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The geography of suicide terrorism in Israel

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Abstract Palestinian suicide terrorism has been a key feature in the latest phase of the Israeli–Palestinian conflict. During the past decade, and particularly since September 2000, there has been a substantial increase in the use of this type of warfare. Recent studies suggest that, contrary to common belief, suicide terrorism is highly rational and driven by strategic considerations. This article explores the rationality of Palestinian suicide terrorism from a geographical perspective. It is argued that suicide terrorism works along two parallel paths: rationality and randomness. It complies with geographical fundamentals, and target selection is highly rational, subject to spatial considerations such as distance, agglomeration, and accessibility. As the permeability to Israel became more difficult, suicide bombers and their organizers had to adopt more flexible practices which emphasized other spatial considerations. Timing is of importance both for strategic and tactical reasoning. Obstructing negotiations and peace talks has been a salient objective, but the exact timing of suicide bombings has been influenced by tactical considerations, which aim at maximizing casualties.

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Introduction

Since the September 11th attack there has been growing interest in the phenomenon of suicide terrorism. Even though the attack on the World Trade Center symbolizes a watershed in terms of scale, media coverage, and research exposure, the impact of suicide terrorism in several places was severe even before this cataclysmic event. Israel is a prime example of the pervasiveness of suicide terrorism. Terrorism and warfare have prevailed in the Israeli/Jewish–Palestinian continuing conflict since the beginning of Jewish settlement in the Land of Israel. Throughout the last 85 years it has appeared in various forms and at different levels of intensity. But the last decade saw a major change in terms of its operational methods and its intensity. In this paper, only one form of terrorism will be explored: suicide terrorism during the first ''Intifada'' (Arabic for ''uprising'') between 1994 and 1997, and the second Intifada from September 2000 to the present, as well as the relative low-intensity terror period between 1998 and 2000.

The dry statistics which tell the story of terrorism in Israel/Palestine are harsh: In the 15 years before the signing of the Oslo Accords (1993) 254

Israelis were killed in terror attacks; in the seven-year period after the signing of the Oslo Accords, 300 Israelis were killed in such attacks. But between the launch of the second Intifada and the assassination of Ahmed Yassin, the spiritual leader of Hamas (September 2000 – March 2004) 941 Israelis and 2,372 Palestinians were killed in terror attacks, guerrilla fighting, and mutual assassinations. During the period of January 2001 and December 2004, 1,030 Israelis (717 civilians) were killed by Palestinian terror attacks; of that total, 502 (397 civilians) were killed in suicide bombings (Israel Defense Forces 2005). These numbers point sharply to the nature of Israeli–Palestinian warfare which perhaps should no longer be referred to as ''low intensity conflict''.

This article explores Palestinian suicide terrorism, which is only one component in the complex and enduring Israeli–Palestinian conflict. This gruesome facet of terrorism was selected for study because of its effectiveness: suicide attacks constituted less than one percent of the number of terrorist attacks in the period under study, but they accounted for almost one-half of casualties; furthermore, their impact on Israeli society has been grave. This study will attempt to highlight spatial and temporal aspects of suicide terrorism which are less investigated, with the specific goal of analyzing how it progresses along the rationality and randomness continuum. The concept of randomness is used in this study as a process lacking a definite plan, purpose or pattern. As such, it is in opposition to rational process, which is defined here as ''based on reason''. The main proposition of this article is that the spatial patterns of suicide terrorism in Israel can be explained, at least partially, as an outcome of rational choice of the perpetrators and quasi-random selection of targets and victims. The first part of the article will present the conceptual framework for terrorism and suicide terrorism research, with a special focus on the geographical research of terrorism.

Conceptual-Theoretical Framework

The three following definitions of terrorism reflect well the main purpose of terrorism: to terrorize non-combatant targets in order to achieve some political goals.

> ''The unlawful use of force or violence against persons or property to intimidate or coerce a government, the civilian population or any segment thereof in furtherance of political and social objectives'' (F.B.I. quoted in Whittaker 2003, p. 3).

> ''Terrorism is the premeditated, politically motivated violence, perpetuated against non-combatant targets by sub-national groups or clandestine agents, usually intended to influence an audience'' (U.S. State Department quoted in Whittaker 2003, p. 3).

> ''Terrorism is violence or the threat of violence used and directed in pursuit of, or in service of a political aim'' (Hoffman 1998).

Terrorist groups are designed to kill ordinary people. The purpose of terrorism is to terrorize. When innocent citizens become victims of violence, the incident is regrettable only in the eyes of the governments concerned; to the terrorist it is part of his trade. His object is to shake the faith of the man-in-the-street in the Government and its local representatives – especially the police – so that in the end a desperate population will seek security not from the authorities but from the terrorist and his political allies (Burton 1975: 6).

There are two key components of terrorist activity: the definition of grievances and the identification of an audience. Grievances that foster terrorism may result from being excluded from particular political arenas such as participation in the government. Terrorists address their actions to two different audiences. One is the general public that the terrorist wishes to reach; the other is a more selective audience, the potential recruiters (Flint 2003: p. 55). This is why terrorists are so anxious to assume publicity for their activities. Basically the perpetration of violence is assured of wide and efficient press, t.v. and radio coverage, however minute the organization and marginal the support among the population.

It is important to stress that terrorism is successful in inducing fear because it exposes civilians to attacks which have a random quality,

so that everyone feels less safe. Terrorists seek to exploit the everyday things that people do, the places they visit, routinized daily living and the functioning of institutions. The seeming randomness of terrorist attacks increases public anxiety concerning terrorism (Cutter, Richardson & Wilbanks 2003: 2).

Definitions and depiction of terrorism are highly debatable – particularly in relation to what constitutes ''terrorism'' or ''freedom fighting'', ''guerrilla warfare'' or ''revolution''. What is called terrorism seems to depend on one's point of view. Use of the term implies a moral judgment, and if one party can successfully attach the label ''terrorist'' to its opponent it has indirectly persuaded the other to adopt its moral viewpoint. Terrorism is often confused or equated with, or treated as synonymous with guerrilla warfare. This is not entirely surprising since guerrillas often employ the same tactics for the same purposes as terrorists. The difference between the two: the word 'guerrilla,' in its most widely accepted usage is taken to refer to a numerically larger group of armed individuals who operate as a military unit, attack enemy military forces and seize and hold territory while also exercising some form of sovereignty or control over a defined geographical area and its population. Terrorists, however, do not function in the open as armed units and generally do not attempt to seize or hold territory. They deliberately avoid engaging enemy military forces in combat and rarely exercise any direct control or sovereignty either over territory or population (Whittaker 2003: 8–9).

The modern evolution of terrorism, following the Second World War, acquired revolutionary connotations, with which it is most commonly associated today. Countries as diverse as Israel, Kenya, Cyprus and Algeria, owe their independence, at least in part, to nationalist political movements that employed terrorism against colonial powers (Whittaker 2003). During the late 1960s and 1970s terrorism continued to be viewed within a revolutionary context. However, this usage now expanded to include nationalist and ethnic separatist groups outside a colonial or neocolonial framework, as well as radical, ideological motivated organizations (Whittaker 2003). Other political motivations for terrorism are anarchism – the purest form of terrorism, communism and its modified forms of Maoism, Fascism and religious terrorism. In the Israel/Palestinian context only Separatist/nationalism, and perhaps religious motivations play a crucial role.

Another feature of terrorism or guerrilla warfare is the differentiation between urban guerrilla warfare or rural guerrilla warfare (Burton 1975). Urban guerrilla warfare is based mainly on the poor neighborhoods or shantytowns of large urban agglomerations and initiates terror attacks (mainly) by placing bombs in the crowded streets of the cities. According to Carlos Marighela, the great ''theoretician'' of urban guerrilla warfare, this was directed towards two objectives – physical liquidation of their enemies and the expropriation of arms and goods belonging to the government, mega-capitalists, landowners and imperialists. This is achieved by murder, bank robbery, or mobile firing groups of two and three persons. Additionally, the terrorist runs the gamut of other possibilities, among them kidnapping, executions, sabotage, etc. (Burton 1975: 83).

