

Supplementary online materials for 'Individual Factors in Suicide Terrorism'

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Supporting Data (details). Palestinian economist Basel Saleh compiled information on 171 militants killed in action (nearly all during the Second Intifada, 2000-2003) from Hamas and Palestinian Islamic Jihad (PIJ) news services, including 87 suicide attackers.[1] Majorities of militants were unmarried males (20-29 yrs.), from families with both parents living and 8-15 siblings, and who completed secondary school or attended college. Suicide attackers, which included bombers (29 Hamas, 18 PIJ) and shooters (14 Hamas, 26 PIJ), had more pronounced tendencies in these directions. A majority of Hamas bombers attended college; PIJ had more shooters aged 14-19. Majorities of bombers, but few shooters, had prior histories of arrest or injury by Israel's army; however, most shooters had one or more family members with such histories. This underscores a speculation in GST that personal grievance could be a greater factor in Palestinian cases than for Al-Qaeda and its ideological allies.[2] According to Princeton economist Alan Krueger and colleagues, although one third of Palestinians live in poverty, only 13 percent of Palestinian suicide bombers do; 57 percent of bombers have education beyond high school versus 15 percent of the population of comparable age.[3]

In response to GST, sources with the U.S. Army Defense Intelligence Agency (DIA) provided me summaries of interrogations with detainees at Guantanamo, Cuba (case lists remain classified). Al-Qaeda operatives are mostly divided into "Saudis" (who tend to be "leaders") versus "Yemenis" (more "foot soldiers"). The Saudis are often "educated above reasonable employment level, a surprising number have graduate degrees and come from high-status families." Motivation and commitment are evident in willingness to sacrifice material and emotional comforts (families, jobs, physical security), and to pay their own way from their homes to travel long distances. Many told interrogators that if released from detention they would return to Jihad.[4] Detainees evince little history of personal grievance, but frequently cite older relatives and respected community members who participated in earlier Jihads as influencing decisions to join the fight. Yemenis have more modest education and social status, and are often recruited and financed through mosques in Yemen and abroad (especially England). As with Hamas and PIJ, religious indoctrination by Al-Qaeda and allies (of recruits who initially express only moderate religiosity) appears crucial to creating intimate cells of fictive kin whose members commit to willingly die for one another.[5]

All 9/11 attackers, including 15 Saudis and 4 others of Middle Eastern origin, were young, single males from middle class families. Their university-enabled ideological conversion to a radical religious agenda resemble the path of many other political terrorists. No "personality" defects were evident before the attack, and none discovered in hindsight (despite intense scrutiny).

If terrorist cells relied on maladjusted people, "they couldn't produce effective and reliable killers," according to Maj. Gen. Todd Stewart (ret.), who directs Ohio State's Program in International and Homeland Security.[6,7] As for leaders, the usual description of their "personality type" is that of closed-minded "authoritarians" who reduce persons to situations, and maintain their beliefs against challenges by limiting their experiences and surrounding themselves with sources of information that will tell them they are right (including like-minded people).[8] This description may apply somewhat to most leaders of ruling or militant political and religious groups, with no special relation to terrorism.

Dwindling Expectations (vs. The War on Poverty). GST presented evidence against claims by government, media and intellectual leaders that poverty and lack of education as such are reliable factors in suicide terrorism,[9,10] which suggests that "the War on Poverty" will not significantly affect the "War on Terrorism." This is not to deny the role of economic factors or individual considerations of utility in stimulating terrorism, such as those that arise from explosive population growth,[11] combined with failure of rigidly authoritarian governments to provide initiatives for youth.[12] Support and recruitment for suicide terrorism occur not under conditions of political repression, poverty and unemployment or illiteracy as such, but when converging political, economic and social trends produce diminishing life opportunities relative to expectations, thus generating

frustrations that radical organizations exploit.[13] Societies are most liable to tolerate revolutionary acts of terrorism after people have already begun experiencing increased education, steps toward prosperity and some political opening, but then see their rising aspirations stymied

In fact, the greater a person's human capital (including income and education), the greater that person's awareness of future needs, and the greater the person's degree of altruism and commitment to the future generation's welfare. This is the economic rationale for the emergence of dynastic families,[14] and also anchors devotion to social causes that require understanding the future (e.g., conservation movements). Through indoctrination of recruits into emotionally tight-knit « brotherhoods » of fictive kin, charismatic leaders create culturally-contrived cell loyalties that mimic and (at least temporarily) override genetically-based fidelities to family kin while securing belief in sacrifice to a larger group cause.

