ASSESSING THE TERRORIST THREAT: ORGANIZATIONAL CAPABILITIES IN COMMITTING ACTS OF TERRORISM*

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This paper focuses at the impact of the structure of a terrorist group on their capacity to commit complex acts of terrorism. While terrorism scholars as well as policy-makers often believe successful acts of terrorism are dependent on material resources, such as written scientific data, financial resources and access to arms, this limited focus fails to grasp the subtle complexities in organizing a terrorist act. The organizational structure determines how the roles, power and responsibilities are assigned, controlled and coordinated. Consequently, any structural pattern influences the strategic control over acts of terrorism as well as the operational and tactical vulnerabilities with regards to acts of terrorism. This theoretical paper will analyse the essential components of any organizational structure, namely ‘membership’, ‘operational space and time’, ‘formalization’ and ‘centralization’, and their respective impact on the capacity of a terrorist organization.

INTRODUCTION

‘On April 9, 2013, Abu Bakr al-Baghdadi, the emir of the Islamic State of Iraq, a front group for AQI, declared that his group was changing its name to the Islamic State of Iraq and al Sham (ISIS), indicating his desire to play a greater role in the Syrian civil war. The emir also claimed that AQI had already been fighting in Syria in the form of the Nusra Front, which he said was subordinate to him. Yet Abu Muhammad al-Jawlani, the Nusra Front’s leader, refused to acknowledge Baghdadi as his leader; instead he pledged a direct oath of allegiance to Zawahiri. In response to the spat, Zawahiri sent a private message ruling that both men had erred: Baghdadi by not consulting Jawlani, and Jawlani by refusing to join ISIS and giving his direct allegiance to Zawahiri without permission from al Qaeda central.’

This bureaucratic power struggle is a prime example of terrorist organizations’ susceptibility to similar organizational challenges as those faced by traditional human organizations. Like any competent manager, Ayman al-Zawahiri needs to keep tabs on the members’ activities and devote resources on keeping them in line with the organization’s aims. Without such organization, no group of individuals acting under a common rhetorical banner can achieve an effective scale of violence. Well-managed organizations have

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conducted bombing campaigns in the Basque country, Northern Ireland and Pakistan, and it was a competently organized Al Qaeda that attached the World Trade Center and Pentagon on September 11, 2001. Yet, terrorism scholars as well as policy-makers often believe that access to tangible resources, such as written scientific data, financial resources and access to arms and material, is sufficient for terrorist organizations to achieve their goals. This perspective fails to grasp the subtle challenges in organizing terrorism. As the competition between the Nusra Front and ISIS illustrates, also terrorist organizations need to be effectively coordinated and managed. These intangible specifics of any organization continuously affect the acquisition and efficient use of any material resources.

In what follows, this paper will particularly focus at the impact of the organizational structure on a terrorist organization’s capacity to organize and conduct successful complex acts of terrorism. While other intangible tools, such as the social environment and the organizational culture, should not be underestimated, the organizational structure determines how the roles, power and responsibilities are assigned, controlled and coordinated. This configuration of structural components shapes the ability to communicate within the organization and conveys the authority to set the behavior of others in the organization, and leads to the fact that any particular structural configuration has an impact on the capacity of terrorist organizations. In order to develop this idea, this paper will analyse the impact of the various contingent structural components on the strategic control over complex acts of terrorism as well as on the operational and tactical strengths and vulnerabilities with regards to these acts of terrorism.

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4 As has become clear over the last few months, Ayman-al-Zawahiri publicly dissociated Al Qaeda from ISIS due to the fact that ISIS conducted a series of brutal attacks. Zawahiri believed these are not in line with the organization’s strategic goals (infra). While this leads my example to be outdated, the underlying principle of the need for effective coordination is strengthened by the fact that Zawahiri goes as far to dissociate Al Qaeda from ISIS to effectively manage the Al Qaeda brand, and with it the Al Qaeda organization.