Geography and the Study of Terrorism

Geographers, in general, and political geographers, in particular, have manifested very little interest in the study of terrorism though that has changed somewhat since the September 11th mega-terror attack in New York. The contribution of geographers to the conceptual development of terrorism research is meager, and its historical analysis has pointed to the following theoretical frameworks:

a) Territoriality and territorial behavior

Territoriality and territorial behavior could be related to terrorism only slightly in aspects of the territorial imperative such as aggression and dominance behavior (Ardrey 1966). Alland (1972), though, argues forcefully that aggressiveness and territoriality are not universal human imperatives at all (Alland 1972). More helpful is Soja's conceptualization of human territoriality as only a strategy for access and control (Soja 1971).

Terrorists do adopt such strategies. Though territory continues to play a significant role in conflicts (Ireland, Palestine-Israel) it is not specifically tied to terrorism (Storey 2001).

b) Military geography and geopolitics

Indirectly, military geography and geopolitics provided many geographical spatial variables to the study of terrorism, though neither did study terrorism, to a large extent. In classical military geography the role of geography is depicted as follows: ''Geographic or environmental considerations serve as modifying elements in operational planning and the conduct of military activities'' (Peltier and Etzel-Pearcy 1966: 20). The principles of strategic geography include six elements: 1) accessibility, 2) mobility, 3) visibility, 4) communicability, 5) availability, and 6) vulnerability (Peltier & Etzel-Pearcy, 1966). Though at least four of those elements are utilized by terrorists, classical military geography hardly fits for terrorism analysis. In the context of research of war, geographers can use data for two kinds of research approach. First, they can contribute to general explanations of war characteristics by using the explanatory power of factors such as *distance and accessibility*, which are their central concern. Second, geographers can use these data as baselines for describing and characterizing particular wars. So far, geographers' efforts to exploit conflict data have been negligible (van der Wusten 1985: 14).

c) Insurrection and insurgency

The geographical basis of guerrilla warfare has been broadly investigated by geographers. The study of the geography of terrorism/guerrilla warfare in geography is analyzed by McCall (1969: 614; Kent, 1993). According to McCall, the creation of an insurgent state may be conceptualized as a three-stage military-political process with each stage characterized by distinct territorial expressions. McCall investigated the geographical bases of the insurgent state. Often, this territorial base has rural foundations and inhospitable environments such as jungles and mountains. The most successful case of emergence of an insurgent state is Mao Tse Tung's China, and the Maoist strategy as adopted in the guerrilla warfare against the French in Indochina, the Americans in Vietnam, and in Cuba. It was adjusted and tailored for South American insurgency by the Guevara/Debray model of guerrilla warfare (Burton 1975; Kent 1993). Interestingly, the Peruvian insurgency of Sendero Luminoso explored along that model of insurgency and presented semblance and differences between the two (Kent 1993). Insurgency and terrorism also flourish in urban areas.

Cities are a significant incitement for terrorism in that they provide an opportunity – a multitude of targets, mobility, communications, anonymity, audiences and a recruiting ground among the politicized and volatile inhabitants. Major urban terrorist techniques are: a) damage to property by bombing and incendiary devices; b) bombs to kill; c) guns and missiles: murder by shooting; d) intimidation and racketeering, extortion; e) kidnapping and hostage seizure; f) hijacking of aircraft, trains or ships.

Recently, the effect of terrorism on cities was studied by Savitch and Ardashev (2001) and Mitchell (2003) explored urban vulnerability to terrorism as a hazard. The criminal aspects of terrorism were also explored by geographers. Under the chapter ''Outlaws and Merchants of Death'', Glassner (1993) highlights various aspects of terrorism: its illegality, the difference between terrorism and traditional warfare, the motivations of terrorists, their targets, combating terrorism, etc. He also pointed to the linkages between terrorism and other criminal activities.

d) Security landscape, landscape of fear and risk society

In the 2004 edition of their text, *Political Geography*, Glassner and Fahrer expanded their discussion of terrorism beyond basic definitions. They provided some insight into the more geographical dimensions of terrorism such as its being urban-based and also the establishment of ''security landscape'' almost everywhere in order to combat terrorism (Glassner and Fahrer 2004: 292–3).

A recent publication, *The Geographical Dimensions of Terrorism*, adopts a broad social

sciences approach to the study of terrorism. Terrorism is promoting landscapes of fear where people's activity patterns were and are being altered (Cutter, Richardson, Wilbanks 2003): The emphasis is on a research agenda which will focus on reducing threats of terrorism, detecting threats of terrorism, reducing vulnerabilities to threats of terrorism and improving responses to terrorism. Geographical technologies such as GIS are recommended for the above research. Terrorism is perceived as a hazard, and hazard management as a measure or tool against terror.

e) Spatial-locational analysis

The 1970s were the heyday for locational-spatial analysis in geography. Geographers still cling to ''space'' as their research turf. Murphy (2003) identified types of spaces in the context of terrorism research: activity spaces, policy spaces and perceptual spaces. Activity spaces refer to the geographical and resource base of terrorist or guerrilla groups such as Shining Path in Peru, MPLA and UNITA in Angola or al-Qaeda. Policy spaces relate to governmental territorial policies which may affect patterns of terrorism. Finally, perceptual spaces, how places are perceived, can be as or more important than how they function. The perception of the USA and ''Western intervention'' is an important ingredient in al-Qaeda terrorist activity (Murphy 2003: 48–51).

In the classical development of spatial analysis, geographers associate particular spatial structures (a large city, for example) with certain spatial behavior (traveling to large cities to buy or to work, for example). This is the point of view that underlies much of location theory where rational human beings are presumed to follow economic motives that lead them to act in a certain way (e.g., minimize costs or maximize profit in a given environment) (Walmsley and Lewis 1993).

Locational theories provide us with an explanation as to why we move in space the way we do. Two places interact with each other in proportion to the product of their masses and inversely to distance (Abler, Adams and Gould 1971; Morrill 1970). Spatial models, particularly gravity models, constitute the backbone of the quantitative paradigm in geography and were widely applied to research in urban and economic geography. This theoretical framework was never used for the analysis of political processes (electoral geography being the exception) such as terrorism. In this study, we attempt to apply a few spatial characteristics to data on suicide terrorism in Israel. These characteristics are not divorced from the major geographical variables that are generally suggested by geographers as fitting for research of terrorism, namely, territorial behavior as a strategy of control (Soja 1971), accessibility, mobility, visibility, communicability and availability (Peltier and Etzel-Pearcy 1966) distance and accessibility (van der-Wusten 1985), the geographical bases of terrorism (McCall 1969) and the cities as a vulnerable arena for terrorism (Savitch and Ardashev 2001; Mitchell 2003).

The three characteristics which will be highlighted are as follows: distance between terrorists and their targets, accessibility to macro- or micro-targets, and the advantage of the agglomeration of people, activities, and institutions, embedded in cities, which have become favored targets for terrorists.

Suicide Terrorism

Suicide terrorism is a sub-category of terrorism which appeared in the 1980s and 1990s of the 20th century in diverse locations such as Sri Lanka, Turkey, Lebanon and Israel. Its most prominent feature is the readiness of the terrorists to sacrifice their lives for the cause and their belief in martyrdom. This feature turns suicide terrorism into an irrational phenomenon in the view of some observers (Crenshaw 2001).

Suicide terrorism appeared for the first time in April 1983 in Lebanon when the Shiite terror organization of Hizbullah launched their first attacks on Israeli and western targets. These attacks were successful and effective in pushing out of Lebanon all foreign armies (except the Syrian army). Other Muslim groups such as the Kurds, and the Tamils in Sri Lanka followed the Hizbullah in adopting suicide terrorism as both strategy and tactics to win their war.

