

A DESCRIPTIVE ANALYSIS OF THE SELF-SIMILARITY BETWEEN TERRORISM AND CANCER

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Abstract: *The objective of this paper is to analyze the characteristic features of terrorist acts and carcinogenic diseases, thus revealing the common elements of these displays. In the process of analysis, these elements could be conducive to establishing the cause- effect relationships. The paper focuses on the description of terrorism in society and the carcinogenic diseases in the human body in their role as destructive factors in the management of complex systems in society and human body.*

Keywords: terrorism, cancer, analysis of self-similarity

Introduction

In its millennial history of existence, humanity has faced a number of unknown and uncharted threats and challenges from different backgrounds.

Nowadays the nature of the threats facing humanity has a complex character with prevalence of anthropogenic and combined threats.

Whatever the origin of the threats, humanity is coping in different ways which have subsequently been the subject of analysis and assessment, whose results have formed the experience needed and used to overcome the upcoming challenges.

In modern reality, terrorism and cancer have appeared to be some of the intractable puzzles of civilization along with the existing dilemmas and challenges, seemingly distant and unrelated cross-cutting phenomena, yet identical in their manifestation and characteristics as stressors of society.

The main objective of this report is to analyze the characteristics of the

manifestations of terrorism and cancerous diseases and to reveal the common elements of these manifestations which in the process of descriptive analysis may lead to the identification of causal interrelationships between manifestations.

A secondary objective of the author is to lay the foundations of a hypothetical model of causal interrelationships that will assist subsequent types of analyzes. An important prerequisite for the model to work effectively is its correlation and close connection with the natural laws considered in different scientific fields - anthropology, ethnology, medical anthropology, folk medicine, integrative medicine, etc.

The subject of the report is the manifestation of terrorism in society and cancerous diseases in the body, their role as destructive factors of managing of complex systems in society and in human body. To achieve the goal, a methodology has been developed by the author which includes descriptive analysis of the manifestations of terrorism and cancerous diseases.

The main hypothesis raised by the author is that in the process of analyzing the factors and elements of terrorism and cancer as phenomena, a sufficient number of interconnections in their manifestations will be revealed, as well as similarities and countering methods, in order to study and define their precise, quasi- or statistical self-similarity.

In the contemporary scientific literature, this is definitely an innovative and challenging perspective, due to the fact that this report uses different methodological formulations, as well as one of the main Hermetic principles, the Principle of Correspondence - "As above, so below! As below, so above [1]!"

1. A descriptive analysis of the terrorism and cancer definitions

At the beginning of this study we will focus on the currently available scientific definitions of these terms.

The word "terrorism" became popular during the French Revolution. In contrast to its modern usage, terrorism in the past had a definitely positive connotation.

The "Reign of terror", where the international word came from as a term, was adopted as a means to restore order during the transitional anarchic period of unrest and sudden political changes in France after the uprisings in 1789, which set the beginning of many more revolutions worldwide [2].

Therefore, contrary to the modern meaning of "terrorism" as revolutionary or anti-government activities undertaken by non-state actors, the "Reign of terror" was a major governing tool used by the recently established revolutionary governmental institution [3].

Title 22, Chapter 38 of the United States Code contains a definition of terrorism as a premeditated, politically motivated violence perpetrated against non-combatant targets by sub national groups or clandestine agents [4].

The Federal Bureau of Investigation (FBI) defines terrorism in the Code of Federal

Regulations (28C.F.R.Section0.85) as "the unlawful use of force and violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives".

In the specialized military forums in Bulgaria on the topic of "Bulgarian Armed Forces participation in peace support and combating terrorism operations" the following definition of terrorism has been given: "Terrorism is a premeditated, politically and economically motivated violence perpetrated against innocent people", which correlates to the overall regional definitions.

The USA Department of Defence defines it as "the unlawful use of violence or threat of violence to instill fear and coerce governments or societies. Terrorism is often motivated by religious, political, or other ideological beliefs and committed in the pursuit of goals that are usually political [5]."