7 Note that the author is always talking about the impact on the likelihood that a specific terrorist act will succeed or fail in achieving its goal. This is by no means deterministic. As Jackson and Frelinger point out: even activities that look like they should be trivial for a high-capability group can ‘go wrong’ and even groups that do not know what they are doing will be lucky at times.
THE ‘STRUCTURAL CAPACITY’ OF A TERRORIST ORGANIZATION

Terrorist organizations are covert organizations. They rely on stealth and secrecy to complete their missions. Contrary to regular organizations, clandestine organizations’ actions to improve its short run effects are antithetical to what it must do to improve its security. In order to achieve the highest operational impact, terrorist organizations must apply various communication and coordination mechanisms to control its members. Yet, any such communication and coordination mechanism entails significant vulnerabilities with regards to the simultaneous need to maintain security. A prime example is the CIA’s success in killing Osama Bin Laden after they managed to trace Bin Laden through its courier. The structure of a terrorist organization, which is defined in this paper as ‘indicating an enduring configuration of tasks and activities’, has an essential impact on this inverse relation between capacity and security. Thus, structural capacity refers to the extent that the enduring configuration of tasks and activities allows terrorist organizations to achieve the highest operational impact, given the competing and simultaneous need to maintain security.

The enduring configuration of tasks and activities is constructed by four contingent structural components. Each of these components sets the stage in which the terrorist tasks and activities must be carried out. They construct the anatomy of the terrorist organization and provide a foundation within which the organization functions. Consequently, each of these components directly influences the highest operational impact terrorists can achieve while securing the organization’s survival.

- First, the organizational structure is constructed by the organization’s membership. Membership refers to the size of the organization (number of cells and number of members within each cell) as well as to particular intangible skills of the members. Principal-agent theory suggests an increasing number of members will lead to an increasing level of delegation, and vice versa. In order to function efficiently, principals delegate conditional authority with respect to certain tasks to an agent (a terrorist in this case) rather than micro-managing everything on their own. Yet, these independent actions by an agent might not always be in perfect alignment with the expectations of the principal. A well-skilled member, however, will perform better in

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8 J. N. Shapiro, The terrorist’s dilemma: managing violent covert organizations, Princeton and Oxford, Princeton University Press, 2013, p. 4
13 It goes without saying that the probability of success of terrorist operations is not driven by the absolute value of these contingent structural components, but rather by how those levels compare with what the terrorist group needs to bring in its plan to fruition. Some attacks are just not that difficult to conduct without compromising the organization. A suicide bomber does not need to communicate extensively, think about concealing a planted bomb or staying secure after an attack. Furthermore, these structural components do not determine the highest operational impact in a deterministic way. While an incompetent organization can get lucky, a well-organized group might have bad luck in some cases.
line with the expectations of its principal. Thus, the number of members and level of members’ skills directly influences the successful functioning of any organization.

- Second, the structure of a terrorist organization is also composed by the operational space and time an organization has at its availability. Any (complex) attack requires a specific level of planning and training to execute the attack. Consequently, each terrorist cell and its individual members needs to be able to turn to a secure location for a vast amount of time, which can range from local hideouts over urban neighborhoods to state sanctuaries. The level of secure operational space and time directly impacts the likelihood of terrorists conducting successful acts of terrorism while maintaining the group secure.

- Third, the enduring configuration of tasks and activities is assembled by the level of formalization as well. Formalization refers to the extent to which rules, procedures, instructions and communications are written, and the degree to which roles are explicitly defined. As delegation between principals and agents would occur, this mechanism aims to help principals to control their agents. It allows clear communication and coordination, but leaves traceable evidence for law enforcement agencies. Consequently, it has a direct impact on a terrorist organization’s balancing act with respect to ‘capacity’ versus ‘security’.

- Finally, the organizational structure is most directly constructed by the level of centralization. This refers to formal as well as informal measures with respect to the locus of authority to make decisions affecting the organization, and re-enforcement of these decisions. It is through this mechanism that leaders plan, coordinate and execute the attacks of the terrorist organization. Classifications fall within a continuum from ‘hierarchical’ to ‘network’. The organizational structure’s place on this continuum has a direct impact on the way leaders can direct their agents in carrying out successful acts of terrorism.