This helps to account for terrorism's spread but not its spark. Most people in the world who suffer stifling, even murderous oppression don't become terrorists. As with nearly all creators and leaders of history's terror movements,[15] those who conceive of using suicide terrorism in the first place belong mostly to an intellectual elite possessing sufficient material means for personal advancement. What motivates them is religious or ideological conviction and zeal, whose founding assumptions cannot be rationally scrutinized, and which they get others to believe in and die for.

This doesn't mean that sponsors of martyrdom are irrational. On the contrary, use of religious assumptions for political or economic purposes can be eminently rational, as in martyrdom or missionary actions to gain recognition, recruits and power. Dwindling returns on future life prospects for individuals translate into increasing recruitment and prompt returns for terrorist organizations and leaders. This degree of manipulation usually works, however, only if the manipulators themselves are convinced of what they are doing. As in displays of love and willingness to avenge, sincere conviction best convinces others.[16]

Moderating Ambitions (vs. The War of Ideas). Countering terrorism also requires facing problems with our society's appraisals and actions. A National Research Council study finds: "terrorism and its supporting audiences appear to be fostered by policies of extreme political repression and discouraged by policies of incorporating both dissident and moderate groups responsibly into civil society and the political process." [17] President Bush told Congress that the 9/11 attackers and their supporters "hate our freedoms" and democracy.[18] But surveys show Moslem and Arab opinion strongly favoring America's forms of government, personal liberty, educational opportunity and economic choice, despite support for Al-Qaeda's actions.[19]

There is little evidence to underwrite the call for a « War of Ideas » that is a cornerstone of the U.S. *National Strategy for Combating Terrorism* (NSCT).[20] Political scientist Mark Tessler finds Arab attitudes to American culture most favorable among young adults (regardless of their religious feeling) – the same population that terrorist recruiters single out.[21] This pattern belies the thesis of a "clash of civilizations,"[22] or the more self-centered claim of "a clash between civilization and those who would destroy it" that concludes NSCT. Most Muslims polled favor elected government and free enterprise, but many do not consider these sufficient or even necessary conditions for a good life or legitimate government.[19] Upholding cultural identity and personal security are also crucial.

It is arguably not America's internal liberties these people dislike, but its external actions.[23] They are not so much jealous of America as hostile to a perceived jumble of *realpolitik* and the messianic mission. According to the new *National Security Strategy of the United States*, preemptive action is justified against those who oppose "freedom, democracy, and free enterprise," as the "single sustainable model for national success... right and true for every person, in every society." [24] Yet, there seems to be a direct correlation between U.S. military aid to politically corroded or ethnically divided states,[25] human rights abuses by those regimes, and rise in terrorism,[26] as initially moderate opposition is pushed into common cause with more radical elements.[17] Amnesty International and Human Rights Watch regularly document "horrific" and "massive" human rights abuses occurring in countries that receive the most U.S. aid in absolute terms (Israel,[27] Egypt,[28] Colombia,[29] Pakistan[30]) and the greatest relative increase in aid (Central Asian Republics,[31] Georgia,[32] Turkey[33]), including many "new Partners in the War on Terrorism." [34] French involvement in Algeria and Russian actions in Chechnya show somewhat similar developments.

A key "lesson" of the Vietnam War, according to former Defense Secretary Robert McNamara, was to err in thinking "we're on a mission. We weren't then and we aren't today. And we shouldn't act

unilaterally militarily under any circumstances. We don't have the God-given right to shape every nation to our own image.”[35] America may be the world's “indispensable nation,” as President Clinton avowed,[36] but not if it goes it alone.