The definition in the *Russian law of combating terrorism* completes the picture, detailing the manifestation criteria of the terrorist activity.

The analysis of the worldwide terrorism definitions reveals that there are over 150 different scientific definitions, which combine several main components - "action", "suffering", "victims", "public attitude", "fear", "suppression" and "authority".

The term "cancer" refers to a group of malignant tumors. In everyday language "cancer" is a collective term for a number of related diseases in which body cells grow uncontrollably, divide and displace and as a result destroy healthy tissues [6].

Every organ of the human body can be attacked by cancer, and this has significant differences based on age, gender, social identity, geographic region, diet, etc.

Cancer tumor process is characterized by the uncontrolled growth of neoplastic cells, invasion or intrusion into surrounding tissues, metastasis spreading via blood and

lymph into other body organs.

In a still unknown way, the chaos generates completely new cell properties, such as the ability to survive in oxygen deficiency, to develop their own blood supply (angiogenesis), to migrate from the group and settle in other tissues such as bones, liver or brain (metastasis) [7].

Only then, due to this phenomenon, cancer acquires its lethal potency: 90% of all cancer patients where the disease has lethal outcome, do not die from the primary tumor but from these metastases.

In 1931, the German scientist Dr. Otto Heinrich Warburg received the Nobel Prize for discovering the main cause of cancer.

He discovered that cancer is the result of antiphysiological forces and lifestyle. Antiphysiological diet and lack of physical activity create an acid environment in the body.

Healthy cells lacking 35% of the necessary oxygen can be transformed into cancer cells in just two days. All healthy cells need oxygen, but tumor cells can live without it. "This is a typical rule," summarizes Dr. Warburg. According to him, cancer is nothing but a "defense mechanism which some body cells activate in order to survive in an acid environment without the presence of oxygen [8]."

Cancer has different disease manifestations, as over a hundred different types of cancer are known today, and they vary widely in the chance of survival of the patient, treatment options and the formation of metastases [9].

The descriptive analysis of their main characteristics allows us to define the common components of terrorism and cancer which are: actions opposing the normal functioning of a complex system, suffering, victims, fear in society, obedience, obtaining authority and power [10].

2. A descriptive analysis of the common characteristics

In order to define the common characteristics of the terrorism and cancer we consider as necessary to perform a determinant analysis, whose results can be used for analyzing self-similarity.

The proposed descriptive analysis includes the following common characteristics: E - manifestation environment; G – main goal; B - behavior; O - object; S - structure; M- methods of action; P - phases of development; A - public attitude; R - public results.

The manifestation environment "E" as a variable is characterized by its constant positive values. If its value is 0, then the events can not occur - without a society it is impossible for terrorism to appear; on the other hand, without a body, cancer is not able to manifest.

The goal "G" as a factor has possible values from 0 to 1, and if $G_t=0$, it means that terrorist cells exist but there is no terrorist activity in a community. On the other hand, if $G_c=0$, it means that cancer cells exist in the body, but there are no symptoms and body dysfunctions.

Table 1: Descriptive analysis of the similar characteristics

| Terrorism | Similar Characteristics | Cancer |
|---|--------------------------------------|---|
| manifestation is possible only in a human society | E – manifestation environment | manifestation is possible only in a human body |
| disruption of public management of the society | G – goal | disruption of healthy body |
| disobedience to established legitimate power; the weak against the strong | B – behavior | disobedience to a healthy body; the weak (cancer cells) against the strong (body) |
| malfunctioning of the management of a society | O –object | malfunctioning of the human body |
| terrorist cells, groups, organizations | S – structure | cancer cells, tumours, carcinomas, metastasis |
| uncontrolled growth of terrorist cells and groups | M- methods of action | uncontrollable division and growth of cancer cells and tumours in the body |
| P – Phases of growing | | |
| organising a terrorist cell | P₁ – First phase | cancer is localized in the body |
| organising a terrorist structure | P₂ - Second phase | metastases in regional lymph nodes |
| organising a regional terrorist organization | P₃ - Third phase | adjacent organs are affected |
| organising an international terrorist organization | P₄ - Fourth phase | distant metastases appear |
| antiterrorism and counterterrorism operations | C – countering approaches | preventive and oncological operations |
| fear in society | R – public results | fear in society |
| terrorism is an uncontrollable threat to society | A - public attitude | oncological diseases are incurable |