Hizbullah was also the source of inspiration for the Hamas and Islamic Jihad in their suicide attacks against Israeli targets – almost all civilian targets.

A suicide operation is a terror attack in which the success of the attack depends on the death of the perpetrator. The two massive explosions in Beirut (1983) and subsequent suicide attacks against Israeli and U.S. targets in Lebanon and Kuwait were the first in a long line of such attacks, which have become frequent occurrences in the Middle East (Lebanon, Israel, Kuwait, Saudi Arabia) and in Sri Lanka (Sprinzak, 2000). Overall, from 1980 to 2001, suicide attacks amounted to three percent of all terrorist attacks but accounted for 48 percent of total deaths from terrorism (excluding September 11th).

Suicide terrorism has inherent tactical advantages over conventional terrorism: it is a simple and low cost operation, it guarantees mass casualties and extensive damage since the suicide bomber can choose the exact time, location and circumstances of the attack, and it has an immense impact on the public and the media due to the overwhelming sense of helplessness (Sprinzak 2000).

The clear intent of a suicide bombing is to create fear and to murder as many innocent victims as possible (Poland 2003: 100–101). Still, the central objective of suicide terrorism is strategic: to compel a government to change its policy. It attempts to inflict enough pain on the opposing society to overwhelm its interest in resisting the terrorists' demands. Their core strategy is the same as the coercive logic used by states when they employ air power or economic sanctions to punish an adversary: to cause mounting civilians costs and force governments to concede to the terrorists' political demands (Pape 2003). This form of terrorism gained growing support among terrorist organizations. During the last two decades of the 20th century, 15 different terrorist organizations and their sponsors in 15 different countries used suicide bombing attacks in an attempt to realize their political objectives (Poland 2003).

Terrorist organizations increasingly rely on suicide attacks to achieve major political objectives. According to Pape (2003: 343), from 1980 to 2001 there have been at least 186 separate suicide terrorist attacks worldwide, in Lebanon, Israel, Sri Lanka, India, Pakistan, Afghanistan, Yemen, Turkey, Russia, and the United States. The rate has increased from 31 in the 1980s, to 104 in the 1990s, to 53 in the two-year period of 2000–2001 (Pape 2003). Schweitzer (2001) counted about 275 suicide attacks worldwide by 2000. The number is close to 300 today, with the most horrific one of September 11th overshadowing all the rest. The ''newer'' forms of suicide terrorism aim at massive physical destruction and the creation of a traumatic state of fear and anxiety on the entire population (Schweitzer 2001).

Looking at a few campaigns of suicide terrorism shows a variety of motivations: religious, political, and nationalist-separatists. Between 1987 and 2000, LTTE (Tamil Tigers) carried out over 170 suicide attacks in Sri Lanka and India and it was responsible for 62 percent of suicide bombing attacks worldwide (Gunaratna 2000). The main political target for their suicide mission has been the ruling party of Sri Lanka. In other parts of the world, such as Turkey and the former Soviet Union, the Kurdish PKK resorted to suicide bombing attacks in 1993, and Chechen separatists carried out a wave of suicide truck bombings against Russian military forces in Chechnya in 1999 and 2000. More recently, they targeted civilian populations, such as the suicide attack in Moscow's subway in February 2004. Of course, Al-Qaeda suicide bombers were the most successful terrorists in their series of spectacular attacks against American embassies in Nairobi and Dar-e-Salaam in August 1998, the USS Cole in 2000, and the World Trade Center and the Pentagon in 2001 (Poland 2003). After the removal from power of Saddam Hussein in 2003 suicide bombing became a recurrent event in Iraq targeting American facilities, personnel, and those who cooperate with them.

Recruiters (of potential suicide bombers) will often exploit religious beliefs when indoctrinating would-be bombers, but other powerful motives reinforce tendencies toward martyrdom, including patriotism, hatred of the enemy, and a profound sense of victimization. Fundamentally, suicide terrorism is a strategy with strong political motivations. The Sri Lankan government decision

to hold negotiations with the Tamil Tigers and the cessation of the Israeli withdrawal from Gaza was related to suicide terrorism (Pape 2003). It succeeded in halting the political negotiations between the Tamils and the Sinhalese in Sri Lanka after the assassination of Rajiv Gandhi in the later part of the 1990s, and more recently it stopped the Israeli-Palestinian peace process in the mid-1990s.

Suicide terrorism has three properties that are consistent with its strategic logic: 1) Timing- nearly all suicide attacks occur in organized coherent campaigns, not as isolated or randomly timed incidents; 2) Nationalist goals- suicide terrorist campaigns are directed at gaining control of what the terrorists see as their national homeland territory; and 3) Target selection- all suicide terrorist campaigns in the last two decades have been aimed at democracies. The most important indicator of the strategic orientation of suicide terrorists is the timing of the suspension of campaigns, which most often occurs based on a strategic decision by leaders of the terrorist organizations (Pape 2003).

Several recent studies examined different dimensions of Palestinian suicide terrorism. Pape (2003) and Hoffman and McCormick (2004) argued that suicide terrorism has strategic logic and is steered in a way that promotes the political goals of particular organizations. Bloom (2004) contended that the popularity of suicide terrorism in the Palestinian society makes it a powerful instrument to strengthen those Palestinian organizations that claim responsibility. Based on the chronicle of Palestinian suicide terrorism, a more specific model is offered by Moghadam (2003). His two-phase model for suicide bombing is based on the assumption that suicide terrorism is both an individual and an organizational phenomenon. Individual motives may include the desire to reap expected benefits in the afterlife, the urge to seek revenge for the death or injury of a close friend or family member, or the real or perceived humiliation brought about by the Israeli occupation. The organization's goals and motives include political aims and tactical considerations for the use of suicide bombings (Moghadam 2003: 68). Kimhi and Even (2004) classify suicide bombers based on their personal psychological motives.

This study addresses spatial and temporal patterns in the way suicide terrorism operates in Israel. Some observers see suicide terrorism as an irrational behavior whereas others have analyzed its rational calculations (Crenshaw 2001; Dolnik and Bhattacharjee 2002; Pape 2003; Poland 2000; Sprinzak 2000). More specifically, this study explores three specific topics: the overall locational distributional pattern of suicide terrorism in Israel, the targets of the suicide terrorism and the temporal variations in suicide terrorism in Israel.

Attempting to Find Order, Pattern, and Rationale to Suicide Terror Attacks

Attempts to rationalize and explain suicide terror attacks in Israel are subjected to so many shortcomings that such attempts are almost certainly doomed. Difficulties are enormous – both theoretical and empirical. The *first* major difficulty is data itself. This study uses sources which provide descriptions (full or partial) of all the suicide terror attacks. The sources are three Israeli daily newspapers, I.D.F. sources, the Israeli Ministry of Foreign Affairs, the Intelligence and Terrorism Information Center and Intelligence Sources. The practical use of the various sources of the I.D.F., the Police, Ministry of Foreign Affairs and newspaper sources (*Ha'aretz, Yediot Aharonot*, *B'Tselem*, *Ma'ariv*, Intelligence and Terrorism Information Center) was done on a comparative base. Only suicide terror attacks with all the needed data (date, hour, location and target, injured and fatalities, perpetrators and sending organization) were included in the analysis. When the details were incomplete, we tended to give two sources (*B'Tselem* and Intelligence and Terrorism Information Center) more weight as those two bodies had their own information-gathering sources. Altogether, only suicide terror attacks that were described in full by at least four sources were included in the analysis.

All these are Israeli sources and thus suspected to be biased. An additional source that was used is *B'tselem*, a highly appreciated human rights NGO, which has its own independent gathering sources and relies also on Palestinian sources. We

were not able to find Palestinian sources which made an accurate or full account of suicide terror attacks (of course, Palestinian sources assembled all the details on Palestinian casualties).