These four contingent structural components determine the extent to which terrorist organization can successfully cope with the inverse relation between capacity and security. Note however that the distinction between these four contingent structural components is arbitrary. All components are closely related and, sometimes, even overlapping. While ‘membership’ and/or ‘operational space & time’ can have an impact vis-à-vis the level of ‘formalization’, ‘formalization’, on its turn, can have an impact on the level of ‘centralization’. Actual terrorist organizations are frequently hybrids of different structural types. There is significant heterogeneity impeding the selection of a few particular structural

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16 Ibid., p. 80
18 For instance, a large organization dispersed over various countries will be inclined to use a stronger level of formalization in order to control the various agents, and vice versa.
Consequently, in what follows, we aim to overcome these impediments by focusing on the individual components of any structural pattern, and analysing the impact of these contingent structural components on the strategic, operational and tactical level of terrorists’ capacity to successful complex acts of terror. This combination will determine the structural capacity of a terrorist organization.

SUCCESS VERSUS SECURITY

Conventional wisdom dictates that the primary criteria to define successful acts of terrorism is the number of casualties. 9/11 hit home considering nearly 3000 people died. Yet, any terrorist attack should always be framed in a terrorist organization’s deliberate strategy to advance its end. America’s furious reaction after 9/11 might be considered counterproductive to Al Qaeda achieving their ends. Whether a terrorist group aims for regime change, territorial change or policy change, terrorism is always ‘the considered application of means to advance one’s end.’ Thus, it is clear that any terrorist organization’s strategy is a multi-layered concept. In order to categorize any act of terrorism as successful, it requires competence across all levels of the taxonomy of strategy. The highest level of this taxonomy is the strategic level. It consists of a plan to acquire broad policy goals (e.g. territorial or regime change). In concreto, terrorist organizations deliberately chose terrorism, rather than politics, as a means of pursuing their ends. This is achieved at the lowest level of strategy, the tactical level. This level refers the specific acts of terrorism (e.g. suicide bombings or kidnappings). The tactical engagements will be linked together to the overall strategy by means of the operational level. As Lonsdale points out, the operational level can be thought of in both conceptual and material terms. Conceptually, this level links tactical engagements together in the overall terrorist strategy. Materially, we can think in terms of a geographic area within which forces are moved. Any terrorist attack must be a success on the tactical, operational as well as strategic level. Yet, the four identified contingent structural components will have an effect on the likelihood of terrorists organizations achieving this, while securing the survival of the organization.

24 For example, although the 2003 attack on Western compounds in Riyadh were a tactical success, it seemed like Al Qaeda was no longer able to exercise control over its members given the attacks mainly killed Muslims. The successful tactical engagements were not in line with the overall strategy of attacking Western targets. Considering popular support decreased, these attacks hindered Al Qaeda in achieving one of their strategic goals, namely establishing a Muslim Caliphate.
Membership

Membership refers to the size of the organization (number of cells and number of members within each cell) as well as to particular intangible skills of the members. It brings an identity with it that differs from that of non-members, and serves as the driving force behind any act of terrorism. No terrorist organization can physically function without its members. They determine the pool from which terrorist organization can draw when deciding to carry out a tactical attack. Consequently, the quantity and quality of this pool will impact the likelihood of successful tactical engagements. It will determine, to a degree, the complexity of the operations which they can undertake and the overall probability of achieving the desired attack. Relatively simple operations such as suicide bombings, assassinations or assaults do not require participation of many well-skilled terrorists. However, the abduction of a high-profile, well-protected person would be more complex. It would require members to carry out reconnaissance assignments, to coordinate logistics such as safe houses and transport, to communicate with authorities, set up an assault team, etc. It is no surprise that Al Qaeda, which according to Hoffman has a more active presence in more places in than it did in 11 September 2001, is still able to carry out coordinated simultaneous terrorist attacks on a regular basis. It’s global Jihad often benefits from resources mobilized for other purposes. Local and regionalist Jihadists fronts provide resources that can be directed against the ‘far enemy’. Nevertheless, there is no absolute positive linear relationship between membership and successful tactical engagements. At some point will a further increase in membership add very little to the organization’s overall capacity to commit acts of terrorism. To put it simply, a terrorist organization does not need 100 terrorists to carry out one suicide attack. Even worse, a higher number of members also impedes clandestine groups from hiding their operatives from the attention of security organizations that are looking for them. It has a direct impact on the organization’s capacity to safeguard the organization an sich.

