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ORGANIZATION:
TOWARD A TYPOLOGY OF
ISLAMIC TERRORIST
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TERRORIST ORGANIZATIONS**

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Abstract

Al Qaeda and its affiliated groups offer the analyst a highly complex challenge. The current literature classifies Islamic terrorist organizations as either networked or hierarchical. Yet, this classification fails to account for the appearance on the international stage of a new type of global terrorism. Most notably, it does not capture the structure and mode of operation of Al Qaeda as it emerged after the 2001 U.S. led assault on Afghanistan. This article therefore introduces a new concept—the Dune organization—that is distinct from other organizational modes of thinking. This conceptualization leads to a new typology of Islamic terrorist organizations. This typology concentrates on organizational behavior patterns and provides a framework for a comparative analysis of terrorist movements, which is applied to a study of Al Qaeda, Hizballah, Hamas, and the Palestinian Islamic Jihad.

Introduction

Since the 11 September 2001 attacks on the World Trade Center and the Pentagon, political analysts, military strategists, and students of International Affairs, have drawn attention to Al Qaeda's organizational structure, modes of thinking, and patterns of behavior (Davis & Jenkins, 2002; Jenkins, 2001; Posen, 2001; Heymann, 2001). The debate regarding the Al Qaeda puzzle relates to its organizational strategy, propaganda, ideology, operational ability, the leadership's competence, and the organization's resilience (Hoffman, 2003).

Despite the increasing number of studies produced by scholars and analysts coming from diverse professional backgrounds, much of the research on Al Qaeda and its affiliated groups in particular, and on Arab Islamic terrorist groups in the Middle East in general, relies on two key organizational approaches: hierarchical order and networks. The present study argues that although both approaches have considerable strength in the analysis of Islamic terrorist groups with local orientation, neither adequately accounts for the structure or mode of operation of Al Qaeda as a global terrorist organization.

A new typology of terrorist organizations is offered that introduces the concept of the Dune organization. The proposed typology goes beyond the reach of the hierarchical and network approaches. It provides an effective tool for the conceptualization and analysis of Al Qaeda and the organizational changes it has experienced since its establishment in 1989. In this sense, the article argues that Al Qaeda started out as a hierarchical organization, transformed into a network system, and later—after the 2001 attack in Afghanistan—dispersed into a Dune organization. The proposed typology also allows for an analysis of Al Qaeda's modes of behavior in comparison to other Islamic terrorist organizations. This article examines Hizballah, Hamas, and the Palestinian Islamic Jihad (HHJ),¹ and argues that the structure and activities of these locally oriented organizations can be described in terms of hierarchical or networks order. However, the analysis of Al Qaeda's current structure and operational modes of thinking may be enriched by adopting our Dune concept.

This article seeks accomplish the following:

1. To discuss Al Qaeda's organizational behavior and transformation. Within this context, the key dimensions of the hierarchical and network organizational types are presented and the Dune organization and the criteria for distinguishing it from network and hierarchical organizations are defined.
2. To propose a typology of Islamic terrorist organizations that includes the concept of the Dune organization. The typology is based on time perception, chain of command and control, communication lines, and level of division of labor.
3. To draw a comparison—based on the aforementioned typology—between Al Qaeda, as a Dune organization, and Hizballah, Hamas, and the HHJ as hierarchical and network types. The comparative presentation includes illustrations of decisions and actions of these groups.
4. To discuss some possible organizational and policy implications of the typology.

Al Qaeda: The Hierarchical and Network Perspectives

Globalization, the information revolution, and technological changes have elevated the threat of global terrorist movements to the state order. This threat is manifested through the actions of states as well as by non-state actors (Arquilla & Ronfeldt, 2001, 1–2).

One of the most salient threats that have been posed during the wake of the twenty-first century, on the state as well as the existing world order, is Al Qaeda's activities. These activities are based on an ambitious agenda, radical ideology and operational sophistication. Despite the military destruction of Al Qaeda's camps and facilities in Afghanistan in 2001, the killing or capturing of many of the group's leaders and other members, the destruction of numerous financial channels, and other actions carried out by intelligence services; Al Qaeda remains one of the most significant threats to the Western world in general and to U.S. national security in particular (Posen, 2001; Stern, 2003; Rogers, 2003).

Osama bin Laden and his prominent lieutenant, the influential leader of The Egyptian Islamic Jihad (EIJ), Dr. Ayman al-Zawahiri, expressed their vision regarding their global Jihad and transnational targets in clear-cut terms: the overthrow of Arab rulers that do not adhere to the Islamic Sharia rules. President Mubarak of Egypt and the Royal Saudi regime are prime targets in this category. However, Al Qaeda and its affiliated Islamic organizations need not wait for the defeat of the “heretic” Muslim governments, and must in the meantime attack targets of the Jewish–Crusader alliance “under the banner of Islam against an infidel external enemy supported by corrupt internal system” (Ayman al-Zawahiri, December, 2001). Thus, Al Qaeda’s fundamental aim is to hurt America, Russia, and Israel so as to free the Islamic world from western domination (Raphaeli, 2003). According to Al Qaeda’s global jihad perception, the United States provides assistance to Christians in ethnic Muslim–Christian disputes, supports Israel and challenges anti-American Arab regimes. Therefore, Al Qaeda needs to fight the United States through acts of global terrorism (Memri, 12 June 2002).² Zawahiri referred to the internationalization of the battle against Islam by the United States as one of his movement’s achievements. He explicitly related to the following as Al Qaeda’s targets: the UN, Arab non-Muslim regimes, multinational corporations, international communication networks, international news agencies, and international relief agencies (Raphaeli, 2003).