The behavior "B" of terrorist cells and structures in society is identical to the behavior of cancer cells in the body – they oppose the established power and control in society and also oppose the normal functioning of the body. In both phenomena this variable can be described as a way in which the weak fight against the strong.

The analysis of countering approaches "C" reveals options for countering in two aspects - preventive measures and post-symptomatic actions. Cancer prevention activities include maintaining the immune system, which is analogous to the efforts of the government authorities for maintaining the capabilities of the security structures at the highest level. Here, even terminological identity can be

found - anti- and counterterrorism operations and oncological operations.

The public result "R" in both events is similar - fear in society. The revealed determinant identity illustrates the strong influence of this factor in the manifestations of terrorism and cancer. The key role of fear in both cases is obvious. Inappropriate treatment of certain tumors and side effects of traditional medical treatment often cause fear and despair in those affected and in their relatives.

The public attitude "A" formed in the modern society to both phenomena is also similar; it is the wide-spread belief that terrorism and cancer are uncontrollable which the author of this report defines as a

public "myth."

3. Hypothetical model of causal links

Based on the results of the determinant analysis it is possible to build a hypothetical

model of causal links between terrorism and cancer, as presented in Figure 1

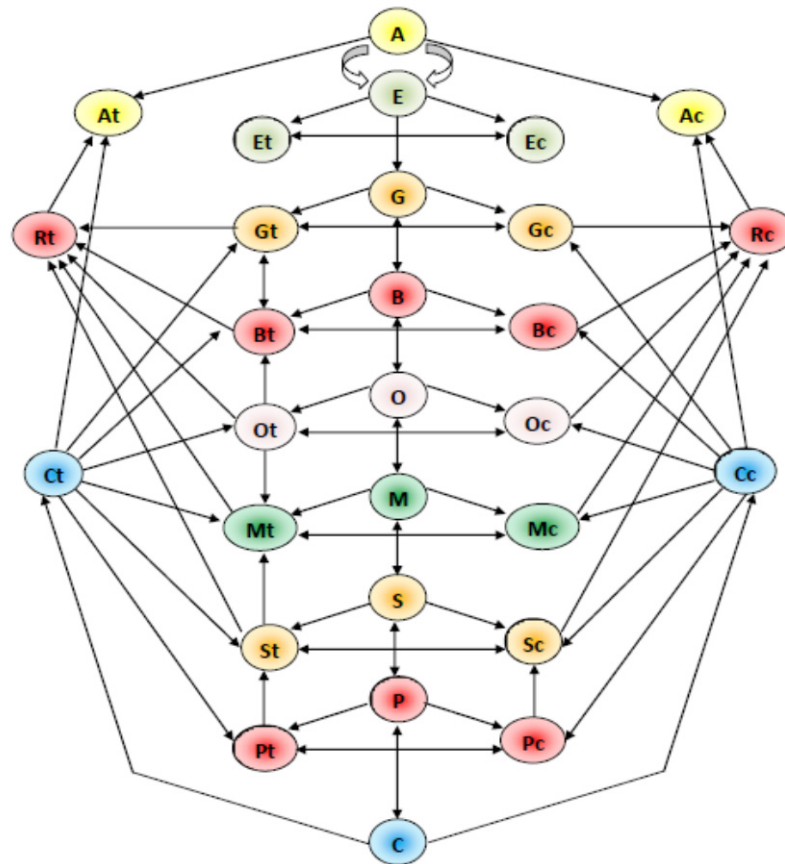


Figure 1: Hypothetical model of causal links

The analysis of interrelation links reveals significant correlations between the following characteristics: behavior "B", goal "G", object "O" and methods "M". On the other hand a strong proportional relation between the structure "S" and the phases of development "P" is found out. The more advanced the phase "P" of the phenomenon is, the more complex the structure "S" is, which reflects the possibilities of using more methods "M".