27 B. Hoffman, ‘Al Qaeda’s uncertain future’, Studies in Conflict and Terrorism, Vol. 36, No. 8, 2013, p. 639. This assessment has been made in 2011. Currently, to my knowledge, there is no reason to suspect this assessment has to be altered in a substantial way.
Furthermore, as the mere number of members grows, so does the capacity of the leader to effectively manage its members tend to decrease at an increasing rate.\textsuperscript{32} A small group with few members concentrated in a relatively small area have limited management requirements with regards to terrorist attacks. Yet, when a group grows larger it is in need for more complex \textit{operational} command and control system. This increases the risk on unintended \textit{strategic} miscalculations.\textsuperscript{33} The benefits associated with the growth of membership are increasingly offset by these difficulties. For example, when the FARC began to expand its activities in the beginning of the 1990’s, some FARC members kidnapped and killed nine hikers in Colombia’s Purace National Park, apparently without the prior knowledge or consent of the group’s political leaders. This resulted in turmoil within the FARC and a backlash from the group’s traditional supporters who were outraged by the attack.\textsuperscript{34} Obviously, this seriously damaged their strategic interests. Although qualitative members, and well-skilled leaders (which make good choices about the number of operatives to devote to the attack, the weapons that will be used, the financial or other resources that will be allocated, etc.) can postpone the point of diminishing marginal returns,\textsuperscript{35} membership as a contingent structural component does contain a theoretic supremum.

\textit{Operational space & time}

Operational space & time refers to ‘an area of relative security exploited by terrorists to indoctrinate, recruit, coalesce, train, and regroup, as well as prepare and support their operations.’ It allows terrorist organizations to plan and inspire acts of terrorism around the world,\textsuperscript{36} indicating a positive impact on all the levels of strategy taxonomy.\textsuperscript{37} Considering the \textit{tactical level}, it provides terrorist cells and members with the opportunity to plan, train and execute acts of terrorism.\textsuperscript{38} Some of the members of the Rote Armee Fraktion went overseas with regards to crucial training courses.\textsuperscript{39} Palestinian terrorist organizations provided them training in urban guerilla warfare in Jordan and Syria in 1970. They practiced the use of firearms, hand grenades, and urban guerilla maneuvers.\textsuperscript{40} Similarly, from 1998 to 2002, the

\begin{thebibliography}{99}
\bibitem{34} Ibid., p.36
\bibitem{36} US. Department of State, \textit{Terrorist safe havens}, \url{http://www.state.gov/documents/organization/65466.pdf} (accessed on 10 March 2014).
\bibitem{37} The requirements with respect to operational space & time differ, obviously, to the attacks terrorist organizations are planning. While a suicide bombing or a ‘Westgate-style’ armed attack requires little preparation or reconnaissance, more sophisticated operations, like 9/11, require meticulous planning (e.g. reconnaissance of the targets, flight lessons, stockpiling of weapons, coordination of the various members, financial support, transport of the attackers, etc.).
\bibitem{39} O. Billig ‘The Lawyer Terrorist and His Comrades’, \textit{Political Psychology}, Vol. 6, No.1, 1985, p. 32
\end{thebibliography}
FARC was able to operate within a demilitarized zone in Southwestern Colombia. This DMZ allowed FARC members to coordinate their activities relatively openly, without concern for over arrest or disruption, thereby developing their urban warfare capabilities and bolster its weapons supplies.⁴¹ Considering the higher levels of strategy, operational space & time allows the terrorist organization to link any tactical engagement more effectively with their broad policy goals. It enables them to communicate and reflect upon the impact of any terrorist attack on the long-term goals of the organization.⁴² Furthermore, it is noteworthy that ‘time’ is an essential asset to terrorist organizations. Terrorist organizations aim to win their battle by exhausting the opponent over time. One could argue that the retreat of American soldiers from Afghanistan can be framed in American exhaustion from the ‘war on terrorism’.

Yet, again, there is a clear inverse relationship. The moment that terrorists actually plan and train for their tactical engagements, is also the moment at which they are most vulnerable. Increasing space and time requirements leads to a growing opportunity for law enforcement agencies to permeate the ‘relative security’ being exploited by terrorist organizations. For example, Aum Shinrikyo executed, tortured and isolated members who appeared to have moral qualms about their activities in order to secure the organization of the 1995 Sarin attacks and to safeguard the organization an sich.⁴³ Other vulnerabilities to law enforcement agencies are the interception of communication between members (especially if there is a large geographical spread between various members and/or cells), the notification of specific dual use material, tips by suspicious members in the neighborhood, etc. These vulnerabilities for terrorists have often provided investigators with vital clues to disrupt (major) terrorist plots. Thus, when a terrorist organization fails to effectively and efficiently use the space and time it has at its availability, this will have a negative impact on the likelihood of successful acts of terrorism on the tactical, operational as well as strategic level.

