To my family

ASYMMETRICAL DETERRENCE FOR NBC TERRORISM

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ABSTRACT

ASYMMETRICAL DETERRENCE FOR NBC TERRORISM

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The aim of this thesis is to analyze the framework of deterrence theory whether it may be suited to the Nuclear, Biological and Chemical (NBC) terrorism as an asymmetrical threat. As a methodology, mainly qualitative means were applied. This thesis will argue that though the classical deterrence theory was primarily created for inter-state relations, its main premises and newly transformed features –due to the post-cold war era- can be applied on the asymmetrical relations between states and terrorist organizations which would initiate to use NBC material in particular. In the analysis of the problem of managing asymmetrical deterrence through revisiting orthodox ground of deterrence; the nature of the new threat and critics of classical theory of deterrence were discussed together to shape a unique asymmetrical deterrence. In conclusion, this thesis was finalized with the argument that to overcome the deficiencies of prevention models against asymmetrical threats as well as to remove obstacles for conducting a feasible deterrence theory against asymmetrical threats; benefiting from the deconstruction of classical deterrence

theory is necessary in terms of recalling the concepts of rationality, capability and credibility.

ÖZET

NBC TERÖRİZMİ İÇİN ASİMETRİK CAYDIRICILIK

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Bu tezin amacı caydırıcılık kuramının, asimetrik bir tehdit türü olarak Nükleer, Biyolojik ve Kimyasal (NBC) terörizm olgusu çerçevesinde uygulanabilirliğini çözümlemektir. Yöntem olarak ağırlıkla kalitatif araçlardan yararlanılmıştır. Tezde, klasik caydırıcılık kuramının devletler arası ilişkiler bağlamında ortaya çıkmasına rağmen temel dayanaklarının ve soğuk savaş ertesi değişen yeni unsurlarının özellikle NBC terörizmini hedefleyen örgütler ile devletler arasındaki asimetrik ilişkiye uygulanabilir olup olmadığı savunulmaktadır. Caydırıcılığın ortodoks temelini tekrar irdeleyerek asimetrik caydırıcılığı uygulanabilir hale getirebilme sorunsalının çözümünde, özgün bir kuram şekillendirebilmek için klasik caydırıcılık kuramının eleştirileri ile ortaya çıkan yeni tehdidin doğası birlikte ele alınmıştır. Sonuç olarak bu tez, asimetrik tehditlere karşı ileri sürülen önleme modellerinin eksikliklerini ve bu tehditlere karşı ugulanabilir bir caydırıcılık kuramının önündeki engelleri ortadan kaldırabilmek için klasik caydırıcılık kuramının, rasyonalite, güvenilirlik ve yetenekler temelinde bir yapıbozumunun gerektiği savı ile noktalanmıştır.

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ABBREVATIONS

ABM: Anti Ballistic Missile Treaty

BW: biological weapons

CW: chemical weapons

CBW: chemical/biological weapons

CIA: Central Intelligence Agency

DRIS: Dutch Royal Intelligence Service

DSTO: The Defense Science and Technology Organization

DoD: Department of Defense

ETA: Basque Fatherland and Liberty

FARC: Revolutionary Armed Forces of Colombia

FSU: former Soviet Union

HAMAS: Haraqat El Mukavama al Islamiya

IDF: Israel Defense Forces

IMU: Islamic Movement of Uzbekistan

IRA: Irish Republican Army

ITERATE: international terrorism: attributes of terrorist events

LEU: low-enriched uranium

MAD: mutually assured destruction

MIRV: Multiple Independently Re-Entry Vehicle

MOOTW: military operations other than war

NDP: National Defense Panel

NPT: Non-Proliferation of Nuclear Weapons Treaty

NWFP: Peshawar North West Frontier Province

OOTW: operations other than war

PKK / Kongra-gel: Kurdistan Workers Party

TEPP: Tetraethyl Pyrophosphate

SLBM: Submarine Launched Ballistic Missiles

QDR: Quadrennial Defense Review

WMD: weapons of mass destruction

WWII: Second World War

CHAPTER – I

INTRODUCTION

As introductory remarks, a deterrent strategy can rely on one or both of two mechanisms. First, it can be based on threats to visit punishment on an enemy that significantly outweighs the gain of a particular course of action. This approach is traditionally viewed as targeting civilian assets and constituted the basis of the Cold War concept of mutual assured destruction. Another approach is based on the concept of denial. Specific capabilities deter enemies from pursuing either a given objective or a conflict strategy. This is achieved by undermining their ability, or belief in their ability, to realize a desired outcome. Deterrent strategies can include both punishment and denial mechanisms. For example, the United States appears to favor such an approach to deter unconventional weapons usage by a regime by combining denial capabilities like missile defenses with the threat of punishment. That is why this thesis will discuss the involvement of both to deter asymmetrical threats.

A credible deterrent posture requires the capability to deliver on the deterrent message, or at least the appearance of it. The deterrer must demonstrate the

intent and resolve to fulfill the message and effectively communicate this to an enemy, including which lines not to cross. That is why this thesis will concentrate its efforts of credible capabilities and indirect deterrence through show of strength.

Deterrence also assumes that a target will be a cost-benefit calculator—a rational actor who evaluates options in terms of costs and benefits, including likely responses. But what is accepted as rational by one actor may not appear rational to another because of cultural factors or decision-making processes. This is a major consideration in the war on terrorism because of the asymmetric nature of the opposing sides in almost every respect. A preventive strategy in this context—deterrent requires knowing enemy motives, worldview, resolve, capabilities (including conflict strategies and techniques), and vulnerabilities. That s why this thesis will imply and attempt to apply "relative rationality" while shaping asymmetrical deterrence.

Measuring the failure of deterrence is straightforward because the action that the deterring party seeks to avoid occurs. However, measuring success is more difficult, as it cannot be proven that the strategy was pivotal, marginal, or irrelevant to why an enemy opted not to act. This can be significant when attempting to prevent mass-casualty terrorism. That is why this thesis will prefer to sample the cases without categorizing them in terms of success or failure.

Since deterrence is about preventing an enemy from acting in a particular way, success will depend on a target believing, or being made to believe, that the current state of affairs is preferable to the cost associated with a particular course of

Since deterrence is about preventing an enemy from acting in a particular way, success will depend on a target believing, or being made to believe, that the current state of affairs is preferable to the cost associated with a particular course of action, at least in the short term, if the purpose is buying time for other approaches. It follows that if an enemy is determined to act, deterrence could prove unworkable. That is why this thesis will exert its efforts in favor of state parties to find ways for persuading stateless ones.

To introduce the my argument mainly, indeed it is firstly accepted that even though terrorists may use irrational means for conducting terrorist action, their ends, organizational structures and legitimacy concerns would be rational based on political objectives. (Even Aum cult tended to defect the U.S. presence from Japan homeland[1]). Thus, if they assume rationality to some extend, they can be deterred, at least to some extend. Therefore, detailed perception of threat capabilities that terrorists posses; deeply understanding of their decision-making process; announced threat of punishments for specified targets on the basis of vulnerabilities that terrorists and their (in)direct supporters -if there is-, indicate; and lastly, the influence of international community that implies low politics of global affairs as well as complete transparency and information accuracy should be managed by states

[1] The correlation between rational ends and irrational means –which in fact defines the core of the asymmetricism- can be clearly seen in the case of Aum cult. For instance, even after Matsumoto attack, Japan intelligence resources had known that anti-American rhetoric of the cult and its goals for abandoning the US bases in Japan. For example, Aum had tried to attack two of them with Botolium toxin according to intelligence reports. For detailed information see Brad Roberts; "Bioterrorism: Calibrating Threats and Responses Issues & Insights"; Vol. 3; No. 3; May 2003.

In the first chapter I will attempt to define asymmetrical threats and their general features. In the second chapter, I will focus on NBC terrorism as an asymmetrical threat and try to conceptualize its impacts on the international politics. Later, I will emphasize three distinct characteristics as key points of implementing asymmetrical deterrence: One is the debate, mentioned in the third chapter, on the differences of Cold War and post-Cold War, particularly post 9/11 era in terms of conceptualization of deterrence. Other is the impact on rationality being discussed due to the so-called irrational structures of terrorist organizations probably because of being stateless actors. The last one is the applicability of deterrence for asymmetrical actors on the basis of creating credible capabilities. Those regarding rationality and applicability forms the fourth chapter titled as shaping asymmetrical deterrence.

As methodology, I will mainly benefit from unclassified literature. As it is extremely difficult to penetrate classified information on the issue, I will try to make all conceptualizations in a flexible, debatable and a critical manner. As sampling may arguments I will generally use publicized open-resources. In addition, I will rarely apply statistical data for shaping my hypothesis.

CHAPTER - II

THE CONTEXT OF ASYMMETRICAL THREATS

The ultimate beginning of searching a framework for asymmetrical deterrence must be commenced by a feedback of history and its cases. Before starting to conceptualize asymmetricism, it is necessary to explain that the term like all other terms in the field, has roots in the historical experiences of particular units in specific levels. Although this paper tried to depend on various definitions of different origins; it becomes inevitable to emphasize on unique actors' diagnosis as *avant-guards*. Therefore, American scholars, military officers and researchers are the ones who have been producing the overwhelming part of the literature in regard to asymmetricism. As a result, in forming the operational definition of asymmetricism, a U.S. originated accounts in terms of nationalities of authors might be seen. However the existence of debatable arguments among them and contributions of few but noteworthy non-American resources prevents the paper from being pro-American.

2.1- Historical Retrospect:

In the discipline of the international relations, one of the most important determinant factor of theorizing, forming and conducting politics is threat perception. After the collapse of the Soviet Union, bipolarity[2] of the international politics lost its legitimacy in terms of determining and characterizing the threat environment. In the post-cold war era, the origins of the security issues have been transforming towards multidimensional and multilateral features. Moreover, different and challenging threats of the era has been producing an uncertainty which is considered as principal root of the destabilization of the international politics[3]

In the post-bipolar era, asymmetrical perceptions of security community have started to replace with pre-defined bilateral security issues based on symmetrical relations. Symmetrical relations can be defined as balanced and proportional similarity among ends, means and quality of the actors. In depth, symmetrical relations imply relations among parties whereby similar power

[2] Polarity here refers to the number of great powers in a given international system in terms of the degree in which the states are organized into competing blocs, or the concentration of capabilities, the relative power shares maintained by the system's greater and lesser powers. For more details, see Waltz, Kenneth; *Theory of International Politics*; (New York: Random House, 1979). Kaplan, Morton A.; *Variants on Six Models of the International System*; (New York: MacMillian Press, 1995) and Mansfield, Edward D.; *Power, Trade and War*; (Princeton, N.J.: Princeton University Press, 1994).

[3] As Levy rightly observes, "stability is one of the more ambiguous concepts in the international relations literature." At one time Waltz equated stability with peace, and instability with war. Bur his definition left open the critical question of how to treat periods of crisis. As Lebow notes, crises fall between peace and war. This is perhaps why Mearsheimer defines stability "as the absence of wars and major crisis. Later, Waltz redefined the concept in terms of systemic durability: "systems that survive major wars thereby demonstrate their stability." For more information see Levy, Jack S.; *The Polarity of the System and International Stability: An Empirical Analysis*; (Boulder, CO: Westview Press, 1985); pp.44; Waltz, Kenneth N.; *Man, the State and War: Theoretical Analysis*; (New York: Columbia University Press, 1959); pp.58; Lebow, Richard Ned; *Between Peace and War: The Nature of International Crisis*; (Baltimore: Johns Hopkins University Press, 1981); pp.16 and Mearsheimer, John J.; "Back to the Future: Instability in Europe After the Cold War"; International Security; Vol.41, No. 15; May 2001.; pp.5-56. In this thesis, stability in that context means the presence of clearly defined actors, objectives, decision-making models and behaviors in the field.

capabilities, decision-making processes and political objectives had been confronting each other[4]. In contrast, asymmetry is a term used extensively, even casually, throughout the defense and security communities. Asymmetry or asymmetric has many definitions and is used to describe many things, including weapons system, tactics, strategy, and worldviews. Asymmetry in this context does not mean that the weapons used or necessarily better or worse that those of other parties. Rather, potential adversaries are willing to use such weapons without conventional limitation[5].

It is useful to start with the historical background of the term for its definition. It is an idea as old as warfare itself, appearing under a number of guises. Among strategic theorists, Sun Tzu placed great stock in psychological and informational asymmetry, writing that: "All warfare is based on deception. When confronted with an enemy one should offer the enemy a bait to lure him; feign disorder and strike him. When he concentrates, prepare against him; where he is strong, avoid him.[6]" The examples can be traced through the ancient ages: Merian strategy based on attrition of Athenian social order by insurgency activities; entrapped armies of glorius Alexander in the Indian subcontinent by local tribes;

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[4] In fact the term is modifier and often used subjectively. As Alan Beyerchan suggests, "Like other members of a large class of terms, words such as periodic, asymmetrical, disequilibrium or non-equilibrium are deeply rooted in a cultural heritage...relatively similar features on the basis of similar value systems widely can be regarded as symmetrical. See Beyerchen, Alan, "Clausewitz, Nonlinearity and the Unpredictability of War," International Security, No.17, Vol.3; Winter, 1992; pp. 59-85.

[5] Lambakis, Steven, Kiras, James, Kolet, Kristin "Understanding Asymmetric Threats to the United States," Comparative Strategy; Vol. 21, Issue 4; October 2002; pp.241.

[6] Sun Tzu, "The Art of War", Samuel B. Griffith, trans.; (London: Oxford University Press, 1971), pp. 66-67.

German defenses against armies of Macsimus Artellius (Caesar) in the jungles of nowadays Baviera; Turkish pioneer raiders *(akıncı)* conducting covert actions such as technology stealing, assassination etc. behind the enemy lines throughout Euroasia; colonial wars of European powers in the new world and also National Forces Movement (*Kuvay-ı Milliye*) in the Turkish Liberation War and 20th century low-intensity operations, (military) operations other than war (OOTW/MOOTW) can be given.

In the middle of the 20th century, the British strategic theorist B.H. Liddell Hart advocated "the indirect approach" in strategy. The wisest strategy, he contended, avoids the enemy's strength and probes for weakness. Edward Luttwak, who is one of the more astute contemporary strategic theorists, has extrapolated a general rule from it. Strategy, Luttwak contends, involves actual or possible armed conflict between thinking humans and thus is dominated by a "paradoxical logic" based on the "coming together and even the reversal of opposites.[7]"

Throughout the Cold War, asymmetry was an important element of U.S. strategic thinking, but was seldom called by that name. Matching Soviet quantitative advantages in Europe with American and NATO qualitative superiority was integral to U.S. strategy. Other concepts such as Massive Retaliation of the 1950s or the Maritime Strategy of the 1980s elevated asymmetry to an even higher plane. Beginning in the 1990s, thinking within the Department of Defense (DoD) began to

[7] See details for Hart, B. H. Liddell; *Strategy*; (New York: Signet, 1974), pp.14 and Luttwak, Edward N., *Strategy: The Logic of War and Peace*; (Cambridge, MA: Belknap, 1987), pp.5.

shift with growing recognition of the potential for asymmetric *threats* to the United States. This was part of DOD's increasingly sophisticated understanding of the post-Cold War security environment. Since the global distribution of power was asymmetric, it followed that asymmetric strategies would be a natural evolution[8].

While several definitions of strategic asymmetry have appeared in Department of Defense documents, Joint Statements and related academic studies most have simply codified the specific security problems or threats faced by the United States today or have reflected such an "American-centrism" that their analytical use is limited. Starting with the joint doctrine in 1995, the term was firstly used solely as a measurement scale rather than unique title of a threat category by U.S. security community. It presented the rules of engagement of unbalanced and categorically different forces in the theatre such as exchange between small or medium-sized naval vessels (torpedo boats, small submarines, etc...) and air forces equipped with air to surface missiles; light armored multi-functional land vehicles and air forces etc.[9] In spite of its limited application, this was the first time that U.S. as a leading actor of the security environment determined the unfamiliarity of the forthcoming threats. In the 1995 National Military Strategy, the asymmetricism was used as a quasi-sole threat category that includes transnational and international terrorism, weapons of mass destruction (WMD) proliferation, cyber-war, ethnic and

[8] Source:http://www.carlisle.army.mil/ssi/pubs/2001/asymetry/asymetry.pdf ; Date: 27.07.2003; 00:30; Metz , Stephen and Johnson II, Douglas V.; "Asymmetry and U.S. Military Strategy: Definition, Background, and Strategic Concepts," January 2001.pp.1-3.

[9] The comments are the summary of the official document. For more details see, *Joint Warfare of the Armed Forces of the United States*; (Washington, DC: US Government Printing Office, January 10, 1995); pp. IV-10; IV-11.

religious conflicts and organized crimes[10]. In 1997, the Report of the Quadrennial Defense Review (QDR) and a commission report in the National Defense Panel (NDP) commonly implied that the new and the future foes of the U.S. from now on would not choose to fill the gap between superior U.S. forces in the air, land and naval theatres; and their own but instead they would try to look for and find out the vulnerabilities of the U.S. in terms of weaknesses of it towards its policies and interests[11]. The NDP specifically mentioned the danger from enemy actions that might cause greater than expected U.S. casualties, the use of weapons of mass destruction to delay or complicate U.S. access to a region and inflict casualties, attacks on U.S. electronic and computer-based information systems, the use of mines and missiles along straits and littorals, terrorism, and similar threats[12]. In 1999, the Joint Strategic Review and in 2000 Joint Vision 2020 made very significant contributions on behalf of the labeling the asymmetricism as a threat. For instance both of the documents stated the possibility of terrorist use of WMD, proliferation of ballistic missile technologies, state-sponsored secret NBC facilities and so forth as a asymmetrical threats towards U.S. security in the coming years[13].

Particularly, the 1999 Joint Strategy Review provided the broadest official treatment (for U.S.) of asymmetry. It states: Asymmetric approaches are attempts to

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[10] *Department of Defense Dictionary of Military and Associated Terms;* (Washington, DC: US Government Printing Office, 10 June 1998), pp. 668-670.

[11] Cohen, William S., (Former Secretary of Defense); *Report of the Quadrennial Defense Review*; (Washington, DC: US Government Printing Office May 1997); Section II.

[12] *Transforming Defense: National Security in the 21st Century*; (Washington, DC: US Government Printing Office, December 1997); p. 11.

[13] *Joint Strategy Review 1999*; (Washington, DC: The Joint Staff, 1999); pp. 1-5; *Joint Vision 2020*; (Washington, DC: The Joint Staff, 2000); pp. 5.

circumvent or undermine US strengths while exploiting US weaknesses using methods that differ significantly from the United States' expected method of operations. [Asymmetric approaches] generally seek a major psychological impact, such as shock or confusion that affects an opponent's initiative, freedom of action, or will. Asymmetric methods require an appreciation of an opponent's vulnerabilities. Asymmetric approaches often employ innovative, nontraditional tactics, weapons, or technologies, and can be applied at all levels of warfare— strategic, operational, and tactical—and across the spectrum of military operations[14].

2.2- Contemporary Context:

Following all those official documents and others, some academic studies have been also made. As an example, according to the account of Steven Metz and Johnson Douglas on "Asymmetry and U.S. Military Strategy: Definition, Background and Strategic Concepts", the definition would be: In the realm of military affairs and national security, asymmetry is acting, organizing, and thinking differently than opponents in order to maximize one's own advantages, exploit an opponent's weaknesses, attain the initiative, or gain greater freedom of action. It can be political-strategic, military-strategic, operational, or a combination of these. It can entail different methods, technologies, values, organizations, time perspectives, or some combination of these. It can be short-term or long-term. It can be deliberate or by default. It can be discrete or pursued in conjunction with symmetric approaches. It

[14] *Joint Strategy Review 1999*; (Washington, DC: The Joint Staff, 1999); pp. 2.

can have both psychological and physical dimensions[15]. Besides this wide and multi-dimensional approach, in the McNair paper, the definition of the asymmetric warfare was formed as "leveraging inferior tactical or operational strength against American vulnerabilities to achieve disproportionate effect with the aim of undermining American will in order to achieve the asymmetric actor's strategic objectives.[16]"

Before starting to operationalize the term asymmetric, the last step is the quotes of the non-American resources[17]. Non-English-speaking cultures define the term in more distinct ways. A Russian dictionary definition of asymmetry is "the absence or destruction of symmetry.[18]" There is no distinct word for asymmetry in Chinese. To express this concept one would negate the word for "to be symmetrical." This word for symmetry, *duicheng*, is also comprised of two characters. The word *dui* in ancient texts means "to respond," "to face or face off," "to match"—both in the sense of complement but also in the sense of enemies matching in skill. The term *cheng* initially signified the concept of "a balance" and then evolved into a broader semantic sense of "to accord with." Thus, in China, asymmetry would involve things

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[15] Metz , Stephen and Johnson II, Douglas V. ; "Asymmetry and U.S. Military Strategy: Definition, Background, and Strategic Concepts"; pp.12.

[16] Source: http://www.ndu.edu/inss/macnair/mcnair62/toc.html; date: 02.08.2003; 23:40; McKenzie, Kenneth; " McNair Paper 62,: The Revenge of the Melians: Asymmetric Threats and the next QDR"; November 2000.

[17] For more information on revolution in military affairs in non-Western literature, see Sharjeel, Rizwan; "Revolution in Military Affairs"; Defence Journal (Pakistan); Vol. 29, No. 11; September 2000; pp.47; and Hasim, Ahmed S.; "The Revolution in Military Affairs Outside the West"; Journal of International Affairs; Vol.32, No.42; Winter 1998; pp.79.

[18] Ozhegov, S.I., *Dictionary of the Russian Language*; (Moscow, 1984), pp.29.

not in accord with, out of balance, not responding and not matching or facing one another[19].

In his opening remarks of the symposium of "Globalization and International Security" in Turkish Military Academy on 29 May 2003, Associate Chief of the General Staff, General Yaşar Büyükanıt focused on the term asymmetric threats and defined it as "having relative superiority by aggressor, compared with its own absolute inferiority against adversaries...the concept of asymmetrical threat can be defined as activities that aim at being influential via applying low-profile technologies and forces which trigger instability in political, social and economic systems of the countries due to their creation of sudden and unprepared situation.[20]"

Moreover, in the classified documents of Turkish Armed Forces, asymmetric threats are basically defined as aggression against vulnerabilities of a powerful state by a relatively weaker state or group via unique and surprising means by avoiding itself from strong capabilities of the target states. According to the report, asymmetrical threats form instability in the socio-political and economic structures of the target state via using low-profile force and technology[21]. Besides, Russian foreign Minister Igor Ivanov describes asymmetricism as follows: "They are terrorism and separatism, national, religious and other forms of extremism, drug trafficking and organized crime, regional conflicts and the threat of the spread of

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[19] Source:http://wwwcgsc.army.mil/milrev/English/JulAug01/thomas.asp; date: 23.07.2003, 22:30.

[20] Source:http://www.tsk.mil.tr/genelkumay/bashalk/konusma/sarem/saremaciskonusmasi_290503.htm ; date: 02.08.2003; 00:30.

[21] *Turkish Armed Forces, Foreign Threat Assessment*, January 2003.

weapons of mass destruction (WMD), financial and economic crises, ecological disasters and epidemics. All these problems existed before, but in the era of globalization when the world has become much more interconnected and interdependent. The interdependence between countries is acquiring an ever more asymmetric character.[22]"

As a result, the working conceptualization of asymmetrical for this paper would be: the imminent and clear presence of relation based on relatively disproportional, unbalanced, dissimilar and incommeasurable[23] capabilities based on disharmonized interests with regard to a specific period among the units of international politics. Could the very existence of this relation become a threat, the aggression from the stronger or weaker party occurred unusually, irregularly and in a decentralized manner -which implies unconventional- that primarily aims at influencing the will of the opponent. In that sense, the value systems of aggressor and victim become important in terms of determining whether the threat is bearable, respondable, considerable and perceivable.

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[22] Ivanov, Igor, "International Security in the Era of Globalization," Russia in Global Affairs, No.1; January-March 2003; unofficial translation from Russian. Source: http://www.ln.mid.ru/Bl.nsf/arh/; date: 02.08.2003, 01:20.

[23] One civilian lexicon explains asymmetry using the mathematical term "incommensurability," the relationship between things which have no common measure in *Webster's Third New International Dictionary of the English Language*; (Unabridged) (Springfield, MA: Merriam-Webster Inc., ed. By Philip Babcock Gove, 1981), pp. 136.

In addition, the action of the aggressor should be difficult to respond in terms of unmatched arsenal structure and lacked strategic imagination. (To this extend, U.S. military circles commonly refer to fourth generation warfare[24] - 4GW)

[24] The term was first coined in the article in the Marine Corps Gazette titled by "The Changing Face of War: Into the Fourth Generation" by William Lind on 13 October 1989. First-generation warfare was defined by close-order formations armed with guns to repel sword-and-bayonet cavalry and infantry, something the young Napoleon perfected. Second-generation warfare's winners were those who had the most, or the best-managed, firepower, enabling their forces to win through attrition—an approach mastered by the Prussian army. Third-generation warfare saw second-generation armies being agitated by decentralized attacks that, though brilliant, ultimately failed by virtue of an opponent's ability to wear the attacker down. An example would be the Ludendorff offensives of 1918, when an initially successful German drive against the Allies ultimately stalled.