Countering approaches "C" are directly aimed against all elements of the manifestations of terrorism and cancer - structure "S", phases of development "P", methods "M", behavior "B" and goal "G", as the values of the determinants are inversely proportional to the values of the results "R". Countering approaches "C" and the results "R" of the activities of

terrorist/cancer cells have the greatest impact on public attitude "A". In other words, increased effectiveness of countermeasures against terrorism/cancer leads to reduced public fear "R".

On the other hand, the public attitude "A" has a direct impact on the manifestation environment "E", which gives special attributive value to the determinant.

When the value of the public attitude "A" is high, it is possible to bring the values of other variables to a minimum, i.e. in a society free from the fear of terrorism, it would hardly occur. Similarly, in a body, free from fear, the cancer would hardly manifest.

On the basis of the results obtained from the descriptive analysis, it is possible to find evidence of self-similarity between the two phenomena.

The theory of fractal geometry defines three degrees of self-similarity: "F" - F^1 accurate, F^2 quasi- or F^3 statistical self-similarity.

Figure 2 represents the revealed determinant statistical self-similarity

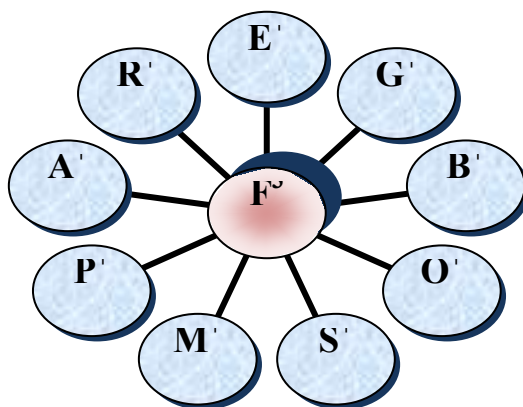


Figure 2: Revealed determinant statistical self-similarity

The results of the analysis reveal the similarity in the nine split variables, which is possible to be taken as evidence of a statistical self-similarity F^3 .

Conclusions

Finally, it should be noted that the results of the descriptive analysis of the terrorism phenomena and cancer revealed a number of common characteristics, which support the initial hypothesis.

The proposed hypothetical model of causal interrelations is not exhaustive and may be modified, supplemented and extended.

The conducted descriptive analysis of terrorism and cancer, in their capacity as major challenges to modern society, opens up possibilities to search for new non-invasive solutions and develop new concepts and strategies for countermeasures.

References

- [1] The Kybalion: A Study of The Hermetic Philosophy of Ancient Egypt and Greece at Project Gutenberg, p. 28
- [2] Linton, M., "The Terror in the French Revolution", Kingston University, Retrieved 2 December, 2011, p. 72
- [3] Ibid, p. 73
- [4] Section 2656f(d) of Title 22 of the United States Code
- [5] Joint Publication 1-02, Department of Defense Dictionary of Military and Associated Terms, 2010, p. 247
- [6] Георгиев М., Увод в медицинската антропология, Издателство „ЕА-АД“, С. 2007, p. 192
- [7] Ibid, p. 226
- [8] Warburg Otto, Wind Franz, Erwin Negelein, Über den Stoffwechsel von Tumoren im Körper, Klinische Wochenschrift 1926, Volume 5, Issue 19, p. 829
- [9] Канисков В., Фитотерапия на онкологичните заболявания – Монография, Издателство „Изток-Запад“, С.2013, p. 18
- [10] Дойков Н., Глобалният тероризъм - детерминация и форми на проявление, С.2008, p. 37