of key social and cultural institutions" (p. 2-2). In effect, population-centric COIN depends heavily on nation-building activities that gain legitimacy and local support for the national government. Many activities implicitly require the military to form network connections with the populace and interorganizational ties to host-nation institutions. COIN leadership "can design an operation that promotes effective collaboration and coordination among all agencies and the affected populace" (p. 2-4).

Nine Zen-like statements summarizing COIN principles and imperatives – labeled "paradoxes of counterinsurgency" – described how the new doctrine differed from "the traditional American view of war" (p. 1-26). The first paradox, which emphasized networking to achieve the ultimate success of protecting the populace, was: "Sometimes, the more you protect your force, the less secure you may be."

> *If military forces remain in their compounds, they lose touch with the people, appear to be running scared, and cede the initiative to the insurgents. Aggressive saturation patrolling, ambushes, and listening post operations must be conducted, risk shared with the populace, and contact maintained. ... These practices ensure access to the intelligence needed to drive operations. Following them reinforces the connections with the populace that help establish real legitimacy.* (p. 1-27)

Another paradox, "Some of the best weapons for counterinsurgents do not shoot," argued that political, social, and economic programs are often more important than conventional firepower for undermining an insurgency. "Arguably, the decisive battle is for the people's minds … While security is essential to setting the stage for overall progress, lasting victory comes from a vibrant economy, political participation, and

restored hope" (p. 1-27). For more on COIN paradoxes, see Cohen et al. (2006).

In the enemy-centric pillar, organizational learning required that soldiers and marines study FM3-24 and its source materials before deployment, then "apply what they have learned through study and experience, assess the results of their actions, and continue to learn during operations" (p. x). Among the most important skills to learn is social networking, both as a means to build rapport with the populace and as a method to detect and destroy insurgent organizations:

> *This requires living in the AO [area of operations] close to the populace. Raiding from remote, secure bases does not work. Movement on foot, sleeping in villages, and night patrolling all seem more dangerous than they are – and they are what ground forces are trained to do. Being on the ground establishes links with the local people. They begin to see Soldiers and Marines as real people they can trust and do business with, rather than as aliens who descended from armored boxes.* (Appendix A-4)

FM3-24 identified enemy networks as:

> *A tool available to territorially rooted insurgencies, such as the FARC in Colombia. Other groups have little physical presence in their target countries and exist almost entirely as networks. Networked organizations are difficult to destroy. In addition, they tend to heal, adapt, and learn rapidly. However, such organizations have a limited ability to attain strategic success because they cannot easily muster and focus power. The best outcome they can expect is to create a security vacuum leading to a collapse of the targeted regime's will and then to gain in the competition for the spoils. However, their enhanced abilities to sow disorder and survive present particularly difficult problems for counterinsurgents.* (p. 1-17)

FM3-24 Appendix B, "Social Network Analysis and Other Analytical Tools," described "social network analysis, a powerful threat evaluation tool" to help commanders and staff "understand the operational environment" (p. B-1). It explained basic network concepts and measures for identifying and portraying details of insurgent network structures. Figure 1 (as it appears in FM-24, *Fig.* B-7) illustrated how a well-executed COIN, by decreasing an insurgent network's density, could erode its ability to conduct coordinated attacks, which "means the group is reduced to fragmented or individual-level attacks" (p. B-12). High-density networks "require only the capture of one highly connected insurgent to lead counterinsurgents to the rest of the group. So while high-network-density groups are the most dangerous, they are also the easiest to defeat and disrupt." The Appendix went into great detail about network concepts such as core-periphery, centrality, diameter, and hubs, and how they could be used to identify key actors.

A sidebar story described how Saddam Hussein was captured in December 2003 after months of painstaking intelligence gathering. Analysts constructed link diagrams showing people related to Hussein by blood or tribe:

> *Each day another piece of the puzzle fell into place. Each led to coalition forces identifying and locating more of the key players in the insurgent network ... Analysts traced trends and patterns, examined enemy tactics, and related enemy tendencies to the names and groups on the tracking charts. This process involved making continual adjustments to the network template and constantly determining which critical data points were missing.* (Petraeus & Amos 2006, p. B-14)