The *second* disadvantage in researching suicide terror attacks is that though they were covered extensively by Israeli sources, their full description reflects discrepancies in many aspects: the number of suicide terror attacks, the number of victims, the place of origin of the perpetrators and their organizations, and the routes they took on the way to their destinations. Thus, any analysis of suicide terrorism in Israel mostly relies on partial details, and in some instances full details were available for only half or a quarter of suicide attacks.

Third, the nature of the empirical data also makes it very difficult to theorize on suicide terrorism in Israel. The major question is whether the data is sufficient to make sense or to find order and pattern in the study of suicide terrorism in Israel. In our study we shall use geographical terms and theories in order to shed light on this phenomenon. We shall begin our work with the premise that it is possible to find some order and pattern in suicide terrorism and that in many respects, it could be rationalized and analyzed. We shall try not to be remiss in showing also all the shortcomings of our explanations.

Distribution of Suicide Terror Attacks in Space

For the period of 1994 and September 2005, we were able to track 120 Palestinian suicide attacks in Israel, the West Bank, and Gaza Strip. Israel's major cities and towns absorbed most of the attacks: Jerusalem (30), Tel Aviv (11), Haifa (7), Netanya (6), and other cities in the Tel Aviv metropolitan area suffered 10 attacks. Smaller cities such as Hadera and Afula sustained fewer attacks. Be'er Sheva, the largest city in southern Israel, became a target for suicide bombings in 2004. Altogether, 82 suicide attacks (about *65%* of total attacks) targeted cities or towns; this finding confirms the role of agglomeration in target selection. These cities are highly accessible by car and transit as they serve as national and regional hubs. Altogether 17 cities within Israel and one city in the West Bank were targeted (Table 1, Figure 1). Savitch (2005) identified two types of targets in cities: targets of calculation, containing the potential for frightening masses of people and causing chaos, and targets of proximity which offer quick access to terrorists and enable them to move undetected.

What about the remainder of the suicide attacks? Many of these took place in the Gaza Strip, where short distances between targets (military and civilian) and the perpetrators, and the closure of the Gaza Strip by a fence limited perpetrators to this area; a total of 14 attacks took place there. Some of the suicide attacks in small settlements could raise questions as to their logic or the rationality of carrying out attacks in small settlements such as those in three villages (Sdeh Trumot, Kfar Ya'abetz, Shluhot) and two towns (Rosh Ha'ayin and Ariel). In each of these cases, suicide bombers detonated themselves near a single person, choosing a target that apparently had little advantage for the perpetrator. Lack of information and/or weakness in the planning process may ''explain'' why such suicide terror attacks took place. Other locations in the periphery have the benefit of their close proximity to Palestinian centers in the West Bank which produce and organize suicide terrorism, such as Iron Valley, Jordan Valley, and Beth She'an Valley (Figure 1). It is interesting to note that only a small number of attacks occurred in Jewish settlements in the West Bank and Gaza. It may be that security arrangements in and around the settlements deterred potential perpetrators. Also, if the main motivations for Palestinian terrorism are revenge, and vengeance for the occupation of their territories and the killing of many Palestinian civilians, then hurting Israel in its ''soft belly'' and killing as many civilians as possible, satisfies those motivations.

A question of methodological significance involves determining the place of origin of suicide attacks. Should we account for the hometown of the suicide bomber, the place he/she lived prior to the act, or the place where decisions were made and practicalities were coordinated? Based on an extensive study of all the biographical data provided by the various media (see page 14 for the limitations of data) we found the hometown

Table 1 Location of Suicide Attacks in Israel, 1994 - September 2005 – Aspects of Agglomeration

Location	First Intifada, 1994–2000	Second Intifada, 2001-September 2005	Total attacks	Fatalities	Injured
Jerusalem	7	23	30	290	1,872
Gaza Strip	4	10	14	25	84
Tel Aviv	3	8	11	101	666
Inter-city buses and junctions	0	9	9	67	228
Haifa	0	7	7	78	263
Other locations in metropolitan Tel Aviv	1	7	7	30	263
West Bank	0	7	7	14	24
Netanya	0	6	6	42	520
Jordan Valley	1	4	5	3	29
Iron Valley	0	4	4	9	54
Afula	1	2	3	12	132
Beer Sheva	0	2	2	16	102
Hadera	1	1	2	5	98
Other locations	2	7	9	38	191
Total	20	100	120	735	4,554

of the perpetrator and the place of residence prior to the act to be largely irrelevant or unknown precisely. The most appropriate and meaningful place of origin is the place where the decision-making (concerning the planned terror attack) takes place. This finding puts emphasis on the organization rather than on the individual. Suicide bombers do not act independently, but are part of organizations. These organizations have a political and military leadership and an infrastructure that facilitates the preparation of explosives. The act of suicide bombing is the final act in a long organizational chain, involving many people who must transform the decision made by the leadership into concrete action (Sprinzak 2000; Shay 2003). The bases of Palestinian terrorism are the urban centers and their adjacent refugee camps in the Gaza Strip and the West Bank. According to Israeli intelligence sources, Hamas' main infrastructure for organizing suicide attacks is in the northern West Bank, especially in the Nablus area, while the Islamic Jihad is concentrated in Jenin. The Jihad's Jenin-based infrastructure was responsible for all of that organization's suicide attacks (Intelligence and Terrorism Information Center 2004). While both organizations have branches in Gaza, their operatives have not succeeded in infiltrating into Israel proper because the Gaza Strip is encircled by a fence; consequently, the majority of their attacks were carried out against soldiers, security personnel, and settlers within the Gaza Strip and on major checkpoints that monitor movement to and from Gaza. The analysis of the origin of bases of suicide terrorists shows that the major Palestinian cities are homes for terrorists.

The 'capital' of Palestinian suicide terrorism is Jenin. Attacks originating from Jenin killed 124 people (Ministry of Foreign Affairs 2004). An unequivocal distance decay curve is observable when examining suicide bombings. Located on the northern West Bank, Jenin has been the hub for terrorist terror unleashed on targets in northern Israel, including cities such as Afula (15 km distance from Jenin), Iron Valley (15–25 km), Hadera, or Haifa (50 km). On the other hand, attacks launched from Bethlehem, which is only a short distance from Jerusalem, targeted Jerusalem and its satellite settlements. Notwithstanding the importance of distance, several attacks launched from Jenin hit Jerusalem and Tel Aviv; these targets were chosen, even though they are far away, because of the vast exposure resulting from hitting Israel's two largest cities (Table 2, Figures 2a, 2b).

The friction of distance should make closer targets more favorable than distant ones. Table 2 presents the data for 118 suicide terror attacks in which the origin of the perpetrator (and most often the organization which planned and

