

SECURE INSECURITY - PATTERNS OF TERROR

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Is there a common structure of modern wars, which remains constant in the various wars? What is the relationship between terrorism, modern war and globalization? What is the order of war and terrorist attacks? There are common and predictable patterns to the way in which people are making a war, which go beyond the specific time and place.

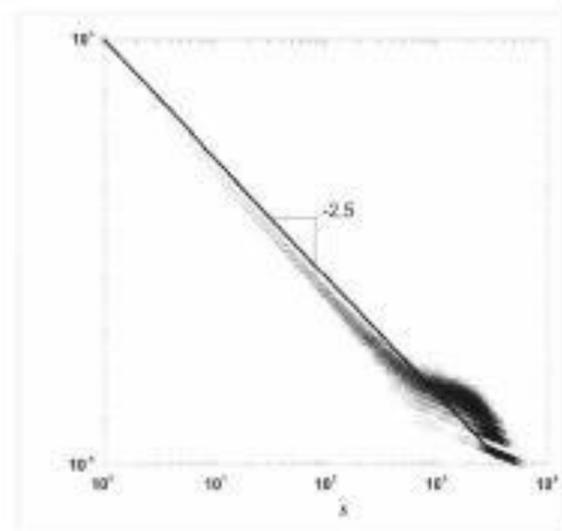


Fig 1. diagram of war, alpha=2,5"

$$P(x) = Cx^{-\alpha}$$

number killed

slope of line

Probability of event

constant

Fig 2. pattern of war

only work in the context of transfer of persons and goods. The division proposed by Foucault and Agamben on the hard law and the dynamic activities of the security policy is an artificial assumption. These two areas are closely related, complementary and provide a medium for each other, e.g. processes related to the commodification of human life forcing changes in security policy or law acts, can be quickly changed by power elite. The increasing dynamism and complexity of social space and violent forms of bio-capital make this binary figure of thinking inadequate.

1. CHAOS OF INFORMATION AND OPEN INTELLIGENCE

We live in an accelerated transfer of data and chaos of information. In the media we see the news from Iraq, Afghanistan, Sierra Leone, or terrorist attacks but the conflicts appear to be very difficult to understand.

On the other hand we see how organizations like NSA suck millions of data about citizens from FB, twitter, etc. [open intelligence] by using the company Visible Technologies. Why not do the same? Apply similar methods and build your own software to analyze huge amounts of data for better understanding reality, war, conflicts and terrorism. Of course, you will not get such data from the Pentagon. So you need to find another way to obtain the data. These data are in streams of news that you eat. The whole noise around us actually has information. There are also open network database collecting data about terrorism. You can also use crawlers to obtain data from the Internet: publications of investigation journalists, bloggers, etc. If you can catch enough of these streams of information you can begin to understand terrorism and war.

2. THE SELECTION OF SOURCES. DATA SOURCES FOR TERRORIST EVENTS

The important thing is the selection and filtering of data. The first thing you should do is to collect data. Checking hundreds of different sources of information - from reports of NGO's to newspapers and cable news. Then, these raw data must be filtered. Next you extract key bits of information to build a database. This database contains times of attacks, location, size and type of weapon used.

It's all in the streams of information that we consume every day; you just must know how to select it. You can also use crawlers to obtain the data, see my project on Crash 2.0 concerning plane crash in Smolensk, where the Polish president was killed.

3. PATTERNS OF TERROR

When you have created the database you can search for patterns. What do we see for example when we look at the size distribution of attacks? What does it tell us? This can be done to get the following diagram for the sample data. On the horizontal axis, there is a number of people killed in the attack or the size of the attack and on the vertical axis you have a number of the attacks. This distribution was made for the war in Iraq. [4] It is a precise mathematical way of the distribution of attacks in this conflict and what happened here is quite surprising. The slope of the line is centred on the same values of Alpha, which is 2.5. Why is a conflict, such as the one in Iraq an invariant? Why is there an order in the war? Is it any special in Iraq? But when you look at a few more conflicts (Colombia, Afghanistan, Senegal) you can see the same pattern. These wars are different, with different religious groups, various political and various socio-economic problems but the underlying basic patterns are the same. (Figure01)

