

## **RETALIATING AGAINST TERRORISTS: ERRATUM, REANALYSIS, AND UPDATE**

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Several commentators have raised questions about my article, "Retaliating against terrorists" (Nevin, 2003). In that article, I examined sequences of terrorist attacks and government responses in seven terror campaigns and concluded that there was no reliable evidence that violent retaliation either increased or decreased the average intensity of terrorist attacks. The conclusion was based on a quantitative treatment of accounts taken from *The New York Times*, and as such may depend on the faithfulness of my transcription and on the particulars of the data analysis. Two difficulties have been brought to my attention.

First, one reader noted that there are errors in Table 2, which was intended to exemplify the way in which I treated the ordinal-scaled data on the severity and intensity of terror attacks and government responses.<sup>1</sup> I apologize for any confusion that readers experienced, and here present a corrected version of Table 2.

Second (as I acknowledged) it is not proper to calculate correlation coefficients based on ordinal data. Although correlation coefficients were used only to describe relations between sequences of events, and not to evaluate statistical significance, some readers have found them to be misleading. In the interest of quantitative propriety and accuracy, therefore, I reanalyzed all seven data sets using reported deaths (a ratio scale) rather than scaled severity. The result is that fewer incidents are available for analysis, but the conclusions based on my reanalysis are unchanged. Figure 1 is based on calculation of deaths per month caused by terror attacks and by government responses aggregated over five successive incidents involving activity by terrorists or authorities. The terrorists' victims included government officials, soldiers, police, and civilians; the governments' victims included civilians as well as the targeted terrorists. The *y*-axis displays the rate of killing by terrorists after a governmental response relative to the rate of killing before the governmental response. The scale is logarithmic so that (for example) two-fold increases and two-fold decreases are equal in their distance from 1.0 (no change). The *x*-axis displays the death rate inflicted by governmental authorities over the five-episode block that intervened between the two samples of terrorist killing rates, also on a logarithmic scale.

Inspection of Figure 1 suggests that the points are about equally likely to be above or below 1.0 on the *y*-axis, even for cases where there were no deaths attributable to govern-

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<sup>1</sup> 1. I am indebted to Clark McCauley of Bryn Mawr College for bringing these errors to my attention.

TABLE 2 (CORRECTED FROM NEVIN, 2003). ILLUSTRATIVE SEQUENCE OF ACTIONS BY JEWISH TERRORISTS (T) AND BRITISH GOVERNING AUTHORITIES (G), WITH CALCULATIONS OF INTENSITY SCORES (SEVERITY DIVIDED BY TIME IN MONTHS, TO THE NEAREST 10<sup>TH</sup> OF A MONTH, SINCE THE PREVIOUS EPISODE). ALSO SHOWN ARE RUNNING MEANS FOR FIVE EPISODES (THE FIRST IS SHOWN AT THE THIRD INCIDENT, WHICH IS THE MIDDLE OF THE FIRST BLOCK OF FIVE). THE RIGHTMOST COLUMN SHOWS DIFFERENCES BETWEEN INTENSITIES OF SINGLE INCIDENTS THAT IMMEDIATELY PRECEDED AND FOLLOWED GOVERNMENT ACTION. IF RETALIATION IS EFFECTIVE AS A PUNISHER, THE DIFFERENCE SCORE SHOULD BE POSITIVE. CORRELATIONS BETWEEN THE MAGNITUDE OF DIFFERENCE SCORES AND THE INTENSITY OF RETALIATION WILL BE PRESENTED BELOW.