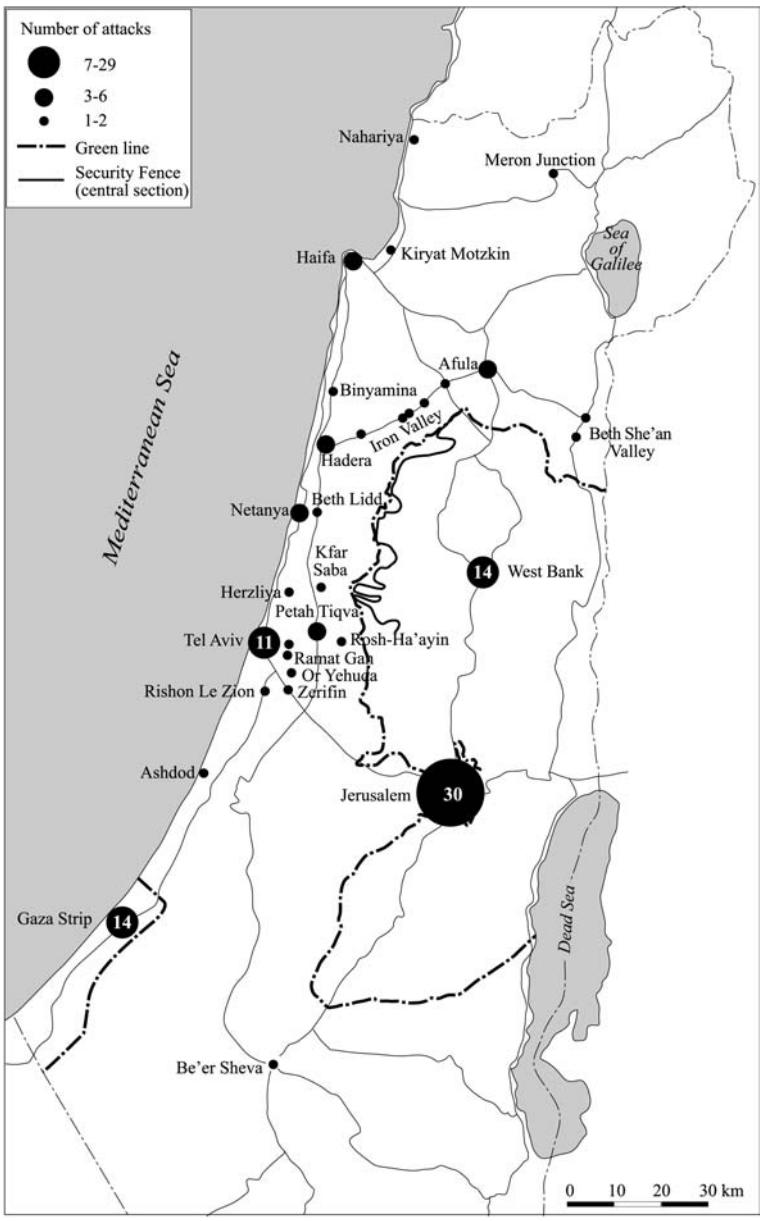

Fig. 1 Location of Suicide Terror Attacks in Israel 1994–2005

organized the attack) is correlated with the distance of targets chosen. This table shows a clear-cut curve of distance decay: 54 targets are within a distance of up to 30 km from the origin of the perpetrator and the base of his organization; a decreased number of suicide attacks took place within a range of 31–60 km, and only 10 were carried out in that of 61–90 km. The 26 cases of suicide terror attacks that were executed far away from the origin reflect the place utility of an urban agglomeration: Jerusalem (10), Tel Aviv (9), and Haifa (3), confirm the appeal of large cities. Hitting large cities has, of course, a symbolic significance, and it occupies the attention of local and global media – an added benefit to the place utility of large agglomerations.

Suicide terrorism has a complex structure with specific strategy, tactics, and motivations for each terror organization and its cells. In the first Intifada, particularly between 1994 and 1997, it was noticed that the suicide bombers' place of origin or hometown, and the geographical origin

Table 2 Distance Decay Curve for Suicide Bombing in Israel: 1994 – September 2005

Origin of perpetrator	Up to 30	31–60	61–90	90+
Jenin	Mei-Ami (2) Meggido (1) Afula (3) Sdeh Trumot (1)	Karkur (2) Yagur (1) Beth Shean and Shluchot (2) Binyamina (1) Hadera (2) Kiryat Motzkin (1) K. Yaavetz (1)	Haifa (3)	Tel Aviv (2) Jerusalem (3) Miron (1) Nahariya (1)
Total: 27	7	10	3	7
Nablus	Ariel (3) Deir Al-Sharf (1)	Netanya (1) Kfar Sava (3) Beqa'ot (12) Herzliya (1) Shluhot (1)	Ramat Gan (1) Afula (1) Rosh Hay'ayin (1) Umm Al-Fahem (1)	Tel Aviv (5) Haifa (1) Jerusalem (7)
Total: 28	4	7	4	13
Gaza	Netzarim (4) Kfar Darom (4) Newe Dekalim (1) Karni (2) Erez (2) Gush Qatif (1) Ganei Tel (1)	Ashdod (1)	Beer Sheva (2)	Tel aviv (2) Beth Lid (1)
Total: 21	15	1	2	3
Hebron	Hebron (1)	Jerusalem (6)	Tel Aviv (1)	Haifa (1) Mechola (1) Tul Karm (1)
Total: 11	1	6	1	3
Tul Karm	Netanya (5) Beth Lid (1) Tul Karm (1)	Tel Aviv (1)		
Total: 8	7	1		
Beth Lehem	Maaleh-Edumim (1) Efrata (1) Jerusalem (10)			
Total: 12	12			
Ramallah	Jerusalem (7)	Zerifin (1)		
Total: 8	7	1		
Qalqilia	Karney-Shomron (1)	Tel Aviv 2		
Total: 3	1	2		
Total: 118	54	28	10	26

of the cell which recruited them, were often in the close hinterland of the target city. For example, many of the suicide bombers who originated from the Gaza Strip carried out their attacks on targets within Gaza; terrorists from the hinterland of Jerusalem (Ramallah, Bethlehem, and even from Hebron) tended to attack targets in Jerusalem. In the second Intifada, the geographical patterns are less obvious (particularly after the completion of the central section of the Separation Fence, see next section). Fewer Palestinians are allowed to work in Israel and there is less first-hand information for the suicide bombers about their targets, therefore more intelligence-gathering responsibility lies within the sending cells. Suicide bombers are recruited from various diffused geographical areas and, after they are trained, they are transferred from one area to another. The choice of the targets also becomes more opportunistic and random and does not necessarily include the nearest targets. For some targets, such as Netanya or the Beth-Lidd Junction, the proximity to the place of origin of the bombers is obvious: in at least four attacks the terrorists came from Tul Karm, only nine kilometers from Beth Lidd and 15 km from Netanya.