CHAPTER - III

NBC TERRORISM

To continue with the specific ramifications of asymmetrical threats in the form of NBC terrorism, what must be analyzed is its concept and basis that gives the primary clues for shaping the theory of asymmetrical deterrence.

Before starting to explore the framework of NBC terrorism it is necessary to mention the fact that this thesis will use the term by excluding terrorist actions perpetrated via conventional means of violence that can also create a mass destruction as well as radiological weapons such as missiles involving impoverished uranium. On the other hand weapons of mass destruction (WMD) is a former Soviet military term which was euphemistically used to denote nuclear, chemical, and biological weapons[25]. It is now widely used, despite debate over its appropriateness,

[25] Gaddis, John Lewis; *The Long peace :Inquiries into the History of the Cold War*; (New York: Oxford University Press, 1989); pp.25.

and its definition has broadened to include radiological[26] weapons though that this thesis only contains nuclear, biological and chemical materials.

In the context of analyzing NBC terrorism, this paper considers the transnational or international terrorism as the subject matter due to the its main concern about deterrence that classically based on inter state relations. Thus, it is firstly required to emphasize on the definition of the term briefly.

3.1- Definition:

There is no internationally authorized clear definition about transnational or international terrorism. In this attempt of defining the concept, United States –due to facing with remarkable acts of terrorism in 9/11/02, and United Nations rooted resolutions of 1368 on 11 September 2001 and 1373 on 23 September 2001 are also considered as official contributions to this attempt[27]. We should continue the age old problems of definition, taxanomy and unit of analysis. Due to its nature in conceptualizing the transnational terrorism we should use the cases: From 1968 to present, the types of incidents that comprise the chronologies used in the ITERATE

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[26] Radiological weapons use conventional high explosives to disperse radioactive material over an area. They are useful primarily as an area denial weapon, forcing evacuation and extensive decontamination. For more information see Ford, James L. "Radiological Dispersal Devices: Assessing the Transnational Threat"; Institute for National Strategic Studies, Strategic Forum, Vol.23, No. 136; March 1998.

[27] Enders, Walter; Sandler, Todd. "Patterns of Transnational Terrorism", International Sudies Quarterly; Vol.57, Issue.2; April 2002, p. 145-146.

(international terrorism: attributes of terrorist events) textual and numeric datasets have the following attributes.[28]

Terrorism is the premeditated use or threat of use of extra normal violence or brutality by sub national groups to obtain a political, religious or ideological objective through intimidation of a huge audience, usually not directly involved with the policy making that the terrorist seek to influence[29]. Key ingredients of the definition include the underlying political motive, the general atmosphere of intimidation and the targeting of those outside of the decision-making process. Whenever a terrorist incident (a bombing, plane hijacking, assassination) in one country involves victims, targets or institutions of at least one other country, the incident is transnational[30]. Reduction in the resources of terrorist or an increased difficulty associated with all modes of attack. When a terrorist act has ramifications that transcend a national boundary, it is an instance of transnational terrorism. Thus, it is first, purely international. Events that start in one country and end in another are transnational. An event planned in one country that attacks the citizens or property of a second country but on the soil of a third country is also an act of transnational terrorism. As a result, such actions via nuclear, biological or chemical mean form the NBC terrorism. It is not important whether the terrorist action aimed at mass murder or single assassinations in terms of determining NBC terrorism. In any terrorist action

[28] Enders, Walter; Sandler, Todd. "Patterns of Transnational Terrorism", p. 131

[29] Hoffman, Bruce, "Rethinking Terrorism and Counterterrorism Since 9/11", Studies in Conflict & Terrorism, Vol.9, No.1; Summer 2002, p. 305

[30] Enders, Walter; Sandler, Todd. "Transnational Terrorism In The Post Cold War Era", International Studies Quarterely, March 1999, Vol.43, Issue 1, p.145.

in which NBC agents are used as an attacking or triggering leverage, it is considered as NBC terrorism.

Therefore assuming such a relatively extended and simplified conceptualization for NBC terrorism facilitates the efforts for determining precise touchstones of asymmetrical deterrence.

3.2- Analysis of Motivations and Agents:

A number of factors are seen as having previously constrained terrorist use of NBC material. Most terrorists groups possess political goals and have traditional, ethnic, nationalist, or ideological associations[31]. These groups seek to gain politically from attacks and to draw the attention of large audiences without diminishing their base of support. The conventional wisdom was reflected in expert Brian Jenkins comment several years ago, "Terrorists want lots of people watching, not lots of people dead." For some groups, this is demonstrably no longer the case. However, even if a terrorist group sought to create an atmosphere of terror by inflicting large numbers of casualties, it need not turn to NBC weapons, as the latest World Trade Center airliner attacks graphically demonstrated. In another comparison of conventional versus NBC attacks, 168 people died in the conventional bomb attack in Oklahoma City, while only 12 people died in the nerve agent attack in the Tokyo subway. NBC use is risky for the terrorists themselves, uncertain in its effects, and

[31] Sprintzak, Ehud; "The Great Superterrorism Scare"; Foreign Policy; Fall 1999; pp.46.

carries with it the possibility of severe retaliation. However, the increasing casualty count of attacks over the last several years has led many to argue that growing terrorist fanaticism and erosion of traditional constraints have negated the stigma of NBC compounds.

Before analyzing deeply, when the open-literature is examined throughout on the basis of three main questions, a milieu of general assumptions related to the topic can be held[32].

Why a terrorist group might resort to the use of NBC weapons, and the circumstances or conditions in which this could be most likely; what type of organizations, according to their characteristics and objectives, might be most likely to use NBC weapons; and which of the NBC weapon types, and, as possible, which particular agents, would most likely be used, and for what intended effect(s).

In terms of recent cases[33], two issues included in nearly every discussion of NBC terrorism are the continuing security problems in the former Soviet Union and Aum Shinrikyo.s 1995 sarin attack in the Tokyo subway. Particularly in relation to biological, chemical, and nuclear terrorism possibilities, the troubles in maintaining security at former Soviet installations are mentioned as a key variable in assessing

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[32] *Chemical, Biological, Radiological, and Nuclear Terrorism: The Threat According to the Current Unclassified Literature*; (Los Angeles, CA: Center for Counterproliferation Research, National Defense University Press; 31 May 2002.)

[33] Cameron, Gavin; "Multi-track Microproliferation: Lessons from Aum Shinrikyo and Al Qaida"; Studies in Conflict and Terrorism; Vol. 22, No. 4; Nov 1999; pp. 277-309 and Hoffman, Bruce; "Change and Continuity in Terrorism"; Studies in Conflict and Terrorism; Vol. 24, No. 5; September 2001; pp. 417-428.

biological weapons (BW) and nuclear threats. Similarly, the diaspora of Soviet BW and nuclear scientists repeatedly is noted as a factor that could significantly affect the probability of terrorists acquiring these weapons. Here again, opinions diverge over how greatly instability in Russia and other former Soviet republics may aid terrorism, yet almost all conclude that it may play a key role. Aum Shinrikyo, often viewed as the only terrorist group to even somewhat successfully employ chemical weapons, is cited both by those who discount the possibility of NBC attacks because of Aum's difficulties in spite of its large financial, material, and skill base and those who view it as the harbinger of greater NBC terrorist attacks in the future. Discussion of Aum, whether by those who see it as the exception or those who see it as the first of a trend, is prevalent throughout today's literature.

Furthermore, there is an emphasis on the state-sponsored terrorism. Often, the concept of sponsorship of a group is either equated or conflated with agents or agencies directly subordinate to state control. In this context, discussion of acquisition of NBC by .groups rather than states conveys a meaning that ranges from Special Forces to terror cells to, in some cases, individuals. Furthermore, the different postulated varieties of sponsorship lead to disparate conclusions regarding the prospective willingness of states to provide groups with NBC weaponry or assist them in acquisition or production. All in all, the literature provides no clear or shared understanding of state-sponsorship, yet recognizes its fundamental importance in NBC threat assessments[34].

[34] Lavoy, Peter R., Scott D. Sagan, and James J. Wirtz, eds.; *Planning the Unthinkable: How New Powers Will Use Nuclear, Biological, and Chemical Weapons;* (Ithaca: Cornell University Press, 2000); pp.43-48.

At this point, there is a special tendency to mention. There is a growing interest on the BW for terrorist actions. This is followed, in turn, by nuclear, radiological, and lastly, chemical weapons. In itself, this breakdown in the relative percentage of discussion may be indicative of the relative importance attached to each threat by the various authors and the NBC community more widely. In other time frames, however (e.g., the early 1990s), the nuclear dimensions arguably received relatively greater attention. In particular, a sizable plurality of the available literature agues that of chemical, biological, radiological, or nuclear weapons, the biological terrorist threat is the most pressing at this time. As Robert Kadlec argues, biological weapons have .utility across the spectrum of conflict that allows them to be employed for a variety of attacks, large or small, against a wide range of targets, and with an equally wide range of effects. Furthermore, the insidious nature of biological weapons (BW), coupled with its ease of concealment and potential for mass casualties, increases its attractiveness to terrorist groups. Radiological devices, nuclear weapons, and chemical weapons, respectively, tend to be rank-ordered as lesser terrorist threats today[35].

Moreover, the nature of the terrorist organizations is being focused in the agendas of the scholars. One point of general agreement is the inherent .conservatism. of terrorist organizations. While recognizing that certain terrorist

[35] Betts, Richard K. ; "The New Threat of Mass Destruction"; Foreign Affairs; Vol.77, No. 1; January/February 1998; pp. 26-41; Cameron, Gavin; Pate, Jason; McCauley, Diana and DeFazio, Lindsay; "1999 WMD Terrorism Chronology: Incidents Involving Sub-National Actors and Chemical, Biological, Radiological, and Nuclear Materials"; Nonproliferation Review; Vol. 7, No. 2; Summer 2000; pp. 157-174; Carus, W. Seth; "Biological Warfare Threats in Perspective"; Critical Reviews in Microbiology; Vol. 24, No. 3; September 1998; pp. 149-155; and Bowman, Steve, ed. *Biological Weapons: A Primer*; (New York: Novinka Books, 2001); pp.46-87.

groups may be inclined toward innovation in weaponry and tactics, and risk-taking in operations or in weapon selection, many experts accept the notion that most terrorist organizations will prefer to use tried and true methods if these can achieve the desired effect. Innovation, particularly into the realm of NBC, most authors would suggest, is often likely to be driven by factors other than an organizations own curiosity or desire for experimentation. Both the increasing availability of material and, for many analysts, a penchant for mass-casualties among particular terror groups, is frequently viewed as drivers for the NBC acquisition quest. In terms of agent selection, few authors specify whether, for example, botulinum toxin would be more likely than anthrax, or VX rather than sarin. The same, however, cannot be said in a relative sense across weapon classes. While specific conclusions vary, many writers discuss the relative likelihood of nuclear, radiological, biological, or chemical attacks. Similarly, they tend to view differing levels of attack; small-scale attacks with limited casualties or large-scale mass casualty attacks as either more or less probable, depending on a range of variables[36].

In addition, many articles addressing this issue tend to differentiate between the threat today and what it is likely to be in 5-10 or more years. In many assessments, the future threat is seen to be worse (sometimes dramatically so) than the current threat, despite some optimistic assessments of U.S. government responses to the prospect of NBC terrorism. Much of this negative evaluation of the current trend has to do with rapidly proliferating technology to state and sub-national actors; the evident progress in weapons programs in nations including Iran, Syria, North

[36] Mueller, John and Mueller, Karl; "The Methodology of Mass Destruction: Assessing Threats in the New World Order"; Journal of Strategic Studies; Vol. 23, No. 1; March 2000; pp. 163-187.

Korea, and others; and the continuing prospect of leakage and brain drain from former Soviet, South African, or other state programs[37].

On the issue of terrorist motivations and characteristics, the concept that a .new form of terrorism has emerged resonates through the recent literature. In particular, a number of authors have begun to question the long-held notion that .terrorists want more people watching than dead. Many now claim that this view, espoused by Brian Jenkins several years ago, may have been true insofar as secularly motivated terrorist organizations were concerned, but that such an idea might not characterize well some contemporary groups. Unlike the left wing terrorist groups active in Europe from the 1960s to the 1980s. Italy's Red Brigades, France's Action Direct, and Germany's Red Army Faction, for example today's purveyors of violence seem less prone to strictly .political statements. Those who argue that a .new terrorism is emerging point primarily to Islamic fundamentalism or religious extremism and its convergence with three other factors: the deliberate quest to acquire or develop NBC weapons, a willingness to accept martyrdom, and a perception that the only audience of worth is that of a deity. Much of the current literature argues that for many religiously oriented or millenarian terrorist groups, which frequently appear to view their struggle as part of a battle of .good versus evil or as a precursor to judgment day or the apocalypse, a new mass-casualty motive structure has developed. In this view, such groups are detached from what might be considered .moral norms. or other social constraints and therefore do not feel

[37] Perry, William J. "Preparing for the Next Attack"; Foreign Affairs; Vol. 80, No. 6; November/December 2001; pp. 31-45 and Parachini, John V.; "Comparing Motives and Outcomes of Mass Casualty Terrorism Involving Conventional and Unconventional Weapons"; Studies in Conflict and Terrorism; Vol. 24, No. 5; September 2002; pp. 389-406.

restricted in considering the possibility of NBC weapons use, let alone conventional explosives, against whatever target they choose. According to this argument, such groups may not wish to achieve a purely political goal, but rather wish to advance a religious or spiritual purpose. In this context, the terrorists' principal audience, perhaps beyond those that assist their cause, is that of God[38].

Others, however, have suggested that too much is made of religion as a motivation toward NBC terrorism. Rather, the characterization of religious followers as mindless zealots and murderous fanatics may be overly simplistic and may overlook other reasons for groups pursuing NBC motives that may be more classically .political.. Indeed, a number of authors suggest that while religion may certainly be a major motivation for organizations such as Al-Qaeda, another motivating factor for acquiring and using NBC weapons may simply be their intrinsic shock value. For some, the mere threat of these weapons could cause substantial psychological, political, and even economic damage to a state. And in the case of radiological weapons, despite the fact that the number of immediate casualties would likely be far below those of a successful biological or nuclear attack, the potential for widespread public fear of radiation would likely nevertheless inspire acute psychological damage far in excess of the physical damage resulting from the attack[39].

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[38] Hoffman, Bruce; *Inside Terrorism*; (London: Victor Gollancz, 1998); pp.51-89.

[39] Gurr, Nadine and Cole, Benjamin; *The New Face of Terrorism: Threats from Weapons of Mass Destruction.*; (New York: I.B. Tauris & Co., 2000); pp.36-50.

In terms of modus operandi of terrorist organizations, NBC materials are considered as genuinely effective and efficient means to penetrate into the minds of target audience. Intimately linked to the threat-value of these weapons is the view, somewhat widespread, that terrorists may seek NBC because traditional methods may no longer be psychologically effective In this view, the idea is that much of society has become desensitized to acts of violence perpetrated with the bomb and the gun and that such tools can no longer create the same emotional impact or have a sufficient deleterious effect on morale. In contrast, the insidious nature of NBC cannot help but deliver an enormous blow against a group's targets and enemies. While it may seem obvious that different terrorist groups may seek to attack very different targets based upon their underlying ideologies or beliefs, this is an important point with respect to the desire to propagate NBC terrorism. Since target selection varies, and since particular technologies and expertise may be more readily available, groups may opt to purchase or develop one weapon type over another. For example, chemical weapons will generally have less of an effect on physical targets, such as buildings, than, for instance, a nuclear device. Similarly, a contagious biological agent that targets agriculture could in theory impose a greater economic cost than a chemical attack. Target selection is a key variable: a group may not seek to acquire simply what is the easiest to acquire, but rather what they assess would be most effective against a specific target or target set[40].

[40] Crelinsten, Ronald D. "Terrorism and Counter-Terrorism in a Multi-Centric World: Challenges and Opportunities"; Terrorism and Political Violence; Vol. 11, No. 4; Winter 1999; pp. 170-196.

3.3- Capabilities and Providers:

In terms of technical capabilities, the question of sufficiency of finances and other resources available to terrorist organizations for NBC acquisition is roundly debated in the current literature. For some, a terrorist group need only control a budget equivalent to several million dollars and the means to acquire commercially available, often .dual-use biotechnology to begin a rudimentary, but potentially deadly, biological weapons development effort. On the chemical side, some suggest that a similarly small amount of capital would be needed to begin purchasing precursors for agents of chemical weapons (CW). The nuclear problem for terrorists, of course, is much different. Yet many who espouse the view that a terrorist can gain a NBC capability on the cheap. Suggest that a nuclear black market emanating in the former Soviet Union provides access at least to radioactive material, and perhaps even sufficient quantities of fissile material. At the extreme end of this argument, some even suggest that, based on the South African experience, a full-blown nuclear development program, minus the mining, refinement, and enrichment of fissile material, could be undertaken by a particularly well-funded terror organization. These arguments are equally well represented among skeptics. Rather than requiring simply a few million dollars and commercially available equipment, acquisition of a CW or BW capability, let alone a nuclear capability, is harder to accomplish than much of the popular literature suggests. Critics of the cheap argument cite difficulties in acquiring virulent strains of BW agents, the hazards involved in preparing them (and similar safety issues regarding CW), and the difficulties in developing effective dispersal mechanisms. In particular, this argument is often rooted in the experience of

Aum Shinrikyo. While at its height the group had assets totaling approximately one billion dollars, a diverse and highly trained scientific workforce, and little scrutiny from law enforcement and intelligence agencies for a number of years, it largely failed in its quest. Despite its strengths, Aum was unable to acquire nuclear devices from Russia (where its activities were particularly strong), develop an effective BW capability, or develop a mass-destructive CW capability. Skeptics note that the 1995 Tokyo sarin attack resulted in only a handful of fatalities and that the dispersal mechanism devised was simplistic in the extreme; and even this partial success transpired after a series of failed biological attacks against U.S. and Japanese assets. Thus, the current literature is strongly divided on the issue of whether sub-national actors may possess sufficient technical and financial resources to develop a viable NBC capability. However, there are two points of general agreement on this topic. First, most agree that the black market in the former Soviet Union is attractive to groups that wish to acquire either NBC weapons or the know-how to construct their own though the actual severity of .loose nukes and brain drain problems are debated. Second, any group that is able to recruit skilled professionals from relevant fields (chemistry, biology, physics, etc.) will increase its chances of obtaining or successfully developing NBC weapons. Although some argue that a college education in these fields is sufficient or nearly sufficient for basic biological, chemical, or radiological devices, nearly all agree that a group with trained professionals will need less time to construct a NBC capability and will increase its chances of conducting a truly effective attack[41].

[41] Claridge, David; "Exploding the Myths of Superterrorism;" Terrorism and Political Violence; Vol. 11, No. 4; Winter 1999; pp. 133-148.

On the basis of evaluating the relevancy of state-sponsored terrorism, there is a common opinion that most of the active terrorist organizations in the Middle East receive some form of direct or indirect support from states. Iran, for example, provides financial support to Hezbollah and Hamas. Al-Qaeda received assistance from Sudan and Taliban-ruled Afghanistan. Furthermore, each of these three groups is thought to be interested in NBC weapons; certainly, evidence uncovered in Afghanistan and elsewhere has underscored Al-Qaeda's NBC efforts. However, the recent literature remains divided over the influence of and prospects for state-sponsored NBC terrorism. One argument is that only by being able to marshal some (or many) of the resources of the state diplomatic immunity, geographical sanctuary, intelligence information, national technological capabilities, and a large, steady source of funding, just to name a few can a terrorist group hope to develop an effective NBC capability. By contrast, while a state-sponsor may be happy to employ a terrorist group using conventional weapons for state purposes, providing a group, over which it might have only incomplete control, with NBC weapons may be too great a risk for many states. The possibility that a truly massive attack could be traced back to the sponsor, or that the group might turn on its sponsor could prove a deterrent to NBC sponsorship. In the end, however, most experts would agree that if a group did receive significant assistance in developing a NBC weapons from a sponsor state, that group would have the best chance of acquiring real capability[42].

[42] Lavoy, Peter R.; Sagan; Scott D. and Wirtz, James J., eds. *Planning the Unthinkable: How New Powers Will Use Nuclear, Biological, and Chemical Weapons*; pp.52-59.

3.4- Reasons, Consequences and Threats:

Jonathan B. Tucker from Center for Nonproliferation Studies of the Monterey Institute of International Studies has claimed that the Tokyo attack served as a "wake-up call for policy makers the world over.[43]" The important interrelated context under the NBC terrorism in fact is the feasibility of terrorist use and handling of NBC material and vulnerability of political, military and civilian targets. Paradoxically, besides the increasing concern of NBC terrorism in nowadays, the statistical attitude demonstrates a decline in terrorist incidents. Compared with the 600 incidents per annum in 1980s, there have been average 390 incidents by 1996. Even more significant were the increasingly sophisticated operations mounted by international terrorists with far greater technological and organizational talents. Bruce Hoffman from Centre for the Study of Terrorism and Political Violence at St. Andrews University described the larger scale of operations mounted in the 1980s, with more sophisticated conventional ordnance, timing mechanisms and precision-guided surface-to-air missiles[44]. The specter of terrorist attacks involving NBC has preoccupied security analysts both within and outside official government circles since at least the early 1970s. However, the perceived threat of NBC use by terrorist groups has been magnified dramatically since the end of the Cold War. This can be attributed to three main factors[45].

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[43] Spiers M., Edward; *Weapons of Mass Destruction: Prospects for Proliferation*; (London: MacMillan Press, 2000); pp.77.

[44] Hoffman, Bruce; "Low-intensity Conflict: Terrorism and Guerilla Warfare in the Coming Decades" in L. Howard (ed.); *Terrorism: Roots, Impact, Responses*; (New York: Preager, 1992); pp.139-54.

[45] Hoffman, Bruce; "Responding to Terrorism Across the Technological Spectrum"; Terrorism and Political Violence; ,Vol. 6, No.2; 1993; pp.375-90.

The first is the collapse of the USSR in 1991 and attendant concerns about the physical security of NBC assets in the territories of the former Soviet Union (FSU). The primary concern has been that lax security practices in the FSU have made it easier for terrorist organizations to access NBC technologies, either via covert purchasing arrangements or theft. The phenomenon of 'loose nukes' in the FSU has received wide publicity, but less acknowledged are the enormous stocks of unsecured biological and chemical weapons stemming from the massive Soviet Cold War inventory. One authoritative source has identified several dozen repositories in Russia housing BW stocks from the former Soviet program that lack adequate security and tracking arrangements.[46]

The second is the shifting contexts of terrorist paradigms from sole ideological rivalry towards more cultural and theological basis. The single most influential element uniting new terrorist groups has been hard-core religious dogma. Groups such as Al-Qaeda, Aum Shinrikyo, and the various Christian Identity organizations active in the West are each inspired by the doctrine of 'cosmic war' or "Jihad", in which violence is seen as the only means to achieve "moral restoration[47]". According to this mindset, violent acts are "sanitized" because they are symbolic, enacted on a cosmic stage[48]. Besides, in the form of pre-9/11 terrorism, mostly seen

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[46]Source: http://www.ceip.org/<wmdp/papers.html, Date: 03.09.2003; 22:00; Cirincione, J., J. Wolfsthal, and M. Rajkumar, 2002. *Deadly Arsenals: Tracking Weapons of Mass Destruction* (Washington DC: Carnegie Endowment for International Peace).

[47] Juergensmeyer, Mark; Terror *in the Mind of God: The Global Rise of Religious Violence*; (Berkeley and Los Angeles: University of California Press, 2001); pp.145-63.

[48] Simon, Steven and Benjamin, Daniel; "America and the New Terrorism"; Survival; Vol. 42; No.1; June 2000; pp. 66.

in 1970s and 1980s Europe by mostly left-wing terrorist and pre-suicide bombings era which encountered the time before 1981[49] and after 1968, based on Palestine issued terrorism, the selective and limited violence was the key feature of terrorist groups. However, the mass murders due to demonstrating unlimited and non-selective violence have been brought into focus by terrorist groups. In addition to suicide bombings which have been familiar to the world public since 1981, particular events such as 9/11 and 1995 Tokyo subway attacks have showed the catastrophic characteristic of the "day after." This brings the low probability-high consequence matrix into consideration on the basis of terrorist involvement besides the threat of mutually assured destruction and proliferation of NBC issues.