Suicide Terrorism's Growing Strategic Importance (and Counterstrategies). Suicide attacks by terrorist organizations have become more prevalent globally, gaining in strategic importance with disruptive effects that cascade upon the political, economic and social routines of national life and international relations. According to a Congressional Report released in August 2003, suicide attacks from 1980 through 2001 represented 3 percent of terrorist attacks worldwide but accounted for nearly half of all deaths.[37] The past three years have seen more suicide attacks than the last quarter century, the last year (2003) accounting for more than any year in contemporary history.[38] Since 2000, more than 300 attacks have killed some 5350 people in 17 countries. At least 70 percent of these attacks were religiously motivated, with over 100 attacks by Al-Qaeda and affiliates (Table 1). More ominously, Islamic jihadi groups are now networked in ways that permit “swarming” by actors contracted from many different groups homing in on multiple targets, then dispersing to form new swarms. Multiple coordinated suicide attack across countries and even continents is the adaptive hallmark of Al Qaeda's continued global web-making.[40] The London-based International Institute of Strategic Studies surmises that: “The counter-terrorism effort has perversely impelled an already highly decentralized and evasive transnational terrorist network to become more ‘virtual’ and protean and, therefore, harder to identify and neutralize.”[41]

Repeated suicide actions in Israel/Palestine, Pakistan/Kashmir/India, Russia/Chechnya, and now in U.S.-occupied Iraq show that massive counterforce alone does not stop, or even reliably diminish, frequency of suicide attack (though it may stem increase),[42] and that suicide attacks often achieve attackers' near-term strategic goals (forcing withdrawal from areas subject to attack, radically upsetting life routines in order to destabilize and demonstrate vulnerability).[43] This indicates a lengthy and costly “war of attrition” between suicide attackers and their foes is increasingly likely.

The longer this war of attrition lasts, the greater the long-term strategic risk of radicalizing Muslim sentiment against us around the world, of undermining our own international alliances, and of causing serious and sustained discontent at home. As with international and civil wars tracked over the last two centuries[44], political scientist Robert Axelrod shows that most casualties and cascading effects of terrorist acts are caused by a few, increasingly clustered and massive operations planned over months and years (and long-term planning is Al-Qaeda's hallmark).[45] This striking trend (a straight line on a log-log scale) makes it imperative that effective countermeasures be found to avoid catastrophic devastation and disruption. “God has ordered us to build nuclear weapons,” proclaimed Fazlur Rahman Khalil of Harkat ul-Mujahideen.[46] A subsequent attack on India's Parliament by Jaish-e-Muhammed, a Pakistani offshoot of the Al-Qaeda affiliate that Khalil heads, probably brought nuclear war closer than at any time since the Cuban Missile Crisis.[47]

One research priority should be to explore how best “netwar” may be waged against increasingly high-tech,[48] networked terrorist groups that are seeking WMDs from multiple criminal and other non-state sources in order to pursue what physicist Richard Garwin terms “megaterror.”[49] Disabling and defending against relatively diffuse, horizontal social networks of control and command may require very different risk assessments and tactics than those used to combat the vertical social hierarchies that direct national armies. Carnegie Mellon's Kathleen Carley has used multi-agent network analysis to monitor and model changes in Al-Qaeda, such as those following break up of the cell responsible for the suicide bombing of the U.S. Embassy in Tanzania.[50] She found that eliminating leaders who are central actors (having the most ties to other cell members and to other cells) can produce more adaptive responses in the overall network “healing” process than elimination of less central actors. This indicates that targeted assassinations – a favorite Israeli tactic – can be counterproductive, regardless of any civilian reaction.

At a minimum, an effective strategy for combating suicide terrorism requires a layered approach that works on three levels in a coordinated way:

- A last line of defense involves the attempt to protect sensitive populations and installations from attack. Mostly through development and use of scientific technology, efforts are made to block suicide terrorists from hitting their targets or to lessen (through preparation) the effects of an attack that has not been prevented.