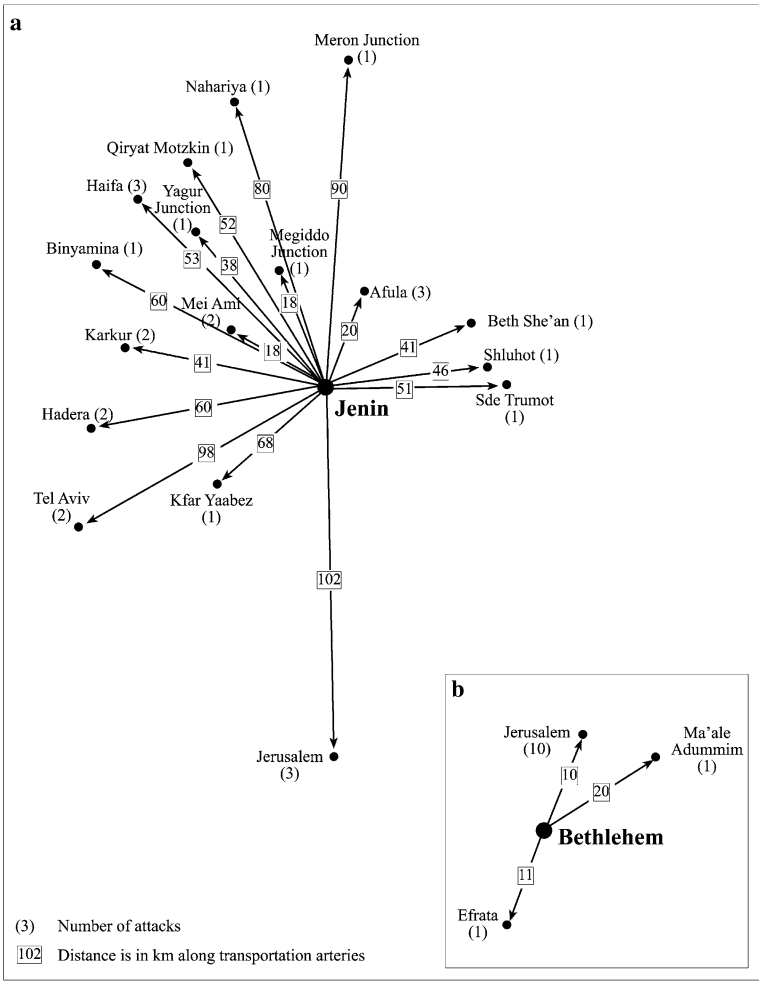

Fig. 2 a) Distance Decay Pattern: Jenin; b) Distance Decay Pattern: Bethlehem

The Impact of the Separation Fence on the Geography of Suicide Attacks

The central part of the Separation Fence built by Israel was completed in August 2003. Since then, patterns of terror attacks have changed significantly. *First*, the number of terror attacks, and particularly suicide attacks, has dropped. Thus, in 2003, 19 suicide attacks were carried out as compared to 6 in 2004 and 5 in 2005 (until September). Between the completion of the Fence and June 2004 only three terror attacks, which originated in the northern West Bank (Samaria), penetrated Israel: in two of them, terrorists used gaps in the area where the Fence was still incomplete. In comparison, between September 2000 and June 2003, 73 suicide attacks from Samaria succeeded in penetrating the same section (Intelligence and Terrorism Information Center, 2004). It was noticed that potential and realized suicide attacks were funneled into areas of contact where the Fence has not yet been completed, such as the area between Rosh Ha'ayin and Kfar Kassem, Beth-She'an Valley, and Jerusalem (Figure 1). These gaps in the route of the planned Fence became places sought by terrorist groups who identified them as the weakest points in the Israeli defense line.

Second, the effect of the Fence has also been noticed in the targets of the attacks: 37 attacks took place in Gaza and the West Bank. As easier access routes to Israel are blocked by this barrier, the route of entrance has gradually moved to the area between Rosh Ha'ayin-Kafr-Kassem, a

region in which the barrier is incomplete. Out of the nine suicide terror attacks which took place in the last six months of 2003 only four took place in central Israel, while the others focused on areas which were not protected by the Fence: Sdeh-Trumot, Rosh-Ha'ayin, Ariel, and two attacks in Jerusalem, which is surrounded by a barrier but is not completely sealed. Targets in 2004 and 2005 show, again, the choice of southern targets (Ashdod, Be'er Sheva, and a check-point along the Gaza Strip), or Jerusalem, which remained a relatively easy target.

The *third* effect of the Fence is on the route potential suicide bombers have to follow since Summer 2003. Previously, potential perpetrators had to overcome roadblocks and sudden check-ups on their mission to explode themselves. But friction of distance was relatively minimal and they had first-hand information on targets. The erection of the Fence forced terrorists to choose longer routes to selected targets or to substitute the selected targets for more accessible ones. This is exemplified by recent successful and unsuccessful suicide terror attacks. For example, terrorists who were sent by the Islamic Jihad in Jenin to targets in Israel (Yokne'am and Beth She'an) were forced to travel eastward and had to infiltrate to Israel from the Jordan Rift Valley, where no fence exists. Terrorists had more chance to be apprehended, as they had to overcome greater distances. Terrorist organizations have turned southward and have tried either to cross the barrier in the Jerusalem area, or choose targets in the relatively accessible Jerusalem area. Terrorists from Jenin have blown themselves up on ''non-important'' targets such as a single person in Sdeh Trumot (Beth She'an Valley), or in a residential house in Kfar Ya'abetz (a small village north of Netanya).

The relative importance of the Arab minority group in Israel has increased tremendously in the last couple of years when the Separation Fence and roadblocks almost sealed the central part of Israel. Only in two cases (out of 120) were Israeli Arabs actually the suicide bombers themselves, but in some 19 suicide terror attacks (out of 120) they served, knowingly or unknowingly, as assistants or collaborators to the perpetrators by gathering information on the targets or by driving the perpetrators to their target. Israeli Palestinian-Arabs who are taxi drivers or own cars have become an asset for potential perpetrators — it is easy for them to cross check points along the Fence and roadblocks and to transfer the terrorists to their destinations. In addition to the assistance of Israeli Arabs, Palestinians who are residents of East Jerusalem and carry Israeli identity cards, assisted the terrorists in three suicide attacks in Jerusalem. They were active in gathering information, purchasing disguise outfits for the perpetrators, and driving them to their targets.

Getting to the chosen targets since the Fence has been completed is more costly. There is more distance to overcome; it takes more time and money to reach the target, and there is more danger of being intercepted. This Fence did not succeed in halting suicide bombers completely, but it certainly caused suicide bombers to change their infiltration routes to Israel and enhanced the place utility of areas not blocked by the Fence.

Micro Targets and the Timing of Suicide Terrorism

By and large, terrorism aims at targets which represent the state's power. In London for example, the IRA targeted central London and particularly political, economic, judicial, and military sites (Coaffee 2004). Suicide terrorism pursues both state and civilian targets. In the campaign of the Tamil Tigers in Sri Lanka, military camps and government facilities were the favorite targets (Pape 2003). Suicide terrorism in Iraq, after the removal of Saddam Hussein, targets US forces, Iraqi security forces, and facilities of the new Iraqi regime. In Jerusalem, terrorists hit highly visible targets in key locations, which in the case of Jerusalem included buses, restaurants, and open markets (Savitch 2005).

Figure 3 depicts 119 suicide terror attacks of which only six were pure military targets such as stationary roadblocks or checkpoints, a military liaison office, a group of soldiers in a tour on foot, or in a military vehicle. An additional seven attacks targeted soldiers waiting by a bus stop or hitchhiking stations. For all terrorist organiza-

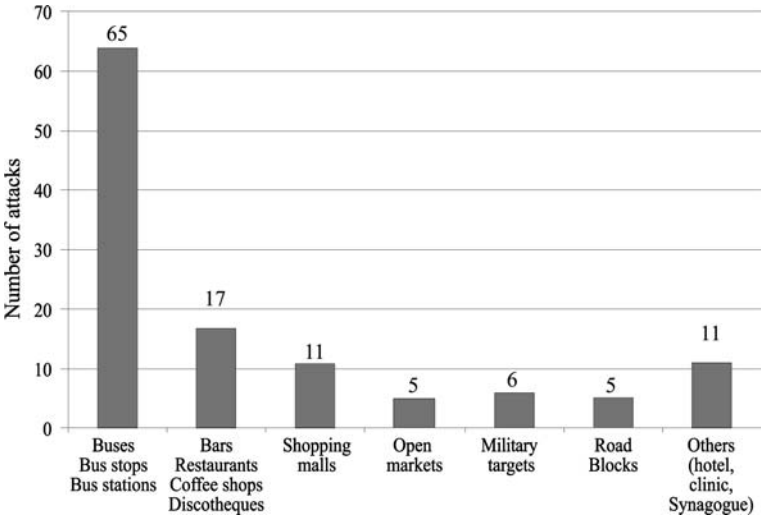

Fig. 3 The Micro Targets of Suicide Terror Attacks 1994 – September 2005

tions, preferred targets are civilian concentrations. If we compare the process of micro-target selection, we also can point to other distinctions in the selection of targets in Israel: iconic political figures such as members of parliament or the government are not targeted for suicide terror attacks. The only exception was the assassination by terrorists from the Popular Front of Rehav'am Ze'evi, Israeli Minister of Tourism in October 2001, who was murdered in revenge for the assassination by Israeli forces of a Popular Front's activist. Another unique feature in the pattern of suicide terrorism in Israel is that iconic buildings of government or commerce and trade are never targeted. No explanation for this trend is offered by researchers or the Palestinians. We may guess that as these potential targets are well guarded they do not appeal to suicide bombers.

Potential targets for suicide bombing are almost-infinite, but it is possible to identify and classify targets by groups. Figure 3 points to the nature of micro targets which are all very mundane, everyday targets that are used widely and frequently by ordinary citizens: markets, shops, buses, places of entertainment such as bars and pubs, restaurants, fashionable coffee shops, and shopping malls. There are thousands of buses, hundreds of restaurants, dozens of open markets and shopping malls, and numerous other targets. Suicide bombers, whose attacks were foiled, established that the ''martyrs'' were instructed to target large public shopping venues or leisure venues, to attack crowds or civilians, to synchronize the detonation of an explosive with the gathering of a line at the entrance to a large public venue and to avoid security check areas by finding a target at some distance from security personnel (Moghadam 2003).