Using up-to-date network diagrams, "commanders then designed a series of raids to capture key individuals and leaders from the former regime who could lead counterinsurgents to him" (p. B-14). The cycle continued, "eventually leading coalition forces into Hussein's most trusted inner circle and finally
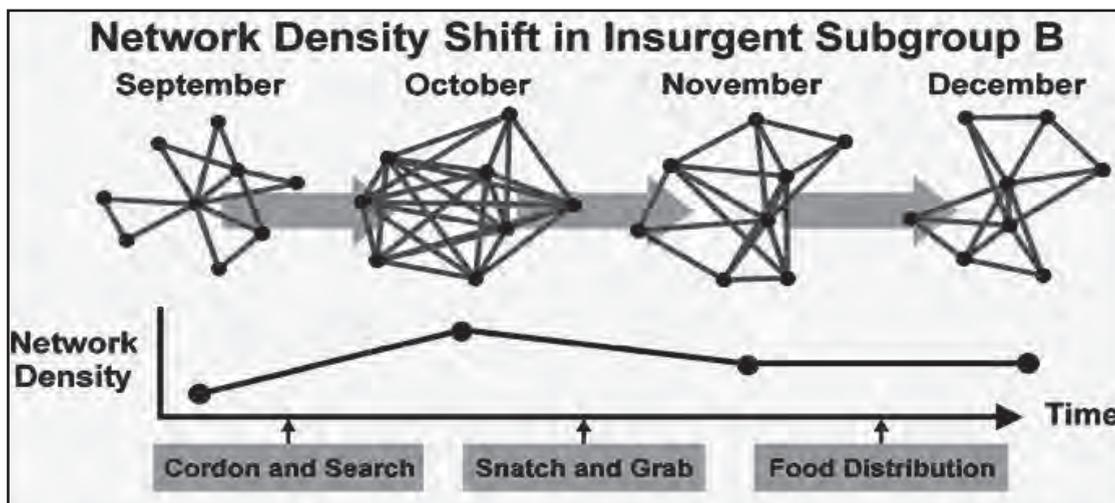

Figure 1. Example of changes to tactics on density shift.

to Hussein's capture." For detailed explications of these procedures, see publications by Col. Brian Reed, a member of the Saddam Hussein task force and contributor to FM3-24 Appendix B (Reed, 2006; Reed & Segal, 2006; Reed, 2007).

Other COIN intelligence tools related to social network analysis included activities matrices (two-mode data) and association matrices (one-mode data). In conclusion, "SNA can help commanders determine what kind of social network an insurgent organization is. That knowledge helps commanders understand what the network looks like, how it is connected, and how best to defeat it" (p. B-17).

4. COIN in Iraq

Within one year after publishing FM3-24, Petraeus got his chance to put the new COIN doctrine to a field test. Conditions in Iraq had deteriorated so much that the Republican Party lost its majorities in both the Senate and House of Representatives in the November 6, 2006, mid-term elections. Acknowledging "it was a thumping," two days later President Bush fired Secretary of Defense Donald Rumsfeld and nominated a former CIA Director, Robert Gates, to replace him. The Bush Administration conducted a review of strategic options, and in January 2007, President Bush announced "the surge" – a deployment of more than 20,000 additional soldiers and marines to Iraq with a new mission: "to help Iraqis clear and secure neighborhoods, to help them protect the local population, and to help ensure that the Iraqi forces left behind are capable of providing the security that Baghdad needs" (Bush, 2007). His population-protection rhetoric was straight from the new COIN doctrine, and among other personnel changes, Bush appointed newly promoted four-star General Petraeus to command the Coalition Forces. Petraeus issued counterinsurgency guidance to the Multi-National Force-Iraq which reiterated many of the COIN principles in FM3-24. A widely disseminated diagram, "Anaconda Strategy vs. AQI" (Al-Qaida in Iraq), drew an implicit parallel to a

U.S. Civil War plan for the Union to suffocate the Confederacy by blockading Southern ports and cutting the South in two by advancing down the Mississippi River (see Figure 2).

Surge troops were dispersed among 30 neighborhoods in Baghdad, to live in "joint security stations" which they shared with Iraqi military and police forces. Their long-term presence in local communities was designed to build trust relations with the residents, and gain their cooperation for discovering arms caches, identifying IED makers, and rooting out insurgents. "At the same time, American forces launched an all-out assault on Al Qaeda strongholds that ringed the capital" (Filkins, 2012). Although violence against civilians and military peaked in the early months of the surge, by September 2007, Petraeus testified to Congress that "the military objectives of the surge are, in large measure, being met" and that COIN operations had greatly reduced sectarian violence between Sunni and Shia (Cloud & Shanker, 2007). Violence declined dramatically through the following year, as the surge came to a conclusion in July 2008. Although President Obama withdrew the last U.S. troops in December 2011, a low-grade Iraqi insurgency persists mainly in Sunni insurgent attacks on civilians and the Shia-dominated national government.