- A middle line of defense involves preemptively penetrating and destroying terror organizations and networks, mostly through a combination of intelligence and military action.
- A first line of defense involves understanding and acting on the root causes of terrorism so as to drastically reduce the receptivity of potential recruits to the message and methods of terror-sponsoring organizations, mostly through political, economic, and social action programs.

Ever since September 11, 2001, hundreds of billions of dollars have been targeted on countermeasures associated with the last and middle lines of defense (protection, mitigation, preemption). These measures have undoubtedly helped to thwart a steep rise in suicide attacks; however, they have produced no appreciable decline in incidence of suicide terrorism (Table 1) – the most readily identifiable and generally devastating and destabilizing form of terrorism.[51]

The number of people outside of government who are trained and qualified to analyze terrorist organizations and the cultural support that sustains them is quite small in the United States, and meager elsewhere. Western academic institutions do not, as a rule, support terrorism studies as a discipline that merits long-term funding or intellectual dedication because of wariness over devoting resources to a politically-charged field whose relevance depends upon changing perceptions of threats and policy priorities. In an age of globalized information, there is potentially much more to be gained through freely accessed open sources than through classified sources (CIA and DIA analysts maintain that much of the information needed to “connect the points” before 9/11 was available from open sources). This situation of generally open-access to information facilitates joint civilian and military education programs and encourages long-term cooperative ventures between academic institutions, NGOs and government, akin to those established in order to manage the tensions and threats to national survival and global security during the Cold War. Reliance on government alone is too risky.

Table 1. Suicide attacks worldwide, 2000-2003.

Country	# suicide attacks per year per country				# total attacks	# religious attacks	# total dead in all attacks
	2000	2001	2002	2003			
Afghanistan**				2	2	2	11
Chechnya/Russia**	8	1	1	10	20	20	382
China			2		2	0	5
Indonesia**			1	1	2	2	215
Iraq**				33	33	15	244
Kashmir/Jammu**	17	29	18	11	75	75	409
Kenya*			1		1	1	18
Morocco**				5	5	5	44
Pakistan**			2	2	4	4	84
Palestine/Israel	3	40	64	22	129	78	555
Philippines**			1	1	2	2	24
Saudi Arabia*		1		5	6	6	57
Sri Lanka***	14	4		1	19	0	205
Tunisia**			1		1	1	16
Turkey**		1		5	6	4	64
USA*		4			4	4	3002
Yemen*	1				1	1	19
SUM	43	80	91	98	312	220	5354