The similar pattern appeared, when I've made research for the terrorist attacks. The slope of the line is centred on the same values of Alpha, which is 2.5. We can also generate an equation that could predict likelihood of attacks. The probability of an attack killing X people is equal to a constant times the size of the attack, raised to the power minus Alpha where Alpha is the slope of the line on the diagram. (Figure 02)

Why these different conflicts and a series of terrorist attacks have the same patterns? One explanation is that the pattern describes general human behaviour: that insurgents are changing over time and adapt to the situation. If you do not behave in a certain way in the fight against much stronger opponents you will lose. Therefore, any insurgent force you choose, every conflict, which is in progress, it will look like on this diagram.

Alpha is a structure. It has a stable condition in 2.5. This is the image of war, when it is continued.

4. ABSOLUTE TERRORIST CELL

What is the absolute terrorist cell? What is the structure of indestructible terrorist cells? How to represent cells and how to study them?

Gordon Woo, a Catastrophe Consultant for the company Risk Management Solutions, has suggested modelling terrorist cells as graphs or networks - as collections of points or nodes connected by lines. [7] The nodes represent individual terrorists, and a line is drawn between two nodes if the two individuals have a direct communications link. In Krebs 2002, one finds graphs of the alleged September 11 hijackers. Of course a graph can represent any sort of social network, not just terrorists; for instance, your network of friends etc. [Figure03]. The task of law enforcement is to remove nodes from a graph representing a terrorist cell by capturing or killing members of that cell so that its organizational structure is disrupted. Woo suggests modelling this idea mathematically by asking the following question: How many nodes must you remove from the graph before it becomes disconnected (that is, before it separates into two or more pieces)?

However, modelling the terrorist cells as graphs ignores an important aspect of their structure, namely their hierarchy, and the fact that they are composed of leaders (decision makers, authors of attack plans, etc.) and of followers (couriers, soldiers, etc.). The structure is needed. A partially ordered set, or poset, is such a structure, and lattice theory is the branch of mathematics that deals with such structures. Below, we will delve into posets in greater detail, but first we give a brief overview. Our approach is based on the order theory. [6] A terrorist cell is a group of people, weapons, explosives, machines, or even information, which organizes itself to act as a single unit. The new model is that terrorist plans and decisions are formulated by the nodes at the top of the organization chart or poset (the leaders or maximal nodes); these plans and directives are transmitted down via the edges to the nodes at the bottom (the foot soldiers or minimal nodes), who presumably execute those plans.

Focusing on cutsets is trivial. [2] We do not merely want to break up terrorist networks into disconnected (non-communicating) parts. We also want to cut the leaders off from the followers. If we do that, then we can reasonably claim to have neutralized the network. A cutset is a collection of nodes that intersect every maximal chain. [Figure 05]

However, this approach does not take into account the fact that terrorist cells are continually transformed. So we need something more than posets, we need morphisms that serve as tools for transformation of posets. In other words, the problem is how to insert a dynamics into this static software world. You need to use morphisms. We can understand the dynamics of terrorist cells by using order preserving mappings, fixed points and retracts.

5. POLITICAL, SOCIAL AND PHILOSOPHICAL ASPECTS

What are the social causes and context of the emergence of terrorism?

The primary is feedback between the policy of security and terror. Security is a fundamental principle of state and main criterion of political legitimization. Security vs. discipline and law, as the instruments of governance. On one side we have hard power structure based on discipline, differentiation and blockade, isolating power and closing the territories and on the second side: security policy associated with globalization, intervening and controlling processes, the security associated with liberalism, because security may only work in the context of transfer of persons and goods. [1] The division proposed by Foucault and Agamben on the hard law and the dynamic activities of the security policy is an artificial assumption. These two areas are closely related, complementary and provide a medium for each other, e.g. processes related to the commodification of human life forcing changes in security policy or law acts, can be quickly changed by power elite. The increasing dynamism and complexity of social space and violent forms of bio-capital make this binary figure of thinking inadequate.