Contrary to Al Qaeda’s global Jihad, the core of Hizballah, Hamas, and the Palestinian Islamic Jihad’s political vision includes both narrowly defined immediate goals as well as a long-term broader aspiration. The immediate, local, goal of these organizations is the armed struggle against Israel in order to liberate all of Palestine and territories in Lebanon. The more far-reaching goal is the replacement of the existing non-Islamic social and political order in the Arab nations with an Islamic state ruled by the Islamic law. Each of these organizations has defined its immediate goals and priorities in national terms, namely, how to strengthen its status and ensure its influence over critical developments and decision-making processes in its own region (Hatina, 1994; Mishal & Sela, 2000; Sobelman, 2003). Thus, while Al Qaeda on the one hand, and Hizballah, Hamas, and the HHJ on the other hand, share the same far-reaching goals, their strategies are quite different: lacking territorial or nationalistic aspirations. That is,

Al Qaeda took on a global struggle whereas HHJ has adhered to local, nationally oriented, battles. The difference in their respective strategies is amply illustrated by the evolutionary organizational changes Al Qaeda experienced over time. Al Qaeda gradually transformed its structure from being a strictly hierarchical model to a variety of network structures—leading up to its current highly dispersed and multistructured organizational design. Each of these structures co-exists along others. Yet, the emphasis on a specific structure varies along Al Qaeda’s existence with accordance to exogenous constraints and endogenous beliefs. This section presents an overview of this transformation process.

Al Qaeda was formed in 1989 as an organization devoted to fighting the Soviets in Afghanistan. Its “founding fathers” came to fight, under the banner of Islam, against a superpower determined to oppress an Islamic revolution. Bin Laden and Al-Zawahiri arrived at the recruitment base of Peshawar located on the Afghan–Pakistan border, along with other so-called Arab Afghans, who streamed in from all over the Arab world to join this Jihad (Raphaeli, 2003; Burke, 2004, 46–51). During this time, the organization adhered to the principles of a hierarchical structure, so to enable its participation in the anti-Soviet war. This war was to be a model for future combat against the infidels under a unified ideological orientation. Each unit was subordinated in a pyramid-like structure to the organization’s leadership, headed by bin Laden. This structure served to send troops and aid into Afghanistan, and later on, as a basis for initiating terrorist attacks in the Western world (Hirschhorn, 2001; Hoffman, 1998, 188–189).

Generally speaking, the hierarchical approach assumes that social identities, boundaries, and actors’ choices are fixed, stable, and consistent. Also prevalent is the assumption that a hierarchical power structure is predetermined and instated according to formal and unambiguous rules. Thus, a hierarchical mode of thinking tends to ignore the potential and real influence of formal and informal ties among actors that cut across social categories and group boundaries. It also ignores other forms of informal everyday social relations that affect actors’ identities, attitudes, and behavior. Organizationally, the hierarchic approach is associated with a strict division of labor, a high level of specialization, and top-to-bottom subordination that hardly allows for ambiguity in the process of

action and coordination between the different units involved in the activity (Samuel, 1990, 25–27). During its early years of presence in Afghanistan, Al Qaeda can be described as highly structured and organized, in keeping with the hierarchical perception.

Another approach commonly used to analyze Al Qaeda's behavior is the network approach. Indeed, following the defeat of the Soviet forces in Afghanistan, a shift in Al Qaeda's objectives led to a focus on activities that relied on network organizational principles and subsequently, to organizational changes and structural redefinitions. Bin Laden now stressed the organization's transnational features and his willingness to fight on behalf of multiple causes. Scholars of the network approach claim that social structures are based on exchange systems derived from the repeated presence of interactions between specific actors and the absence of these interactions with other players (Baron & Hannan, 1994, 1133). The network itself can expand beyond the specific organization to constitute an inter-organization network (Baron & Hannan, 1994, p. 1135). Thus, the network approach focuses on the relations of actors within an inter-organizational context of blurred boundaries, while recognizing the implications of these interactions on the processes of exchange and interdependence among actors (Knoke, 1990; Bauman, 1991; Latour, 1993; Arquilla & Ronfeldt, 2001).

According to the network approach, organizations constitute a web of distinct but overlapping policy communities. Because each such community constitutes one group of actors among many, none can achieve its goals without the involvement of others (Marin & Mayntz, 1991; Marsh & Rhodes, 1991). In this type of setting, interests are not consistent and homogeneous, but rather heterogeneous and strenuous, and could, in principle, either compete or overlap with one another. In this view, the mode of the intra- and inter-organization action is bargaining and negotiating rather than controlling; reinvention rather than coercion; steering rather than rowing (Osborne & Gaebler, 1992).

Arquilla and Ronfeldt, in their comprehensive study on terrorist organizations, define a network as "a set of diverse, dispersed nodes that share a set of ideas and interests and are arrayed to act in a fully intermitted 'all-channel' manner." They claim that networks have very little, if any, hierarchy or official authority. Decision

making and tactical operations can be initiated and carried out locally without a leading hand and clear leadership (Arquilla and Ronfeldt, 2001, 7). In addition, in the Information Age, networks employ new information, technologies, and administrative knowledge that enable organizations to adopt flexible modes of structure (Knoke, 1990, 93).

Arquilla and Ronfeldt refer to three ideal types of networks: *chains*, *hubs*, and *all-channel*. In the *chain* structure, players are positioned in a chain of nodes along which information travels. Thus, players might not even know who is in command of the organization or what the final action of the network might be. They take orders from one player and pass it on to another without knowing the complete nature or characteristics of the network. In the *hub* network, all orders come from the player located at the center, and all information must pass through that node. Thus, one player sees the whole picture, while all other players are subordinated to that central player, at least in the sense of receiving and transferring information.³ In the *all-channel* network on the other hand, information flows freely in a fully collaborative manner. Thus, no single player has real command and control over the others. However, even in this form, the relevant players are defined and the organizational movement is not applied to outside players (Arquilla and Ronfeldt, 2001, 7–8).

Between 1998 and 11 September 2001, Al Qaeda largely employed a network mode of behavior. In February 1998, bin Laden formed the “World Islamic Front for Jihad against the Jews and Crusaders” (IIF), which essentially constituted a network of Islamic leaders and organizations operating on the state level. The IIF counseled that

to kill the Americans and their allies—civilians and military—is an individual duty for every Muslim who can do it in any country in which it is possible to do it, in order to liberate al-Aqsa Mosque and the Holy Mosque (Mecca) from their grip, and in order for their armies to move out of all the lands of Islam, defeated and unable to threaten any Muslim. (World Islamic Front Statement, 1998).