*Al-Qaeda attacks

** Involvement of Al-Qaeda associates

***LTTE attacks (Tamil Tigers)

- S1. B. Saleh, paper presented to the Graduate Research Forum, Kansas State Univ., 4 April (2003).
- S2. I. Fisher, *New York Times*, 15 August 2003, p. 3. Recent female suicide actions in Chechnya also appear to be grievance-driven by women who have had male relatives killed by Russian forces. Grievance –driven actions may be harder to retaliate against, but easier to address, because they are embedded within a local context involving palpable subordination of a reasonably well-identified cultural group to a more powerful group. Local terrorist/freedom-fighting organizations are also usually involved in legitimate social and political activity.
- S3. A. Krueger, *New York Times*, 29 May 2003.
- S4. As with Bosnian Moslems described in GST, one DIA source who interrogated Albanian detainees from Kosovo found them “Moslem only in identity rather than practice.” Faith is a significant factor for Palestinians, even among recruits to the « secular » Al-Aqsa Brigades (as for Chechnyan militants who also encourage martyrdom for women), which begin and end communiqués with calls to God.
- S5. Tobeña cites D.S. Wilson’s, *Darwin’s Cathedral*, as one authority for gaining insight into religion’s role. Wilson’s group-selection argument is empirically selective and historically tendentious (e.g., Judaism as a eugenics program) and theoretically untenable (no selection mechanisms for circumscribing human groups) [Atran. *In Gods We Trust: The Evolutionary Landscape of Religion* (Oxford Univ. Press, New York, 2003), pp. 199-235.]
- S6. S. Atran, *New York Times*, 5 May (2003), p. A23.
- S7. Responding to Tobeña’s letter, Stewart writes: “Individuals within small group suicide attacks go through with their attack primarily because of their commitment to each other, rather than to some ideological construct. This is the very dynamic at play that causes individual soldiers to stay and fight, rather than to turn and run, in the face of an overwhelming enemy (rather than not wanting to disgrace their organization, family or country). It’s the same dynamic that causes an individual to sacrifice himself to save his buddies. Unless the person is acting totally independently, this commitment to others in the ‘group’ is operative, even if only two people are involved, i.e., the person who commits suicide and the leader/trainer/manipulator.” On Israeli soldiers’ willingness to sacrifice for comrades, see S. Andersen, *New York Times Magazine*, 12 May (2002), p. 38.
- S8. R. Altemeyer, R. *The Authoritarian Specter* (Harvard Univ. Press. Cambridge, MA, 1996).
- S9. “The link between poverty and terrorism” (Statement by Minister of State for Foreign and Commonwealth Affairs, Baroness Symons, House of Lords, London, 27 February 2002); available at www.britain.org.my/news/int_terrorism/link_poverty_terrorism.html.
<http://www.learningfountain.com/4flames.htm>
- S10. S. Talbott, *Foreign Policy*, **127**, 74 (2001).
- S11. With population doubling in a generation or less, Middle Eastern and more broadly most Moslem societies have age pyramids with broad bases: each younger age group is substantially larger than the next older. Even in the best of circumstances, society’s opportunity structure would have trouble growing apace with population. Multi-sibling family members also have reduced prospects for marriage and achieving honorable social status. [G. Hammel, Demographic Appendix to *Discouraging Terrorism* (National Academies Press, Washington, DC, 2002). available at <http://books.nap.edu/books/0309085306/html/38.html#pagetop>.]
- S12. J. Gray, *Al Qaeda and What it Means to be Modern* (New Press, New York, 2003). Weak and increasingly corrupt and corroded nationalist regimes in Moslem countries have sought to eliminate all secular opposition. To channel off popular discontent, they initially supported radical Islamic groups, which provided schooling and health services more efficiently and extensively than governments did. Such groups offered a “desecularized” version of modernity’s universal mission to improve humanity, with aspects decidedly not traditionalist or “fundamentalist,” such as encouraging hi-tech science and economic diversity. (Al-Qaeda is no less modern and revolutionary in methods and ambitions than was Nazi Germany, despite the atavistic cultural elements in its apocalyptic attempts to revise and revamp world history.) When radical Islam finally vented political aspirations, popular support proved too deep and widespread to extinguish. Islam itself, however, is no more or less intrinsically violent or prone to support terrorism than Christianity, Judaism, Hinduism, Buddhism or any other major religion (all of which have expanded and defended themselves, in part, through violence).
- S13. W. Laqueur, *No End to War* (Continuum, London, 2003). As intimated in GST, relative deprivation appears more significant than absolute deprivation. Unlike poorer, less educated elements of their societies - or equally educated, well-off members of our society - increasingly many educated,

middle-class Moslems experience a declining discount rate on worth of continued living. Reducing someone's potential opportunities relative to prior expectations negatively affects life's future value, no matter how rich or knowledgeable a person is to begin with. It is difficult to disentangle the relative significance of political versus economic factors in the in the Muslim world's terror-generating process of rising aspirations followed by dwindling expectations. During the 1990s, rising aspirations among Muslim peoples were fanned by momentous political developments in Algeria (multiparty elections, including Islamic groups), Palestine (Oslo Peace Accords), Chechnya (dissolution of the Soviet Union and the end of Communist control), Indonesia (Suharto's resignation and the end of dictatorship) and elsewhere. In each case, economic stagnation or decline followed as political aspirations were thwarted (cancellation of elections by the Algerian Army, breakdown of the Israel-Palestine Camp David negotiations, Russia's crackdown on Chechnya's bid for autonomy, fomenting of interethnic strife and political disaccord by Suharto army loyalists and paramilitary groups).