Three events, occurring before or during the 2007-08 surge, may have contributed to the apparent successful implementation of the COIN doctrine. First, preceding years of ethnic-cleansing in many Baghdad neighborhoods greatly diminished opportunities for further intercommunal violence. Second, the U.S. military began to pay Sunni tribal sheiks in Anbar Province to stop cooperating with Al-Qaida against the Coalition and to hire a hundred thousand former insurgents as local security forces.

Al-Qaeda in Iraq had made a strategic mistake in the province, overplaying its hand. Its members had performed forced marriages with women from local tribes, taken over hospitals, used mosques for

Figure 2. Anaconda Strategy vs. AQI.

beheading operations, mortared playgrounds and executed citizens, leaving headless bodies with signs that read, "Don't remove this body or the same thing will happen to you." The sheer brutality eroded much of the local support for al-Qaeda in Iraq. (Woodward, 2008)

Some analysts viewed this "Sunni Awakening" movement as more decisive than the troop surge in bringing relative stability to Iraq (Litchfield, 2010; Coulter, 2010; Jones, 2012 p. 239-260). A third contributing factor was a series of top-secret operations in Spring, 2007, conducted jointly by "fusion cells" of U.S. special forces and intelligence agents, "to locate, target and kill key individuals in groups such as al-Qaeda in Iraq, the Sunni insurgency and renegade Shia militias, or so-called special groups" (Woodward, 2008). A major proponent of this "collaborative warfare" was Lt. Gen. Stanley McChrystal, who soon applied social network methods to the deteriorating War in Afghanistan.

5. COIN in Afghanistan

While U.S. military efforts focused on Iraq, the conflict in Afghanistan steadily intensified following initial success in driving the Taliban from power and installing a national government in Kabul led by President Hamid Karzai. Resurgent Taliban forces intimidated villagers to provide support and resources, and deployed roadside IEDs to attack convoys of the International Security Assistance Force (ISAF), the occupying U.S. and NATO forces. Could the lessons learned about COIN in Iraq be replicated in Afghanistan to turn that war around? Petraeus recognized "enormous differences" between the two war theaters:

You have to apply it [counterinsurgency] in a way that is culturally appropriate for Afghanistan. For example, a key strategy shift that accompanied the troop surge in Iraq – in which U.S. troops lived within the Iraqi communities they helped to secure – won't necessarily work in Afghanistan. You don't move into a village in Afghanistan the way that we were able to move into neighborhoods in Iraq. You have to move on the edge of it, or just near it, but you still have to have a persistent security presence. (Miles, 2009)

In June 2009, General Stanley McChrystal took command of ISAF. He had previously commanded the Joint Special Operations Command in Iraq, which captured Saddam Hussein and killed Abu Musab al-Zarqawi, leader of Al-Qaida in Iraq. Through those experiences, McChrystal became a convert to the new Army COIN doctrine. He depicted the Taliban as "more network than army, more a community of interest than a corporate structure" (2011). Hence, successful COIN in Afghanistan necessitated creating an opposing network – connecting intelligence analysts, drone operators, and combat teams – capable of rapidly sharing real-time information gathered during night raids on insurgents:

In bitter, bloody fights in both Afghanistan and Iraq, it became clear to me and to many others that to defeat a networked enemy we had to become a network ourselves. We had to figure out a way to retain our traditional capabilities of professionalism, technology, and, when needed, overwhelming force, while achieving levels of knowledge, speed, precision, and unity of effort that only a network could provide. We needed to orchestrate a nuanced, population-centric campaign that comprised the ability to almost instantaneously swing a devastating hammer blow against an infiltrating insurgent force or wield a deft scalpel to capture or kill an enemy leader. (McChrystal, 2011)

McChrystal's application of COIN also stressed protecting the Afghan populace, implementing reconstruction and development projects, and strengthening the local Afghan government's legitimacy so villagers would withhold support from the insurgency.

In September 2009, McChrystal's report to the Pentagon assessing the war's bleak prospects was leaked to the press, a blatant attempt to influence policy that some critics charged was insubordinate (Woodward, 2009). McChrystal argued that, without an additional 40,000 troops and the application of a genuine counterinsurgency strategy, the mission "will likely result in failure." Following a White House strategy review dominated by the military and its supporters, President Obama in December 2009 announced a surge of 30,000 U.S. troops into Afghanistan, and set 18 months as the deadline for their withdrawal. Under those resource constraints, McChrystal's effort to implement COIN ultimately failed. Some U.S. field commanders simply ignored orders to protect civilians, giving top priority instead to conventional search-and-destroy operations against the Taliban (Chandrasekaran, 2012, p. 147-169). Afghanistan simply never experienced a surge of skilled social network analysts compared to the Iraq War.