Since its formation, the IIF has expanded to include the Pakistani Jihadi organizations *Lahkar-e-Taiba*, *Harakat-ul-Mujahideen*, and *Sipah-e-Shahaba Pakistan*. In addition, the head of the Egyptian *al-Jama'a al-Islamiyya*, the secretary-general of the Pakistani

al-Jamiyyat-ul-Ulema-e-Islam (JUI), and the head of the Bangladesh Jihad movement are all affiliated with the IIF (Stern, 2003).

Up until the 9/11 attacks, the network approach proved useful for understanding much of Al Qaeda's mode of action. Territorially, bin Laden turned Sudan and later, Afghanistan, into his operational bases. He managed to mobilize their support for Al Qaeda's vision and activities. These two countries were willing to provide Al Qaeda with territorial bases and allowed it to maintain an institutional presence within their borders. Thus, bin Laden was able to dispatch his well-trained, devoted members with general instructions in hand regarding the desired targets, and then to use hi-tech means to communicate with his troops and lieutenants spread around the world. All this continued even though the Americans tightened their hunt for bin Laden, especially after the 1998 bombings in Kenya and Tanzania (The 9/11 commission report, 2004, ch. 4).

Al Qaeda's dramatic success in the 9/11 attacks is a clear example of the network approach. The terrorists initially trained in Al Qaeda's camps in Afghanistan, where members were recruited from the Arab Muslim communities in Europe, Southeast Asia, and the Arab world, especially Egypt and Saudi Arabia. They then received logistical assistance through Al Qaeda's sleeper cells in Europe and Southeast Asia in order to enter the United States unnoticed. It seems that much of these activities were conducted according to the hub-network principle. Along this line, Al Qaeda's leadership saw the "big picture" although the lieutenants, foot soldiers, and logistical assistants received only partial information regarding specific segments of the operation. Although being useful for an ongoing low-intensity conflict, networks have a critical disadvantage: they can be broken. By assessing the principal players in a network and neutralizing them, the network can be damaged beyond repair (Farely, 2003). Thus, when the U.S.–Al Qaeda conflict turned high-intensity and the greatest power in human history decided to turn Al Qaeda's network its chances for survival were immensely reduced. To date though, Al Qaeda has surpassed this attack.

By adopting a new mode of operation after the 2001 U.S.-led assault on Afghanistan, Al Qaeda managed to turn the strategic constraints and military obstacles set up by the United States into strategic advantages. Al Qaeda's activities challenged two principal prerequisites of the conventional organizational structures, found in both the hierarchical and the network perspectives. According to these principles, the conduct of organizations relies on an imminent affiliation with an explicit territorial rational and a permanent institutional presence. In the case of Al Qaeda, although its inner core may continue to rely, in some of its operations, on these two principles, de-territorialization, instead of affiliation with definite territorial location, and disappearance rather than institutional presence, have become Al Qaeda's organizational trademarks. These two structural features have emerged as the unique operational principles that have guided Al Qaeda's activities and shaped its strategy since the attacks of 9/11.

Al Qaeda's post-9/11 mode of operation can be clearly demonstrated through the links and contacts it has formed with Islamic organizations throughout the Middle East and Southeast Asia. In the Middle East, the Iraqi-based Islamic organization, *Ansar al-Islam*, was founded in September 2001 by Islamic Kurds, who received their military training in Al Qaeda camps in Afghanistan. *Ansar al-Islam*'s main objective was to wage a local war against secular Kurds, who had established an autonomous rule in northern Iraq following the 1994–1996 Kurdish civil war. Both the Iraq of Saddam Hussein and Iran clearly supported *Ansar al-Islam* and considered its activity compatible with their regional interests. Although bin Laden also supported the establishment of the organization and provided financial aid and military training, Al Qaeda used *Ansar al-Islam* as an instrument for initiating terrorist activities against hostile Arab regimes (such as the murder of a U.S. official in Amman in October 2002), rather than assume control over the organization (Barel, 2003).

The case of *Ansar al-Islam* demonstrates Al Qaeda's current mode of operation, which is based on a strategy of simultaneous institutional presence and disappearance in an attempt to by-pass the difficulties entailed in maintaining hierarchical or networked chains of command. The strategy of disappearance seems clear: instead of being part of an existing network, either territorially or institutionally, Al Qaeda's associates adopted, through the course

of *Ansar-al-Islam*'s activities, a mixed mode of operation that relied on military presence and institutional disappearance. When Al Qaeda sought to carry out operations, its operatives received help from *Ansar-al-Islam*. When *Ansar-al-Islam* was in need of financial aid or guidance, Al Qaeda provided assistance. Yet, at no point did Al Qaeda interfere with *Ansar-al-Islam*'s activities. Thus, instead of forging a relationship based on permanent priorities and fixed interests, Al Qaeda's leaders preferred to base their relations with *Ansar-al-Islam* on ad-hoc operational considerations.

The collapse of Saddam's regime and the recruitment of many "Afghan graduates" to the anti-American forces in Iraq have turned Abu-Musawab al Zarqawi into the chief coordinator of terrorist activities in Iraq. He has claimed responsibility for most of the terrorist acts initiated against western targets in Iraq. The acts themselves are strongly associated with Al Qaeda because they resemble some of its past activities: suicide bombing, car bombs, and direct hits at oil tankers (CNN.Com, 26 April 2004).