The third is the widening resource network in terms of skilled personnel, required technology and knowledge; improved movement of hidden financial exchanges and far less limited access towards related equipment such as detonating devices, delivery vehicles and fissile material. In addition, the dual-use nature of NBC compounds and non-conventional vehicles as seen in 9/11 – it implies the use

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[49] The first major contemporary suicide terrorist attack in the Middle East was the December 1981 destruction of the Iraqi embassy in Beirut (27 dead, over 100 wounded). Its precise authors are still unknown, although it is likely that Ayatollah Khomeini approved its use by parties sponsored by Iranian intelligence. With the assassination of pro-Israeli Lebanese President Bashir Gemayel in September 1982, suicide bombing became a strategic political weapon. Under the pro-Iranian Lebanese Party of God (Hezbollah), this strategy soon achieved geopolitical effect with the October 1983 truck-bomb killing of nearly 300 American and French servicemen. American and France abandoned the multinational force policing Lebanon. By 1985, these attacks arguably led Israel to cede most of the gains made during its 1982 invasion of Lebanon.In Israel-Palestine, suicide terrorism began in 1992, becoming part of a systematic campaign in late 1993 with attacks by Hezbollah trained members of the Islamic Resistance Movement (Hamas) and Palestine Islamic Jihad (PIJ) aimed at derailing the Oslo Peace Accords. As early as 1988, however, PIJ founder Fathi Shiqaqi established guidelines for "exceptional" martyrdom operations involving human bombs. See http://www.interdisciplines.org/terrorism/papers/1/11; date21.05.2004, 19:45; Alan, Scott; "Genesis and Future of Suicide Terrorism".

of planes, small boats, trucks etc. for delivering NBC weapons – add a great potential through the increasing importance of NBC terrorism.

To achieve a realistic understanding of the scope of the threat it is necessary to draw a clear distinction between nuclear, biological, and chemical terrorism. Nuclear terrorism has long been anxiety but its potential was underlined by the Chechen incident in November 1995 and the efforts of the Aum cult to mine uranium in Australia and buy Russian warheads[50]. However, there is general consensus that nuclear weapons are more difficult to obtain than their chemical and biological counterparts. Despite some claims to the contrary, the core ingredients of weapons grade fissile material —highly enriched uranium and plutonium—are scarce internationally and very expensive to produce in sufficient quantities to manufacture even the crudest of nuclear devices. Moreover, since the mid-1980s, tight export controls have been observed by the small group of countries able to supply nuclear materials and equipment worldwide[51].

Nuclear terrorism could take several forms, including the making or stealing of a nuclear weapon for detonation or blackmail; an attack on a nuclear weapons site or plant to spread alarm; the sabotage of a nuclear plant; the seizure of a nuclear plant or its personnel for blackmail; the theft or purchase of fissile material for blackmail or radioactive material (Attacks have already been made on nuclear plants in France,

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[50] Richelson, Jeffrey; "Defusing Nuclear Terror", Bulletin of the Atomic Scientists, March-April, Source: http://www.thebulletin.org/issues/2002/ma02/ma02richelson.html; date: 03.09.2003, 22:30.

[51] Milhollin, Gary; "Can Terrorists Get the Bomb?"; Commentary Magazine, Vol. 113, No. 2; February; 2002; pp. 45–49.

South Africa, Argentina, Spain and the Philippines). For instance, if a group with sufficient skills was able to obtain about 30 pounds of highly enriched uranium, which is easily carried in a briefcase, or a small amount of plutonium (tennis ball size), and then spent some $200,000 acquiring readily available materials and equipment, it could build a nuclear device been in the mini van placed at the hearth of the Kızılay, it can be estimated that the area from Sıhhiye up to U.S. Embassy would have disappeared[52]. A more readily attainable option would be acquiring the requisite materials to fabricate a radiological weapon, or "dirty bomb" (i.e. conventional explosives laced with radioactive material aimed at propelling the latter across a wide area). There is some indication that elements of the Al-Qaeda network have exhibited an interest in obtaining radioactive materials on the Russian black market for possible use in a 'dirty bomb', although it remains unclear whether their quest has been successful.[53]

Generally, there is thought to be two main factors shaping nuclear terrorism; the know-how of how to build and use a bomb and the acquisition of the fissile material. While a nuclear weapon is the most destructive of all WMD, obtaining one poses the greatest difficulty for terrorist groups. The key obstacle to building such a weapon is the availability of a sufficient quantity of fissile material — either plutonium or highly enriched uranium. Some experts believe that if allowed access to the necessary quantities of fissile material, extraordinarily capable groups could build

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[52] Spiers M., Edward; *Weapons of Mass Destruction: Prospects for Proliferation*; pp.85. The data is compared by the author with the city of Ankara.

[53] Stout, David "US Arrests American Accused of Planning 'Dirty Bomb' Attack"; New York Times; 10 June 2002.

a crude nuclear weapon[54]. A much less difficult nuclear option is a radiological weapon using conventional high explosives to disperse any type of radioactive material. They obviate the need for fissile material and the complexity of a nuclear bomb. Though unlikely to cause mass casualties, radiological weapons could still have very significant radiation contamination effects if well-targeted. State sponsors of terrorists have been considered unlikely to turn over control of such weapons, once developed, to terrorist groups because of possible international retaliation or concern that the groups might leave their control. However, the problem of "loose nukes," i.e., the possible leakage of nuclear weapons material and technical know-how from the former Soviet states, remains a cause of concern that some believe increases the likelihood of a terrorist group obtaining a nuclear capability. It is important to note that even if a terrorist group were to get hold of an assembled nuclear weapon covertly, the built-in safeguards and self-destruction mechanisms would pose a serious challenge to detonating the weapon. In addition, the size of most nuclear weapons makes them rather hard to transport, especially clandestinely. The most likely means for such transport is judged to be commercial shipping[55].

Indeed, in the mid-1980s an international task force reported that the manufacture of a crude nuclear device is within the reach of terrorists with sufficient resources to recruit a team of three or four technically qualified specialists and to acquire both the chemical high explosives and a sufficient quantity of weapons-

[54] Falkenrath, Richard A.; "Confronting Nuclear, Biological and Chemical Terrorism"; Survival; Vol. 40, No. 3; Autumn 1998; pp.89.

[55] Kamp; Karl-Heinz; "WMD Terrorism – An Exchange"; Survival; Vol.41, No.3 Winter 1998/1999; pp.57.

usable nuclear material. In fact, a terrorist group may not need to depend on pure fissile material as mentioned above. Non-fissile but radioactive materials such as cesium-137, strontium-90 and cobalt-60 can be enough for causing unbearable damage on political, economic, social or strategic centers. Even though they will not form mass casualties, they can disrupt the stability and create psychological disorder in the target area. However, Brian Jenkins (deputy chairman, Kroll Associates) has claimed that terrorist would be more likely to show it as a threat rather than detonate it for persuade target states -in that sense, it is accepted that terrorist organizations are expected to be adversaries of states-[56].

Besides, chemical and biological weapons are considered as a much more feasible threat. Prior to the Fall 2001 anthrax attacks in the U.S., the Center for Nonproliferation Studies at the Monterey Institute of International Studies conducted a study of terrorist use of chemical and biological weapons.7 The institute identified six characteristics among the groups involved in chemical/biological weapons (CBW) incidents: charismatic leadership, no external constituency, apocalyptic vision, loner or splinter group, sense of paranoia/grandiosity, and preemptive aggression. The two common characteristics that appeared in all cases of actual CBW use were the lack of outside constituency and a sense of paranoia/grandiosity. Only a limited number of groups were motivated enough to employ CBW, amongst them religious millenarian groups, small terrorist cells, and brutalized groups seeking revenge or facing destruction[57].

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[56] Spiers M., Edward; *Weapons of Mass Destruction: Prospects for Proliferation*; pp.80-81.

[57] For a detailed categorization and description of the issue, see Tucker, Jonathan; .*Toxic Terror: Assessing Terrorist Use of Chemical and Biological Weapons;* (Cambridge, MA: MIT Press, 2000).

However, there is still a discussion about the first-choice of terrorists. Deutch argued that the likeliest threats would be chemical first, biological second and nuclear third[58]. In contrast, biological weapons are judged to be the ideal terrorist WMD instrument by some scholars for three key reasons. First, BW agents are far easier to acquire than nuclear weapons and it takes considerably less BW agent to produce the same killing impact as chemical weapons. Quantum leaps in biotechnology applications may mean revolutionary advances in drug discovery for treatment, but the very same quantum leaps can be used to broaden horizons for acquiring new, and refining existing, BW agents[59]. Moreover, on a pound for pound basis, BW agents are far more potent than any of the most deadly CW agents, which must be delivered in massive quantities to inflict lethal concentrations over large areas.[60]

Toxic industrial chemicals such as chlorine or phosgene are easily available and do not require great expertise to be adapted into chemical weapons. Nerve agents are more difficult to produce, and require a synthesis of multiple precursor chemicals. They also require high-temperature processes and create dangerous by-products, which makes their production unlikely outside an advanced laboratory. Blister agents such as mustard can be manufactured with relative ease, but also require large

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[58] ibid...p.82

[59] Wheelis, Mark; "Biotechnology and Biochemical Weapons"; The Nonproliferation Review; Vol. 9; No. 1; August 2003; pp. 48–53.

[60] Tucker B., Jonathan; "Introduction", in J. B. Tucker (ed.), *Toxic Terror: Assessing Terrorist Use of Chemical and Biological Weapons;* (Boston: MIT Press, 2002); pp. 5.

quantities of precursor chemicals. The production and transfer of CW precursor chemicals is internationally monitored under the Chemical Weapons Convention and the informal international export control regime of the Australia Group, providing some degree of control over their distribution22 Aerosol or vapor forms are the most effective for dissemination, which can be carried out by sprayers or an explosive device. However, agents are vulnerable to temperature, moisture and wind, and would therefore be most effectively used on an indoor population. The Aum Shinrikyo again provides an example of the unpredictable effectiveness of chemical weapons. Although the cult was able to produce the nerve agent sarin and release it in a closed environment — the Tokyo subway — the attack resulted in only 12 fatalities, whereas there were 301 fatalities and 5,000 injured in the conventional bombing of the U.S. embassies in Kenya and Tanzania. The potential consequences of such an occurrence were graphically demonstrated in Bhopal, India in 1984, when a disgruntled pesticide plant employee is believed to have caused the release of 40 metric tons of methyl isocyanides into the atmosphere. Over 2,000 people were killed and 100,000 injured, of whom an estimated 50,000 suffered permanent disabilities[61]. Though the manufacturing plants, storage depots, and hazardous materials transportation infrastructure have long been recognized by counterterrorist experts as potential targets, until recently relatively little attention had been paid to the problem by private industry or the government[62].

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[61] "Bhopal Disaster Spurs U.S. Industry, Legislative Action", United States Chemical Safety and Hazard Investigation Board Source; source: http://www.chemsafety.gov/lib/bhopal01.htm; date: 23.04.2004, 21:15.

[62] Bowman, Steve; "Weapons of Mass Destruction: A Terrorist Threat"; CRS Report for Congress 7 March 2002; source: http://www.crs.org; date: 15.06.2004, 19:00.

Tucker observes that (a) chemical attack that caused 50 per cent casualties over a square kilometer would require about a metric ton of sarin. In contrast, microorganisms infect people in minute doses and then multiply within the host to cause disease. For example, a mere 8,000 anthrax bacteria—an amount smaller than a speck of dust—are sufficient to infect a human being. As a result, a biological attack with a few kilograms of anthrax could inflict the same level of casualties over a square kilometer as a metric ton of sarin—provided that the anthrax was effectively disseminated[63].

Second, the effects of biological weapons on a target population would be extremely hard to counter. Administering vaccines and rendering more general medical assistance to a widely affected population would place unprecedented strains on emergency authorities. This is assuming that an attack using BW agents could be detected in a timely fashion. Indeed, one of the major obstacles for state authorities would be detecting that a covert attack using BW agents had actually taken place. For instance, vaccination against the most contagious BW agent, smallpox, is only effective if administered within seven days of exposure to the virus. Yet during the early stages of contracting the virus, individuals merely exhibit flu-like symptoms making prompt diagnosis problematic. Left undetected for even a few days, smallpox has the potential to spread rapidly among the target population, creating an epidemic that could be impossible to contain[64].

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[63] Ibid.
[64] Chyba F., Christopher; "Toward Biological Security"; Foreign Affairs, Vol. 81, No. 3; Winter 2002; pp.104.

Third, the insidious nature of BW agents—composed as they are of living micro organisms with the capacity to reproduce and mutate—has the potential to psychologically 'unhinge' target populations. While many biological agents can be obtained or grown with relative ease, several significant steps remain on the way to weaponization and effective use of these agents. The main challenge is effective dissemination, which requires an aerosol form. The formulation of agents for airborne dispersal requires dissolving optimal amounts of agent in a specific combination of different chemicals (with each agent requiring a unique formulation). Moreover, aerosol disseminators need to be properly designed for the agent used, and suitable meteorological conditions must be present to carry out a successful BW mass casualty attack. The Aum Shinrikyo sect again provides an example of the difficulty of conducting a successful attack. The sect had substantial resources, members who were trained chemists and bio-scientists, motivation, and ample time for research. Yet, they failed to carry out an effective BW attack despite several attempts, apparently due to the agent choice, and a formulation that clogged the nozzles of the aerosol sprayers. However, some experts believe that less efficient aerosol techniques may be obtained by capable non-state groups, and that even a crude delivery system could still cause casualties or injuries in the thousands, especially if the attack is carried out against a large indoor population[65]. Of particularly great concern is the threat of highly contagious diseases, particularly smallpox. Anthrax is not contagious from person to person, consequently its spread can be relatively easily contained. With a disease like smallpox, however, contagion can spread very rapidly. The breath or coughing of an infected person at the fever stage of the disease is sufficient to

[65] Ibid...pp.68.

infect those around him or her. The disease has an incubation period of 12-14 days, during which an infected person experiences no symptoms. Consequently, a clandestine smallpox release in a major transportation hub could infect hundreds, and would, in two weeks time, result in disease outbreaks wherever the passengers eventually traveled. Smallpox has been radicated as a naturally occurring disease, and the only two known existing cultures of the virus are held by the United States and Russia. Even so, concerns over the security of the Russian samples and the possibilities of unknown samples, have kept smallpox in the forefront of threat considerations. Though the probability of terrorists gaining access to the virus may be very low, the severity of the potential consequences has nevertheless led the federal government to begin stockpiling 300 million smallpox vaccine doses. A relatively new concern is agro-terrorism: the use of biological agents against agricultural targets. The recent outbreaks of foot-and-mouth and "mad cow" disease in Europe have demonstrated the tremendous economic damage done to agricultural markets even when these epidemics occur naturally. Agro-terrorism also provides the opportunity to inflict significant economic and social disruption without the stigma of inflicting human casualties. It is generally agreed that there is no way to guarantee protection against agro-terrorist attacks; the targets and opportunities are too many. Consequently, significant attention must be paid to rapid detection and remediation[66].

[66] "Planting Fear: How Real is the Threat of Agricultural Terrorism?", Bulletin of Atomic Scientists; September/October 2001; p. 38.

As one analyst has put it, "because they are silent, stealthy, invisible, and slow acting, germs are capable of inducing levels of anxiety approaching hysteria[67]". In order to ensure effective delivery to inflict mass casualties, a terrorist group would need to develop a powder or aerosol that could be disseminated over a wide geographical radius. Although it is told that, this requires considerable scientific skill and expertise that, most analysts agree, is still beyond the reach of most terrorist organizations. One of the main reasons why the Aum Shinrikyo sect used the CW agent sarin in its 1995 Tokyo subway attack was that it had previously failed to develop sufficiently virulent BW strains of anthrax and botulinum toxin. This was despite the group being generously financed and its employment of some two dozen professionally trained microbiologists working in well-equipped scientific laboratories[68].

On the other hand, with the aid of the financial support and/or state sponsorship, the open literature of chemical agents may also be preferable by terrorist organizations. For instance, the Aum effort for producing chemical weapons costs $30 million. As a result, to manufacture sarin, the Aum purchased filters and pipes made of hastelloy (a corrosion-resistant alloy), a fluorine treatment process and computer-controlled equipment in addition to acquire the stocks over 200 chemicals. Moreover, it is thought that if the terrorists had access to Russian sources, they might also be able to buy the services of underemployed or underpaid scientists or acquire

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[67] Regis, Ed; "Does Mass Biopanic Portend Mass Destruction?", Scientific American; December 2001; pp.12.

[68] O'neil, Andrew; "Terrorist use of weapons of mass destruction: how serious is the threat?"; Australian Journal of International Affairs; Vol. 57; No. 1; March 2003; pp. 104.

chemical weapons illicitly from the seven storage sites in Russia, where are genuine concerns about physical security provisions (around perimeters and storage buildings), accountability standards and the local response and recovery procedures[69]. Even they can not obtain, steal or produce chemical weapons, they may still acquire with an exterminator's license, toxic insecticides like Tetraethyl Pyrophosphate (TEPP) or parathion which are almost as toxic as their military counterparts. For example, the accidental release of 30 tons of methyl isocyanides – a chemical some hundred times less deadly than modern nerve agent- at the Union Carbide Plant, Bhopal, India, on 3 December 1984, 6000 people was killed. Again, a Central Intelligence Agency (CIA) report stated that "... one ton (about 55 gallon drums) of agent contaminates two and a half square kilometers (one square mile) if properly disseminated.[70]"

Besides, in the case of Tokyo subway attack, it is thought that the methods based on puncturing of plastic bags and the volatilization of liquid nerve agent (from an original two gallons' solution of about 30% sarin.) Also, it is considered that diluted nerve agent and lack of aerosol generators were the causes of relatively low death toll. In detail, the operation was not conducted on Friday to pre-empt an imminent police raid; was prepared over a weekend for replacing stocks of sarin destroyed in the Matsumato incident and applied on a Monday morning. It is considered that had the cult been able to wait several months as originally planned,

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[69] Ibid, pp.82

[70] Spiers M., Edward; *Weapons of Mass Destruction: Prospects for Proliferation*; pp.83.

they might have mounted a more effective operation[71] (they had already produced 70 tons of sarin, and had purchased a Russian Mi-17 helicopter and two pilotless drones to disseminate large amounts of chemical or biological agents. If the operation had not been botched, it is estimated that the attack could have killed thousands given the acutely lethal nature of the nerve agent used. As a result, it can be seen that on the one hand terrorists can use primitive means for penetrating target areas; on the other, they can also use sophisticated vehicles and delivery systems for contaminating targets. Moreover, the economical costs of relatively low-profile chemical attacks in terms of included number of personnel, offensive weapons and the small sized tactical plans compared with conventional terrorist operations demonstrate another crucial threat for target states and/or governments. For instance, the poisoning of two grapes due for export from Chile in 1989, reportedly cost Chile $334 million[72]. Besides these, the psychological impact of the possible chemical attacks like nuclear and biological terrorist actions should be considered specifically. For example, after the attacks in Tokyo, the percentage of the people applied for psychological treatment by therapists, psychologists and psychiatrists due to post-traumatic stress disorder dramatically increased to 25% only in two months[73].

In addition, biological weapons (BW) demonstrate more preferable option compared with CW, radiological weapons or conventional weapons in terms of aiming at realizing much more casualties via much less quantity of agents and costs.

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[71] Ibid.

[72] Ibid...pp.84.

[73] See details in Source: http://www.usuhs.mil/psy/traumaticstress/center_body.htm and http://www.icisf.org/articles/Acrobat%20Documents/ TerrorismIncident/WMD_Myers.html; Date: 03.03.2003, 23:40.

Besides this, the easily produced BW which may not be detected imminently and even the perpetrators may flee the target area due to these sort of delays in perceiving biological attack. For instance, cultures of Bacillus anthracis can be found in research, clinical and veterinary laboratories and in the soil of cattle country; Clostridium botulinum can also be found in nature (as Aum managed to obtain in near the Tokachi river on the northern island of Hokkido), stolen from research laboratories or acquired for notional research purposes by mail orders from professional scientific and medical journals.

However, like in other two options of unconventional mass destruction terrorism, state sponsorship can be argued as a prerequisite for the effective use of BW agents. For Professor Milton Leitenberg, "isn't all that easy for an untrained group to produce." Also according to Karl Lowe (Institute for Defense Analyses) using BW requires calculations about the delivery systems; right amount of agent to inflict casualties over the target area; skilled personnel and sophisticated equipment. The lone terrorist, he argues, is less likely to master all these tasks that the terrorists benefiting from state-sponsorship. However, there are also opposite views based on the network of uncontrollable technological knowledge and dual-use characteristics of NBC components[74]. In brief there is a growing tendency for perceiving a BW attack by terrorists as a probability rather than a possibility.

To sum up, on the one hand there are views considering NBC terrorism less possible due to intentions and aims of terrorist organizations. Alienating public

[74] Spiers M., Edward; *Weapons of Mass Destruction: Prospects for Proliferation*; pp. 86-87.

support, provoking international community for disproportional responses, required skillful personnel and qualified material –to some extend- are concerns of terrorists, as Brian Jenkins observed, "terrorists prefer to see a lot of people watching, not a lot of people dead.[75]" Nevertheless, it may be still argued that greater diffusion and accessibility of expertise, materials, and more sophisticated, dual-use technology increases the possibility of NBC terrorism as a prospect.

3.5- Specific Cases:

The representative examples of these statements introduced in the following clauses:

In particular, Haraqat El Mukavama al Islamiya or commonly referred as Hamas can be taken into consider. For instance, Hamas' deployment of the so-called Quassam missiles is a fairly recent development. The origin of these weapons is unclear. Hamas's military wing, the Izzedin al-Quassam Brigades, declared to have built these rockets themselves, but some experts question the authenticity of this claim. Hamas reportedly possesses two functional versions of the Quassam. The more recent version is the Quassam-2, which was launched for the first time from Gaza on 10 February 2002, and then landed harmlessly in Israeli territory. The rocket is launched from a pipe measuring one meter in length and 120 mm in width using an explosive charge of 4-6 kg, and has a range of up to 10-12. Some sources have reported the existence of a Quassam-3. Records of the NBC terrorism database

[75] Ibid...pp.88.

administrated by the Monterey Institute of International Studies show that the organization's military wing has reportedly attempted to hire scientists with chemical weapons expertise in the US. One of the group's members allegedly also confessed that this cell planned to contaminate Israeli water supplies in 1999 with chemical sources. Most recently, Israel Defense Forces (IDF) officials claimed that Hamas tried to include cyanide in the suicide bombing in Netenya, on 27 March 2002[76].

Turkey, due to her new geopolitical position faces the possibility of NBC terrorism. First of all, she is an en route for NBC smuggling from north to south and secondly terrorist organizations can gain such weapons for using them in homeland. As we know, Kurdistan Workers Party (PKK), tried to acquire a package full of anthrax and sarin but because of unrevealing of the Russian military officer who brought the package, they were prevented. The PKK's connection to NBC agents consists primarily of threats; there have been three cases of actual agent use or possession. In 1992, cyanide was found in three water tanks near a Turkish air force base in Istanbul. In 1997, the group's former bomb maker claimed in an interview that he had been ordered to build at least 12 powerful bombs containing rat poison, as well as sarin and potassium cyanide bombs. In 1998, 960 glass tubes of cobra venom were confiscated from the groups' members. In this instance, they were planning to sell the poison for profit as opposed to using it as a weapon[77].

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[76] Dolnik, Adam and Bhattacharjee, Anjali; "Hamas: Suicide Bombings, Rockets or WMD?"; Terrorism and Political Violence; Vol.14, No.3; Autumn 2002; pp.108-111.

[77] Dolnik, Adam; "Die and Let Die: Exploring Links between Suicide Terrorism and Terrorist Use of Chemical, Biological, Radiological and Nuclear Weapons"; Studies in Conflict and Terrorism; Vol. 25; No. 1; January-February, 2003; pp.28.

Another issue is the NBC smuggling. In fact, Turkey does not have large stocks of weapons usable nuclear materials. Turkey has only one operating research reactor. It is housed at the Turkish Institute for Nuclear Energy and is fueled by 20 percent enriched uranium. Lying at the crossroads not only between Europe and Asia, but also between the former Soviet Union and the Middle East, Turkey is already a well-established transit zone for illicit goods of other types. Since Turkey shares borders with both Iran and Syria, two countries of great proliferation concern, Turkish borders should be closely monitored to prevent anything radioactive from crossing them. However, of the existing 120 Turkish border checkpoints, only four are reportedly equipped with radiation detection systems donated by the US, one for each border with Syria, Georgia, Bulgaria, and Iran. No detectors have been installed at Habur, a busy crossing between Turkey and Iraq, despite reports about ongoing smuggling across the Turkish-Iraqi border. According to internal classified report by the Turkish Atomic Energy Authority, 104 nuclear smuggling incidents have occurred in the past 8 years. The Defense Science and Technology Organization (DSTO) records 23 incidents of them as nuclear and other radioactive material linked to Turkey since 1993. 21 of those incidents involved nuclear material, mostly low-enriched uranium (LEU), only two of the incidents involved other radiation material[78].

[78] Ibid...pp. 26-30.