A major obstacle to successful COIN was the incompetence and corruption of the Karzai regime, which was either unwilling or unable to extend its writ much beyond Kabul (Filkins, 2012; McChrystal, 2013; Kaplan, 2013). ISAF alliances with provincial militias, which supplied them with weapons and money, "led to counter-productive results such as the strengthening of local Power Brokers and the weakening of the government in Kabul" (Gauster, 2008, p. 11). The plight of the Provincial Reconstruction Teams (PRTs) in Afghanistan revealed another hindrance. From the early years of the Afghan War, the ISAF deployed two dozen PRTs as part of its population-protection strategy. PRTs consisted of military officers, State Department diplomats, and technical experts from USAID and the Department of Agriculture. A military officer commanded each PRT staff of 80 to 250, only a handful of whom were civilians. PRT goals were to improve local security; directly fund and assist reconstruction projects, such as schools and clinics; and extend the legitimacy of the Afghan central government into the provinces. But, differences in civilian and military cultures, unclear lines of authority, and clashes among agencies hindered the integration and effectiveness of

the PRT networks (Luehrs, 2009; Fritsch, 2012). At the Munich Security Conference in February 2011, President Karzai criticized the PRTs, along with private security firms, as impediments to extending the central government's authority into the countryside. One analyst concluded that, as ISAF withdraws by 2014, a gradual transition of PRT functions and international funding to the Afghan government may be "actually better for the long-term health of Afghanistan, even if it contributes to aggregate corruption" (Foust, 2011). In the absence of a credible and dependable host-nation partner, even the most incisively executed military counterinsurgency stood little chance.

In June 2010, just one year after taking command, McChrystal resigned when *Rolling Stone* reported disrespectful remarks his aides made about the Obama Administration. President Obama replaced him with Petraeus, who, despite recycling his counterinsurgency guidelines from Iraq, now emphasized a relentless kill-or-capture campaign against the Taliban and Al-Qaida remnants:

> **Pursue the enemy relentlessly**. *Together with our Afghan partners, get our teeth into the insurgents and don't let go. When the extremists fight, make them pay. Seek out and eliminate those who threaten the population. Don't let them intimidate the innocent. Target the whole network, not just individuals.* (Petraeus, 2010)

Petraeus ramped up night raids, with black helicopters dropping Special Ops forces into villages to capture or kill Taliban commanders and financiers (Chandrasekaran, 2012 p. 148-169). Increased Predator drone strikes inside Afghanistan caused heavy civilian casualties ("collateral damage"), incensing President Karzai. Ironically, the "counterterrorism policy of raids and air strikes that Petraeus and other commanders had derided in the 2009 White House strategy review had become the military's principal tool to weaken the insurgency" (p. 278). Although Petraeus denied abandoning his signature approach, evidence indicated that most intelligence about insurgents came from signal intercepts rather than from tips by the local populace. After a year as ISAF commander, Petraeus departed to head the CIA, supervising its drone war on both sides of the Af-Pak border. The U.S. troop surge wound down, yet the Taliban still lurk in the countryside, biding their time until the occupiers leave in 2014, if not sooner.

6. Persistence of SNA in Military Policy and Practices

COIN doctrine and its applied network methods came full-circle in just half a decade. Itself an insurgency by dissident military intellectuals against conventional military thinking, COIN sought radically to remake the American way of war (Kaplan, 2013). Its advocate generals, Petraeus and McChrystal, briefly seized the strategic high ground in urban Iraq, backed by an American president desperately trying to avoid another military debacle, only to crash and burn under the harsh realities of insurgency in mountainous Afghanistan. The brief COIN renaissance they wrought finally evaporated in the heat of the 2012 presidential election debates when President Obama de-

clared, "after a decade of war, it's time to do some nation building here at home" (Jackson, 2012). He proposed a Pentagon budget that cuts $487 billion over 10 years, by downsizing the Army and Marine Corps to smaller forces capable of only "limited counterinsurgency." Instead, military efforts will shift to "intelligence, surveillance, reconnaissance, counterterrorism, countering weapons of mass destruction, and the ability to operate in environments where adversaries try to deny us access" (Ackerman, 2012). Drones and commandos will hunt, capture, and kill terrorists in Pakistan, Yemen, Somalia, and other ungoverned territories.