A second example is Al Qaeda's operations in Southeast Asia. Two key radical Islamic figures were responsible for the increase in the number of terrorist activities in the region. Hambali, whose real name is Riduan Isamuddin, and Abu Baker Bashir both maintained close relations with Al Qaeda. Hambali fled to Malaysia in the mid-1980s after the Indonesian police cracked down on Muslim militants. In Malaysia he encountered Abu Bakar Bashir, an exiled Indonesian cleric of Yemeni origin. Bashir and Hambali formed the core of what would later become *Jemaah Islamiyah*, whose goal was to create a pan-Islamic state comprising the entire region of Southeast Asia. In the late 1980s Hambali went to Afghanistan to join the Mujahideen. Returning to Malaysia, he became the operational leader of *Jemaah Islamiyah*, whereas Abu Baker emerged as its spiritual leader. The organization also maintained close ties in the Philippines, with separatist Muslim rebels fighting on the southern island of Mindanao (*Financial Times*, 16 August 2003, 3). In Indonesia, *Jemaah Islamiyah* operated both against the local regime and the United States, and was closely tied to anti-Christian military activities in the Indonesian islands (Shahar, 2002). Indeed, Abu Bakar and *Jemaah Islamiyah* shared common interests with Al Qaeda. Yet, Abu Bakar's jihad remained primarily regional, with the main goal of establishing an Islamic state in Southeast Asia (Lekic, 2002). As in the case of *Ansar*

al-Islam in northern Iraq, terrorist activities in Southeast Asia were conducted by local groups with local agendas, rather than directly by Al Qaeda. Abu Bakar was detained in Indonesia in 2003 and Hambali was arrested at the end of this year by the Americans (Milman, Haaretz, 6 January 2004).

Since America's all-out war on Al Qaeda began, many Al Qaeda leaders have been killed, detained, or arrested. Al Qaeda's veteran leadership, probably including bin Laden and Al-Zawahiri, is located in a mountainous region near the Pakistan–Afghanistan border and holds fierce guerilla wars with the Pakistan army as well as with the western coalition forces (CNN.Com, 6 May 2004). However, despite all their losses, they may still have several thousand soldiers at their disposal (CNN.Com, 23 May 2004). The impressive ability of Al Qaeda to recuperate and start acting worldwide once again was demonstrated several times toward the end of 2003 and in early 2004.

Following 9/11, the increase in terrorist activities carried out by Al Qaeda in Muslim states reemphasized its loose communication and coordination with its affiliated groups. Bin Laden and his aides set the agenda but were hardly able to direct it (Burke, 2004a, 50). The Istanbul bombings in November 2003 were initiated by one or two militants, who trained in Afghanistan in the late 1990s. They were able to recruit a number of home-grown volunteers for suicide attacks and to select their own targets based solely on their own judgment (Burke, 2004a, 49). The terrorist activities that took place in Saudi Arabia during the second half of 2003 and the beginning of 2004 were apparently carried out in a similar fashion by homegrown volunteers, as were the attacks in May and November 2003. Indeed, since November 2003 the activities of locating targets and collecting intelligence in Saudi Arabia were first initiated by local organizations and later on by a group called "Al Qaeda of the Arab Peninsula," led by Abed al-Aziz al-Muqrin, who identified himself as an Al Qaeda operator (Stern, Haaretz, 13 November 2003 and 31 May 2004). There is controversy over how well connected the Saudi groups are to Al Qaeda's leadership. Although al-Muqrin's operations may be directly associated with Al Qaeda, a local group called *al-Hramayan Brigades* has claimed responsibility for the attacks of May and November 2003 (Memri, 23 December 2003). This group was anxious to preserve its autonomy and act entirely independently of Al Qaeda's hard core.

These cases illustrate that Al Qaeda operates as a de-territorialized organization, relying on loosely coordinated affiliations with non-Al Qaeda, but like-minded Muslim groups and individuals spread throughout Muslim communities, worldwide, who are ready to act with training, financing, and technical expertise whenever required (Rogers, 2002).

Al Qaeda's financial activities are conducted in a similar fashion. Its affiliated groups are financially self-sustained and balanced. Money transfers for activities are based on complex financial systems set up around the world. These include charity funds, Islamic banking networks and informal money transfers. When these channels were damaged in the United States and Europe, Al Qaeda's financiers enhanced their usage of the under-regulated financial Saudi finance systems (Basile, 2004). Like military operations, financial activities are dispersed, de-territorialized and somewhat chaotic.

Scholarly awareness concerning Al Qaeda's distinct mode of operation has led some observers to describe its activities in broad or impressionistic terms inspired by a deterministic view on "Islamic terrorism." "Islamic terrorism," according to Burke, is a chaotic movement that has no clear connection to what constituted Al Qaeda in Afghanistan. Thus, the label Al Qaeda should be dismissed altogether (Burke, 2003), or should be dealt with as an ideology with no leadership (Burke, 2004b). Shachar, on the other hand, argues that Al Qaeda has dispersed into cells, which are spread all over the planet (Shahar, 2003). According to this perception, Al Qaeda's cells maintain relations through "virtual links" (Stern, 2003, 33), which enable "individuals and groups [to] operate independently of each other, and never report to a central headquarter or single leader for direction or instruction, as those who belong to typical pyramid organization" (Louis Beam, as cited in Stern, 2003, 34-35). In organizations such as Al Qaeda, argues Jessica Stern, "leaders do not issue orders or pay operatives; instead, they inspire small cells or individuals to take action on their own initiative" (Stern, 2003, 34). Schweitzer and Shay (2002, 55-63) in comparison to other students of Al Qaeda, were aware of the structural uniqueness of the organization. Yet, they did not translate this complexity into a structured and empirically testable model of organizational behavior.

The observation that decision making and tactical operations might be initiated and carried out locally without a leading hand or clear leadership (Arquilla & Ronfeldt, 2001, 6–7); and new and innovative terminology such as “virtual links terrorism” and “lone-wolf” terrorist (Stern, 2003, 34), raise more questions than they provide answers. They may help to describe the new trends of terrorism and the effects on its activities. They may also sharpen awareness as to the unique aspects and structural “otherness” of Al Qaeda, yet they hardly provide a systematic comparative framework for studying Al Qaeda vis-à-vis other Islamic terrorist organizations. Nor do they contribute to an ability to grasp its organizational principles in an environment of blurred reality, fuzzy structure, and dispersed existence. The following section offers a description that the present authors assume better fits Al Qaeda’s unique organizational structure as well its operational sophistication.