The majority of attacks were transportation-oriented: buses, bus stops, bus stations, railway stations, and roadblocks. These targets often allow anonymity for would-be-perpetrators, are easy to access and satisfy the motivation to kill as many civilians as possible. It is also important to note that, even with security guards in buses and bus stops, buses continue to lure terrorists. Though buses and bus routes seem random targets, it was found that they were not. In Jerusalem buses and bus stops in the French Hill area, a location with excellent access for perpetrators from the West Bank, were hit by suicide terror attacks seven times; a similar number of attacks hit buses in the busy commercial artery of Jaffa Street in Jerusalem. The attraction of buses is high: there is no need for long planning or gathering of information. They are frequent and generally it is possible to escape the attention of the security guards. The second category of micro targets is bars, discotheques, restaurants, and coffee shops; these targets symbolize the ''good life'' in Israel, which is so different from the lives of so many Palestinians. Hitting Israelis in their routines and places of recreation thus serves an important purpose of the perpetrators. Open

markets and shopping malls also provide the advantages of accessible locations with many potential victims.

As Israel reinforced the protection of public places such as central bus stations and shopping malls – they became less accessible. In attempted suicide attacks in 2003 on a coffee shop, a pub, a railway station and a shopping mall, the number of victims was minimal, as guards were able to foil the planned suicide terror – by blocking the access to perpetrators. About 10 suicide attacks were stopped by security guards who often were killed or wounded by those attacks. Aborting suicide attacks is more successful in a closed space (restaurants and shopping malls), with a limited number of entrances, but even those are not completely safe. On October 4 2003, a woman suicide bomber blew herself up in the middle of a restaurant in Haifa after passing the security guard. Victims of suicide bombings included a line of youngsters waiting to enter a night club in Tel Aviv, or people passing through a pedestrian crossing near the entrance of a shopping mall in Netanya. Buses, bus stops, and roadblocks continue to be popular targets for suicide bombings.

In the spatial analysis of suicide terrorism, three major variables were explored: distance, access, and agglomeration, as providing, at least partial ''order'' (if not explanation) to patterns of suicide terrorism. Yet, all the above variables are highly conditioned by temporal considerations: distance could be short or long, depending on time, effort and cost required to cross a space and difficult access may reduce the attraction and advantages of places to which a potential perpetrator may or may not penetrate.

The scope of activity for the potential perpetrators is limited by a variety of constraints, reflecting social considerations, environmental opportunities and the individuals concerned (Walmsley and Lewis 1984). Constraints influence behavior in four ways: they restrict the opportunity set, mold attitudes and preferences, bring about choices that do not conform to the preferences of the individual, and prevent choices from being realized.

It is our assumption that the patterns of suicide terrorism along the daily, weekly, monthly, and annual axes will reflect the above constraints. First, the fluctuation of suicide terror attacks in its daily dimension shows obvious capability constraints: major portion of terror attacks took place during working-day hours: 8:00–18:00. Very few attacks took place in the evening and only three suicide terror attacks took place after midnight. (Table 3 and Figures 4 and 5).

Altogether, 77 suicide terror attacks were carried out during the hours in which the perpetrators are at the peak of their capability. There are many alternative targets and abundance of time to complete the mission. Also noticeable is the trend for a more even daily distribution of suicide attacks in the years of the peak number of attacks: 2001, 2002, and 2003. There is also a slight trend of daily ''delay'' in the attacks in the last three years as compared to the pattern of attacks in the 1990s. This could be mere coincidence or reflect more difficulties in the capability to carry out attacks.

Figure 4 presents weekly fluctuations in suicide terror attacks. Sunday to Wednesday are the peak days, with considerable reduction in the number of terror attacks towards the end of the week, with almost no attacks on Saturday – the Jewish Sabbath. Altogether, more than two-thirds of suicide attacks take place in the first four days of the week; reflecting most likely on planning, capability, and organization, and taking advantages of opportunities in the busy first half of the week, particularly Sunday – the busiest day during the week.

Finally, Table 3 portrays the fluctuations of suicide terror attacks along the months and years. There is not a single month in which no terror attacks have occurred, but there is a slight tendency for peaks in terror attacks in the months of March-May — the months in which Jewish holidays (Passover, Purim, Pentecost), and civilian holidays (Memorial Day and Independence Day) take place. Holidays present opportunities for would-be perpetrators. As will be discussed later, the timing for certain terror attacks (and often their purpose or goal) is provided by the sending organizations and cells. They sometimes use the reasoning that the month of Ramadan, or the Sabra and Shatilla massacre memorial, are events to be commemorated by suicide attacks, and act accordingly.

Table 3 Distribution of Suicide Bombing Attacks According to Months, Years and Number of Casualties

Year/ Month	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Total attacks per month
January		22.1						1.1	25.1	5.1	14.1	13.1	9
									27.1		29.1	18.1	
February			25.2						16.2		22.2	25.2	8
			25.2						18.2				
			25.2						27.2				
March								4.3	2.3	5.3	14.3.04		18
								27.3	5.3	[IV]30.3			
								28.3	7.3				
									9.3				
									17.3				
									20.3				
									21.3				
									27.3				
									29.3				
									30.3				
									31.3				
									***31.3				
April	6.4	9.4	3.4 (Purm)	21.4 (Purim)				4.4	10.4	24.4	29.1		16
	13.4 (Memorial Day ceremony)	9.4						22.4	12.4	30.4			
			4.4 (Purim)					24.4					
								*28.4					
May								18.5	7.5	16.5			10
								25.5	19.5	18.5			
								29.5 (Pentecost)	22.5	19.5			
									27.5				
June								1.6	5.6	11.6			8
								22.6	11.6	19.6			
									18.6				
									19.6				
July		24.7		30.7				9.7	[1]*17.7	7.7	17.7	12.7	9
								16.7	30.7				
August		21.8						8.8	4.8	12.8	11.8	28.8	11
								9.8	5.8	19.8	31.8		
								12.8					
September				4.9				4.9	[V]18.9	9.9			8
								7.9	19.9	9.9			
								9.9					

Table 3 continued

Year/ Month	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Total attacks per month
October	9.1 19.1				29.1		26.1	7.1 17.1	10.1 21.1 27.1	4.1 9.1			11
November	11.11				6.11			29.11	4.11 21.11 28.11				6
December							22.12	**1.12 2.12 5.12 9.12 12.12	2.12 9.12 12.12 22.12	25.12			11
Total Attacks	5	5	5	3	2	0	2	29	43	18	8	5	117
No. killed	37	38	61	24	1	0	2	86	242	143	54	46	734