**Formalization**

Formalization refers to the extent to which rules, procedures, instructions and communications are written, and the degree to which roles are explicitly defined.⁴⁴ A strong level of formalization ensures clear and compelling communication lines, well-defined roles and task allocations and a well-developed monitoring and control mechanism of terrorist leaders over the individual members. Yet, although helpful in effectively guiding an organization, weak connections between leaders and members are very robust to penetrate. They cannot be followed to other members or the leadership, thereby making weak

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⁴² This does not entail that their assessment is always correct, however. There was discussion within the top-level leaders of Al Qaeda about the effects of 9/11. One could argue that the effects of 9/11 were not advantageous to their overall goals.
connections attractive from a security perspective. The desirable degree of formalization mechanisms, and the corresponding security risks, differ according to tactical, operational or strategic level.

First, the **tactical level** will require the most explicit task allocations and clear communication. Considering the 19 terrorists involved in 9/11, there was a clear task allocation between the four pilots and 15 muscle hijackers. One recruit, Fayez Banihammad, appears to have played a unique role among the muscle hijackers because of his linking work with one of the plot’s financial facilitators. Furthermore, by mid-June, stronger formalization was necessary for Mohammed Atta to, e.g., pick-up the hijackers at the airport, find them places to stay, and help them settle in the United States. While this stronger level of formalization was necessary to successfully carry out 9/11, it was no coincidence that intelligence services noted around the same time that the pattern of Al Qaeda activity indicating attack planning had reached a crescendo. It demonstrates their vulnerability to law enforcement agencies. Second, the **operational level** only requires periodic meetings and communication to frame the overall plan of the operation. On 8 July 2001, Mohammed Atta convened with Ramzi Binalshibh, a representative of Al Qaeda. Binalshibh clarified that Bin Laden wanted the attacks to be carried out as soon as possible, considering Bin Laden was worried about having so many operatives in the United States. Furthermore, they discussed the possibility of striking the White House, which carried preference by Bin Laden. Yet, it is interesting to see they convened in Madrid. While Atta would have preferred Berlin, both of them knew too many people in Germany, and Binalshibh feared being spotted together. This illustrates Al Qaeda was well aware of the security risks entailed to such operational consultations. Finally, the **strategic level** requires limited direct contacts, provided mass communication modes exist to transmit opinion leaders’ statement to their followers. Ayman-Al Zawahiri, for example, made use of widespread media to announce Al Qaeda’s dissociation from ISIS. This clarified that such brutal means did not fit Al Qaeda’s long-term

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46 As being pointed out in R. Gunaratna, ‘Al Qaeda’s Operational Ties with Allied Groups’, *Jane’s Intelligence Review*, 1 February 2003. He makes this clear by elaborating on Al Qaeda-JI plans and preparations to strike Western, Israeli and other targets in Southeast Asia after 11 September 2001, and tracing in detail the movements of one of Osama bin Laden's emissaries, Mohammed Mansour Jabarah.

48 Ibid., p. 241
49 Ibid., p. 257
strategy, without compromising the security of the organization. Yet, this might impede the strategic effectiveness of the organization. Again building on the example of 9/11, a schism emerged among the senior leadership of Al Qaeda by July 2001. Weighty figures in the organization considered the idea that an attack against the United States might be counterproductive. It might draw the Americans into the war against them.\textsuperscript{53} Yet, the personal interpretation and will of individuals, such as Khalid Sheik Mohammed and Mohammed Atta, became more prominent, considering there was no clear, formal contact between the tactical and strategic level.