Date	Action	<u>Severity Score</u>		<u>Intensity (incident)</u>		<u>Intensity (5-incident running mean)</u>		<u>Intensity Difference (before-after)</u>	
		T	G	T	G	T	G	T	G
11-2-45	T kill 6 wound 8	2	--	--	0				
11-14/16-45	Riots; G kill 3 wound 84	--	3	0	6				
11-27-45	T kill 8	2	--	5	0		13.2		
11-27-45	G kill 7 wound 75 in raid	--	3	0	60	1.6	15.2	2	
12-28-45	T kill 10 wound 12	3	--	3	0	2.1	14.0		
12-30-45	G cordon area/curfew	--	1	0	10	1.1	14.8	0.3	
1-21-46	T kill 1	2	--	2.7	0	5.1	2.8		
2-7-46	G fire on crowd, wound many	--	2	0	4				-17.3
2-8-46	T kill 5	2	--	20	0				

ment action (the vertical stack of points above 0.2 on the x-axis). The slope for all data pooled is 0.0002—essentially zero. This analysis, and several others reported elsewhere,<sup>2</sup> confirm the original conclusion: There is no evidence that retaliating against terrorists either decreases or increases the average severity of subsequent terror attacks.

Several people have asked whether the severity of governmental responses is related to the severity of preceding terror attacks. To address the question, I reversed the analysis of Figure 1, and obtained a slope of 0.0234, which does not differ from zero. At least on average, then, there is no evidence that authorities either increase or decrease the severity of their responses to terror attacks as a function of the severity of those attacks.

The form of Figure 1 is the same as that used in research on resistance to change, also known as behavioral momentum (for review see Nevin & Grace, 2000). In these analyses, based largely on research with pigeons and replicated with humans and rats, the

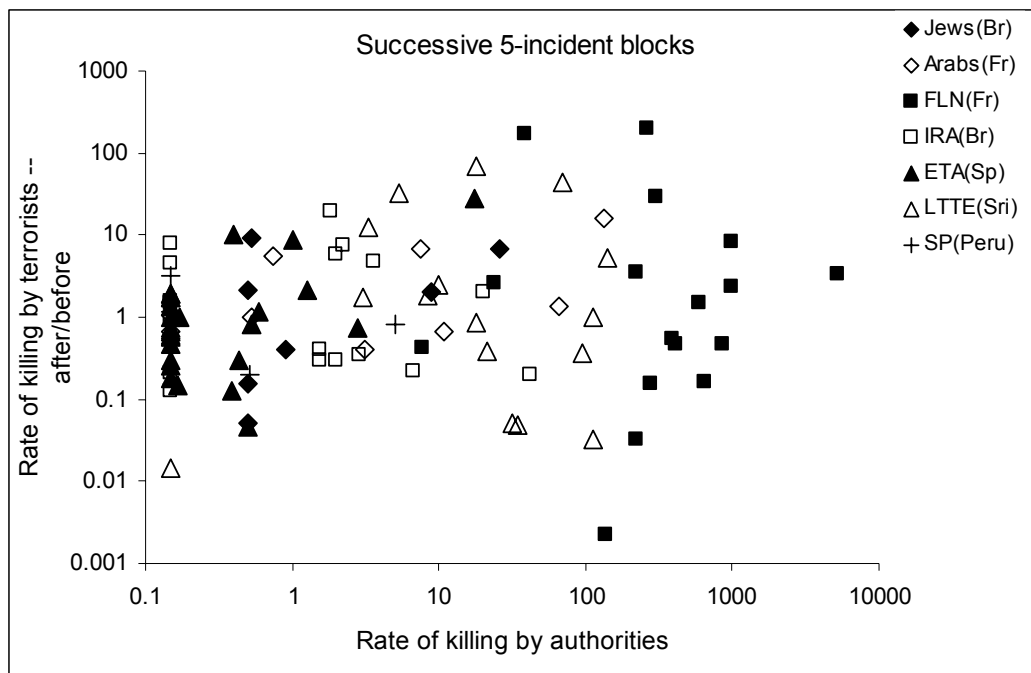


Figure 1. The ratio of killing rates by terrorists before and after government responses is related to the death rate inflicted by authorities for seven terror campaigns analyzed by Nevin (2003): Jewish terrorists vs. British authorities, Palestine 1945-48; Arabs vs. French authorities, Morocco, 1953-56; FLN vs. French authorities, Algeria, 1954-56; IRA vs. British authorities, Northern Ireland, 1971-73; Basque ETA vs Spanish authorities, Spain, 1973-83; Tamil LTTE vs Sri Lankan authorities, Sri Lanka, 1983-87; Shining Path vs Peruvian authorities, Peru, 1991-93. Zero on the y-axis is plotted at 0.2; zero on the x-axis is plotted at 0.2.