3.6- Asymmetrical Nature of NBC Terrorism:

To that extend, the asymmetrical environment of NBC terrorism can be traced firstly from its level of analysis: Non-state actors in international relations do not, as a general rule, operate according to the same normative constraints as sovereign states. While there is strong circumstantial evidence to support the claim that a norm of NBC non-use has evolved over time among states, there are few grounds for assuming that terrorist organizations will necessarily adhere to this norm.

Secondly, psychological impact in terms of creating an enormous coercive and disruptive impact, results even without mass killing or destruction. Causing or threatening to cause a NBC threat can deteriorate the stability in all levels of the social life in target area. In that circumstances the deep and imminent impact of the threat in social psychology of public puts it in an unbearable condition. In this context, such an attack would be asymmetrical due to the possibility of intolerable and unthinkable consequences that may paralyze the strategic thinking of the defender. As the head of the United Nation's Terrorism Prevention Branch has remarked, the greatest challenge in evaluating the NBC terrorist threat is "walking the fine line between fear and paranoia on the one hand, and prudence and disbelief on the other".

Thirdly, terrorists operating (a)cross borders, either independently or with state-support make the nature of the threat difficult to define in terms of its organizational and tactical origins. Moreover, their inventory of weapons and their

compounds helps them to keep the threat in "fog of war[79]" that wholly add the feature of non-conventional decentralization to the NBC terrorism.

Fourthly, despite the main focus of terrorists is on NBC agents or/and weapons –which terrorists can acquire, use or attack the facilities-, the comparison between terrorist organizers and target state results with an asymmetric relation in terms of means whether the target state handles such weapons or/and agents. Either terrorists may use crude designs or sophisticated designs of NBC weapons or they may use conventional weapons but attack to NBC facilities, storages etc., their arsenals and delivery vehicles or systems cannot match with the target states'. Although it may be considered that a hundred percent proportional symmetry cannot be feasible, it should be accepted that the gap between terrorists and target states are very plausible for an asymmetric relation.

Fifthly, the usage of NBC material in a terrorist action would probably aim at, like most of the terrorist actions, affecting the will of the target state via exposing a catastrophic incident or a possibility of it. One the one hand the importance of relativity in threat perceptions and threat response frameworks of the target states would be transcended by the universal and absolute destructive effect of NBC weapons; on the other, the choosing of specific targets and delivery systems in a state still remains crucially relative. Avoiding confrontation with a target state where it is strongest (in conventional military terms), the modus operandi of terrorist groups has been to strike states where they are most vulnerable to attack (in densely populated

[79] For broader discussion of asymmetric warfare strategies, see Ivan Arreguin-Toft; "How the Weak Win Wars?: A Theory of Asymmetrical Conflict"; International Security; Vol. 26; No. 1; Summer 2001; pp. 93-128.

cities). From a terrorist perspective, using NBC would graphically illustrate a capacity to inflict maximum damage against a stronger power at a time and place of the terrorist group's own choosing.

As a result, NBC terrorism, according the definition mentioned above can be categorized as an asymmetrical threat. Therefore the next step after linking the theoretical framework of the asymmetrical threat within praxis of the subject matter, is emphasize on deterrence theory for shaping the asymmetrical deterrence of NBC terrorism.

CHAPTER - IV

DETERRENCE

After conceptualizing the primary indicators of asymmetrical threats in terms of referring to NBC terrorism, what needs to be done is to prepare a formal theory as not only a strategy but also a kind of basic ground to explain such a threat.

4.1- "The Concept" and "The Context":

In the context of the dispute in international relations, there are two possible consequences: conflict and consensus. Naturally, the parties of the dispute attempt to persuade and negotiate or dissuade and compel each other for managing such a disagreement. Therefore, there are two basic leverages for that management process: Diplomatic and military efforts. In this process, all parties whom are assuming that being weaker compared with other will make them paralyzed, try to increase their

capabilities. As a result, the whole process of managing such an imbroglio is constructed on deterrence as an ultimate ad foremost objective of all parties. Thus, to that extend, deterrence generally implies the direct or/and indirect use of power elements[80] for ceasing the potential adversary from any mode of behavior perceived as a threat.

In that sense, the concept of deterrence has been reflecting and age-old story even since Thucydides. While Machiavelli was carrying the meaning in the Middle Ages, Metternich used the term diplomatically in the sessions of the meetings for providing "Concert of Europe". In particular, in the eve of the 19th century, deterrence had a mediocre implication of preventing any inter-state (The term state for this specific time period implies both the empires and state-like administrations.) war for ensuring balance of powers in the continental Europe and colonies. Interestingly, one of the co-lateral results of the concert of Europe was the declared intention for concerning domestic secessionist attempts as imminent threats with regard to probability of instability[81]. Indeed, secessionist actors were the non-state units of that era. Thus, it might be argued that the roots of asymmetrical deterrence can be traced through the Congress of Vienna in 1815.

However, the *premieré* of concept in IR literature occurred aftermath of the Second World War (WWII). In the pre-cold war era, regardless to technological level

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[80] For a broader definition of the concept of power elements, see, inter alia, Morghenthau, Hans J.; *Politics Among Nations*; (New York: Knopf Press, 1948); pp.13-17; Brodie, Bernard; "The Anatomy of Deterrence"; World Politics; Vol.9; No.11; 1959; pp.173-179; and Glaser, Charles; *Analyzing Strategic Nuclear Policy;* (Princeton: Princeton University Press, 1990); pp.39.

[81] For a broader discussion of deterrence in the history of international politics, see Howard, Michael; *The Causes of War;* (Cambridge, MA: Harvard University Press, 1983); pp.22-67, 113-121.

of weapons, whenever any war preparedness and mobilization started, it was aiming to win. In contrast, and for the first time, nuclear age transformed such readiness to a warless ground due to the probability of heavy costs in the day-after. As a matter of fact, deterring nuclear confrontation rather than winning a confrontation became the ultimate objective of parties in international politics. In that sense, the parties of the cold war also became the definers and users of the term.

Deterrence is emerged in its classical form in the 1930s in the context of the new found capability to attack the whole of an enemy's civilian population and civil infrastructure without first defeating its ground and naval forces. Airplanes and dirigibles were first used militarily in World War I and were employed to attack cities almost as soon as they were used for reconnaissance and attacks on the battlefield. Although the impact of these terror attacks was minor, the development of air power in the 1920s and 1930s allowed for the theories of Douhet and other military strategists. This theory of strategic air warfare argued that air forces could by themselves conduct a strategic campaign against the vital elements of state power that could win a war, with little or no involvement by ground and naval forces[82]. The implications of this theory led to the emergence of the theory of deterrence as known in 1932 the British Prime Minister, Stanley Baldwin, reflected in horror on the theory of air attacks as understood at that time: "I think it is well also for the man in the street to realize that there is no power on earth that can prevent him from being bombed. Whatever people may tell him, the bomber will always get through..." Accordingly, "the only defense is offense, which means that you have to kill more

[82] Maaranen, Steven A.; "Nuclear Weapons in Post-Cold War Deterrence"; ed. *In Post-Cold War Conflict Deterrence*; (Washington, D.C: National Academy Press, 1997); pp.116.

women and children more quickly than the enemy if you want to save yourselves[83]"

On the basis of arguments like these, Britain engaged belatedly in the creation of a bomber-heavy air force that, it hoped, would serve to deter rather than actually fight a new world war.

As it turned out, both sides in World War I resorted early to urban bombing. Conventional bombing could be defended against to some extend; the prospect of strategic conventional bombing did not deter war, nor was strategic bombing by itself able to secure the defeat of the opposing side (even though, eventually, the fire-bombing of Dresden and Tokyo, and the devastating thousand plane raids, approached nuclear strikes in the magnitude of damage they inflicted). The lessons of WWII changed abruptly with Hiroshima and Nagasaki. Nuclear weapons clearly threatened damage that was unacceptable by any definition and would be almost impossible to defend against. Bernard Brodie, in his book "The Absolute Weapon", in 1946, swiftly developed the theory of nuclear deterrence[84].

Indeed there are several concepts regarding emerging threats. To deter simply means, to inhibit or prevent someone from doing something. If deterrence of an undesirable action on the international scene fails, military force may be used for compellance, and if it is judged that the threat of force may trigger a preemptive

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[83] Ibid

[84] See Brodie, Bernard; *The Absolute Weapon: Atomic Power and World Order*; (New York: Harcourt Brace, 1946).

attack the forms of reassurance[85] may be used beyond simple declarations to convince and adversary that an attack on one's part is not planned .

In brief, the development of deterrence as a theory has been tracing a process beginning from the late 1940s. Indeed, there is not any evidence of mentioning deterrence as a strategy in U.S. between 1945 and 1949 – probably because of holding nuclear monopoly. Nevertheless, Brodie was the first to mention the newly emerging character of post world war era in terms of purpose of the military: "the chief purpose of our military establishment (had) been to win wars. From now on its chief purpose must be to avert them. It can have almost no other purpose.[86]" The break from multi-polar Eurocentric world towards domination of two superpowers formed the basic background for theorists to portray a unique framework concerning a *sui generis* period of so-called Cold War. Scholars like Herman Kahn, Thomas Schelling, Albert Wohlstetter, Oskar Morgenstern, William Kaufmann, and Glenn Snyder contributed mightily to the development and improvement of the deterrence concept. Most importantly, the manuscripts of Rosetta Stone on the basis of the structural features of international system had been used by the decision-takers of the U.S. and later Soviet Union as a road map for managing the foreign policy affairs. In whole of that context, nuclear weapons and strategic stability were the "twin pillars" upon which this global formation existed[87].

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[85] The terms reassurance was initially proposed by Sir Michael Howard to refer to the climate of reassurance that U.S. participation in European and global security arrangements during the Cold War conveyed to the allies. See Sir Howard, Michael; "Lessons of the Cold War"; Survival; Vol.36, No.4, Winter 1994-1995, pp.161-166.

[86] Brodie, Bernard; *The Absolute Weapon: Atomic Power and World Order;* pp. 76.

[87] Zagare; Frank C; *Perfect Deterrence*; (New York: Cambridge University Press, 2000), pp.3-37.

4.2- Theoretical Underpinnings:

Indeed "political realism", "*realpolitik*" or "power politics" has been called as the theoretical roots of deterrence concept. As E.H. Carr mentioned that "theories can not make practice but practice shapes the theories", origins and implications of deterrence theory can be traced through cases of historical evolution of international arena from the realist perspective of IR. Indeed, deterrence as a formal theory, is thought to be a sub-division of realist school. Realism as a state-centric approach, historically rooted in the account on Peloponnesian War by Thucydides in 4000 BC; stemmed from Hobbesian inborn selfishness and self-help principle; deeply codified by Morgenthau in terms of power relations and transformed into a systemic framework by Waltz[88]. This school of IR assumes that in the absence of a supreme authority in international arena, states as the main actors exist in an anarchic environment. As a result, en route to survival, they need to maximize power based on capabilities aiming at having the possibility of control against others. Thus, such an intention of power maximization of states might trigger a clash of interests unless it would not have been balanced. Classical deterrence theory builds upon this theoretical base, and extends its domain, by considering the consequences of war in the nuclear age. In this regard, it might be argued two distinct, yet compatible, theories: structural (or neorealist) deterrence theory and as Zagare referred decision-

[88] For a detailed debate on the issue see Glaser, Charles; "Why do Strategists Disagree About the Requirements of Strategic Nuclear Deterrence?"; ed. In Eden, Lynn and Miller, Steven E.; *Nuclear Arguments: Understanding the Strategic Nuclear Arms and Arms Control Debates*; (Ithaca: Cornell University Press, 1989); pp123-187.

theoretic deterrence theory[89]. Both of these approaches share a common background of realist school in international relations.

Like traditional balance of power theorists, structural deterrence theorists see the key to international stability in the distribution of power –within the system, in general, and among the great powers in particular. Most structuralists hold that when a parity relationship is combined with the enormous absolute costs of nuclear war, a deliberate (i.e. rational) war is at once unthinkable and virtually impossible. Those who subscribe to this view see the nuclear balance as unusually robust and stable, and credit the absence of a major superpower conflict in the post-war period directly to the enormous destructive power of nuclear weapons.

Unlike structural deterrence theory, which finds the key to interstate stability in the structure and distribution of power, decision-theoretic deterrence theory focuses on the interplay of the outcomes, preferences, and choices in determining interstate conflict behavior. The game includes both formal and informal rational choice (expected utility) analyses and subsequent game-theoretic refinements[90]. As the primary difference, decision-making theorists consider the micro situations of individually shaped policy-making process in which "crazy states and/or leaders" that hold NBC weapons are in question. In contrast, structuralists intended to see states as like-units which have similar rationalities in regardless to their unique features such as Great Britain in 18th and 19th century and nowadays'

[89] Zagare; Frank C; *Perfect Deterrence*; pp.8-30.

[90] Ibid...pp.16.

"rogue states." From the point of decision-making deterrence theory, nuclear war is so costly that only an irrational leader could consider it a means of conflict resolution[91].

To simulate the process of the decision-making in a possible nuclear confrontation, theorists generally use the model of chicken game. According to this, teenagers who represent authorized persons for deciding the use of NBC weapons, drive cars towards each other at high speed that will modeling the (un)intended escalation of disputes among states. The first driver to swerve was the "chicken" who would be disgraced, naturally, not swerving, was much worse, for both drivers. In this modeling, all parties first prefer to win by making opponent as disgraced. Second choice is to cooperate either by conceding the advantage to the opponent of mutually remain the status quo. Conflict, which implies the defection of both sides will be the least preferred. In consequence, theorists argue that any CBRN exchange would be the result of a series of irrational acts realized by mutually responsible authorities.

Chicken captures well the underlying assumptions of realism in general and classical deterrence theory in particular. When analyzed as a non-cooperative game in which binding agreements are not permitted, it mirrors the anarchy condition; as a non-zero-sum game, it captures the general understanding among classical deterrence theorists that, in the nuclear age at least, states have a common interest in avoiding war, and as a two-person game, it starkly reflects the bipolar post-war international system[92].

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[91] Ibid.

Each therefore, touching upon deterrence by western scholars started in the meantime of Korean War soon after Soviet Union firstly tested atomic bomb in 1949 and dawn of the discovery of hydrogen bombs –U.S. tested first bomb in November 1952 before less than one year when Soviet Union exploded first hydrogen bomb in August 1953. In 1953-54, the strategy of massive retaliation developed by Eisenhower administration was brought into focus. Notwithstanding, the efforts of Soviets for balancing the nuclear warheads resulted with success. Besides, the U.S. denial of French request for support in struggle against Ho Chi Minh in Indochina and preference of conventional weapons in fights of Lebanon in 1958 showed U.S. administration the inefficiency of massive retaliation. Thus, in the beginning of 1960s demonstrated a change in the strategic environment to flexible response and the concept of selective targets. In fact, the process of nuclear balancing had started in 1957, when Soviet Union tested its first Inter Continental Ballistic Missile (ICBM) in August and launched Sputnik in October. Kennedy administration and especially the Secretary of Defense Robert Macnamara, tended to shift the emphasis from civilian targets to sole military centers for decreasing the affect of a possible nuclear confrontation. Meanwhile, U.S. tested its first ICBM in 1959 and placed them into underground silos, trains –in fact it was a Soviet originated stockpiling style- and submarines for holding the second-strike capacity after elimination of its nuclear monopoly. As a result, for a short time in the late 1960s, U.S. had an over kill capacity due to its outnumbered warheads and delivery vehicles. However, after Anti Ballistic Missile Treaty (ABM) in 1972 and emergence of Multiple Independently Re-Entry Vehicle (MIRV) and Submarine Launched Ballistic Missiles (SLBM) such

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[92] Ibid. pp.18.

a doctrine lost its plausibility. Similarly, the doctrine of limited nuclear war, which suggested excluding non-combatants from nuclear exchange, became unpopular not only due to new strategic environment but also the concerns of U.S. allies based on being the theatre in a possible tactical nuclear weapons exchange. Therefore, in the beginning of 1970s, both powers had a sustainable second-strike capacity that was deployed in resistant bunkers, silos, trains etc. For this reason, nuclear deterrence started to work more constantly due to the stability provided by nuclear balance[93].

To make a long story short, traditional deterrence context has been transformed especially since the 1990. Although five nuclear weaponized states recognized by the Treaty on the Non-Proliferation of Nuclear Weapons Treaty (NPT) have again declared their will for an ultimate elimination of their nuclear arsenals at the 2000 NPT Review Conference, 1990s has witnessed with a remarkable differentiation and increase not only in the quantity of ballistic missiles around the world but also in terms of their promoters[94]. Besides, both deterrence models mentioned above has evolved from a nuclear learning process, an experience derived largely from the East-West, primarily U.S.-Soviet competition. From this perspective, although the East-West relationship was fraught with potential danger, a sui generis order and stable was shaped that has by-passed the bloc rivalries. One the one hand, specific acknowledged states have exercised potential power of nuclear

[93] Gaddis, John Lewis; *The Long peace :Inquiries into the History of the Cold War*; pp. 21-87.

[94] For an overview see, Aaron Karp, "The Spread of Ballistic Missiles and the Transformation of Global Security ," The Nonproliferation Review; Vol.11, No. 7; Fall/Winter 2000; pp.106-122.

weapons in ordering and balancing the stability; on the other they have kept other states from acquiring such capabilities that would shake the strategic stability[95].

In general traditional deterrence theory entails five basic premises: vital objective of managing (in)stability rationally via awareness of credible capabilities and threats of all related parties and unique characteristics of the WMD, but especially nuclear weapons which would be perceived through effective communication methods.

First, the concept of stability is defined in classical deterrence simply as absence of mutually assured destruction (MAD) in terms of interstate relations[96]. Secondly, in traditional deterrence theory, rationality forms the basis of decision-making process. Three different rationality concepts can be considered: Substantial, procedural and instrumental. While substantive rationality involves judgments about value preferences such as rational choice of being against murders or life over death; procedural rationality suggests resulted decisions after typical ends-means calculations by aware actors of international arena in terms of others' perceptions and probable behaviors. Beyond these, instrumental rationality puts relative preference among limited numbered options. In other words, actors implement deterrence as a consequence of cost-benefit analysis and choose an option which would be relatively more suitable and applicable for that specific environment. Therefore, policies that

[95] For a commentary on this development see Nye, Joseph Stephen, "Nuclear Learning and U.S.-Soviet Security Regimes," International Organization; Vol.41, No.4; Summer 1987; pp.371-402.

[96] See Schelling, Thomas C. and Halperin, Morton Harold, *Strategy and Arms Control*; (New York: The 20th Century Fund, 1961); pp.124.

may seem opposed to former rationality concepts which are more macro perspectives may be visible and doable for the latter one[97]. However, in all mentioned above, units of the international system would conduct policies in a highly risk averse whereas all are aimed at safeguarding their survival and prompting their interests. Nevertheless, this can not change the famous motto of Thomas Schelling about the definition of deterrence as "the threat that leaves something to chance[98]" which implies the possibility of uncertainty in calculating the actions of units.

Thirdly, if stability was the Heaven and rationality was the Holy Book; credibility would be the God's himself. If you do not believe in and know, you will not read the book thereby cannot reach to the Heaven. In other words, a threat could not be effective unless an adversary believed that would be implemented. Besides, appropriate capability involved a complex consideration of what sort of force structure would be required to deter a particular adversary. This force structure came to be defined not only as the ability to deliver nuclear weapons to designated targets, but also required the possession a sufficiently survivable force capable of retaliating after an initial attack[99].

Fourthly, WMD and especially nuclear weapons have been considered as the foremost mass destruction leverages, the world history has ever witnessed.

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[97] Zagare; Frank C; *Perfect Deterrence;*pp. 38-39

[98] Schelling Thomas, The Strategy of Conflict,pp.41 and see also Ayson, Robert; "Bargaining with Nuclear Weapons: Thomas Schelling's General Concept of Stability"; Journal of Strategic Studies; Vol.31, No.23; June 2000; pp.48-71.

[99] See Schelling, Thomas C.; *Arms and Influence*; (New Haven CT: Yale University Press, 1966); pp.134.

Therefore, as the fifth criteria; such an immense annihilation option ought to be recognized by an effective communication of threat which concerned the channels and language of communication. It is necessary to communicate an intended threat effectively to an adversary, as any miscommunication, misunderstanding, or misperception could lead to confusion about what responses would follow a particular action[100].

As a result, classical deterrence emphasized on prevailing in ceteris paribus –means keeping all other variables constant- in terms of protecting the status quos among states but mostly between great powers en route splendid existence of balance. Thus, interconnection and clarifying the perceptions and thoughts of those parties became crucial due to their necessity for taking decisions rationally as well as being aware of capabilities and threats.

4.3- "The Challenge":

Indeed newly emerged international environment that contains engagements out of rules based upon classical deterrence requires revisiting theoretical background. To this extend, Darrly Howlett's rapprochement about defining ideal types as "established", "semi-established" and "non-established" deterrent relationships. To him, established deterrence relationships are characterized by a high degree of institutionalization (formal or informal), primarily between two states or

[100] See Brodie, Bernard, ed.; *The Absolute Weapon*; pp. 83-84.

alliances. This type of arrangement could generate two potentially significant features. First, it may lead to a reasonable degree of expectation about future behavior. Second, prior historical experience and collective institutional memory may lead to the evolution of a common understanding concerning the requirements of stable deterrence. In a semi-established deterrence relationship, measures to regulate competition and mutual understandings concerning stability are in their formative stages. Some institutional procedures have been established, but the learning curve has not yet generated nuclear regulatory rules and procedures that are accepted by all parties. Non-established deterrence refers to those relationships in which different types of capability that could establish the basis for deterrence exist, but without any historical and procedural (formal or informal) interaction between any of the relevant parties about the meaning of stability or the regulatory rules for their relationships.[101]

Alongside, a wide array of various backgrounds that constitutes different perceptions about what indicates (ir)rationality, necessitates a reconsideration of this concept. Although, according to a another view which implies that preeminent existence of nuclear weapons by-passes such a relativity; determining cost-benefit analysis and calculations for non-state actors still lacks due to that interstate based paradigm. In depth, changing international and/or domestic environment that would lead to relative understandings of rationality could not change the balance of terror perceived by states in the Cold War era. Moreover, demise of Soviet Union has not made a deep impact on the strategic thinking of Russian elite concerning WMD apart from some reductive and regulative agreements. A similar point of view occurred in

[101] Howlett, Darryl; "New Concepts of Deterrence"; Center for Non-Proliferation Studies, Occasional Paper No.5; 2002; pp.21.

the Gulf War in 1991. While Iraq was launching Scud Bs to Israel in a hope to trigger an Israeli retaliation with WMD; Israeli and obviously U.S. strategic planners considered that Saddam Hussein would not fire a Scud missile with a NBC warhead even if he was an irrational ruler in terms of Western philosophical tradition[102].

However, such a prevailing nuclear taboo with regardless of cultural relativity among states may not be relevant in a situation that contains basically non-state actors, in particular terrorist organizations. Thus, it may dig a hole in the rationality criteria of traditional deterrence theory.

Although in the post Cold War era, there will be a remaining trend to settle down disputes within the aspect of interstate paradigms; growing threat posed by transnational terrorism at large; and breakthrough created by 9/11 in particular in the immediate aftermath of the demise of bipolar system, has been undermining classical approaches concerning deterrence theory[103].

As aforementioned, robust intelligence and efficient communication capabilities regarding weaker and stronger sides of foes were laying the foundations of classical deterrence theory that permitted states to calculate rational cost and profit analysis. However dissolution of the Soviet Union following the end of the Cold War has pawed the way for procurement of every kind of different WMD including

[102] See Tannenwald, Nina, "Nuclear Taboo"; International Organization; Vol. 46, No.53; Summer 1999; pp.433-468.

[103] From 1968 to present, the types of incidents that comprise the chronolgies used in the ITERATE (international terrorism: attributes of terrorist events) textual and numeric datasets have the following attributes: The major death tolls are steadily growing and dramatically increased after the 9/11. For more details see ITERATE index in the Source: www.ciao.net/database/iterate/conclusion.htm; date: 11.10.2003, 21:20.

weaponry systems, raw materials, delivery systems and even know-how of collective experienced memory depended upon elite scientists. Needless to say, this period may probably lead proliferation of WMD throughout the globe including terrorist organizations. In response to this, states can implement more classical approaches based on interstate paradigms and may account on other states just as Israel's retaliation towards Syria due to terrorist infiltration originated from Lebanon or US's reprisal to Sudan and Afghanistan after the terrorist bombings in US Embassies of Kenya and Tanzania.

CHAPTER - V

ASYMMETRICAL DETERRENCE

To finalize with the touchstones and basic parameters of asymmetrical deterrence theory, the "challenging threat" should be redefined conforming with revisiting the deterrence theory with its critics. In the previous chapters, this paper directed its efforts at conceptualizing NBC terrorism on the basis of asymmetrical threat perception on the one hand; and recalling the classical premises of deterrence on the other. At this juncture, it will concentrate on the quest for an asymmetrical deterrence framework in reference to the shortcomings of classical theory of deterrence in the post cold war era as well as emerging new array of threats based on asymmetricism.