The Dune Organization

The novelty of the subject and the difficulties current organizational approaches encounter in an attempt to provide a solid description and a satisfying analysis of Al Qaeda’s activities, led to the proposal of a new concept: the Dune organization. The concept of the Dune organization is based on the argument that the strategic behavior of Al Qaeda relies on a process of vacillation between territorial presence and a mode of disappearance. The perception of territorial presence is associated with stable territorial formations: nation states, global markets, or ethnic communities. Disappearance tactics, on the other hand, are closely related to the concept of the Dune organization. The Dune concept is inspired by the de-territorialization of the new political order: the world image of “geopolitical vertigo.” That is, a world that enables global terrorist organizations to adopt dunelike dynamics. The Dune movement is almost random, moving from one territory to another, affecting each territory, changing its characteristics and moves on to the next destination. When one takes this metaphor and applies it to the world of terrorist organizations, the resemblance of the geological Dune to the organization Dune becomes apparent. That is, terrorist organizations acting in the manner described with respect to Al Qaeda, act in a dynamics of a fast-moving entity that associates and dissociates itself with local elements while creating a global effect. The never ending associative connections link the Dune

organization in a decentralized and networked way with unknown number of affiliated groups. This network is temporary, attaches and detaches, moving onward after changing the environment in which it has acted. Afterward, it moves on while looking for another suitable environment for the Dune to act in. There are these features that may explain Al Qaeda's choice of global targets while employing limited power in an innovative and flexible manner; a manner that has to be employed due to the immense constraints faced by Al Qaeda since 11 September 2001.

The Dune organization manifests the following key features:

1. A lack of affiliation with any explicit territorial rational, thus rendering it difficult to monitor the organization's maneuvers.
2. No imminent institutional presence. In fact, an organizational reality is often built on its disappearance.
3. Dynamic activity that lacks adherence to any sequential reasoning regarding interaction with other organizations.
4. Command and communication chains that may be waived, intentionally fragmented, or severed at any point in time.
5. Consequent maneuverability among various interests and the attendant ability to align with different regional conflicts.
6. Adherence to a grand vision, such as global jihad, as a substitute for affiliation to a specific territory.

The following section presents a typology of terrorist organizations. This typology is laid out to highlight the structural uniqueness of Al Qaeda as Dune organization vis-à-vis the hierarchical and the networks types associated with local-minded organizations, such as Hizballah, Hamas, and the Palestinian Islamic Jihad.

A Typology of Terrorist Organizations

In order to lay down the basis for a comparative study of terrorist organizations, a typology of organizations is offered based on what the authors consider to be the basic elements of organizational behavior that eventually define organizations:

1. the communication structure within the organization,
2. the level of specialization and division of labor,
3. the chain of command and control, and
4. the organization's time definitions regarding the implementation of planned actions.

It is argued that conditions a terrorist groups operates within (availability of local contacts, resources, etc.), will yield different choices regarding the basic organizational elements depicted earlier, leading subsequently to a specific organizational design. Each of the four organizational elements contributes to a specific outcome in terms of the chosen mode of behavior. That is, different organizational modes of behavior derive from specific usages of the four elements of the organizational structure. Moreover, the way an organization handles each element contributes to its goal attainment capability. Figure 1 depicts this reasoning.

As Figure 1 illustrates, the terrorist organization defines its immediate target, such as the bombing of a famous tourist attraction. Then, as dictated by external conditions, such as access to operatives and resources, danger of exposure, time restrictions and so forth, the organization will adopt different patterns of the four key organizational elements, thus determining its organizational structure. The organizational structure, in turn, will have an impact on the organization's ability to attain its designated goals and, consequently, its choice of future targets.

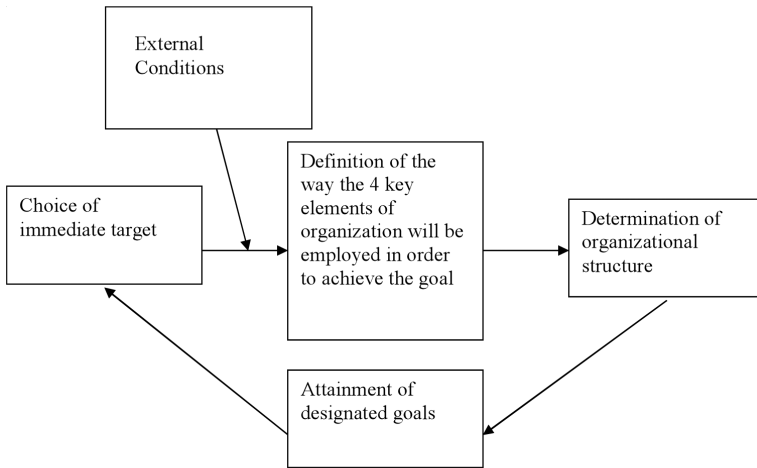


Figure 1. The organizational design pattern of terrorist organizations

This article now examines the different options available to terrorist groups regarding key organizational elements and the subsequent organizational structures. As shown in Figure 1, it is claimed that the organization's choices regarding these elements are influenced by the conditions under which it operates. The authors also show how organizational structures are reflected in the organization's activities:

1. A terrorist organization operates as a hierarchical organization when:

- A. a clearly *defined top-bottom communication chain* is present;
- B. a *strict framework of division of labor* and specialization exists within the organization;
- C. the organization adheres to a *strict chain of command* and acts on *specific time definitions*.

Choices of looser behavioral modes will move the organization away from the hierarchical structure. Such choices will lead to a more *networked* modus operandi: *hub, chain, and multichannel*.

2. The organization operates in a *hub network* mode of behavior when:

- A. the lines of communication and the command and control chain are *vertical and inflexible*.
- B. a defined *commanding entity that does not create a formal division of labor* controls activity.