Disinformation and secrecy. The difference between the open and the secret implies a hierarchy, the first rule of power. On this difference, the structures called the state are being built. Limiting access to information leads to the emergence of different social classes. Security state is an engine of violence. Acts of terror and disaster are the lifeblood of political actions. That is why they are provoked and stimulated by the power elite. Security requires constant reference to the state of emergency. The quest for security leads to a global worldwide war. You have to change this way of thinking: reject the concept of security as a fundamental principle of state and test new models and constellations of power. The task of politics is to understand the conditions that lead to terror and destruction, rather than control these phenomena, as already occurred. Eternal swing between two extremes: security without freedom and freedom without security. The classic conflict between the ideals of security and freedom: two values that are necessary for a dignified and tolerable human condition, but extremely difficult to reconcile, takes on new forms.

Bio-exchange. The idea of "life" is considered to be included in the domain of technology, both for economic profits and for security reasons. Bio-economy. Biotechnologic artefacts, such as the database of the genome or the bio-chip are a special case of the configuration of knowledge production and bio-economy. These artefacts are a symptom of the commodification of life. The terrorist act is a knot in which a large number of social processes intersect. Meta-capital. Everything is partially interchangeable, as everything is connected. The relationship between the Capital and the Code becomes unsolvable. Is every code a capital? Is all the capital a code? Life becomes a currency of the genetic code. The code provided for trade, works as a social marker, as a new form of capital.

Another important cause of terrorism is an acceleration of flows and globalization. We live in societies where complexity and rate of flow of information, goods and people are constantly increasing by the

use of automation. It generates new social problems. Just as the increasing of metabolic functions of society such as the production and distribution have led to economic globalization, automation of information processing leads to the globalization of human cognitive abilities and decision-making mechanisms.

This results in a growing separation between the power (i.e.: the ability of doing things) and politics (i.e.: the possibility to decide which cases to settle). A few decades ago, they lasted seemingly inseparable connection, living in a state-nations construct. Now they live in the separate spaces: power in the space flows, politics in the space of places. Currently, the existing political institutions, invented in the course of two centuries of modern nations and states, are not relevant just as the tools of collective action for solving global problems like terrorism. Political action is not keeping up with the already globalized finance, industry, exploitation of natural resources, trade, migration of people and information, terrorism, trade of weapon and drugs.

The flow of people and building of ghettos. Not all individuals and groups have agreed to become a part of such a global system. Some individuals, nations or groups of countries do not want to be "integrated" in the transnational social superorganism.

The problem is mass migrations of people banished from homeland, people of "unnecessary" destitute. Ethnic, linguistic or religious diasporas in closed ghettos and crowded in close proximity. Selected districts in large cities serve as dustbins for the problems created by global powers.

Another problem is that this kind of technological progress increases the gap between the rich and the poor, and especially between those who have access to information and those who do not. The result is the emergence of a "subclass" of people excluded from the benefits of the flow. Today, the average income per capital richest country, Qatar, is 428 times greater than in the poorest country, Zimbabwe. [3] The richest fifth of the world appropriates 74% of the planet's annual income, while the poorest fifth has to settle for 2%. The first victim of growing division is democracy, where getting things for survival will become the main objective of the struggles and wars between different classes and groups.

References and Notes:

1. *Giorgio Agamben, "On security and terror," Frankfurter Allgemeine Zeitung, September 20, 2001.*
2. *Jonathan Farley, "Toward a Mathematical Theory of Counterterrorism," The Proteus Monograph Series, Volume 1, Issue 2 (December 2007).*
3. *Tim Jackson, Prosperity without Growth. Economics for a Finite Planet (London: Routledge, 2009).*
4. *N. Johnson, M. Spagat, J. Restrepo, J. Bohórquez, N. Suárez, E. Restrepo, and R. Zarama, From old wars to new wars and global terrorism*
5. *Robert B. Lisek, "Fixed points in theory of partially ordered sets," Wroclaw University, 2011.*
6. *Schoeder, B., Ordered sets Introduction, Birkhauser, 2003*
7. *Gordon Woo, Terrorism Threat Assessment and Management, Defence Against Terrorism Review Vol. 2, No. 1 (Spring 2009): 101-116.*