4.1- The Challenge – II:

In the post cold war era, some analysts concluded that deterrence, and all its attendant concepts, are no longer relevant. Regional and ethnic conflicts seem sure to dominate the new millennium, so the argument goes, and therefore deterrence theory can be safely relegated to the dustbin of history. Notwithstanding the recent accession of India and Pakistan to the nuclear club, the inter-state war between NATO and Serbia, and the inevitable proliferation of WMD, revisiting the theory of deterrence became a *sine quo non.*

First, the news of deterrence's death is most assuredly premature, if only because it remains the cornerstone of the defense policy of the U.S. and many other countries. For example, the Report of the Quadrennial Defense Review of U.S. Department of State in 1997 boldly asserted that "the primary purpose of U.S. forces is to deter and defeat the threat of organized violence against the U.S. and its interests." Also, a 1997 Presidential Decision Directive, based on Quadrennial Defense Review, made deterrence (not warfighting) the primary mission of U.S. nuclear forces. This directive indeed, represents the first major change in U.S. policy for deploying nuclear weapons since 1981, and thus marked officially the shift of U.S. policy goals away from winning a nuclear war toward preventing one. Besides, in the White Paper of the Ministry of National Defense of the Republic of Turkey, it is clearly assumed that symmetrical threats have been replacing with asymmetrical ones so as to say deterrence will at least remain of its importance. Accordingly[104],

[104] *Defense White Paper 2000*; part IV "TURKEY'S DEFENSE POLICY and MILITARY STRATEGY"; section I "TURKEY'S NATIONAL DEFENSE POLICY"; pp.1-2.

"the traditional concept of threat has now started to contain new threats and risks emerging in the form of:

– Regional and ethnic conflicts,

– Political and economic instabilities and uncertainties in the countries,

– Proliferation of weapons of mass destruction and long-range missiles,

– Religious fundamentalism,

– Smuggling of drugs and all kinds of weapons and

– International terrorism.

In that sense, Turkey's military strategy contains four important matters to be able to support the specified defense policy:

– Deterrence,

– Military Contribution to Crisis Management and Intervention in Crises,

– Forward Defense and

– Collective Security.

And deterrence refers to maintaining a military force that will provide a deterrent influence on the centers of risk and threat in the environment of instability and uncertainty surrounding Turkey constitutes the foundation of the National Military Strategy." In terms of deterrence, although a narrow military contend was accepted, the concept has been keeping in the defense agenda.

Source: http://www.msb.gov.tr/Birimler/GnPPD/pdf/p4c1.pdf; date: 13.10.2003, 20:15.

Furthermore, when it is looked towards the non-western policies of deterrence, it can be clearly observed that the potential influence of NBC weapons, particularly nuclear weapons remains of crucial importance. In the Indian and Pakistani sources, it has been subsequently focused on functioning the deterrence relationship among India, Pakistan, China and even Russia. In addition, the research and development programs are targeted to manage not only high altitude inter-state conflicts but also low-scale intra state and asymmetrical clashes. Moreover, the security communities in those countries have initiated defense projects based on scenarios for retaliating stateless foes via unconventional means. As a result, neither the global powers, nor the major regional members of nuclear club seem to discard deterrence as a strategy[105].

However, this steadfastness towards deterrence has not been followed by the noteworthy scholars in the international relations. Weapons of Mass Destruction, particularly nuclear weapons, and the Cold War grew up together and found their identities in that historical relationship. The end of the Cold War demands that political leaders and military planners review what is knew about the NBC weapons and Cold War relationship. If the Cold War is now a political artifact, a sort of residue, are theories regarding NBC weapons will follow the suit? Some have so argued, but others maintain with equal assertiveness that the post Cold War world will have a place for such theories.

[105] Hasim, Ahmed S.; "The Revolution in Military Affairs Outside the West"; Journal of International Affairs; Vol.32, No.42; Winter 1998; pp.49-53.

Indeed, the main reason rests with the enduring effectiveness of deterrence is their universal characteristic that is relevant across time and space. Furthermore, it operates across a wide variety of contexts and environments[106]. That is why this paper does not restrict itself in a mere inter-state level of analysis in discussing deterrence.

Nevertheless, the context of deterrence has changed, and being eroded dramatically since the end of the Cold War. Actions for deterrence and for being deterred are now taking place in a dynamic and changeable process. In the connection with the nuclear threat, issues of proliferation, while conventional forces are becoming increasingly important, will remain of crucial significance. In fact, at the core of the concept of deterrence is the known ability to inflict damage that the opponent will view as unacceptable. Therefore WMD have come to be closely associated with deterrence because of their well-known ability to cause mass destruction and casualties Although the drift of events and world power structures appears to favor reserving NBC weapons to be used only to deter the use of NBC weapons, including their use in extended deterrence –the concept refers to the umbrella extended over a country's allies to protect their homelands, as well as its own, from attack, their potential use as a deterrent against conventional attacks in some future circumstances cannot be totally ruled out as the extended deterrence posture will remain of paramount importance[107].

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[106] Cioffi-Revilla, Claudio; "Ancient Warfare: Origins and Systems"; ed. in Midlarsky, Manus I.; Handbook of War Studies II; (Ann Arbor: University of Michigan Press, 2000); pp.234-236.
[107] Ibid...pp.278.

The other weapons that produce mass casualties –chemical and especially biological weapons-are coming to be of increasing concern, because they may be wielded by terrorists or states who do not subscribe to the commonly accepted tenets of international norms. Considering the incidents in a sample period, 1999-2000, in terms of looking for NBC material usage for terrorist activities shows dramatic consequences.

Table 1: Terrorist Incidents per year[108]

Year	Incidents	Hoaxes	Total
1999	27	49	76
2000	49	25	74
2001	25	107	133
2002	23	71	94

[108] Turnbull, Wayne and Abhayaratne, Praveen; "2002 WMD Terrorism Chronology: Incidents Involving Sub-National Actors and Chemical, Biological, Radiological, and Nuclear Materials"; Center for Non-Proliferation Studies; 2003; pp. 2; source: http://cns.miis.edu. During 2002, the CBWNP staff reviewed over 260,800 open-source reports and selected 1,088 of them for further evaluation. It should be emphasized that since the database includes solely open-source material, certain shortcomings are inevitably present. In many cases, national and international media coverage of events is sporadic and dependent on the influx of local media sources. A further problem with open-source information collection involves relatively sparse coverage of international incidents in some regions, where the scarcity of accessible local media sources and Internet web sites can result in the omission of local incidents. Another possible shortcoming pertains to the representation of the data. Since the annual total of CBRN terrorist incidents is very low, a small increase or decrease in the number of cases could appear to be a significant trend shift, even though in absolute terms it is not. For example, the statement that attempted acquisition of chemical agents has doubled in 2002 might sound alarming, but in absolute terms this change involves an increase of only one case. A further problem is associated with the difficulty of predicting future events based on historical data. The fact that CBRN materials have so far not been used by terrorists to bring about a mass-fatality event does not necessarily preclude the possibility of such an event occurring tomorrow. However, empirical data for the year 2002 does not suggest that a mass-casualty CBRN terrorist attack is more likely than was suggested by previous years' reports.

Table 2: Incident by Type of Event[109]

Event	2000	2001	2002
Use of Agent	36 (6)U.S.	14(7 U.S./ 4 Australia/ 1 New Israel)	6(1 U.S/1 Europe/2 Latin America/1 Australia/1 Sub-Sahara)
Possession	6	3	8
Attempted	1	1	1
Acquisition	2	1	2
Plot Only	4	6	6
Hoax / Prank / Threat	25	603	71

5.2- Theoretical Underpinnings – II:

To continue with the theoretical challenges of the classical deterrence in order to accord it into asymmetrical threats, in a world that is not only anarchic but also bipolar, the fear of abandonment is exacerbated because junior partners can make only a marginal military contribution to a superpower ally's security. However, in the context of asymmetrical deterrence in the post cold war era, minor partners can make greater contributions in terms of providing necessary tools and spheres for potential target states as an ally. In that sense it may be useful to compare the general structure of the above mentioned terrorist organizations. Needles to say, Al-Queda is the number one actor in terms of estimated members and budget. It is thought to control 60.000 to 80.000 militants and an amount of 5 billion dollars to 10 billion dollars. Second best was Aum Cult with 3000-10000 members and a budget of 2 billion dollars to 6 billion dollars. Hamas, Revolutionary Armed Forces of Colombia (FARC), Hezbollah, PKK (Kongre-Gel) and Chechnya based organizations form the

[109] Ibid...pp.4

third level with militants around 3000 to 6000 and a budget reaches nearly 1 billion dollars[110]. However, these structures can not match with the capabilities of their target states. In that sense, although there is another debate on the issue of capabilities of them whether they can capable to attack vulnerabilities of target states via NBC material, when general capabilities are considered they can be regarded as either minor partners or transformed major partners of international relations and in anyway, asymmetrical deterrence entails to assume that terrorist organizations which aim at curbing and using NBC weapons are (semi) independent actors apart from state. This also implies that despite state-sponsored terrorism can be considered as wide-spread there may be terrorists who act independently from states and are hardly unidentifiable.

Such assumptions also underpin the asymmetrical characteristics of deterrence theory. To recapitulate the deficiencies of classical deterrence theory and the possible responses of asymmetrical deterrence, it is necessary to highlight the two major strands of it. As mentioned before, structural deterrence theory focuses on the impact of interstate power relationships in the deterrence equation. By contrast, decision-theoretic model highlights the interplay of outcomes, preferences, and rational choice of determining deterrence success and failure. Structural deterrence theorists argue that deterrence is most likely to prevail when the costs of war are high and belligerent states are in balance. Thus, the absence of a major superpower war during the cold war comes as no surprise to them. This is why they argue that quantitative arms race help prevent war (additional weapons increase the cost of

[110] Steinberg, Gerald M.; "Rediscovering Deterrence After September 11, 2001"; The Jerusalem Letter; December 2001; pp.17

war), why they contend that qualitative arms races and defensive weapons are destabilizing (certain weapons may reduce costs for one or both sides), and why some of them are in favor of managed nuclear proliferation[111]. It is interesting to observe that after Pakistan and India decided to test nuclear weapons in 1998, one leading Indian official claimed that Pakistan's tests were good for India. Another asserted that both sides' tests would secure the status quo in Khasmir. And a third asked, rhetorically, "If deterrence works in the West...by what reasoning will it not work in India?[112]" Given the low probability of war between nuclear equals, structural deterrence theorists conclude that the gravest threat to peace is an accident or mishap. Continuing where structural theorists leave off, decision-theoretic deterrence theorists presume that nuclear war is irrational. Consequently, the key to successful policy in the nuclear age lies in crisis management. The critical task is then to manipulate optimally an adversary's behavior and, at the same time, to avoid mistakes[113].

In the context of this age-old debate between structuralists and decision-making theorists, asymmetrical deterrence occupies a place whereby it derives assumptions from both grounds. While asymmetrical deterrence falsifies the mere inter-state relationships, it assumes that state efficiency, particularly coded as state-

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[111] See Waltz, Kenneth; "The Stability of the Bipolar World"; Daedalus; No. 93; 1964; pp.882-886; Gaddis, John Lewis; "The Long Peace: Elements of Stability in the Postwar International System"; International Security; Vol.32; No.10; 1986; pp.105-110; Mearsheimer, John J.; "Back to the Future: Instability in Europe After the Cold War"; International Security; pp.14; Snyder, Glenn H. and Diesing, Paul; *Conflict Among Nations: Bargaining, Decision-Making and System Structure in International Crises*; (Princeton: Princeton University Press, 1977); pp.450-453.

[112] Zagare, Frank C.; *Perfect Deterrence*; pp.287-288

[113] Ibid. 299.

sponsored ship can be a subject of asymmetrical deterrence. In other words, state parties may attempt to deter other states in order to prevent their support for NBC material to the terrorist organizations which will also deter those terrorists to the extend of incoming assistance. In July 2002, Russian special services participating in counterterrorist operations in the Northern Caucuses uncovered information that Chechen rebels were planning to use a potent poisonous substance to poison water and food supplies in Groznyy. Accordingly, the necessary material and know-how was coming from Arabian scientists stayed in Georgia for a civil project on environmental degradition[114]. In the immediate aftermath, Yuri Krokunov, chief adviser of Security Council of Russia on 22 August 2002 in Pravda and Mikhail Lysenko, deputy director of Security and Disarmament Department in Ministry of Foreign Affairs of Russia, stated one day later in Zevzetskaya that any NBC terrorism will be punishes by massive reaction that includes usage of unconventional weapons to the supporting states. Although those statements stimulated a few scholars in the world, Georgian President Edward Shevardnadze interviewed with a journalist from Pravda on13 September 2002 and mentioned that Georgia will take all necessary steps to prevent terrorists to use NBC material. Interestingly, he neither rejected the allegations nor talked about former efforts (if there were). In this micro-escalation spiral ended with compromise, it would not be irrelevant to consider deterrence.

[114] Turnbull, Wayne and Abhayaratne, Praveen; "2002 WMD Terrorism Chronology: Incidents Involving Sub-National Actors and Chemical, Biological, Radiological, and Nuclear Materials"; pp. 12; source: http://cns.miis.edu/pubs/reports/pdfs/cbrn2k2.pdf

Besides, asymmetrical deterrence includes so-called irrational actors into its agenda while assuming that they will also have some sort of rationality in terms of being deterred. Notwithstanding, it does not restrict itself with western-type rational man. Instead of that standardized understanding of rationality. It advocates a relative rationality based on different perceptions and understandings depending upon different values and norms. In that sense, the critical point is for a successful asymmetrical deterrence, the threat of punishment must be made on the basis of deterree's rationality rather than deterrent's.

In terms of empirical anomalies of classical deterrence classical deterrence theory seems to demonstrate the sole functional and working point of view that has explained the cold war period in terms of an absence of a major superpower war. That is why structural realism in general, and classical deterrence theory in particular, was, and is, "the dominant school of thought in International Relations theory[115]"

However, there is still a milieu of unanswered questions regarding the so-called splendid functioning of deterrence. Indeed those question marks in the minds are the grass-roots of debates carrying out on post cold-war deterrence concept, thus shape the touchstones of asymmetrical deterrence.

First of all, according to some of classical deterrence theorists, the main reason of the absence of a major superpower war relies under the fact that there was

[115] Buzan, Barry; Jones, Charles and Little, Richard; *The Logic of Anarchy*; (New York: Columbia University Press, 1993); pp.1.

an enduring "equality of power...among the major powers[116]". However, Waltz observed that if this would minimize the likelihood of war, World War I should never have been fought[117]. Even more, all major power wars for which there are reliable data have been fought under parity conditions, including the Franco-Prussian war, the Russo-Japanese war, WW II, the Seven Weeks War, the Crimean War, and the War of Italian Unification. Needless to say, classical deterrence theorists consider a balance of capabilities as a necessary, though not a sufficient condition, for deterrence stability. For peace to reign, warfare must be also excessively costly[118]. In this view, each of the "two pillars: bipolarity and nuclear weapons[119]" must be present before war can be considered untenable. To be sure, no major power war has occurred under conditions of nuclear parity. But it is also entirely possible that this perfect coordination is spurious –that nuclear war has been avoided not because of nuclear weapons, but in spite of them. A group of analysis indicates that in militarized interstate disputes at least, nuclear weapons do not afford any special advantage to states that possess them, whether or not another party to the dispute also has them[120]. As a result, there is a tendency implying that balance of power is not a splendid provider of peace.

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[116] Mearsheimer, John J.; "Back to the Future: Instability in Europe After the Cold War"; pp.16

[117] Waltz, Kenneth; "The Emerging World Structure of International Politics"; International Security; Vol.53; No. 18;1993; pp.77.

[118] Zagare, Frank C.; *Perfect Deterrence*; pp.25.

[119] Waltz, Kenneth; "The Emerging World Structure of International Politics"; pp.44.

[120] Zagare, Frank C.; *Perfect Deterrence*; pp.26.

In conformity with this assumption, asymmetrical deterrence, as it is asymmetrical, positions absolutely in contrast of balance of power due to the aiming at unilateral deterrence rather than mutual one. Moreover, NBC weapons are not primary means of asymmetrical deterrence due to the lack of sustainable clarity in traditional targets such as hidden caves of Al-Queda in Afghanistan, mixed dwellings of members of Aum cult in the cities of Japan or headquarters of Hamas at the center of refugee camps. In addition, the possible consequences may show an overkill capability in terms of handling WMD compared with structures of terrorist organizations even if they were revealed. Although there are some research and development efforts on tactical nuclear missiles and earth penetrating missiles, especially in the U.S.[121]; their relevance is debatable. Instead, asymmetrical deterrence suggests more emphasis on non-military means such as indirect delegitimization of terrorist causes through new foreign policies and creating as much as possible global stance against usage of NBC material for terrorism. Yet, the lack of a serious mass terrorist action via NBC material can be interpreted with the presence of a de facto global stance.

For instance, As Jonathan B. Tucker observed, "it was not surprising that the Japanese government's first policy response to the Tokyo subway incident was to ratify the Chemical Weapons Convention and pass domestic implementing

[121] Krepinevich, Andrew; "The Bush Administration's Call for Defense Transformation: A Congressional Guide"; Center for Strategic and Budgetary Assessments; 19 June 2001; source:http://www.csbaonline.org/4Publications/Archive/H.20010619.The_Bush_Administr/H.20010619.The_Bush_Administr.htm; date: 24.06.2004, 12:30.

legislation[122]". To continue with developments in this field, The 1993 Chemical Weapons Convention, the cornerstone of the chemical weapons nonproliferation regime, requires parties to eliminate all stocks of chemical weapons and permit international monitoring of both government and commercial facilities to verify compliance. In force for only five years, the treaty has already made progress toward reducing the threat from national chemical weapons programs. Nine of the countries previously identified by the United States as chemical weapons proliferation concerns—Russia, China, Iran, Ethiopia, South Korea, India, Pakistan, Sudan, and Vietnam—have become parties to the convention. Two countries that had not acknowledged possessing chemical weapons, South Korea and India, have now declared stockpiles, and 11 countries, including Russia, China, Iran, South Korea, and India, have declared current or past production facilities. Besides, there have been similar developments regarding biological weapons. The 1972 Biological and Toxin Weapons Convention was widely viewed as a milestone in the history of arms control, because it was the first international treaty to outlaw an entire category of weapons of mass destruction. The treaty, however, included no provisions for enforcing compliance. At the time, little was known about other countries' biological weapons programs. Since the early 1990s, the United States has used a variety of nonproliferation assistance programs to ensure that former Soviet chemical and biological weapon scientists, equipment, and materials do not contribute to foreign chemical and biological weapons efforts. Under these programs, the United States is helping design and building of Russia's first nerve gas destruction facility, at Shchuchye, and dismantles or converts to peaceful purposes former chemical

[122] Tucker, Jonathan B.; *Toxic Terror: Assessing Terrorist Use of Chemical and Biological Weapons*; (Cambridge: MIT Press, 2000); pp.89.

weapons production facilities at Volgograd, Russia, and Nukus, Uzbekistan. The world's largest anthrax production facility, at Stepnogorsk, Kazakhstan, has been dismantled, and thousands of former biological weapons scientists have received funding for collaborative research with U.S. scientists on both public health and bio-defense-related projects. Security has also been tightened at culture collections around the former Soviet Union. But much more remains to be done. Moreover there are further steps to criminalize the biological and chemical activities regarding terrorist organizations. Although both the chemical and the biological weapons conventions require parties to prohibit on their territory any activities that are banned under the treaty, both conventions focus principally on the actions of states, not individuals. And neither requires parties to establish criminal jurisdiction over foreign nationals on their territory who have engaged in prohibited activities elsewhere or to conclude extradition arrangements. To help fill this gap, the Harvard Sussex Program has drafted a treaty making it a crime under international law for anyone knowingly to acquire or use chemical or biological weapons or to help others do so. At the end of April, the British government endorsed the negotiation of such a treaty. As provided by treaties on aircraft hijackings, hostage taking, and the theft of nuclear materials, anyone committing a prohibited act would be subject to prosecution or extradition if apprehended on the territory of a party to the treaty. The United States should work with the UK to press for an international convention criminalizing chemical and biological weapons activities by individuals. If prevention fails, first, it should exhaust all reasonable diplomatic efforts, particularly those outlined in international treaties or UN resolutions. Second, it should have solid evidence about both the nature and the location of the weapons activities. Third, it

must be reasonably sure that military force will achieve the desired result. Finally, it must keep collateral damage to a minimum to avoid exposing others to the very weapons its use of force is designed to suppress[123].

Furthermore, just as parity conditions are not associated with peace, there is no clear association of conflict with power asymmetries. Apparently, even when the motivation exists, states do not automatically act for their favor. Indeed the absence of a superpower conflict during the period in which U.S. enjoyed nuclear superiority constitutes the foremost empirical puzzle for classical deterrence theory[124]. To explain this anomaly, that clearly forms an exception to the standard realist assumption that all states are "undifferentiated" power or security maximizers, and its corollary that "all other states are potential threats.[125]" Therefore, like Great Britain during the heyday of 19th century balance of power politics, the U.S. was considered exempt from Morghenthau's famous dictum that "statesmen think and act in terms of interests defined as power[126]". Likewise, the Sino-Soviet dispute demonstrates that the power imparity do not automatically lead to an outbreak of a war. Particularly, the question that should be asked is why Soviets did not wage a war when the U.S. credibility was at stake and their capability superiority was absolute[127].

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[123] Harris, Elisa D.; "Strengthening Existing Treaties Chemical and Biological Weapons:Prospects and Priorities After September 11"; The Brookings Review, Summer 2002; source: http://www.brookings.edu/press/REVIEW/summer2002/harris.htm; date: 22.03.2004, 13:30.

[124] Zagare, Frank C.; *Perfect Deterrence*; pp.28.

[125] Mearsheimer, John J.; "Back to the Future: Instability in Europe After the Cold War"; pp.12.

[126] Morghentau, Hans; *Politics Among Nations*; pp.6.

[127] Zagare, Frank C.; *Perfect Deterrence*; pp.29.

To turn for asymmetrical relations, although disparity of capabilities forms one of the basic elements of asymmetrical relations, it will not automatically trigger a clash. Indeed, the nature of the asymmetrical relations based on unbalance of powers. As a result, classical deterrence assumptions can not be applied. Interestingly, the invalidity of balance of powers assumption for a successful deterrence equivocally confirms the relevancy of a possible deterrence relationship among differentiated units.

For this reason, neither is the balance of power the mere guarantee of deterrence; nor does the lack of it inevitably cause wars. Therefore, asymmetrical relations can be the subject of deterrence.

Another serious discrepancy between theory and practice is evident in the actual behavior of states during acute crises and other periods of intense conflict. For instance, in the empirical examinations of Young "decision-makers acted to retain wide freedom of choice as long as possible and to avoid becoming boxed into an irrevocable position.[128]" Similarly, Snyder and Deising's analysis of sixteen major interstate crises, including some dating back to the 19th century, reveals that strongly coercive tactics such as physically irrevocable commitments or severe committing threats are rarely used[129]. Moreover, it is also telling that Snyder and Diesing could find but one instance of a political leader feigning irrationality (Hitler in 1938 and 1942) to gain a tactical advantage in a crisis. As a result, escalatory maneuvers

[128] Young, Oran R.; *The Politics of Force: Bargaining During International Crisis*; (Princeton: Princeton University Press: 1968); pp. 218.
[129] Snyder, Glenn H. and Diesing, Paul; *Conflict Among Nations: Bargaining, Decision-Making and System Structure in International Crises*; pp.489-490.

culminate in war as opponents rather than "chickening-out", choose to stand firm and resist. Thus decision-theoretic deterrence theory suffers as a descriptive tool because it is unable to account for the behavior of either the challenger or the defender in precisely those dramatic and dangerous interactions it purports to explain. Therefore, the standardized and stereo-type rationality models based on inter-state levels of analysis on decision-making and action-taking models can not be sufficient for explaining a broad range of multi-dimensional and multi-faceted levels of conflict among actors in international relations in general, and asymmetrical threats based on NBC terrorism in particular.

Empirical difficulties aside, decision-theoretic deterrence theory also suffers from a more fundamental deficiency: in its standard formulation, it is logically inconsistent. Or as Gaddis tactfully puts it: "logic, in this field, was not what it was elsewhere.[130]"

To demonstrate the problem, it is necessary to consider again the Chicken model. Recalling that Chicken encapsulates the underlying theoretical framework of classical deterrence theory, especially the presumption that conflict in the nuclear age is at once unthinkable and irrational, the critical assumption is the defining characteristic of the Chicken. If one accepts this characterization, and the presumption that Chicken accurately reflects the structural and psychological conditions of a bipolar nuclear relationship, then the problem with the theory is clear:

[130] Gaddis, John L.; *We Know Now: Rethinking Cold War History*; (New York: Oxford University Press, 1997); pp. 101.

assuming (instrumentally) rational players, the status quo should not often survive. Crises should be common and general deterrence should fail on a regular basis[131].