Military strategists, policymakers, and historians heatedly debate the relevance of COIN doctrine for the Iraq and Afghanistan Wars (Ucko, 2008; Paul & Clarke, 2011; Branch & Wood, 2012; Gilmore, 2012; Kurtulus, 2012; Jones et al., 2012). For example, Colonel Gian Gentile criticized the closed bureaucratic process by which population-centric COIN "came to dominate how the Army thinks about war without a serious professional and public debate over its efficacy, practicality, and utility" (Gentile, 2010, p. 116). He charged that the military "bought into a doctrine for countering insurgencies that did not work in the past, as proven by history, and whose efficacy and utility remain highly problematic today." Gentile called for *FM3-24* to be "deconstructed" through an open forum process that would provide a "better and more complete operational doctrine for counterinsurgency" (p. 117). In rebuttal, John Nagl (2010), a contributor to *FM3-24*, acknowledged its heavy reliance on "classical" counterinsurgency theory, but argued that "the differences between previous and current insurgencies are overstated." He asserted that the Army's subsequent development of the fifteenth edition of its capstone doctrine, *Operations Field Manual 3-0* (Dempsey, 2008), was "a revolutionary departure from past doctrine", produced through a more rigorous internal review than conducted for *FM3-24* (Nagl, 2010:119). Other recent manuals were also published after open development processes, "making the preparation of doctrine less about traditional practices and more about constant learning and adaptation based on current experience and collaboration with a broad group of concerned partners" (p. 120).

Social network analytic ideas pervade FM3-0, which emphasizes networking among military forces to defeat enemy networks. The Army faces "hybrid threats" from "diverse and dynamic combination of regular forces, irregular forces, and criminal elements, or a combination of these forces and elements" (p. 1-5). To fight such foes, the Army needs "flexible mission command networks and systems" (p. 3-21) to "enable the art of command and science of control" (p. 4-6). "Networks are key enablers to successful operations," and network systems provide "synthesized information so leaders can make informed decisions without being overburdened" (p. 6-6). Control of cyberspace is essential both for effective command of Army forces and as "a venue to attack enemy networks and systems" (p. 6-15). "Cyber warfare uses cyber exploitation, cyber attack, and cyber defense in a mutually supporting and supported relationship with network operations and cyber support" (p. 6-21). The implementation of these evolving network-centric principles will undoubtedly be battlefield-tested in future

combat operations of the U.S. military around the world and in cyberspace.

Social network analysis has traction at the Joint Improvised Explosive Device Defeat Organization (JIEDDO), founded in 2006 by the Pentagon to reduce the strategic influence of IEDs. Its proclaimed mission is to "defeat the device, attack the network, and train the force." At JIEDDO training facilities, "units are shown how to identify, map and target insurgent and terrorist networks, while positively influencing friendly and neutral populations and networks" (JIEDDO, 2013). However, a recent critical assessment concluded that, although the organization excelled in training and defeating IEDs, it still lagged "in providing necessary information to facilitate attack-the-network operations" (Morganthaler & Giles-Summers, 2011, p. v). To compensate for this deficiency, a "focused SNA approach would provide the framework to build and sustain knowledge of dark networks across time and unit rotations" (p. 40). Ultimately, strategic success depends on a better understanding of the broader social contexts which generate insurgency and terrorism.

A major shortcoming of the new COIN doctrine was its failure to institutionalize social network analysis training and education following initial success in Iraq. No military school exists for SNA and these methods are not taught at military intelligence schools. The Army Additional Skill Identifier lists no occupational code for a social network analyst, which would explicitly assign and train personnel in those skills (US Military About, 2013). (In contrast, social network analyst jobs are regularly advertized by civilian security and intelligence firms, such as RAND Corporation, NEK, SAIC, Harrison Corporation, Chenega, Acclaim Technical Services.) As a consequence, too few people in the military appreciate the potential value of network analytic ideas and understand how best to use them in counterinsurgency operations. The small number of staff who know network analysis methods, and who can use them to achieve tactical successes in the field, soon rotate out of theater before senior officers comprehend the bases of those successes. The failure to institutionalize the new COIN and its SNA methods is part of a larger misapprehension by the military and intelligence community about the complexity of societal conditions and social problems in developing countries where future conflicts loom. But that's another story for another time.

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