\textit{Centralization}

Centralization refers to formal as well as informal measures with respect to the locus of authority to make decisions affecting the organization, and re-enforcement of these decisions.\textsuperscript{54} This hierarchy vs. network continuum has an important impact on the control over subordinates on the tactical, operational as well as strategic level.\textsuperscript{55} Considering the \textit{tactical level}, a strong hierarchical organization has a direct impact on the way leaders can direct their agents in carrying out specific terrorist attacks. The well-defined vertical chain of command and control allows strict control over the agents, and enables the successful achievement of activities that require more exact coordination among the various moving parts.\textsuperscript{56} It is no coincidence that Al Qaeda, Hamas, Hezbollah, early Marxist factions, the PIRA as well as the Red Brigades all initially chose for a centralized, hierarchical organization.\textsuperscript{57} Nevertheless, a lack of centralized control and coordination can provide advantages in stimulating tactical level innovation, because more independent actors frequently can experiment with new approaches more readily. The centralized PIRA council, for example, did not completely control all the activities of individual cells. This led different parts of PIRA to attempt new operations, ranging from attacking and sinking British coal ships at sea to attempting to bomb security force targets from the air.\textsuperscript{58} It stimulates bottom-up creativity, team-work and engagement.\textsuperscript{59}

Considering the \textit{operational and strategic level}, clear and stable authority relations enable leaders to design and implement plans aimed at complex strategies. It provides clear guidance

\textsuperscript{53} National Commission on Terrorist Attacks upon the United States. (Philip Zelikow, Executive Director; Bonnie D. Jenkins, Counsel; Ernest R. May, Senior Advisor). \textit{The 9/11 Commission Report}. New York, W.W. Norton & Company, p. 251
\textsuperscript{56} Ibid., p. 248
\textsuperscript{57} J.N. Shapiro, ‘Organizing terror: Hierarchy and Networks in Covert Organizations’, \textit{preliminary draft}, p. 15 http://www.teachingterror.net/resources/Shapiro%20organizing%20Terror.pdf (accessed on 10 March 2014)
on the operational as well as strategic level, thereby ensuring the likelihood of a match between tactical engagements and the broad policy goals. Yet, again, this entails various risks with respect to the security of the terrorist organization. The given example of the CIA’s success in killing Osama Bin Laden after they managed to trace Bin Laden through its courier demonstrates this in an excellent manner.

These four contingent structural components are closely interrelated and can be overlapping. For instance, ‘operational space & time’ is necessary to plan and train for an attack. Yet, this is closely related to ‘membership’, considering ‘operational space & time’ is most often reliant on passive and active supporters within communities – local, national and transnational. Furthermore, ‘centralization’ and ‘formalization’ are closely related, given that hierarchy and strict formal control often go hand-in-hand. A final example is ‘formalization’ and ‘operational space & time’. Any geographically spread organization will need a certain degree of formal ways to control its members as well as the organization’s security. It is the combination of these components which will determine the structural capacity of a terrorist organization.

A CASE STUDY

The relevance of a concept is determined by its usefulness. Therefore, we will demonstrate the relevance of ‘structural capacity’ by applying it to Aum Shinrikyo’s Sarin attacks, and analysing how the organizational structure influenced the success of this attack. The group made headlines around the world in 1995 when members carried out a chemical attack on the Tokyo subway system. A nerve agent, sarin, was released onto 5 train cars, killing twelve and causing an estimated six thousand people to seek medical attention. It is often considered to be one of the most complex terrorist attacks in recent history. Consequently, it enables us to properly identify the impact of the structural components on the exact planning and execution for the attack.

First, Aum Shinrikyo attracted approximately 9000 Japanese members seeking direction in life, including a group of brilliant young scientists and engineers who abandoned traditional career tracks to serve a charismatic and shamanistic leader, Asahara Shoko. The mere

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65 This is not exact science. The exact impact of each dimension cannot be quantified, and it is difficult to always distinct between different variables. Yet, a general assessment of these dimensions suffices to illustrate the usefulness of this concept. Conventional attacks, such as suicide attacks, are less suited to such analysis due to their low level of complexity. The impact of the structural dimensions will not be as explicit in these types of attacks.
number and specific scientific skills of these members enabled the organization to successfully work on tactical engagements with regards to chemical and biological terrorist attacks. The Sarin attack in March 1995 required multiple members to coordinate the simultaneous, multi-point attack. It was carried out at virtually the same time at five different locations in Tokyo. In addition, they had the scientific knowledge with respect to chemical and biological attacks available. For example, besides the Sarin attack, Aum launched 17 known CBW attacks between 1990 and 1995. Yet, there were some limitations to the organization’s functioning. Considering security consideration, technical expertise remained limited to the inner circle of Aum Shinrikyo. Thus, any further increase in membership would add very little to the organization’s capacity to commit acts of terrorism. 9000 members were not necessary to carry out Aum’s tactical engagements, nor did the cult’s lower ranks substantially help in problem-solving operations. Even more, given these security reasons, the organization had to execute, torture, or isolate those who appeared to have moral qualms about the organization’s activities and its overall strategy. They also tried to solve this by strict mechanisms of control.