S14. R. Barro, G. Becker, *Econometrica*, **57**, 481 (1989).

S15. H. Lasswell, D. Lerner, Eds. *World Revolutionary Elites* (MIT Press, Cambridge, MA, 1996).

S16. R. Frank, *Passions within Reason: The Strategic Role of the Emotions* (Norton, New York, 1988).

S17. *Discouraging Terrorism* (National Academies Press, Washington, DC, 2002), p. 2.

S18. White House news release, 20 September 2001, available at

www.whitehouse.gov/news/releases/2001/09/20010920-8.html.

S19. "Views of a changing world 2003" (Survey Rep., Pew Research Center, 3 June 2003); available at <http://people-press.org/reports/display.php3?ReportID=185> www.

S20. "National Strategy for Combating Terrorism" (U.S. Dept. of State, Washington, DC, February 2003); available at <http://usinfo.state.gov/topical/pol/terror/strategy/>, p. 12. NSCT highlights two ways to diminish support for terrorism: strengthening the "Partnership Initiative" and winning the "War of Ideas... to kindle the hopes and aspirations of freedom." Insofar as many U.S. « partners in the war on terrorism » are human rights abusers that push moderates to the extreme fringes of political life, and most of the Moslem public (including most supporters of martyr) already favors democracy and freedom, these programs are not promising.

S21. M. Tessler, D. Corstange, *J. Social Affairs*, **19**, 13 (2003).

S22. S. Huntington, *The Clash of Civilizations and the Remaking of the World Order* (Simon & Schuster, New York, 1996). If, as Huntington argues, civilizations are cultures writ large, then the same dynamical processes apply to civilizations as to cultures. Cultures, like species have no fixed boundaries or essential structures. Unlike species, they also interchange elements and merge, and split and remarry in unforeseen ways. There are always contingent and unpredictable events, and there is always an element of uncertainty between expectations and outcomes. In politics, as in economics, the most well-structured policies and practices are the ones that also produce the greatest variety and impact of unintended consequences and cascading effects, which makes them the most liable to revolutionary fall and overthrow. This may be a general characteristic of complex, dynamical systems that have "looping effects" (where agents' actions affect environments that, in turn, affect agents' actions), including systems involved in biological and cultural evolution.

S23. In its June 2003 survey, the Pew Research Center found that only 7 percent of Saudis had a positive view of the U.S., and less than 20 percent of Pakistanis and Turks. 99 percent of Lebanese, 98 percent of Palestinians and 83 percent of Indonesians held unfavorable opinions of the U.S., while majorities in these countries also expressed confidence in Osama Bin Laden to "do the right thing regarding world affairs." A White House panel reported in October 2003 that Muslim hostility towards the USA "has reached shocking levels," and is growing steadily. ["Changing minds, winning peace: A new strategic direction for U.S. public diplomacy in the Arab & Muslim world" (Rep. Advisory Group on Public Diplomacy for the Arab and Muslim World, Comm. On Appropriations, U.S. House of Representatives, Washington, DC, 1 October 2003); available at www.rice.edu/projects/baker/Pubs/testimony/winningpeace/24882.pdf.]

S24. G. W. Bush, introduction to "The National Security Strategy of the United States" (White House, Washington, DC, September 2002); available at <http://usinfo.state.gov/topical/pol/terror/secstrat.htm>.