-
3. An organization operates as a *chain network* when:
 - A. the chain of *command and control* are relinquished for most of the goal attainment effort;
 - B. a *well-structured sequential communication* process is employed.

 4. An organization operates as a *multichannel* network when:
 - A. *communication* flows freely;
 - B. *independent behavior* is allowed.

 5. Based on the earlier discussion, one may conclude that the leap from the network to the *Dune* type takes place when:
 - A. the organization assumes that other *organizations, loosely affiliated to it, will be able to carry out missions for it* as long as:
 - B. they receive *the needed material and normative support* so as to facilitate a line of independent maneuvers and,
 - C. *the initiating organization remains associated with them* as long as he or she is not sure that this organization can operate independently;
 - D. after the *initiator of the process will be sure that the other organization is able to operate independently, he or she will move on to find other organizations* that can attain other goals.

It is suggested that the Dune type of organization relies on an organizational rational that exceeds structure. It is based more on a movement of constant flow and entrepreneurship rather than on determining a structural mode of action. It concentrates on creating and finding relative advantages and opportunities for action and then on moving on to other targets.⁴ Thus, if there is a unique feature of a Dune organization it is its extreme ability to change; unlike other organizations, it may change in such a manner that leads to the relinquishing of most of its so-called organizational features.

Table 1 presents the five types of organizational structures as they derive from the basic elements of organizations defined earlier.

Table 1
Typology of terrorist organizations

Organizational structure	Organizational elements of behavior				
	Time	Communication	Command and control	Specialization and division of labor	Rationale
Hierarchy (Hizballah)	Specific	Vertical	Strict	Strict	Local
Network hub (Hamas)	Specific	Center-periphery	Strict	Flexible (leadership strict)	Local/global
Network chain (Hamas)	Specific	Sequential	Flexible	Flexible	Local/global
Network multichannel	Specific	Random	Flexible	Flexible	Local/global
Dune	Interval	Chaotic	Minimal	None	Global

The Dune Organization in Comparative Perspective

To illustrate the difference between Al Qaeda’s Dune current mode of behavior and other modes of organizational behavior such as that of Al Qaeda, in its earlier years, and of Hizballah, Hamas, and the Palestinian Islamic Jihad, in this section presents five types of organizational structure followed by examples based on activities of each type of organization.

The Hierarchical Type

An organization operates as a hierarchical organization when the terrorist act must be carried out at a *discrete point in time*, when the *chain of command and control is vertical and inflexible*, and when *the organizational status of each actor within the organization is clear and definite*.

Example 1: Following the Taef pact of 1989, which was enforced by Syria and Iran on all Lebanese fighting militias, Hizballah—a Lebanese Shi’ite organization founded in the early 1980s with strong Iranian support—became the major anti-Israeli military force in the Israeli-occupied territory of Southern Lebanon. Thus, Hizballah had to carefully calculate its military activities, while taking into account the interests of four different players: Israel, Lebanon, Syria, and Iran. For example, in late December 1999, on the eve of the resumption of peace negotiations between Syria and Israel, Hizballah decided to disrupt the Israeli-Syrian dialogue. A

suicide bomber was sent, upon the direct order of Hizballah leader Hassan Nasserallah, to explode himself near an Israeli military convoy. Although the Syrians did not openly support this act, they refrained from any action against *Hizballah* (Sobelman, 2003, 35–41). In this case Hizballah’s operation was planned to take place at a specific time, the communication was vertical and the chain of command and control was clear and strict.

The Network-Chain Type

An organization seeking to carry out an action at a *certain time*, *that operates without strict command and control*, but retains a *specific sequence of communication*, operates as a *chain network*.

Example 2: Since the 1980s and as part of its war against Israel, Hizballah has infiltrated numerous operatives into Israel in order to help in the construction of local cells of Fatah, the leading organization within the PLO (Sobelman, 2003, 70–74). This way, Hizballah can operate as a chain network when it needs to reach a specific target but prefers, for reasons depicted earlier, not to use a hierarchical mode of operation.

Example 2a: As the Palestinian Islamic movement, Hamas, was building its power base against Israel in the late 1980s, it developed a modus operandi reflective of a chain network. Hamas formed a compartmentalized structure of social, political, and military units. While in the military ranks, recruits were brought in on the basis of specific and personal connections, and secret information was transferred by reliable agents through predetermined channels of communication (Mishal & Sela, 2000, 55–56).

In both of these examples, the command and control structure is less strict; however, the communication structure is pre-designated and well planned, while time perception is relatively vague.

The Network-Hub Type

An organization that *lacks a strict chain of command and control throughout the organizational ranks*, yet *one player is responsible for monitoring and directing* the organization’s activities, operates as a hub network.

Example 3: One of the men most wanted by the intelligence services of Europe, Israel, and the United States is ‘Imad Mughniyah, the chief of Hizballah’s operational wing. Mughniyah has initiated worldwide terrorist attacks on behalf of Hizballah and the Iranian intelligence service. In order to carry out his actions, which require highly sophisticated capabilities, Mughniyah was appointed by the Iranians as coordinator of Hizballah, Hamas and the Palestinian Islamic Jihad (Fighel & Shahar, 2002), and thus sat at the center of the hub.

Example 3a: Until his arrest by Israel in 1989, Sheik Ahmed Yassin, the spiritual leader of Hamas, was the only person who controlled both the sociopolitical and the military pieces of the Hamas puzzle. Yassin orchestrated Hamas’s compartmentalization and invested tremendous effort in maintaining a clear line between its military operations and communal activities. By doing so, Yassin sought to deny Israeli authorities the ability to destroy the organization. Sheik Yassin reasoned that as long as the Israelis perceived Hamas as both a social and political organization, rather than only as a terrorist group, they would be reluctant to take harsh measures against it. Yassin’s policy was taken to the extreme when after a Hamas military group kidnapped Israeli soldiers (in January and May 1989) from inside Israel, Yassin refused to allow the perpetrators to bargain a deal with the Israeli authorities. The reason for this was that he feared that identification of the movement with that action might induce Israel to retaliate against Hamas’s social institutions (Mishal & Sela, 2000, 56–57). Had other segments of Hamas known about this “missed” or “forbidden” opportunity they might have pressured Yassin to change his position. However, because Yassin was the sole possessor of all information, he also possessed the power to prevent this and other bargaining opportunities.