* 24.4.01 Independence Day

** December 2000 – The Ramadan month

*** 27.3.02 The evening of Passover

IV Passover week

V Anniversary of Sabra and Shatilla massacre

1* 9 BeAv

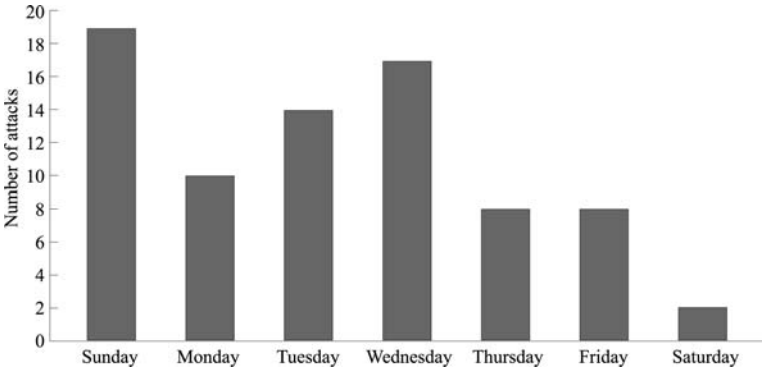

Fig. 4 Suicide Terror Attacks: Weekdays

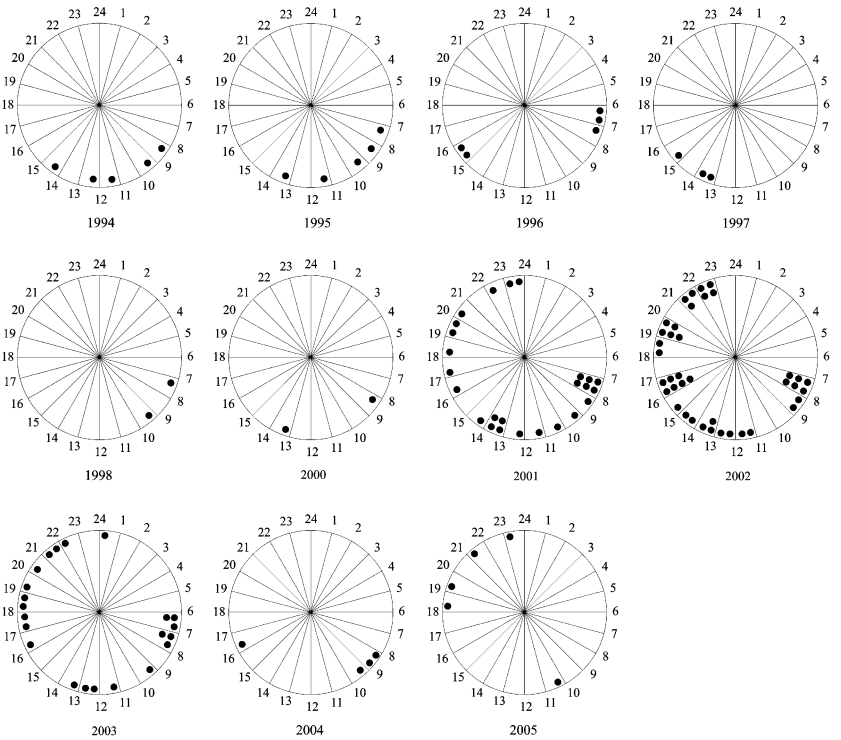

Fig. 5 Suicide Terror Attacks: Years and Hours of the Day

Philosophy, Planning, and Practicalities: Between Rationality and Randomness

Suicide terrorism is a highly complex phenomenon in which various motives, people, and beliefs play a role. In addition, exploring it involves some methodological difficulties. Notwithstanding these complexities, it is possible to discern a framework to analyze the spatiality of suicide terrorism. It is not about rational-irrational duality but rather about rationality and randomness. Suicide terrorism works along three axes: philosophy, planning, and practices. On the philosophy level, rationality is at its peak as targets are measured according to their utility. The zeal to kill, and the fact that the suicide bomber is the efficient and precise explosive method, allows the leaders of terrorist organizations to make the irrational act of suicide into a highly rational act from the organizational point of view. On this level, randomness is highly appreciated as it instills fear in a large population which may consider itself vulnerable for suicide attacks. When philosophy is translated into actual planning, the

selection of targets is based on the criteria listed in an earlier part of this article. While planning is rational it is subject to randomness; for example, the selection of the suicide bomber and the team that will launch the attack contains embedded randomness. Finally the actual selection of a target is often random because of a large number of potential targets but it is also rational as bombers bear in mind the wish to maximize casualties.

The bloodiest suicide attack so far, that of the Park Hotel in Netanya may illustrate the duality between rationality and randomness. In July 2001 the head of Hamas in the Tul Karm region decided to carry out a suicide attack in Israel. Tul Karm is situated on the Israeli border in its pre-1967 borders, only a short distance from Israel's major urban concentrations of central Israel. A Hamas operative in Tul Karm was asked to deliver an explosive belt from Nablus (where the Hamas arms production is located). Two suicide bombers from Tul Karm were recruited. In August 2001 one of the organizers was killed and the attack was postponed. Towards the end of 2001 preparations were resumed. Two explosive belts from Nablus were delivered to the new Tul Karm mosque and were hidden in the women's restroom. The explosive belts were delivered from the mosque to a specially rented apartment in Tul Karm. A driver familiar with Israeli territory was located and provided with a counterfeit ID card registered in the name of a Taibeh (an Arab city within Israel) resident. He was granted NIS 16,000 to acquire an Israeli vehicle. On March 26 2002, the initiator and coordinator of the suicide bombing attack met a middle-echelon Hamas operative, in an apartment in Tul Karm where final preparations were made. On March 27, Passover Eve, around 14:00, the suicide terrorist and the driver left the apartment in Tul Karm and drove to a nearby village. There the two switched to a vehicle prepared in advance and drove toward Herzliya to find an appropriate target (no specific target was stipulated and it was left to the perpetrators to find a target where heavy civilian casualties could be inflicted). Upon failing to find an appropriate target in Herzliya (that is, a location where heavy casualties could be inflicted), they headed to Tel-Aviv, but no appropriate target was found there either. On their way, the suicide bomber told the driver that he was familiar with Netanya and the two headed off in that direction. Once in Netanya, they headed west and got off the vehicle next to Park hotel. The ''appropriate'' place, crowded with people celebrating the Passover Eve festive, was thus found. Around 19:30, the suicide bomber entered the Park Hotel dining hall and detonated the explosive belt. Upon hearing the blast and seeing ambulances rush toward the hotel, the driver called a Hamas superior in Nablus, and informed him of the successful suicide bombing attack.

Conclusions and Research Limits

This study specifically explored a subject matter missing or implicit in existing research of suicide terrorism in Geography. The scope of this study is limited because of data limitations (collected almost exclusively by Israeli sources) and the confidentiality that accompanies this subject matter. Notwithstanding these limitations, this study has several important findings regarding the rationality of target selection and the timing of suicide terrorism.

First, suicide terrorism takes advantage of agglomerations: 65% of Palestinian suicide terror attacks are targeted at cities. *Second*, it is mainly subjected to the distance-decay curve as most suicide attacks are more likely to occur in the areas in close proximity to the hometowns of the perpetrators or their sending cells. This being the rule — the exception is that the largest cities in Israel attract terrorists from great distances because of agglomeration, abundance of targets and their good accessibility. *Third*, access is crucial for would-be terrorists and great effort and expense are being invested in obstructing access to the potential targets. The Separation Fence affects targets' accessibility, enhancing the friction of distance; it, in turn has changed the pattern of targets hit by suicide attacks. *Fourth*, the distribution of the places and locations which have been targets for suicide terrorism is rational for the vast majority of attacks (105 out of 119 recorded attacks). We were able to find about 10

''non-rational'' or completely random attacks. We may conclude cautiously that there is ordered non-random, rational distribution to macro-suicide terrorism in Israel. *Fifth*, there is a clear trend for targeting transportation facilities: buses, bus stops, roadblocks, and check points. There is a more random pattern to the selected targets as many are picked out by chance, according to the ''on the spot'' judgment of the perpetrator. *Sixth*, the timing of suicide terrorism shows the capability constraints in the daily fluctuation in the timing of terror attacks as three-quarters of attacks take place during working days and regular business hours.

The findings of this research are consistent with those suggested by other researchers, who argue that suicide terrorism is based on rational political calculations (Pape 2003; Sprinzak 2000). Even though some randomness is evident, rationality clearly has the upper hand with regards to spatial and temporal dimensions. The commitment to kill as many people as possible necessitates rational thinking and calculations that take into account various geographical and timely dimensions. Rationality is highly stressed in the philosophy and the planning of suicide terrorism; however, once practicalities are introduced into play, levels of rationality are reduced and randomness is increased.

The shortcomings of an analysis based on aggregate data are many. This study needs complementary research which will focus on Palestinian organizations and their members. Unfortunately, this option has not been available for us. Further in-depth research is needed also in other parts of the world in order to see if locational properties and processes apply to them.

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