S25. The U.S. State Dept. budget (fiscal 2003) for Foreign Military Financing includes as top receivers: Israel (\$2.1 billion), Egypt (\$1.3 billion), Columbia (\$98 million), Pakistan (\$50 million). Special Support Funds are also budgeted in emergency supplemental bills: \$600 million for Pakistan (half targeted for direct military assistance); \$40.5 million in economic and law enforcement assistance

for Uzbekistan; \$45 million in military financing for Turkey and Uzbekistan; \$42.2 million for training and equipment for security forces in Uzbekistan, Tajikistan, Turkmenistan, Turkey, Kyrgyzstan, Azerbaijan, Kazakhstan; and added millions in special Defense Department funds for counterterrorism in Central Asian Republics and Georgia. [M. Ciarrocca, W. Hartung, "Increases In Military Spending And Security Assistance Since 9/11/01," Arms Trade Resource Center, 4 October 2002; available at www.worldpolicy.org/projects/arms/news/SpendingDOD911.html.]

S26. « Global Terrorism Index 2003/4 » (World Markets Research Centre, 18 August 2003) ; available at www.worldmarketsanalysis.com. According to the 2003 World Terrorism Index (compiled primarily for multinational investors), Columbia, Israel and Pakistan top the list of places at risk for terrorist attack (Egypt has been relatively quiet since the late 1990s, when Egypt's Islamic Jihad essentially fused with Al-Qaeda to initiate action on a more global scale). Iraq, which was not previously a major risk, has leapt to the forefront under U.S. occupation.

S27. "The heavy price of Israeli incursions" (Amnesty International Wire, May 2002); available at <http://web.amnesty.org/web/wire.nsf/May2002/Israel>.

S28. "In the name of counterterrorism: Human rights abuses worldwide. III. Country studies" (Human Rights Watch Briefing Paper for the 59th Session of the United Nations Commission on Human Rights, 25 March 2003); available at <http://hrw.org/un/chr59/counter-terrorism-bck4.htm>.

S29. "Colombian human rights crisis deepens" (Amnesty International Wire, May 2002); available at <http://web.amnest.org/wire.nsf/May2002/Colombia>.

S30. "Pakistan: Government breaks its own laws to participate in 'war against terrorism'" (Amnesty International, 20 June 2002); available at www.amnestyusa.org/news/2002/pakistan06202002.html.

S31. "The meaning of concern: Washington indulges Uzbekistan's atrocities" (Human Rights Watch, 27 March 2003); available at <http://hrw.org/editorials/2003/uzbek-o32703.htm>.

S32. "Georgia" (Amnesty International Rep. 2002); available at <http://web.amnesty.org/web/ar2002.nsf/eur/georgia?Open>.

S33 "Turkey: Human Rights Watch World Report 2001"; available at <http://www.hrw.org/wr2k1/europe/turkey.html>

S34. "Combating terrorism: Interagency framework and agency programs to address the overseas threat" (U.S. General Accounting Office, Washington, DC, 23 May 2003), p. 24; available at www.gao.gov/new.items/do3165.pdf.

S35. R. McNamara, "In retrospect – The tragedy and lessons of Vietnam," Address to the John F. Kennedy School of Government, Harvard Univ., 25 April 1995; available at www.ksg.harvard.edu/ifactory/ksgpress/www/ksg_news/transcripts/mcnamara.htm. McNamara points to 11 lessons from Vietnam, ranging from reliance on incomplete, tendentious or exaggerated intelligence estimates to insensitivity to cultural issues - all of which have eerie parallels with happenings in Iraq.

S36. "America stands alone as the world's indispensable nation," U.S. President Bill Clinton, Second Inaugural Address, 20 January 1997; available at www.bartleby.com/124/pres65.html.

S37. "Terrorists and Suicide Attacks" (Congressional Research Service Rep. to Congress, Washington, DC, 28 August 2003); available at www.fas.org/irp/crs/RL32058.pdf.

S38. In 1994, only one-fourth of 56 major terrorist incidents cited by the U.S. State Dept. involved religious groups. In 1997, just 14 of 36 terrorist groups were religious. From 1980-2001 there were 188 suicide attacks, with most carried out for non-religious motives. But newer trends pose distinct challenges. Half of the 74 groups currently deemed "terrorist" by the State Department are religious. [S. Atran, "What motivates a terrorist," *New York Times*, 28 Sept. 2003, sec. 4, p.10].

S39. J. Stern, *Foreign Affairs*, **82**, 27 (2003).