Both cases show a single specific player monitoring and activating a network without anyone else being completely aware of that player’s actions. The chain of command and control is strict but the division of labor is not hierarchical and only one player is endowed with the right to lead the hub network.

The Network-Multichannel Type

An organization that operates according to specific time definitions in its execution of operations, yet *a very low level of command and control is exerted within the organization* and information flows freely *in all directions within the network*, operates as a *multichannel network*.

Example 4: According to Al Qaeda operative Ali Mohammed, who was convicted of the U.S. embassy bombings in 1998, bin Laden met with ‘Imad Mughniyah of Hizballah to study the method of car bombs that Mughniyah had developed in Beirut in the 1980s. This demonstrates the importance of the free flow of information, between cooperative as well as competing groups, for the implementation of “impressive” operations (Fighel & Shahar, 2002).

Example 4a: During the 1980s, a group of Palestinian Islamist militants known as the Palestinian Islamic Jihad took its first steps as a terrorist organization. The members of the Palestinian Islamic Jihad adhered to a sound ideological platform, and were particularly popular among the Palestinian youth, due to their radical militant Islamic vision. However, in order to start operating they were in need of an infrastructure, training, and information. The Fatah movement that was involved in activities of armed struggle against Israel in the West Bank and Gaza embraced the new organization. During mutual imprisonments, both movements’ activists served time in Israeli prisons, freely exchanging information and values. Specifically, the Palestinian Islamic Jihad received guidance from Fatah regarding armed struggle activities, whereas the Palestinian Islamic Jihad’s norms and values were embraced by Fatah (Hatina, 1994, 23–26).

Both cases show that actions and operations can be carried out effectively despite the free flow of information and under an absence of a predetermined and rigid chain of command and control. Under these circumstances, leaders not so much lead but rather set up the network and then step aside.

The Dune Type

When terrorist actions are *carried out by both the organization itself as well as groups loosely affiliated to it; the actions are carried out within loosely defined intervals of time rather than in accordance to strictly defined time dictates; and, the actions of the affiliated groups are not necessarily identical in terms of their modus operandi to the core organization's actions but the same outcome is achieved*, it is indicative that a Dune organization is at work.

Example 5: The March 2004 attack on the commuter trains in Madrid was coordinated by a Tunisian, affiliated with an already existing local group of immigrants named the “Moroccan Islamic Combat Group.” The group, which appeared to have been acting independently of Al Qaeda’s hard core, demonstrated that the use of the Dune pattern collided with the old method of networks. This activity was not embedded in a regional rationale, nor did it require a well-rooted network. It used an agent to create an ad-hoc network, selected its targets independently, and pursued a global objective, whose importance and relevance exceeded the specific objective of hurting the Spanish population (CNN.com, 30 March 2004; Goodman, 2004). The attack, aimed at the global system, was part of a worldwide battle between Islam and the “New World Order.” Although most of the people who belonged to this network were either arrested or committed suicide, the terrorist attack in Madrid was only one small part of a much larger global war. Thus, contrary to Hizballah, Hamas, and the Palestinian Islamic Jihad that deeply suffered from Israel’s military retaliations, the damage to the operational capability of Al Qaeda from counter activities is marginal. A Dune organization like Al Qaeda will create another ad-hoc group somewhere else and will resume the fight from that place. Thus, a global-reaching organization capable of recruiting operators and soldiers almost everywhere will hardly be affected by a tactical loss. It has a global strategy that will enable it to maintain itself as long as it can recruit worldwide resources.

Following the discussion of the five types of organizations, it may be concluded that:

1. The hierarchical organizational type allows an organization a high level of certainty. Because the hierarchical organization enjoys territorial presence and operates according to strict institutional codes of behavior, inside players work under specific and well-defined procedures and roles. However, because the hierarchical organization is predictable and vulnerable, its structural advantage may turn into a disadvantage when it encounters external players.

2. The network type allows for more flexibility in action and communication. The network mode of action extends the terms of communication and division of labor to their most outer boundaries. However, the network still requires an institutionalized mode of behavior and some territorial presence.

3. The Dune organization allows for another pattern of behavior. Certainly, as in the hierarchical and the network types of organizations, some linkage exists between the agents who perform the organization's tasks. Yet, the Dune organization hardly maintains constant supervision or control over the activities of its agents. In fact, the Dune organization often demands from its activists the least of formal commitments. The obvious weakness of the Dune type of organization is its lack of control. Once the initiating organization moves on, what happens at the organization that is left behind totally depends on its abilities and decisions. For example, the Turkish activities against symbolic targets were taken in spite of Bin Laden's instructions to attack strategic targets (Milman, 6 January 2004). Thus, sophisticated and well-conducted activities such as the 9/11 attack can hardly be attained in the Dune modus operandi. Moreover, this type of operational mode may lead to an overall loss of control over affiliated organizations that received resources and has no real control on its activities. Yet, both those vices have a virtue: in a case where the leadership of the initiating organization is detained, the affiliated organization can continue the war, due to its independence from the initiating organization.

Discussion

The different types of Islamic terrorist organizations highlight the differences in the environments in which the agents operate. Structurally, Al Qaeda's agents within the Dune organization often act autonomously and are driven by the principle of self-reliance. Hierarchical and networked actors within Hizballah, Hamas, and the Palestinian Islamic Jihad are dependent on the organization's definitions of roles and responses. They are expected to operate according to distinct sets of rules defined by the organization. On the behavioral level, Al Qaeda as Dune organization may encourage actors to rely on a broad interpretation of capacity to exploit opportunities and to challenge constraints. On the other hand, in the hierarchical and network structures of Hizballah, Hamas, and the Palestinian Islamic Jihad, "rules of the game... constrain...how participants act. They limit types of behavior which is acceptable" (Marsh & Smith, 2000, 6).