Generally speaking, studies in the mainstream deterrence literature have focused on what is called forceful persuasion, much to the neglect of tactics designed to enhance the prospects of peace by addressing a common root cause of conflict: dissatisfaction with the existing order. As Van Gelder observes, "it is too often forgotten that successful deterrence requires not only that the expected utility of acting be relatively low, but that the expected utility of refraining be acceptably high.[132]" Besides if "all other states are potential threats[133]," as Mearsheimer asserts, dissatisfaction with the status quo can only be a constant. In asymmetrical deterrence theory, satisfaction and dissatisfaction are variables. When dissatisfaction is relatively high, deterrence stability becomes increasingly tenuous.

Within this framework, first, a deterrence theory that is thought to be settled for asymmetrical threats, should keep away from to emphasize on mere inter-state level of analysis even explaining terrorist organizations' behaviors. Second, a possible success of asymmetrical deterrence should not depend upon the pure cost-benefit analysis in terms of psychical damage. Third, the size or the number of the weapon usually does not matter for assessing whether an asymmetrical threat exists or not. Fourth, asymmetrical relationships may not contain a standardized and

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[131] Zagare, Frank C.; *Perfect Deterrence*; pp.31.

[132] Van Gelder, Timothy J. " Credible Threats and Usable Weapons: Some Dilemmas of Deterrence"; Philosophy and Public Affairs, Vol. 44; No. 18; January 2003; pp. 163.

[133] Mearsheimer, John J.; "Back to the Future: Instability in Europe After the Cold War"; pp.12.

stereo-type rationality like in the Cold War calculations, thereby will probably involve relatively different reactions in response to same actions.

Besides, asymmetrical deterrence should keep in the mind that deterrence is a strategic concept evolved in the Cold War and to achieve deterrence one must anticipate the possibility of a hostile action, detect its potential onset, and then dissuade the would be aggressor(s) from undertaking it, by posing a credible threat of punishment the aggressor would find unacceptable and, especially, a promise that success of the aggressive action will be denied. This general answer to the question of what deterrence is do not change even today but more vitally, the new enigma starts with the phrase "how".

In that context, there is a paramount need to revisit the concept of rationality to understand the possible affects of state actions over decision-rhetoric of terrorist organizations.

5.3- "Rationality":

In the new debate over the continuity of classical deterrence, one of the sides argues that the essentials of rational deterrence theory, as potentially applied to the newer "regional" contexts, remain intact; specifically, that there is no reason why the same deterrence calculations that applied to the U.S.S.R. during the Cold War should not apply to the contemporary international framework. In that sense, they

initially exclude the irrational actors from the context of deterrence, whereby only rational states are subjects of theory. The opposing side, which is also advocated in this thesis, argues on the grounds of questioning assumptions about rationality, different and new types of balances of interests and resolve, geographic factors related to propinquity, and the issue of regime as well as national survival, among others[134].

In thinking about deterrence relationships, the key is to focus on the orientation of the organism both as an individual and as an organization within a culture and an environment that can affect its or their calculations of potential risk, loss and gain. In particular, this analysis should seek to identify the relevant needs, vulnerabilities, ideas, feelings, and experiences that are most likely to elicit certain behavioral responses. In respect of rationality in asymmetrical deterrence, the attempts to shape decision modeling and reasoning of the aggressor (who may not think himself/herself aggressor) may be useful. In attempting to define reasoning analytically, one could the structure the problem in several ways. This paper preferred to employ the concept of limited rationality that implies that decision-takers (1) attempt to relate means to ends (their decisions and actions have purpose); (2) consider a range of options; and (3) evaluate those options in terms of likely outcome, most favorable outcome, and worst-case outcome. However, their decisions may be flawed because of incomplete or incorrect information, the mental frames through which information is viewed, anxieties, extreme dissatisfaction with the

[134] See Harkavy, E. Robert; "Triangular or Indirect Deterrence/Compellence: Something New in Deterrence Theory?"; Comparative Strategy, January–March 1998, pp. 42-80 for a detailed analysis of this debate.

status quo, erroneous mental models of the other protagonists, and other factors whereby limited rationality allows for a wide variety of such cognitive errors[135].

Second, in retrospect the American theory of (nuclear) deterrence which underpinned, and sometimes guided, our strategic behavior in the Cold War, looks to have been nowhere near as magisterial as was believed at the time. Our theory, and attempted practice, of deterrence, assumed an effectively culture-free rationality. The problem is not the irrational adversary; instead it is the perfectly rational foe who seeks purposefully, and rationally, to achieve goals that appear wholly unreasonable to us. American strategic thinkers have long favored the fallacy that Rational Strategic Persons must think alike. More specifically, rational enemies are deterrable enemies. Second, it is highly probable that the modern theory of (nuclear) deterrence, the proudest accomplishment of the golden decade of U.S. strategic thought (1954-66), was, and remains, vastly more fragile than two generations of American strategic thinkers believed[136]. As Michael Desch has observed, the development and deployment of absolute weapons by the United States and the Soviet Union led many to anticipate that this technology would encourage both superpowers to behave roughly similarly. Nuclear weapons were so destructive that they made cultural differences largely irrelevant. Instead, the nuclear revolution ushered in general theories of strategic behavior such as deterrence theory, inspired by the assumptions (homogeneous rational actors) and methodology (rational choice) of economics. Such

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[135] Morgan, Patrick M.; *Deterrence: A Conceptual Analysis*; (Beverly Hills, CA: Sage, 1983); pp.84-86.

[136] Payne, Keith B.; *The Fallacies of Cold War Deterrence and a New Direction*; (Lexington, KY: University Press of Kentucky, 2001); pp.46-51.

rational-actor theories of strategic behavior dominated Cold War national security studies in the 1950s and early 1960s[137].

Apart from, even for the structurally simple, bilateral world of the Cold War, there are serious grounds to doubt whether the dominant American theory of deterrence and strategic stability was shared by the adversary asymmetrical relationships based on disparity among interests, goals, motives, norms, values and capabilities surely ignores the standardized rules for perceiving events in the world[138]. In addition the American theory and attempted practice of deterrence suffers from a potentially fatal confusion of rationality with reasonableness. Much tends to be made in popular commentary of the issue of whether or not particular foreign leaders are, or are not, rational. The assumption is that rational foes must share a uniform strategic logic, or at least ought to be readily accessible to its unmistakable contingent menaces. More often than not, when the Western media worries about what it labels as irrational enemies or behavior, it is really referring to enemies and behavior that are judged unreasonable. The point that requires wider understanding is that to be rational is not necessarily to be reasonable, by a stereo-type standard. Rather is the problem one of enemies whose entirely rational behavior purposefully connects policy instruments (e.g., suicide bombers) with policy objectives that are an affront to specific values, including international legal and moral norms. Keith Payne has explained this problem: f rationality alone fostered reasonable behavior, and then only in the rare cases of manifestly irrational

[137] Desch, Michael C.; "Culture Clash: Assessing the Importance of Ideas in Security Studies," International Security, Vol. 23, No. 1, Summer 1998, pp. 145.

[138] Payne, Keith B.; *The Fallacies of Cold War Deterrence and a New Direction*; pp. 66-73.

leaderships would we likely be greatly surprised. Assuming challengers to be pragmatic and rational, and therefore reasonable, facilitates prediction of their behavior simply by reference to what we would consider the most reasonable course under their circumstances; the hard work of attempting to understand the opponent's particular beliefs and thought can be avoided. Such an opponent will behave predictably because by definition, it will view the world in familiar terms and will respond to various pushes and pulls in ways that are understandable and predictable. Contrary and surprising behavior would be senseless, "irrational."

In short, the U.S. defense community had invented a Rational Strategic Person who should behave as American strategic theory predicted which is to say, by definition rationally and as a matter of optimistic assumption, reasonably. In other words, cultural differences that prevent accurate understanding of shared meanings between states can confound deterrence as practiced according to one side's theory. As Payne notes with regard to the potential for deterrence failure in the post Cold War period: "Unfortunately, our expectations of opponents' behavior frequently are unmet, not because our opponents necessarily are irrational but because we do not understand them –their individual values, goals, determination and commitments- in the context of the engagement, and therefore we are surprised when their "unreasonable" behavior differs from our expectations.[139]" This indeed, constructs one of the main pillars of asymmetrical deterrence.

[139] Ibid...pp. 158.

In classical terms, deterrence depends on uncertainty but not on the uncertainty of consequences. It depended for its credibility on the uncertainty of decisions making by crisis-bound leaders. However, in the climate of asymmetrical threats, in addition to unrevealed options scale for asymmetric actors in terms of their (counter)actions against their target countries, there is also the occurrence of unclear possibilities about consequences. For the part of former, in the immediate aftermath of the Cold War, there is a lack of collective institutional memory provided by a learning curve in terms of repeated actions, modalities and solid experiences that would project scenarios for decision-makers to a reasonable degree of prediction –a degree that leaves something to chance.

Since any theory of deterrence requires some degree of rational leadership of the to-be-deterred party, deterrence of asymmetrical threats must be established on rational decision building process of decision takers in non state organizations at least to a reasonable degree. Needless to say, the risk of irrational response, or the evolution of circumstances which even rational leadership cannot control, can never be fully ruled out. Although the possibility of suicidal fanatic leadership cannot be totally discounted, the history of the Gulf War and the negotiation process between Taliban and U.S. before the subsequent confrontations in Afghanistan on Al-Queda has demonstrated that leaders of so-called "rogue nations" or non-state actors may do back down when appropriately confronted However, there may be always some pitfalls left behind, "as a threat that leaves something to chance." For instance the threat of nuclear terrorism by sub-national groups, with or without acknowledged encouragement by the leadership of "rogue" nations, is another matter. A nuclear

response against such threats may not be feasible –the home base of potential attacker may not be known. The threat of nuclear weapons in the hands of suicidal fanatics, such as the Japanese cultists who recently released poisonous nerve gas in the Tokyo subway, can clearly not be credibly countered by the deterrence in any form.

Furthermore, in contributing to asymmetrical deterrence, identifying the factors affecting judgments and decisions of asymmetrical actors are extremely important. Suppose that methods such as cognitive maps, attribute lists, and other devices to develop strong alternative material images of the opponent are being applied. The next step will be identifying the variables most likely to contribute to the potential opponent's behaviors likely best-case and worst-case outcomes of various options. It may not be very useful to attempt this in abstract forms, because so much of what seems matter is exquisitely context dependent. It should be more useful to brainstorm the problem with an interdisciplinary mix of regional experts and strategists, to identify key factors in concrete natural language, and to develop hierarchies of such factors or variables. Given the alternative images of the opponent and an understanding of likely options and major variables or factors, it is possible to estimate how the opponent might reason in a wide variety of circumstances; not merely today's circumstances, but those that might exist in the future.

These models will be beneficial for estimating the possible (re)actions of terrorist groups when being deterred or perpetrate actions that require deterrence. For instance, after posing to perpetrate a NBC attack to a target state; in response to the target states' declaratory retaliation option, the decision takers of regarding terrorist

group may announce that the reasons for their actions are compelling. That is, they "have no choice." Such was apparently the terrorist organizations in the Middle East. Therefore, target state can formulate the behavioral model of those organizations and can conduct complementing or subsidizing policies for deterring such a "last choice" excuse.

It is at this point to criticizing arguments from Huth and Russet's position for "rational deterrence theory should not be viewed as a general theory of the causes of international conflict and war. It is limited in scope to how sanctions and rewards can be used to affect the cost benefit estimates of the attacker's two policy choices. Economics and political considerations beyond the defender's influence may also shape the attacker's estimate of the costs and benefits of using or not using force. In principle, these conditions can be incorporated into a rational choice model, but they are outside the scope of deterrence theory per se.[140]" In opposition, asymmetrical deterrence theory should contain third party considerations as an independent variable, particularly in the state-sponsored terrorism.

For example, in this sense, the case of the Pakistan-Taliban-Al-Qaeda phenomenon, that started in 1994, has worth to overview. After the Soviet withdrawal from Afghanistan, the task of rebuilding the war-ravaged country was handed over to Pakistan, a close ally of the US during its proxy war with the Soviet Union. For its own strategic reasons, Pakistan wanted an amenable government in Kabul. It tried various permutations and combinations with the existing leadership

[140] Huth, Paul K. and Russett, Bruce M.; "Testing Deterrence Theory: Rigor Makes a Difference"; World Politics, Vol.36; No. 42; 1990 pp. 470.

among the Afghan refugees turned (holy warrior), but could not succeed. Finally, in early 1994, the then home minister of Pakistan came to the conclusion that there is a need to create an independent entity away from the traditional leadership of the Afghan polity.1 By the time Pakistani ruling elite came to this conclusion, its own polity was cracking up due to four and a half decades of mismanagement. Therefore, Pakistan going through the process of a failing state, began looking for shorter routes to achieve its own strategic objectives. These included strategic depth against India in the event of an Indo-Pak war, and resolving the vexed issue of the Durand Line with Afghanistan. This apart, an interesting dimension to the Pakistan-Taliban relationship was put forward by Musa Khan Jalalzai, an Afghan journalist based in Peshawar North West Frontier Province (NWFP). According to him, their (Pakistan's) goal was at once ideological and economic. Some (Pakistan armed forces) set their sights on detaching Central Asian Republics from the CIS, which they hoped would lead to disintegration of the Russian Federation itself and the emergence of a new space dominated by conservative Islamic regimes. From this point of view, the return to power of the neo-communists in Dushanbe was a reversal for Islamabad, hence its support, through Afghanistan, for the Tajik rebels.[141]

On the economic level, Pakistan sought to make itself Central Asian Republic's main route of access to the Indian Ocean. It, therefore, launched a huge roadway construction program in the summer of 1993, which was to link Karachi and

[141] There a number of versions about birth of Taliban, see Rashid, Ahmed; *Taliban, Islam, Oil and New Great Games in Central Asia*; (I.B. Tarerus 2000), Malay, William; *Fundamentalism Reborn? Afghanistan and the Taliban*; (Vanguard, Lahore 1998); pp.4-30; Mohinder Ved; Afghani-Buzkashi; *Power Games and Gamesmen*; (Wordsmiths, New Delhi, 2000); pp.6-27; Jalalzai, Musa Khan; *Taliban: The Great came in Afghanistan* ; (Hanguard, Lahore, 1999); pp.3-33.

the ports of the Indian Ocean with Central Asia via Peshawar and Afghanistan. According to Musa Khan Jalalzai, Maj. Gen. Naserullah Babar, interior minister in Benazir Bhutto's government, thought of two routes for Central Asia. 'If the route from Peshawar through Kabul and the Salang Highway to Tashkent was blocked by war in Kabul, Pakistan should seek to open the western route, from Quetta through Kandahar and Herat to Turkmenistan[142].

If this objective of Pakistan is correct, it is operating on the assumption that having defeated the Red Army of the Soviet Union once, it is not difficult to defeat the disintegrated Soviet Union's armed forces guarding Central Asian Republic's again. This also raises the question as to whether Pakistan is planning to convert its Taliban forces into a jihadi Islamic army. One can notice a particular pattern to this effect in the Pakistan-Taliban-Al Qaeda combine actions.

After giving support to the Tajik rebels, the Pakistan-Taliban-Al-Qaeda combine target has been Uzbekistan. The leadership of the Islamic Movement of Uzbekistan (IMU) attempted to assassinate Uzbek President Islam. A. Karimov in February 1999, when six bombs in Tashkent killed 16 people and wounded 128. The leader of the IMU, Tahir Yoldassev, then fled to the Taliban-controlled Afghanistan. In May 1999, the Taliban allowed Yoldassev to set up military training camps in northern Afghanistan, just a few miles off the Afghan-Uzbek border. Unconfirmed media reports say that he was training several hundred Islamic militants from Uzbekistan, Tajikistan and Kyrgyzstan, as well as Uighurs from Xinjiang

[142] Jalalzai, Musa Khan; *Taliban: The Great came in Afghanistan*; pp. 195.

Autonomous Region in China. Initially, the Taliban denied having extended any help to the IMU. But in June 1999, when the Uzbek government requested for the extradition of Tahir to Tashkent, it was rejected by the Taliban.

In August 1999, another IMU leader, Juma Nanangani, entered southern Kyrgyzstan with about 800 militants, seized villages and threatened to invade Uzbekistan. All this resulted in Uzbekistan severely condemning Pakistan for supporting the dissident movements in Uzbekistan.

According to Ahmed Rashid, what brought in a new dimension was that:". . . although the IMU are not Deobandis, they are influenced by Wahhabism and have tried to impose the Taliban code in their areas of influence. Although the Uzbeks have historically been suspicious of the Pushtuns, the Taliban offer IMU a sanctuary from the Karimov crackdown with weapons, and the means to finance themselves through the drug trade.[143]"

With these objectives in mind, Pakistan became a guiding spirit and mentor of Taliban till about mid-1996. The arrival of Osama bin Laden in May 1996 to Kandahar, and his assuming the leadership of Taliban transformed Pakistan's role from that of a guardian to a partner of the Taliban outfit. By 1998, Taliban became synonymous with bin Laden's Al Qaeda movement and Pakistani soldiers started participating in Taliban-Al Qaeda activities. From 1996 onwards, Taliban became a pressure point for Pakistan to pursue its foreign policy objectives in its immediate

[143] Rashid, Ahmed "Talibanisation"; The Nation, November 18, 1999.

neighborhood. As it clearly demonstrates, statical bi-lateral options for assessing rationality profiles standard parties can not be feasible for asymmetrical deterrence. In contrast, actions targeting the third-level relations and structural deficiencies such as attempts to rehabilitate basic fault lines among states or groups are necessary.

In the classical deterrence, deterrence remains relevant when it is least likely to success, that is, when no consideration is giving to using force. Such could be the case when a potential challenger is extremely satisfied with the status quo, but it could also be the case when a serious capability asymmetry exists. Thus, the U.S. today might not consider an attack on Canada because it has no compelling reason to do so, and Canada might not consider an attack on the U.S. even if it had a motive to do so, because its chance of success is nonexistent. In both cases deterrence can be said to be operative. Should, in the future, the U.S. become sufficiently dissatisfied, or should a dissatisfied Canada become sufficiently capable, the stability of this relatively tranquil relationship could be eroded[144].

Likewise, in the asymmetrical categorization of actors as terrorists and states, realizing satisfaction and incapability of terrorist organizations rather than showing a massive retaliatory capacity which would probably be irrelevant to most of them in terms of confirmed targets in particular territories can be a model. However, satisfaction in these terms does not reflect the same concept suggested in the traditional deterrence relationships. Of course no theory or an attempt to theorize asymmetrical deterrence involve an assumption based on taking terrorist

[144] Zagare, Frank C.; *Perfect Deterrence*; pp.285.

organizations state-like units so as to consider their satisfaction in terms of concession or give-and-take bargaining. Nonetheless, terrorist organizations can be forced to be satisfied indirectly.

In other words, it is vital to include the factors strictly outside the defender's control in terms of punishment capabilities and credibility in asymmetrical deterrence theory. For example eliminating the legitimacy of terrorist organizations' usage of NBC weapons in particular, and massive killings in general depend upon reviewing the foreign policies of related countries. For example the stance of EU on the Palestine issue averted the goals of some terrorist organizations originated in the Middle East[145]. Therefore, the attitudes of the states against the "rational" causes of terrorist organizations that may hold NBC weapons are important in determining the possibility of their deterring possibility. For instance the stances of Germany and France towards the Iraqi operation of U.S. or U.S. policy in the Middle East peace process strengthen their defense values in terms of legitimacy and rationality of a terrorist attack. Obviously, there are various reasons behind such an attitude ranging from the population of Muslims in these countries to their strategic vision and capability which limit their global goals. However, in foreign policy formations considering the possible rational goals of terrorist organizations become much more crucial to prevent their massive attacks. This should not be considered as a direct concession like in a chicken game for providing deterrence. Instead, this is a strategic move to erode the rationality of non-state actors that probably affect their will to use NBC weapons.

[145] Siegel; Fred; "The Sources of Islamic Terror"; Blueprint Magazine, 30 June 2003; pp.36; Hoffman, Bruce; "The Logic of Suicide Terrorism"; The Atlantic Monthly, June 2003; pp.48.

However, a mere attempt of elimination of specific rational goals of particular terrorist organizations is necessary but can not be sufficient. In addition, the capability issue should be seriously taken into consider because solving this problem generally limit all terrorist organizations.

To continue with the cases, for instance Al-Qaeda operates rationally and strategically; it has some terrestrial goals, notwithstanding its apocalyptic ideas. For instance, for cultural and political reasons, it will not be possible for the United States to compete in the realm of ideas, but as a foreign policy strategy, "the support of moderate branches of Islam[146]" as Antulio Echevarria recommends, may level the playing field notably. They can oblige Al-Qaeda to compete with its own expectations and promises besides struggling them through military means. As Mao Tse-tung wrote, "(t)here is in guerrilla warfare no such thing as a decisive battle.[147]" Whether terrorist operations succeed or fail tactically, realization by their perpetrators that such behavior is strategically futile should serve slowly, but inexorably, to reduce enthusiasm and commitment. Few developments have so self-deterring a consequence as the unwelcome recognition that one's efforts are a failure. This can be true for other states that have been competing with terrorist organizations.

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[146] Echevarria, Antulio J.; *Clausewitz's Center of Gravity: Changing Our Warfighting Doctrine—Again!*; (Carlisle, PA: Strategic Studies Institute, U.S. Army, War College, September 2002); pp. 19.

[147] Tse-tung, Mao; *On Guerrilla Warfare*, Samuel B. Griffith, trans.; (New York: Frederick A. Praeger, 1961); pp. 52.

In May 2002, Hindu organizations in Holland received letters containing suspicious powder and threatening notes. The letters reportedly were sent by a Muslim organization acting on behalf of a secret cell called "the Netherlands Al-Qaeda Branch." The letters also reportedly contained notes that threatened Hindus with murder, rape, and blackmail unless they dissolved their organizations in three weeks. In a few days later, the government of Netherlands stated that if such threats were to continue, they would seriously discuss the enclosure of Islamic foundations and organizations as well as to arrest the several religious leaders living in the country[148]. Interestingly, on 4 June 2002, a letter, declaring that if Netherlands government did not take further steps for limiting the rights of Muslim, they would not act "for protecting themselves" was received by the same organizations[149]. Notably there has been a growing trend in the Muslim population of Europe in terms of organizing and founding various structures for providing solidarity in every field of social life due to the several reasons including racism and unstable migration policies. Such organizations also provide a fertile ground to establish financial networks for terrorist organizations. In that sense, an intelligence report of Dutch Royal Intelligence Service (DRIS) mentions the large amounts of money transferring to the Pakistan National Bank[150]. As a result, to threat this network seems to be functional for deterring regarding branch. Indeed, the most important step is to find the vulnerability of related terrorist group. There may be different options for each terrorist group. For example, on 14 May 2002, in a press release, the Colombian

[148] Turnbull, Wayne and Abhayaratne, Praveen; "2002 WMD Terrorism Chronology: Incidents Involving Sub-National Actors and Chemical, Biological, Radiological, and Nuclear Materials"; pp. 22.

[149] This letter published in the newspaper "De Teleegraaf", on 24 June 2002.

[150] Morgan, Matthew J.; "The Origins of the New Terrorism"; Parameters, Spring 2004; pp.46.

Army accused the FARC of using chemical weapons. According to Colombian military officials, FARC carried out attacks with ammonia-filled gas cylinders. In a week, a statement of FARC representative in Cuba mentioned that FARC never uses "weapons that kill innocent people and nature." Interestingly, this was the first statement made by a FARC leader to the public on WMD; and to publicize the usage of such weapons seems to be illegitimate for this organization. As a result, even though official statements can not be seriously considered by the region's people, they may make a gradual impact on terrorists, particularly in the eyes of the international community. This is another example for vulnerability. In fact, rationality that depends upon cost-benefit analysis can only be relevant in the situations where state parties find the vulnerabilities of terrorist organizations.