S40. R. Gunaratna, *Inside Al Qaeda* (Columbia Univ. Press, New York, 2002).

S41. *The Military Balance 2003-2004* (Internat. Inst. Strategic Studies, Arundel House, London, 15 October 2003).

S42. Since 1993, 310 Palestinian suicide attackers have aimed at Israeli targets; 80 percent have come since September 2000, when the Second Intifada began. Of the total, 173 (56 percent) completed their efforts to kill themselves and others. In the first 7 years of suicide bombing, 43 of 61 attempts (70 percent) were successful. Since September 2000, despite a far higher rate of attack, only 129 of 250-260 (50 percent) have succeeded [The Middle East Resource Exchange Database, 14 August 2003, www.mered.org/topic.asp?TOPIC_ID=132&FORUM_ID=1&CAT_ID=1&Forum_Title=News&Topic]

c_Title=Data+Shows+Suicide+Bombers+Young percent2C+Well+Educated; the MERED data have been updated through 27 November 2003.] The breakdown of successful attacks is: Hamas = 51, Palestinian Islamic Jihad = 27, Al Aqsa Martyrs Brigades = 31, other Fatah groups = 27, Popular / Democratic Front for the Liberation of Palestine = 4, unknown = 9.

S43. R. Pape, *Amer. Pol. Sci. Rev.*, **97**, 343 (2003).

S44. L. Cederman, *Amer. Pol. Sci. Rev.*, **97**, 135 (2003).

S45. R. Axelrod, "Apocalyptic terrorism," presentation to seminar on International Security Affairs (based on data from Internat. Inst. for Counter-Terrorism), Univ. Michigan, 5 September 2003.

S46. Fazlur Rahman Khalil interviewed on *60 Minutes II* (CBS news), 15 Oct. 2000. Khalil's group, Harkat ul-Mujahideen, is a member of the World Islamic Front for Jihad against the Jews and Crusaders, the umbrella organization formed by Osama Bin Laden in 1998.

S47. On 13 December 2001, a 5-man suicide squad attacked India's Parliament in New Delhi. Following another suicide attack at an army base near Jammu that killed 36 people, India announced that it was planning to go to war after the monsoon rains tapered off. Both countries threatened to use nuclear weapons [R. McCarthy, "Dangerous game of state-sponsored terrorism that threatens nuclear conflict," *The Guardian*, 25 May 2002]. The danger of nuclear confrontation on a "one-rung" escalation ladder, where any use of nuclear weapons entails massive use, is particularly acute for countries, like Pakistan and Israel, that have practically no territorial depth.

S48. D. Ronfeldt, J. Arquila, *Networks and netwars: The future of terror, crime, and militancy* (Rand, 2001); available at www.rand.org/publications/MR/MR1382/. This will surely involve some sort of "fourth-generation warfare" (4GW) currently being explored in the Pentagon's "Net Assessment" office (1GW = soldiers pummeling one another as in the Napoleonic wars; 2GW = massive artillery pummeling soldiers as in WWI; 3GW = mobile attack of the kind pioneered by the Germans with Blitzkrieg using tanks and planes to pierce and outflank larger but more cumbersome forces; 4GW = small, rapid, mobile forces on land, in water, in the air, and in cyberspace that can "swarm"). The U.S. invasion of Iraq was arguably less 4GW (and more 3GW) than the attack on Afghanistan.

S49. R. Garwin, "The technology of megaterror," *Technology Review* (MIT), September 2002; available at www.technologyreview.com/articles/garwin0902.a.

S50. K. Carley, Paper presented to workshop "Culture and Personality in Models of Adversarial Decision-Making," U.S. Air Force Office of Scientific Research, Arlington, VA, 13 November 2003.

S51. S. Atran, "The Strategic Threat from Suicide Terror" (Related Publication 03-03, AEI-Brookings Joint Center for Regulatory Studies, Washington, DC, December 2003); available at <http://aei-brookings.org/admin/pdf/files/php16.pdf>