Al Qaeda, in comparison to Islamic terrorist organizations, which focus on regional or local agendas, enjoys two advantages:

1. Al Qaeda's leadership has a greater ability to alter the organization's immediate goals upon encountering potential allies. Often, the Al Qaeda leadership's decision-making process is not burdened by internal or external organizational constraints, such as standard operating procedures and other institutionalized patterns of behavior. The costs and benefits of opportunities are valued and determined without regard to past or future commitments.
2. Al Qaeda's mode of operation may lead to the conclusion that the organization can risk not being certain about the final outcome of their ally's performance. Although Al Qaeda has clear goals and policy agenda, due to operational circumstances its leaders are often willing to sacrifice their intra-organizational status and power and allow events, chances, and randomness to dictate developments.

True, organizations that do not adhere to restrictive frameworks of decision-making processes might find themselves making unintended strategic choices (Riker, 1980). Still, one may assume that Al Qaeda's core leadership sets the agenda and defines general strategies, thus allowing itself inner-circle, vertically directed decision-making processes. In addition, for more targeted activities, power might be concentrated and maintained within the inner circle. In this manner, power dispersion might be used for tactical purposes in order to more effectively achieve Al Qaeda's mission of global Jihad.

Some Conclusions

Conceptual uncertainties and analytical confusion shared by strategists and analysts studying Al Qaeda's actions following the 9/11 attacks led the authors to search for a different organizational concept. This article presented a new typology of organizations in an attempt to identify the types of structure and modes of operation of different Islamic terrorist organizations in global and more localized environments. Al Qaeda was conceptualized as a Dune organization with structure and activities that rely on a strategy of territorial disappearance and lack of imminent institutional presence. At the same time, Hizballah, Hamas, and the Palestinian Islamic Jihad operate as hierarchical and network organizations that enjoy territorial and institutional presence with various levels of command and control. It might be argued that whereas network structure can be portrayed as a spider with webs, Dunes are webs with or without a hidden spider (Barabasi, 2002, 219–226).

Nevertheless, these organizational definitions should not lead the analyst to disregard the cultural and ideological aims of the organization. Although hierarchical or networked organizations can take on multiple tasks and global activity, a Dune organization must act in this fashion if its tasks are multiple and far-reaching. That is, in hierarchy or network organizations, global agenda is neither a necessary, nor a sufficient, condition for existence. Whereas, for an organization to be classified as a Dune, the global vision is a necessary yet not sufficient condition. In addition, the two organizational perceptions, hierarchy and network, and the present concept of the Dune organization can be amalgamated, switched, and discarded along the trail of organizational activity.

Al Qaeda is far from being perceived as a natural extension of existing schools of political thought and of existing methods of organizational behavior (Geertz, 2003). In order to deal systematically with the phenomenon of this new type of terrorist organization, it is necessary to replace the old conceptual map of terrorist organizations with a new one that captures the highly elusive dimensions of the Dune organization. In doing so, one is led to raise new questions and propose fresh assumptions regarding Islamic terrorist organizations. Moreover, one is led to focus on the fragmented, de-territorialized, fast-moving operational capability and infinite associative connections of Al Qaeda, in comparison to more local Islamic terrorist organizations, rather than on structural coherence, institutional presence, and conventional organizational rationales.

In order to further develop the Dune concept with the objective of applying it to the study of Islamic terrorist organizations, especially those affiliated with Al Qaeda, it is imperative to create a sound and reliable body of empirical data against which hypotheses derived from the Dune concept may be systematically tested. Such a database should be inclusive of the variables referred to earlier, that is, *the communication structure* within the organization; the level of *specialization and division of labor*; the *command and control* pattern, and the organization's *time* definitions.

Notes

1. This article focuses on Islamic terrorist organizations, because these organizations are in the front line of regional and international attention, occupying the strategic efforts and resources of security services world-wide. For methodological reasons, as well, the article focuses solely on comparisons among Islamic terrorist organizations so as to minimize the influence of intervening variables such as religion, culture, location, and participating population that may obstruct the comparative assessment. It is not inconceivable, though, that other organizations might adopt the same ways of thinking and methods. Thus, the concept of the Dune organization may be perceived in a broader context as well.

2. Indeed, the 2003 Al Qaeda military attacks inside Saudi Arabia prompted serious debate on Al Qaeda's websites, due to the fact that the attacks took place on the soil of an Arab state, causing Arab casualties. Al Qaeda's ideologists repeatedly claimed that their main target is the Americans so as to challenge the U.S. economic and military presence, aiming to run off the infidels from the sacred ground of the Arab Peninsula and destabilize the Western world (Memri, 23 December 2003).

3. Several analysts, who have discussed this typology with the present authors, have claimed that there is a confusion between the hierarchical and the network hub model. This confusion stems from the level and manner of control of the hub's leader. In the hub model the level and manner of control resembles the unitary control of a specific leader, or a group of leaders in hierarchical organizations. However, it may be noted that hierarchical model rationale is based on Weber's Bureaucratic model (Weber, 1947). This model demands strict regulation of activities, clear professionalization and strict division of labor from the people associated with the organization. Thus, although the hub model emphasizes the unitary control of the organization's leadership, it lacks the *modus operandi* of a strictly hierarchic model.

4. This view may coincide with current perspectives in business literature such as the prospector strategy formulated by Miles and Snow. They claim that in a dynamic environment, the leader's optimal strategy is to innovate, take risks, seek new opportunities and extend the organization's activity. In order to succeed with such a strategy the organization's internal structure must be

fluid, flexible and decentralized (Daft, 1995, 50–53). However, the scope and aim of terrorist organizations are not based solely at organizational efficiency but on a politically based ideology. This qualitative difference immediately parts ways with business perspectives. It is political, cultural, and ideological and should be analyzed separately.

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