With regard to deterrence mechanisms, could punishment strategies deter in this context if directed against the leadership and members of terrorist groups? The key question is whether there are suitable high-value targets that could be threatened to make radicals such as bin Laden and his accomplices weigh the relative merits of various courses of action. Some argue that it is possible to threaten such targets, including family and supporters, and cause even the most radical leaders to engage in cost-benefit analysis[151]. The question also arises over symbols of importance to specific terrorists that could be threatened as part of a deterrent strategy. For example, what would be the equivalent of the World Trade Center to bin Laden? Such approaches are difficult to legitimize if pursued overtly by democratically

[151] Post, Jerrold and Sprinzak, Ehud; "Why Haven't Terrorists Used Weapons of Mass Destruction?" Armed Forces Journal, April, 1998; pp. 67 and Jenkins, Bryan "The Limits of Terror: Constraints on the Escalation of Violence"; Harvard International Review, Summer 1995; pp. 46.

elected governments because of political, legal, and ethical constraints. Even if threats were made covertly a target would probably doubt their credibility on the assumption that the deterrer is operating under such pressures. Moreover, it is important to assess the impact of such threats against the wider goal of reducing the danger posed by stateless actors. It could be argued that such threats would increase and not reduce the terrorist danger by alienating the deterring party even further from the existing and potential target support base. The real challenge in determining whether stateless actors like Al-Qaeda are susceptible to deterrence logic involves penetrating their black boxes. This means understanding the frame of reference of actors, how it is evoked, options considered in decision-making, and the lens through which they will perceive deterrent messages. Specifically, there must be emphasis on evaluating how specific groups or individuals calculate costs and benefits: Are they risk prone or risk averse? Do they think in terms of minimizing losses or maximizing gains? To what extent are they motivated by survival, security, recognition, wealth, power, or success? It will also be critical to assess the processes through which suspect organizations make decisions and avoid perceiving the capabilities and intentions of such actors as being like one's own. Addressing such questions will require concerted and targeted intelligence collection and analysis.

It is vital to keep in mind the words of Falkenrath. To him, if an enemy knows an event can be traced to the perpetrator, it can create "strong inhibitions in those that are not personally suicidal.[152]"

[152] Falkenrath, Richard A.; "Confronting Nuclear, Biological and Chemical Terrorism"; Survival; Vol. 40, No. 3; Autumn 1998; pp.52.

CHAPTER - VI

APPLICABILTY OF ASYMMETRICAL DETERRENCE

The last step for the quest of asymmetrical deterrence theory should be based on the investigation of its feasibility in terms of applicability which depends on rationality, credibility and capability contexts.

The more serious security danger is that emerging from spontaneous social violence and from small-scale but highly destructive threats whose originating source can not be easily located or identified. The globalizing economy is making access to destructive technology inherently available, as dramatized but only indirectly illustrated by terrorist episodes in Tokyo and Oklahoma City. The proliferation of highly destructive clandestine threats of this sort could reach unmanageable

proportions. So also could the instances of radical internal disintegration such as have occurred in Bosnia, Somalia, Rwanda, Tajikistan, and many other places as well[153].

In that context, the determining fact is that any identifiable actor can be readily deterred. It is the impersonal process and the actors that can not be identified that it is needed to worry about. As a result, the key factor in asymmetric deterrence is the sustained efforts to further identify the transnational actors.

6.1- "The Threat":

In referring to the cases to explain theoretical framework, Al-Queda, the Aum cult, FARC, Hamas, Hezbollah, PKK (Kongre-Gel) and Chechnyian fundamentalists are taken as samples. The foremost reason to consider these organizations are their past attempts mentioned earlier, to use NBC material. Although their efforts to acquire NBC weapons can be extended over years, as particular incidents, only the cases of 2002 set by Center for Non-proliferation Studies are considered. In analyzing them, statements made by leaders and high-ranked members of organizations and their reactions to the state policies are generally measured.

For instance, in the immediate aftermath of the attacks in the embassies of U.S., the only effort to retaliate come from Clinton administration was to launch

[153] Crelinsten, Ronald D. "Terrorism and Counter-Terrorism in a Multi-Centric World: Challenges and Opportunities"; Terrorism and Political Violence; Vol. 11, No. 4; Winter 1999; pp. 170-196.

Cruise missiles targeting "sand, dust and mountains except terrorists[154]". Likewise, the Japanese government could neither locate the members of the Aum cult, nor penetrate into its organizational structure[155]. On the other side of the world, Russian intelligence network and special forces units could not specify the terrorist cells in the Northern Caucasus in the 1990s so as one of the first attempts of perpetrating mass terrorism through radioactive material occurred in that region even more, on 14 April 2002 Chechen rebels reportedly planned to sell poisoned vodka at markets in Grozny. The Russian Federal Security Service discovered a container of potassium cyanide solution lying next to several bottles of vodka during a search of the village of Alkhan-Kala, Chechnya. Analysis of the bottles' contents determined that the potassium cyanide solution had been mixed with the vodka[156]. In that situation how security forces might perceive the perpetrators and even the threat before it happens forms the major question and indeed the solution to the problem. To continue with Latin American examples, FARC rebels poisoned a water treatment plant in the town of Pitalito, Colombia on 23 February 2002. The substance, which was not identified, was detected during a routine water test. Also several dead FARC insurgents belonging to the "Arturo Ruiz" Mobile Column were found in Colombia in possession of bullets poisoned with arsenic on 9 March 2002. The bullets matched those found in the Sumapaz area where six wounded soldiers had later died under

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[154] Foxell, Joseph W.; "The Debate on the Potential for Mass-Casualty Terrorism: The Challenge to US Security"; *Terrorism and Political Violence*; Vol. 11, No. 1; Spring 1999; pp. 109.

[155] Leitenberg, Milton; "Aum Shinrikyo.s Efforts to Produce Biological Weapons: A Case Study in the Serial Propagation of Misinformation"; Terrorism and Political Violence; Vol. 11; No. 4; Winter 1999; pp. 149-158.

[156] Turnbull, Wayne and Abhayaratne, Praveen; "2002 WMD Terrorism Chronology: Incidents Involving Sub-National Actors and Chemical, Biological, Radiological, and Nuclear Materials"; pp. 32; source: http://cns.miis.edu/pubs/reports/pdfs/cbrn2k2.pdf.

mysterious circumstances. In both cases, statements, made by the authorities emphasized on the unidentifiable structure and threat modes of such actions[157]. Moreover, on 27 March 2002, a Hamas suicide bomber detonated an explosive in front of the Park Hotel in Netanya, Israel. On June 5, 2002, IDF Major General Aharon Zeevi claimed that the terrorists had planned for the bomb also to release cyanide gas. Although the bomb did kill 29 Israelis, the attackers were unable to install the cyanide to the belt-bomb. They also stated that An Najah University in Nablus, and one other laboratory on the West Bank carried out the cyanide research. Zeevi claimed that the work was assisted by help from Hezbollah, Iran, and Syria, however accepted that such actions could not be deterred unless the targets were not specifically determined[158].

Interestingly, in all above mentioned cases, those organizations had been threatened with different sorts of punishment. Russian authorities continuously declared that any unconventional attack from terrorist operations will be faced a massive reprisal[159]. Likewise, in the words of the Israeli authorities, retaliation is inevitable for any kind of terrorist attack[160]. Similarly Columbian officers and Defense Minister Pablo Cuerto Moteilas repeatedly declared that even though they did not find any terrorists, they would attack with all means to all suitable targets,

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[157] Orr, Migilev J.; "The Russian Ground Forces & Reform 1992-2002" Conflict Studies Research Centre, Monthly Report; January 2003; pp.32.

[158] Turnbull, Wayne and Abhayaratne, Praveen; "2002 WMD Terrorism Chronology: Incidents Involving Sub-National Actors and Chemical, Biological, Radiological, and Nuclear Materials"; pp. 7, 16; source: http://cns.miis.edu/pubs/reports/pdfs/cbrn2k2.pdf.

[159] Orr, Migilev J.; "The Russian Ground Forces & Reform 1992-2002"; pp. 47.

[160] Steinberg, Gerald M.; "Rediscovering Deterrence After September 11, 2001"; pp.26, 29.

including families, towns and mountains if they will expose a massive NBC attack[161]. Finally, despite there is an ongoing debate in the security community of the U.S. no one thinks about remaining stand-by for U.S. in a scenario of a massive NBC attack to its interests and citizens[162]. However, none of these threats seem to work in spite of being made before the above mentioned incidents. That is why one of the main concerns of the asymmetrical deterrence should be on the identifying specific threats. Of course, this will not be enough to deter terrorists. In addition, those targets must represent vulnerabilities of those organizations and this will be discussed later.

Only identifiable threats can be threatened by punishment, however the concept of targets can be extended instead of being narrowed down to members and bases. Apart from military measures, those targets can include the audiences of the terrorist organizations. Obviously this does not mean to retaliate to the sympathizers but to penetrate into their minds in terms of delegitimazing the usage of NBC material. If terrorist aim at influencing masses for realizing their objectives, they might be deterred through being persuaded not to be backed by that audience. As, Mohammad Salih, one of the leading figures of Hamas, stated that "the sole will that motivates our members to sacrifice themselves is the belief of Muslims to them that they are fighting for not themselves but for the liberation." Moreover, in the manuscripts of Al-Queda published in Pakistan in March 2000, it was mentioned that

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161 Statements are published in El Espectador, El Colombiano, El Pais on 7 September 2001.

162 Moodie, Michael, Ban, Jonathan, Manzi, Catherine, and Powers, Michael J. "Bioterrorism in the United States: Threat, Preparedness, and Response"; Chemical and Biological Arms Control Institute Review; Autumn 2001; pp.26.

every attack of our enemies to our (innocent) people forms new martyreds for us.[163]" Moreover, in the teaching material of Kongre-Gel (PKK) acquiesced in so-called Mahzun Korkmaz Academy in the Bekaa Valley in July 1998, the possible recruitment areas of the organization were titled as "the ones where enemy mainly operates and benefited.[164]" When it is looked to FARC, the commandant of Hollita territory, Jose Santani Marcus (probably a fake name), stated in the website of the organization on 23 July 2000 that "if one day we perpetrated a massive attack on enemy, it would be inevitable to take the assent of our people." Considering the fact that FARC attempted to undertake small-scale biological attacks, "the massive attack" should be considered in terms of a correlation between audience support and terrorist action. Finally, in the written documents of the Aum Cult found in Matsumoto and Tokyo; there were matched cities and territories labeled as high, medium and low proportioned support. Also, in other teaching materials for members, it is repeatedly emphasized on the providing public support for their actions[165]. Interestingly, there are not any clear indicators for undertaking NBC attacks as well as not for any evidence that the small and medium ranked cadres were informed from the attacks. Nevertheless, like other terrorist organizations which attempted to use NBC material, it is clear that they looked for public support for their actions, at least for harboring and concealing their capabilities.

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[163] Schmid, Alex P.; "Terrorism and the Use of Weapons of Mass Destruction: From Where The Risk?"; Terrorism and Political Violence Vol. 11, No. 4 ; Winter, 1999; pp. 112.

[164] Turkish Armed Forces; *Unclassified Document on Internal Threat Assessment*; (Ankara: Joint Chief Staff Printing Office, January 2001); pp. 1-12.

[165] Leitenberg, Milton; "Aum Shinrikyo.s Efforts to Produce Biological Weapons: A Case Study in the Serial Propagation of Misinformation"; pp. 151.

Nonetheless, mere identification of traditional military targets and background support audiences can not be sufficient for asymmetrical deterrence. Those terrorist organizations should also be revealed in terms of their structures, organizational network and hierarchies. Such a detailed information on related groups make easy for states to find vulnerabilities thereby to threat them with punishment. In the structure of Al-Queda, for instance, it is barely difficult to find leaders or high-ranked members as well as specific camps and bases in the vast territories of Afghanistan. That is why sending Cruise missiles to the desert and mountains did not avert the motivations of Al-Queda to carry out further attacks[166]. However, recent unclassified literature shows that the so-called "flexible intelligence[167]" strategy has provided a noteworthy information to the Israeli security forces on Hamas and Hezbollah. This strategy initiated in the eve of the 1990s based on using much more unofficial agents and deeper analysis of open-resources created a relatively calm phase in the Middle East that as one of the military leaders of Hezbollah, Mahram Ali-Ekber Velayeti made a statement in a Lebanese newspaper[168] on the issue of American presence in the Middle East on 12 March 2003 that gives clues for the Israeli success on intelligence regarding terrorist structures. "We will not retreat –that means withdraw of our soul from our body- our will on fighting for liberation of Jerusalem and Holy Lands...we will use all means whatever we can obtain and use. We will not be entrapped by Americans and Jews as did in the early 1990s. That time we were vulnerable due to recruiting militants regardless of their past and because of

[166] Boureston, Jack and Mahaffey, Charles; "Al-Qaeda and Mass Casualty Terrorism: Assessing the Threat"; Strategic Insights, 1 October 2003; pp.15; source:http://www.ccc.nps.navy.mil/si/oct03/terrorism.pdf; date: 19.10.2003, 23:20.

[167] Steinberg, Gerald M.; "Rediscovering Deterrence After September 11, 2001"; pp.17.

[168] Published in "As-Safir", on 2 June 1999.

interviewing with almost every western journalist who wanted to see us. This made us heterogeneous organization composed of blabbermouth members. But we changed." However Israeli forces could not apply a limited and selective engagement depending upon a healthy intelligence gathering as they can not today. Therefore a possible success of deterring Hezbollah seems to be missed again. As a result between 1993 and 1996, the Israeli deterrent posture and image vis-à-vis the Palestinians eroded, and terrorist attacks did not elicit the disproportionate responses necessary to maintain credibility.

Likewise in the second operation of the Russian forces which has been more successful than former one in Chechnya, similar intelligence tactics have been undertaken in order to reveal the terrorist camps and identify the leaders as well as their locations. Despite there were again attacks that created mass casualties in Russian homeland, several attempts to use NBC weapons and more to undertake conventional terrorism were prevented[169].

In all cases, terrorist organizations which are listed as potential users of NBC material in terms of past incidents demonstrate a specific but not standard organizational structure. The primary aim for deterring NBC usage of those terrorists, states need to identify their habitual environment including their civilian supporters. As mentioned earlier, in the general logic of the deterrence, the threat of punishment could not be functional unless there was no one to punish.

[169] Orr, Migilev J.; "The Russian Ground Forces & Reform 1992-2002"; pp. 49.

6.2- Deterring Asymmetrical via Capability and Credibility:

One of the major breaks from classical deterrence is the transformation in the desired outcome of the deterrence relationship. Contrary to the traditional equilibrium among parties of the Cold War period, that is, deterrence would be perfect when all parties were deterred; the best out come for asymmetrical deterrence would be unilateral deterrence of terrorist organizations by state parties. Thus elements of asymmetrical deterrence are considered solely for states to deter stateless rather than a mutual deterrence relationship. That is why the absence of credibility can help stabilize a status quo, while its presence can precipitate deterrence failure For instance, the lack of a usage possibility of a NBC weapon by a terrorist organization helps to the maintenance of status quo.

Asymmetrical deterrence theory begins with the argument that mutual deterrence works best when state parties have capable and credible threats[170]. Capability means that a threat hurts. Credibility means that a threat rationally be believed. Believability is linked to rationality in that threats can be believed only when it would be rational to carry them out. Thus, only rational threats can be credible. In other words, all players make rational choices at every opportunity in a game. In addition, it is important to focus on rough parity relationships in which each side's retaliatory threat is capable of inflicting unacceptable damage on the other

[170] Although some terrorist organizations may be or even need to be backed by states to use NBC materials for their purposes, the main problem for target states are the ones that are not supported by state(s) precisely due to the further applicability of general deterrence strategies for post Cold War inter-state conflicts. Therefore, despite there are few assumptions for state-sponsored terrorism, the main focus will be on the stateless units.

side. "Unacceptable" means worse than what a state would get by not initiating conflict. In that sense, there are some questions to be answered:

When is deterrence most likely to succeed?

What is the most important determinant of deterrence success?

When is deterrence most likely to break down, how will it unravel?

The centrality of the credibility in the deterrence equation lies beneath a fundamental and persistent political regularity: the norm of reciprocity. Empirical researchers argue that political actors tend to respond-in-kind to one another, tit-for-tat, trading amity for friendship and enmity for hostility. Leng and Wheeler note the "universality of the norm of reciprocity.[171]" The available empirical evidence suggests that this norm holds across time, across regions, across regions, across systems, and across cultures. Consider for example, review of the first wave of behavioral research in international politics that included inter alia, the analyses of World War I and the Cuban missile crisis, and the study of the Middle East from 1949 to 1967, as well as examinations of the cold war. Indeed Sullivan found the strongest empirical support for a stimulus –response model, leading him to conclude that it is "very likely...that other states react in kind to our own actions[172]". Moreover, Wilkenfield finds "a very high degree of matching behavior" for states involved in an intense crisis[173]. Numerous other studies detect the same pattern.

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[171] Leng, Russell J., and Wheeler, Hugh G.; " Influences, Strategies, Success, and War"; Journal of Conflict Resolution; Vol. 23, No. 23; 1979; pp.655-684.

[172] Sullivan, Michael P.; *International Relations: Theories and Evidence*; (Englewood Cliffs, NJ: Prentice-Hall, 1976); pp. 63, 294.

[173] Wilkenfeld, Jonathan; " Trigger-Response Transitions in Foreign Policy Crises, 1929-1985"; Journal of Conflict Resolution, Vol. 20; No. 35; 1991; pp. 143.

Summarizing this now extensive literature, Cashman concludes that "a large array of scientific studies provide evidence to support a stimulus-response theory of international conflict...Nations seem to respond to others in the same manner as they are treated. Cooperation begets cooperation; hostility begets hostility.[174]"

However in any asymmetrical relationship including a terrorist organization and a state, defining hostility and cooperation is extremely difficult. First of all, negotiation is almost impossible due to the illegitimate *raison d'etre* of terrorist organizations. Also states tend not to give any concession-like opportunities to those organizations. This makes the retaliatory formulae of political behavior irrelevant to some extend. Nevertheless, there are still indirect ways to form an interplay among terrorist organizations and states based on pre-defined or declared norms, values and precedence. The case of some countries in EU can be again a relevant example. From the beginning of the Iraqi operation, France and Germany constantly insisted on an internationally and legally legitimized common action towards the problem while U.S. and some specific countries in the Union such as Spain and Italy and several new member countries in the South Eastern Europe supported a U.S. led operation without a clear indication of international legal legitimacy such as a precise U.N. Security council Resolution. In that context, when the statements of the terrorist organizations related with the conflict in the region analyzed, clearly Germany and France was excluded from the target countries[175]. In that sense, an indirect and

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[174] Cashman, Greg; *What Causes War? An Introduction to Theories of International Conflict*; (New York: Lexington Books, 1993); pp. 184.

[175] Khan, Ilyas; "Desperate Iconoclasm" and "History for Sale" The Herald (Pakistan); 6 and 14 April 2003, pp. 32, 36.

relatively positive approach towards an international problem seems to be responded by the same relatively cooperative reaction. Therefore, if empirical research shows a clear evidence of retaliation in political actions among all players in the field, a possible deterrence model between asymmetrical actors need to contain somehow a relationship that includes (in)direct links in which retaliatory responds can be conveyed. Needless to say to do what exactly terrorists want is not the point and the desired action. As in the classical deterrence theories, since the asymmetrical deterrence can not depend upon categorically equal parties as well as one of the parties are considered as illegitimate legally and morally, the model does not entail to establish formal connections or to give concessions to the terrorist organizations. Instead of directly established connections, states may reshape their policy implementations with regard to the terrorist threats besides strengthening their defense capabilities for a NBC attack.

In this context, in a extended deterrence relationship, firm-but-flexible negotiating styles and tit-for-tat deployments are highly correlated with extended deterrence success. This can be defined a firm-but-flexible diplomatic stance as a signal that the defender is willing to compromise, but not capitulate. Thus, the essence of both a firm-but-flexible bargaining approach and a tit-for-tat response to an actual provocation is reciprocity, the norm that signals credibility when promised or threatened, and demonstrates it when practiced[176]. From this point of view, for deterring terrorist organizations to use NBC weapons, addressing to their so-called rational causes in foreign policy terms by state parties is necessary but not sufficient.

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[176]Zagare, Frank C.; *Perfect Deterrence*; pp.278.

The next step is credibility. In terms of states, the retaliatory capability must be demonstrated: As the players' ordinal rankings of a game's gross outcomes: win, lose, compromise, and conflict. Thus, asymmetrical deterrence also involves those four possibilities. This necessary condition helps explain why a show of force is such an important signaling tactic in international politics. In addition to augmenting credibility, a demonstration of power may help establish threat capability, real or not. Surely such was the intention behind the now famous "fly-by" of long-range Bison bombers during the June 1955 Aviation Day show in Moscow. Thus, operations in Afghanistan and in other countries can be taken as show of capability[177].

To continue with, the concept of capability has two dimensions, one physical and one psychological. The former aspect concerns the capability to execute a threat. Needless to say, a second-strike capacity remains necessary for deterrence success[178]. The latter aspect concerns a potential challenger's cost assessment. If a challenger calculates that bearing the cost of conflict is less onerous than suffering the costs of doing nothing, deterrence will always fail. As Harvey notes: "Even clear and credible threats from resolute defenders will fail if the challenger believes that the challenge is worth costs incurred by triggering the threatened response.[179]" Such an example is to the point: "The problem with the U.S. strategy of putting pressure on North Vietnam was not that the threats were not believed, but rather that the North preferred to take the punishment rather than stop supporting the war in the South."

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[177] Ibid. pp. 290.

[178] Ibid. pp. 291.

[179] Harvey, Frank P.; "Rigor Mortis, or Rigor, More Tests: Necessity, Sufficiency, and Deterrence Logic"; International Studies Quarterly; Vol. 46, No. 42; 1998; pp. 700.

NATO's threatened air strike of Serbia in March 1999 is a more recent example. In a last-ditch effort to avoid conflict, U.S. special envoy Richard C. Hoolbroke met with Former Yugoslav President Slobodan Milosevic and asked him: "Are you absolutely clear in your own mind what will happen when I get up and walk out of this palace?" Hoolbroke reported that Milosevic had replied: "You're going to bomb us.[180]"

As a result the more burden-capable threats form against the opponent, the further success of deterrence occurs in terms of bearing costs. Thus, to extend that NBC weapons have an impact on these costs. However, contrary to some classical theorists like George Quester[181] who argue for an overkill capability for success of deterrence, a minimum deterrence deployment posture is not only sufficient for but also necessary for asymmetrical deterrence in terms of preventing a multilateral assured destruction that can also be the ultimate aim of dome terrorist organizations. As found in the documents released to the public after the arrestments in Tokyo, some of the scientists working for Aum cult discussed triggering a nuclear war between North Korea and Japan thereby with U.S. to shuffle the global stability[182]. Moreover, in a bulk of documents found in the base camps in Afghanistan, allegedly stated that Al-Qaeda aimed at catalyzing a dispute between Russia and U.S. through perpetrating NBC attacks and putting the blame on Russia in terms of not taking

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[180] Ibid.. 706.

[181] See for Quester, George; "The Continuing Debate on Minimal Deterrence"; ed. In Harknett, Richard and Wirtz, James; The Absolute Weapon Revisited; (Ann Arbor: University of Michigan Press; 2000).

[182] Leitenberg, Milton; "Aum Shinrikyo.s Efforts to Produce Biological Weapons: A Case Study in the Serial Propagation of Misinformation"; pp. 157 and Manabu, Watanabe; "Religion and Violence in Japan Today: A Chronological and Doctrinal Analysis of Aum Shinrikyo"; Terrorism and Political Violence; Vol. 10, No. 4; Winter, 1998; pp. 91-93.

necessary security steps for protecting sensitive material. Therefore, they might be escalating the conflicts in the Middle East and Northern Caucasus[183]. To impose a qualitatively selective threat can be more deterrent on the basis of rationality, compared with demonstrating an overkill capacity that can trigger an Armageddon after a relatively low-intensity attack by terrorists. However, terrorists may seek to manipulate target states in terms of retaliating to third parties through their attacks and/or their strikes can not be definable and visible where as victim states can not find any selective targets to retaliate. That is why capability in terms of asymmetrical deterrence contains not only the procurement of necessary weapons but also confirmed and publicly declared targets.

Nonetheless, a capable retaliatory threat can not be a sufficient condition for deterrence success. Moreover, the absence of a capable threat is not a necessary condition for general deterrence failure. For the former, the case of embassy bombings of U.S. in Tanzania and Kenya can be given. Despite Al-Qaeda targets were confirmed at least in Afghanistan by U.S. military authorities, they perpetrated the bombings. On the other hand, although there is a lack of global capability in terms of struggling against NBC terrorism on the basis of common/global declared retaliatory measures and/or targets (sponsored states, terrorist organizations), since the end of the cold war there has been no major NBC terrorist attack to the U.S. or any other countries apart from attempts and relatively low -scale[184] strikes.

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[183] Simon, Steven and Benjamin, Daniel; "The Terror";. Survival; Vol. 43, No. 4; Winter, 2001/2002; pp.6, 15.

[184] The term relatively low implies low in terms of causality and psychical, social, political and economic damage)

Thus, in defining asymmetrical deterrence, the ways force may be used, the goals for which force is employed, the strategies developed for achieving those goals, and the military means for carrying out such strategies are key factors. Recalling the classical deterrence, the broadest distinctions are those between the indirect and direct use of force and between the interest in preserving or altering the status quo. When a state seeks to achieve its objectives by actually employing the military means at its disposal, it is engaged in the direct use of force as part of either an offensive strategy (to alter the status quo) or a defensive strategy (to preserve the status quo). When a state instead seeks to achieve its objectives by influencing the adversary through threats to employ the military means at its disposal, it is engaged in the indirect use of force as part of either a persuasive strategy to alter, or a dissuasive strategy to maintain, the status quo. Such indirect use of force aims to affect the behavior of an adversary by indicating the contingency of action, while the actual use of military force supporting the policy is held in reserve. In the strategic literature, this sort of indirect use of force has normally been discussed in debates about the requirements for practicing deterrence and compellence[185].