<sup>2</sup> Nevin, J. A. (2004). *The momentum of terrorism*. Don Hake Award address to Division 25 of the American Psychological Association, Honolulu, HI, July.

slope of the function relating relative changes in behavior to the intensity of a disrupter measures the persistence of that behavior. Laboratory research has found repeatedly that the slope of the function depends inversely on the rate and magnitude of reinforcement: The larger or more frequent the reinforcer, the shallower the slope. By analogy, then, it appears that terror campaigns generate substantial reinforcement for their leaders and participants.

Mattaini (2003) suggests some important potential reinforcers, and others may be identified by historical analyses. For example, of the seven campaigns analyzed in my 2003 article, six achieved their political goals at least in part. The Jewish terrorist campaign in Palestine was part of a general campaign for an independent Israeli state, which was achieved in 1948. Likewise, the Moroccan and Algerian (FLN) terror campaigns were parts of armed struggles for national independence, which the French granted to Morocco in 1956 and to Algeria in 1962. In Northern Ireland, the IRA's terror campaign was designed in part to achieve political recognition, which was granted in 1998. In Spain, the ETA was part of the Basque separatist movement which achieved substantial autonomy in 1983. Finally, the Tamil separatist campaign included terror attacks by the LTTE, and led to a cease-fire and negotiations for Tamil autonomy in 2002. Only the Shining Path in Peru failed to achieve any part of its extravagant goal of destroying Peruvian society and replacing it with a Maoist state despite horrendous bloodshed.

In an analysis of suicide terrorism, Atran (2003) stated that "... no evidence (historical or otherwise) suggests that support for suicide terrorism will evaporate without complicity [by authorities] in achieving at least some fundamental goals that suicide bombers and their supporting communities share" (p. 1538, brackets added). The cases reviewed above support Atran's conclusion.

It is of special interest to note that the IRA and the ETA have continued to conduct sporadic terror attacks despite their political successes and the lack of support for terrorism in their communities. Such attacks are consistent with the notion that terror campaigns gain momentum from their histories of reinforcement and persist despite the lack of a popular cause. Also, as Stern (2003) has pointed out, the reinforcers for terrorist leaders may shift from political accomplishments to personal gain in power and money as a terror campaign drags on.

My 2003 article also reviewed the relation between civilian deaths caused by Al Qaeda terror attacks and the military responses of the US government and its allies in Afghanistan and Iraq through June 2003. Here's an update through June 2004, again restricted to civilian deaths – thus excluding the deaths of US and allied combat personnel and Iraqi security forces to the extent possible. Between July 2003 and June 2004, groups affiliated with Al Qaeda have been implicated in at least seven attacks that killed 554 people, or 46 per month. As stated in my 2003 article, attacks by Al Qaeda killed a total of 285 people between October 2002 and June 2003, or about 30 per month. Thus, although several dozen Al Qaeda members have been arrested or killed during the "war on terror" in Afghanistan and Iraq (not counting the hundreds of militant insurgents similarly taken out of action), Al Qaeda's lethality has certainly not decreased. It is tragic

that thousands of Afghan and Iraqi civilians have been killed in the course of military action, primarily by US forces, that was intended—but failed—to reduce terrorist violence.<sup>3</sup>

If the level of violence by governmental authorities has no effect on the rate or severity of terrorist attacks across several different cultures and time frames, why do authorities so often retaliate with violence, with all its attendant costs? A data-based analysis of the political consequences for authorities that did or did not employ violence in their responses to terror attacks might suggest an answer.

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<sup>3</sup> For detailed data on Iraqi deaths since March 2003, see [www.iraqbodycount.net](http://www.iraqbodycount.net).