Second, with respect to operational space and time, Aum was able to work on its biological weapons program for about six years without any intrusive investigations by the police. As the high number of preceding CBW attacks demonstrate, they had the space and time available to plan and train for the Sarin attacks. The building known as Satyan 7, for example, housed a moderately large-scale chemical weapons production facility. Relatively weak Japanese domestic intelligence operations never targeted this. Although the facility’s design was crude by industry standards, it was nonetheless very capable of producing the sarin used in, e.g., the Matsumoto attack. Yet, during these preparations, the terrorist organization is also most vulnerable. Besides the aforementioned mechanisms to ‘control’ members with moral qualms, the efficiency and effectiveness of the attacks was hindered by other vulnerabilities to law enforcement agencies. For example, numerous incidents during their preparations led to complaints by local residents. Such a complaint by the local population to the police in 1993 forced them to move from their headquarters in Tokyo to a location near Mount Fuji, where they had to move again a few months later because of

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70 Ibid., p. 102


72 At the time of the Tokyo attack, for instance, Satyan 7 was not in service, considering it had been mothballed after an accident during the previous summer
neighbors’ complaints. This implied the move of equipment and documents, and even destroying some of its agents,73 thereby hindering the tactical success of the operation.74

Third, Aum Shinrikyo had a strong level of formalization. The organization mimicked a governmental structure with more than 15 ministries with specific tasks (e.g. Ministry of Defense, Ministry of Science and Technology, Ministry of Construction, Ministry of Finance, Ministry of Intelligence, etc.).75 In addition, there was a strict ranking between subordinates. Under Asahara, the followers were classed into seven ranks of enlightenment. Communication between members was strictly regulated and access to work areas was highly formalized. As a result, Shoko Asahara’s order were clear and treated as decrees.76 Requirements on tactical operations were clear, and well-matched to Aum’s apocalyptic strategic goals, which were only known by the inner circle of Aum Shinrikyo. Although this included various security risks, Aum Shinrikyo was lucky to find that Japanese law enforcement agencies were too passive. Even when an Aum badge was found beside the corpse of its most eminent critic, the police directed little investigative attention at the group.77

Finally, this lacking law enforcement pressure also neutralized security-risks related to the hierarchical centralization of Aum Shinrikyo. They were hierarchically centralized and autocratic. Aum’s leader – Shoko Asahara – and his inner circle made every decision, specifically with respect to their biological programme. Even more, top-level leaders were often involved in tactical attacks themselves. While this entails various security-risks, which have not been exploited by law enforcement agencies, this well-defined vertical chain of command and control allowed tactical, operational as well as strategic control over their agents. Nevertheless, this authoritarian management style did not allow the use of technical expertise existing outside the inner circle, and lacked a system of checks and balances. For example, decision-making was often based less on science than on the irrational believes of its leaders. The group persevered in bioweapons, despite repeated failures in culturing, production and dissemination of pathogens.78 This clearly impeded any flexibility with

regards to tactical innovation. Had the chemical mixture and delivery system been slightly different, the resulting tragedy would be unprecedented, if not beyond comprehension.  

CONCLUSION

As Aum Shinrikyo’s Sarin attack has demonstrated, the organizational structure of a terrorist organization has an substantive impact on a terrorist’s organization capacity to conduct acts of terrorism, which are successful on the tactical, operational as well as strategic level. Yet, the structural capacity, and the likelihood of a terrorist organization successfully balancing between success and security, is dependent on the complexity of the task as well as the active pressure by law enforcement agencies. Counterterrorism efforts must focus on tipping the balance in favor of compromising the group, and disturbing their efficient equilibria. As Levi argues, it has often been said that defense against terrorism must succeed every time, but that terrorists must succeed only once. This is true from plot to plot, but within each plot, the logic is reversed. Terrorists must succeed at every stage, but the defense needs to succeed only once.

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