6.3- Deterring Asymmetrical via Strategies:

In terms of strategies that states can apply for asymmetrical deterrence following terms can be revisited:

[185] Cimbala, Stephen J.; *The Past and the Future of Nuclear Deterrence*; (Westport, Connecticut: Praeger, 1998); pp. 11-37.

Dissuasion by deterrence threatens to punish the adversary in ways so terrifying he dares not initiate challenge, regardless of his ability to actually achieve narrow military objectives. Such dissuasion by deterrence may rely on nuclear or non-nuclear forces as the means by which the threatened punishment would be inflicted. What matters is that the adversary's decision is swayed by the belief that the costs of military action, even technologically successful military action are unacceptable. A prospective aggressor certain he can accomplish his military objectives, that he will win the war in a technical military sense, may yet refrain from initiating action if the anticipated losses (in terms of casualties, treasure, or political power) are deemed unacceptably step. Aside from the loss of human life and material assets, a country's leaders may worry that prosecuting the war will destabilize the political foundations of their rule. Though hard to quantify, the loss of moral authority may result in the withdrawal of popular support for a democratic regime or military and elite support for an authoritarian regime[186]. As it is seen in the military intervention of U.S. in Iraq; El Sadr, the spiritual leader –thus the political leader due to the Shia beliefs- of the Shia population in Iraq, accepted to bargain with U.S. forces to ensure the spiritual leadership's status in Nacaf[187]. Although there has been an ongoing asymmetrical urban guerrilla warfare; the weaker side, which depends upon its cause the relative superiority of socio-psychological and cultural values can rationally calculate its losses and profits even though seemed as a foe who has nothing to loose likewise other asymmetrical parties on the issue of NBC terrorism.

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[186] Ibid...pp. 29.

[187] "Al-Jezara News", 28.08.2004.

A strategy of dissuasion by defense discourages the adversary from challenging the status quo by threatening to confront him with insurmountable obstacles to achieving his military objectives. It seeks to convince him he will be unable to achieve his goal, regardless of his willingness to absorb punishment[188].

A state seeking to modify the status quo can pursue this goal through the indirect use of force by employing either of two strategies of persuasion. Or it may attempt to effect the desired changes through the direct use of force married to an offensive strategy. The alternative strategies for persuading an adversary to comply with one's demand for change are compellence and offense. Persuasion through compellence seeks to convince the adversary to accede to changes in the status quo by relying on threats to inflict unacceptable punishment if compliance is not forthcoming. Persuasion through offense seeks the adversary's compliance by threatening to take action that will produce the desired changes regardless of the adversary's efforts to resist.

Besides, it is widely agreed today that "deterrence" as a term of art means preventing war either through fear of punishment or fear of defeat, or sometimes even through fear of undefined negative consequences. The word deterrence is derived from the Latin *de+terrere*, literally "to frighten from" or "to frighten away." Thus, fear is central to the original meaning of deterrence[189]. As a result, the main aim of states for managing asymmetrical threats should be creating fear or in Clauswitzian terms, friction against stateless foes. In this context, the strategies are

[188] Cimbala, Stephen J.; *The Past and the Future of Nuclear Deterrence*; pp. 19.

[189] Ibid...pp. 114.

crucial. As a mixture of classical understandings, following strategies can be applied in terms of deterring stateless foes.

Therefore, this confusing tangle of definition problems for the concepts of reassurance, compellence, defense, dissuasion, and deterrence and instead of such a narrow conceptualization of deterrence as a limited strategy; asymmetrical deterrence should cover both direct and indirect use of force as well as each strategy regarding status quo. One reason to involve such a broad array of strategies lies with the extended categorization of players in the asymmetrical deterrence game. Contrary to inter-state relations, the definition and determination of non-state actors constitutes a serious problem. As mentioned in the first chapter, the terrorist organizations as asymmetrical non-state actors still can not be commonly conceptualized. As a result, a wide range of actors are thought to be in the game. Apart from this, the ongoing importance of inter-state relations makes the asymmetrical deterrence to subsume the premises of classical deterrence. Thus, only such an extended understanding of deterrence is thought to be explanatory for asymmetrical relations.

To recall the meanings of the "terms of art", compellence, or perhaps coercion or coercive diplomacy, has the positive object of persuading an adversary at a minimum to cease and desist from current misbehavior, and more likely to retreat from positions seized and to surrender assets illicitly seized by force (if the actions in question involve the use of land power, of course). Compellence/coercion is not the same as defense. A compellent strategy is relevant only after deterrence failed, or was not attempted explicitly. It carries the promise to inflict an escalating weight and

perhaps character of damage, unless our policy demands for the enemy's retreat are met[190]. On the other hand, some have persuasively argued that the term "dissuasion" should be used to refer a broader spectrum of deterring actions than those narrowly associated with military deterrence. The word dissuasion derives from the Latin *"dis+suadere"*, "to advise or persuade against", and is clearly more comprehensive in meaning than classical deterrence. Dissuasion is a current American term-of-art, ironically lifted from the French, and it points to the aspiration to "dissuade future military competition.[191]" The DoD Annual Report for 2002 was admirably plain in stating the intention of "dissuading future military competition." Secretary Rumsfeld explained that: " (t)hrough its strategy and actions, the U.S. has an influence on the nature of future military competitions. U.S. decisions can channel threats in certain directions and complicate military planning for potential adversaries in the future. Well-targeted strategy and policy can therefore help to dissuade other countries from initiating future military competitions.[192]" To the uncertain degree to which dissuasion helps structure respect for, even fear of, American military prowess, policy demand for deterrent effect should be reduced. Those dissuaded from competing with the super state guardian should not need to be deterred. In that context, the concept of deterrence operationally positioned after the failure of dissuasion and for preventing to escalate towards compellence. However, in terms of

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[190] See Schelling, Thomas C., *Arms and Influence*; (New Haven, CT: Yale University Press, 1966); pp.58, 63, 97; George, Alexander L.; Hall, David K. and Simons, William E.; *The Limits of Coercive Diplomacy: Laos, Cuba, Vietnam*; (Boston: Little, Brown, 1971); pp.12,103; Lawrence Freedman, ed.; *Strategic Coercion: Concepts and Cases*; (Oxford: Oxford University Press); pp.42.

[191] Kugler; Richard L.; "Dissuasion as a Strategic Concept," Strategic Forum (INSSS/NDU), No. 196, December 2002; pp.29

[192] Rumsfeld; Donald H., *Annual Report to the President and the Congress*; (Washington, DC: Department of Defense, 2002); pp. 18.

terrorism, asymmetrical deterrence should contain both dissuasion and compellence in order to better cope with the NBC threat. In fact, terrorism refers to an ongoing methodology of using illegitimate violence which separates it specific strategic levels. Therefore, deterrence can not be considered as prior to compellence because variables in terrorism are not constant. Moreover, one can not clearly define the levels of escalation in any terrorist intention. A standardized hierarchy among three can not be suited to all asymmetrical relationships. This characteristic of asymmetrical deterrence will also be mentioned in terms of its issue-specific structure.

In that sense, it is necessary to mention another concept: inducement. Compared with classical deterrence, inducement is the flip side of the coin from it. Both are strategies for influence, the one with negative sanctions, the other with positive. A state may be beyond deterrence, but not beyond persuasion-by-reward for good behavior. Readers are invited to consider the history of U.S. relations with North Korea over the past decade as a record which illustrates almost everything worth knowing about the hazards, and potential benefits, of an inducement strategy[193]. However, inducement is again one of the components of asymmetrical deterrence on the basis of eroding the so-called legitimate causes of terrorist organizations to use NBC weapons. For instance, assuming a moderate stance in the Middle East Peace Process rather than a strict favorable sense for one party, may balance the expectations of the international community so as to render obsolete of

[193] George, Alexander L.; "The Role of Force in Diplomacy: A Continuing Dilemma for U.S. Foreign Policy," Brands, Harold W., ed. *The Use of Force after the Cold War*; (College Station, TX: Texas A&M University Press, 2000); pp. 59-60.

advocating "desperateness" upon which terrorist organizations and their supporters have been depending. Preemption and prevention, strictly regarded, are alternatives to deterrence. The concept of preemption could hardly be clearer, at least in principle. It means to attack first in the last resort, which is to say in the face of truly compelling evidence of imminent threat. A preventive attack is intended to strike before an identified menace becomes an imminent threat[194]. Israel's blow against Iraq's nuclear reactor at Osirak in 1981 was plainly preventive, not preemptive, as also was the assault on Iraq in 2003. It scarcely needs to be said that a doctrine of preventive assault, particularly in the context of the policy and strategy of dissuasion discussed already, invites critics of many stripes to charge the United States with being trigger-happy. Again, despite both concepts are considered as out of context for classical deterrence; they are "in" for asymmetrical one. As mentioned for compellence and dissuasion, the unstandardized features of terrorism can make a pre-emptive or preventive strategy for one a show of strength or a demonstration of capability and/or credibility for another. Basically, they can be used as leverages rather than ends in themselves for an extended and general deterrence which refer to other elements of asymmetrical deterrence.

The definition of deterrence is expanding to include more than military threats. The author of this paper and those who argue for a more expansive definition believe that deterrence should be modified to include all instruments of security, not merely the threat of military force. These might include nonmilitary sanctions, foreign policy initiatives, economic measures, and positive inducements

[194] Byman, Daniel and Waxman, Matthew; *The Dynamics of Coercion: American Foreign Policy and the Limits of Military Might*; (Cambridge: Cambridge University Press, 2002); pp.31-73.

In brief, in this paper, the concept of asymmetric deterrence refers to the entire field of activities to avert transnational terrorist acts that may be perpetrated via WMD. Within this context, four main strategies may be *inter alia* considered: Dissuasion or persuasion by either direct or indirect use of force. In that sense while compellence, inducement, prevention, pre-emption and coercion implies deterring the adversary's will of resistance for maintaining status quo, defensive and offensive strategies refer to the employing use of force for realizing capabilities.

6.4- Asymmetrical Deterrence:

Generally speaking, deterrence has been marginalized because some of the more implacable of our contemporary adversaries appear to be undeterrable. Not only are their motivations apparently unreachable by the standard kind of menaces, but they lack fixed physical assets for us to threaten. Indeed the quests of this paper for an asymmetrical deterrence starts form this criticism. The inimitable Ralph Peters has drawn a most useful distinction between "practical" and "apocalyptic" terrorists. The former are people who have an agenda that might just be addressed, if not met, as a result of their criminal deeds[195]. For the latter, in Peters' words, "destruction is an end in itself." He goes on to assert that "(o)ne may be controlled. The other must be killed.[196]" To risk confusing Peters' admirably sharp distinction, it has to be the case that Al-Qaeda, possibly the most potent movement ever committed to apocalyptic

[195] Peters, Ralph; *Beyond Terror: Strategy in a Changing World*; (Mechanicsburg, PA: Stackpole Books, 2002) pp. 22.

[196] Ibid...pp.23.

goals, has been organized (loosely, for security) and administered by some extremely competent and practical people. The facts that any individual members of al Qaeda would welcome martyrdom, and that the organization has non-negotiable goals, are really beside the point. Of course, Al-Qaeda cannot be deterred by the prospective death of some of its troops; the blood of martyrs will attract new recruits. However, the organization itself, in loose-knit sophisticated networked form though it is, should be eminently deterrable. While its goals may be apocalyptic, they are goals that can be advanced strategically. Al-Qaeda functions strategically and rationally, connecting its hideous means purposefully to its other-worldly ends. As this analysis insisted earlier, rational behavior need not be reasonable behavior. Al-Qaeda is not careless of the lives of its soldiers, and still less of the lives of its key officers. For Al-Qaeda, death has a purpose. First, it ought to be deterrable by a growing conviction that they are failing. It is one thing to die to advance a cause. It is quite another to die in an operation that will both probably fail tactically, and serve no obvious strategic, albeit apocalyptic, goal. After a while, the combination of effective counterterrorism and the resistance of the world to the impact of martyrdom, including the boredom of over-familiarity, should be quite potently deterring. Second, to survive and prosper Al-Qaeda has to be careful of the lives of its most important members. Were it otherwise, the organization would be out of business in short order. Credible threats to the lives of those people, and to their ability to function in command, can have a deterring effect. Finally, although Al-Qaeda lacks a central postal address, it has cells in 50-70 countries —a distressing piece of intelligence, indeed and is tolerated, and in some cases assisted, by official bodies for their own, distinctly non-apocalyptic,

reasons. Much of Al-Qaeda's extra-organizational fellow-traveling support structure may be deterrable.

At first glance, this infeasibility appears to be the case in mass-casualty terrorism since the motives of non-state actors to perpetrate such attacks are likely to be extreme and their level of resolve so high that deterrence is inapplicable. Indeed, groups that contemplate such activity have radical views derived from religious (Al-Qaeda) or apocalyptic beliefs (Aum Shinrikyo). Moreover, fanaticism is expressed in unrealizable goals, operates outside of commonly accepted political and moral norms, and remains impervious to negotiation and inducement. For example, Osama bin Laden and members of Al-Qaeda claim to be of political, legal, and ethical constraints. Even if threats were made covertly a target would probably doubt their credibility on the assumption that the deterrer is operating under such pressures. Moreover, it is important to assess the impact of such threats against the wider goal of reducing the danger posed by non-state actors. It could be argued that such threats acting in the name of Islam in pursuing objectives such as eliminating Israel and destroying America. Moreover, it is clear that many members of the Al-Qaeda network think in suicidal terms and are willing to endure significant costs and destruction in pursuit of their objectives. In the mid-1990s, the Aum Shinrikyo sect in Japan sought to cause death, destruction, and chaos on such involves demonstrating that the capability exists to ward off—or to minimize damage in the event of an attack, thus mitigating the desired effects a large scale—through the use of chemical and biological weapons— that the resultant disorder and instability would cause the collapse of the political and social order. It is vital to distinguish such radical terror

groups from more traditional organizations such as the Irish Republican Army (IRA) and Basque Fatherland and Liberty (commonly known as ETA) that tend to attack people or places associated with relatively limited political goals. They exercise self-restraint and avoid undermining sympathy for their cause. In contrast to Al-Qaeda, they are relatively more open to negotiation. As a result they may self deter when it comes to mass-casualty terrorism.

Moreover, credible capabilities for strong denial mechanisms can dissuade terrorists from using NBC material and waster their resources. The heart of a denial-based approach involves demonstrating that the capability exists to ward off—or to minimize damage in the event of—an attack, thus mitigating the desired effects of the terrorists. While some requisite denial capabilities are applicable to all potential modes of attack, some are mode-specific. Generic capabilities include using intelligence, diplomatic, military, and law enforcement means to locate and interdict non-state actors before they act. For example, developing, bolstering, and refining the core elements of counterterrorist strategies could have a generic deterrent effect. The main challenge is denial capabilities designed for specific modes of attack. In the realm of chemical, biological, and radiological threats, careful preparations for consequence management can have a dissuasive or preventive effect. Relevant capabilities include the demonstrated readiness of first responders to deal with chemical, biological, and radiological incidents. In addition, deterrence can be achieved by demonstrating a strong capability for preventing or hindering the spread of materials and knowledge non-state actors need to develop and produce chemical, biological, and radiological weapons. Relevant capabilities include export controls

and detecting and interdicting suspect shipments. The aim is convincing an enemy that acquiring such weapons is not worth the time, resources, and effort required.

On the other hand, a potential negative side effect of denial is the risk of it becoming a double- edged sword. Specifically, there is the danger that denying or deterring one line of attack will push an opponent to strike against less protected areas, possibly using different means—the balloon effect. Other modes of attack could be less predictable and more dangerous. Was September 11 an example of this? If the aim is buying time to frustrate an enemy who is strongly committed to alter the status quo, the consequences of succeeding may not always be foreseeable and positive. Indeed, short-term success could make a target more desperate. This is not to claim that developing a specific denial posture should be avoided. But it is essential to consider its negative effects. Moreover, the affect of demonstrating capabilities seem to be functional for showing the credibility of deterree. The campaign against the Taliban regime in Afghanistan was informative because it had a powerful deterrent effect, signaling that the United States has the intent, resolve, and ability to punish and depose regimes that may contemplate supporting terrorist networks. Prior to the events of September 11, it could be argued that the United States had not amply demonstrated that. The campaign to unseat the Taliban has made deterrence more credible in the context of dissuading regimes from supporting terror groups as it can be observed in the case of the Libya's stance depending upon a sort of appeasement. In the words of Mohammad Al-quayri Yasin, the former adviser of Qaddafi stated in Al-Ahram that "...if someone would call it concession...then be it. The people of Libya did not and will not sacrifice themselves for personal desires

of some selfish Arabs.[197]" Although such a stance of Libya has exposed a negative reaction recently demonstrated in the meetings of the Arab League through the words of Amr Musa, the secretary general, Libya may be a relevant example of a working asymmetrical deterrence based on an international resolve and coercive actions. As subsequently mentioned in this paper, even though asymmetrical deterrence subsumes dissuasion, compellence, coercion and inducement because of involving a "demonstration affect", its premises deriving from classical theory such as "preventing a specific action before it happens" can be seen. Apparently, the inter-state level seems to be relatively more classical in asymmetrical deterrence. When state-sponsored ship is in question, asymmetrical deterrence can further stem from classical assumptions of deterrence.

[197] Interview was published on 22 May 2004 in "Al-Ahram."

CHAPTER - VII

CONCLUSION

As the military and political leaders of the Roman Empire understood, in a hostile and anarchic world, in order to preserve the peace, it is often necessary to prepare for war (*Qui desiderat pacem, praeparet bellum*). The promise of unacceptable consequences and retaliation following an attack may not be politically correct, but in the face of deep-seated hatred and hostility, there is often no realistic alternative. Deterrence, on its own, is not always sufficient to prevent conflict, but it is still a necessary condition for creating and maintaining stability.

Before commencing concluding remarks, it is useful to recall the basic parameters of asymmetrical deterrence in a table format:

Table 3: Basic Breaks

CLASSICAL / SYMMETRIC	ASYMMETRIC
Minor actors make marginal military contribution.	Relatively weaker actors have major effective capabilities
Minor actors as allies can try to exploit the interdependence of superpowers.	Major actors cannot remain independent against all parties in terms of NBC usage.
Maintaining status quo is vital for all parties	Some aims at revision.
Deterrence can be mostly formed in terms of indirect use of force for dissuasion.	Deterrence via direct use of force for preservation or/and alteration is possible.
"The latent violence" or "the diplomatic violence" is means.	Direct violence is leverage.
M.A.D. and pyrrhic victories are possible.	Multi dimensional destruction and pyrrhic victories are possible.
Mainly nuclear deterrence	Presence of CBRN deterrence
Standardized inventory protocols for delivery systems, warheads, threat-response strategies and tactics.	Non-standardized rules of engagement.
Maximum strategic interdependence	Minimum strategic interdependence
Deterrence (in narrow terms) rather than compellence	Compellence rather than deterrence (in narrow terms).
Limited actors with first-strike uncertainty.	Non-limited actors with first-strike uncertainty.
Controllable nuclear escalation.	Non-controllable nuclear escalation.
Minimum usage of BC weapons (possibility)	Maximum usage of BC weapons (possibility)
"Threat that leaves something to chance"	" Threat that leaves more than something to chance"
Definable actors and units	Non-definable actors and units
Mutual deterrence is the desired outcome	Unilateral deterrence is the desired outcome.

Table 4: Basic Continuities

Concerned cost-effectiveness.	In spite of increased level, there is concerned cost-effectiveness.
Rational ends via mostly rational means.	Rational ends via either rational or irrational means.
Bipolarity with anarchic system.	Although the polarity may change, its ordering principle (anarchic system) will not.
Nuclear weapons (NW) are the subject matter.	Although RMA and CRB are relevant, revolutionary consequences of NW can not be disregarded yet.
Efficient communication and information based decision-making.	Take decisions via effective information gathering and communication.

Toward the end of the Cold War, deterrence, and terms such as "massive retaliation" and "assured destruction," lost respectability and became politically incorrect. The idea that the survival of the United States and Europe depended on threats to destroy dozens of Soviet cities in retaliation for a nuclear attack, was seen by many as immoral and not credible. Ronald Reagan's Strategic Defense Initiative reflected the efforts to replace deterrence with an alternative strategy based on defensive umbrellas.

The rejection of deterrence was reinforced following the end of the Cold War, and this strategy has been largely neglected, both in confronting the so-called state-terrorism of Saddam Hussein, and also in response to threats from non-state terrorists such as Osama bin Laden (as well as the regime(s) that give them sanctuary). In 1990, by failing to clearly and credibly communicate the consequences

of an Iraqi invasion of Kuwait, the U.S. allowed Saddam Hussein to believe that he could get away with annexation. Moreover, either some scholars argue about the lack of capabilities of terrorists or advocate the infeasibility of their NBC weapons usage. However, the incidents and unclassified literature say us that even though it is not a probability, it is a possibility.

In the confrontation against "asymmetric warfare," the role of deterrence has been largely neglected. In part, this reflects the continuation of the distaste for policies based on retaliation and the use of hostages, but it is also the result of the mistaken belief that terrorists such as bin Laden and members of groups such as Hamas, Hizbullah, FARC, Aum, which are suicidal and/or apocalyptic and/or politically desperate to use NBC weapons cannot be deterred. After the mass terror attacks on New York and Washington, and given the difficulties inherent in alternative strategies based on defense and pursuit of such elusive and invisible enemies, it is necessary to introduce concepts based on deterrence and assured destruction as well.

Within this context, first of all, the area where deterrence can be most effective is with respect to states and regimes that give safe-havens and support to terrorist organizations. Ultimately, the world is divided into states, and all terrorist groups need territory from which to operate, controlled by states. Indeed, UN Security Council Resolution 1373, adopted on September 28, 2001, focuses on state responsibility in refraining from "providing any form of support, active or passive, to entities or persons involved in terrorist acts." It is certainly preferable for the U.S.

and the UK to persuade states to patrol their own territories rather than to deploy overextended American and British forces all over the globe in order to find terrorist cells. Thus, even in cases of non-state terrorism, the chain of responsibility may lead to identifiable and vulnerable regimes and political leaders that can be deterred by threatening their own survival. Had the costs of hosting Al-Qaeda been made clear to the leaders of the Taliban over the past few years, they would have acted to evict bin Laden and his Arab brigade from Afghanistan. Now, of course, the price has become clear, but it is too late for deterrence, and this thesis discussed basic premises for such deterrence.

Secondly, the identification of the threat and prevention of ill-defined targets are musts for initiating a deterrence policy against stateless actors. In that sense, the mere task of the state parties is to reveal the vulnerabilities of terrorist organizations in order to organize their reaction as retaliation.

Thirdly, the deterrent threat of punishment should be coded in a declaratory and clearly understandable way that will entail targeting the foe through the potential of its losses and costs. Needless to say, to dissuade identified adversary, precise threats should be made against its vulnerabilities in which it rationally prefers not to act. In those terms, the concept of rationality subsumes the traditional rational person of classical deterrence and extends its logic towards not only a fragmented but also a non-monolithic environment. That is called relative rationality. In order to better opt for successful deterrence policies, state parties should penetrate the black boxes of stateless actors and determine the process of decision-making in terms of different

point of views between decision-takers and action-takers, their motives; and legitimacy basis. Indeed, we are urgently in need of culturally sophisticated profiles of asymmetric foes, so that we may stand some chance of understanding what might best discourage them from proceeding.

And lastly, credible capabilities should be created for struggling asymmetrical terrorism. They can be either for denial or pre-empt; they can aim both prevent and compel and they can involve inducement. The most vital is to consider every threat as unique. And like in the aforementioned phases, capabilities can only be credible if they are organized on the basis of issue-specific manner. A state can not attack with conventional forces for pre-empting a threat in a case similar to Aum cult; or a state may consider and declare as dissuasion, using high-intensity weapons in the situations where a state would be proved to be the backer of a terrorist attack via NBC weapons. In brief, relativity is not only the guiding principle of rationality; it is also the ordering principle of forming credible capability.

In conclusion, the introductory principles of asymmetrical deterrence might be formulated as follows:

For a possible asymmetrical deterrence to be successful, there is a need for credibility for capable retaliatory measures that also involves demonstrative effects from which rational but might be reasonabless foes can be dissuaded, compelled, prevented, pre-empted and/or coerced multi-dimensionally through applicable multi-faceted means including (in)direct use of force and/or non-military policies based upon well-communicated and openly declared multi-lateral implementations.

In this respect, this thesis tried to argue that it is irrelevant to ask the question whether states will react or not. Instead the question should be based on the following clause: if reaction is inevitable, it will occur in which terms.

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