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Dynamics of Nuclear Going Theories: Problems and Prospect

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Abstract

In the contemporary world the mad nuclear arms race is high on the political agenda of most neo-cons, super-patriots, religious fanatics and arms dealers. Throughout the nuclear era, the conventional wisdom has been that one state's nuclear acquisition has driven its adversaries to follow suit but it is not always the case and instead, the primary security factor driving nuclear weapons proliferation today is the disparity in conventional military power. This is likely to continue in the future, with profound consequences for which states do and don't seek nuclear weapons. As proliferation begets proliferation, the analysis of reasons why states have sought nuclear weapons remained a central theme of the whole aspect. Several theories-traditional and modern, exist today with their arguments but no single theory is in a position to prove itself as the sole influencing factor which makes it difficult for academician and policymakers to forecast-why states start nuclear weapons programmes or refrain from it. With these facts and factors in the background the paper aims to analyze various existing motivational theories / influencing factors to provide new insight and to be helpful to analysts and policy makers who deal with potential current or future proliferating states. Only by knowing why states behave like they do, effective policies to influence this behaviour can be made.

Key words: Nuclear weapons; Security; Conventional military power; Rivalry; Regional situations; Will and capability

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INTRODUCTION

Peace among nations became a necessary condition for mankind's survival since the dropping of nuclear bombs on Hiroshima and Nagasaki in August 1945. It is true that since then there has been no world wars, it is also true that nuclear weapons have been developed and deployed in part to deter such a conflict. The experiences of its use were more than sufficient to prevent all the nations possessing this new technology from any actual use of it under any circumstances. This nuclear revolution, in post World War phase, has forced great powers to behave in a careful and restrained manner and to accept a compromise, which in pre-nuclear times would surely have been unacceptable (Singh, 2005). There is no doubt in the fact that it is an extraordinary technological and military achievement and considered a great moments of history, it did not stop further research on atomic energy. In post-war period many scientists turned their attention from atomic weapons to the peaceful uses of atomic energy but most people/nations continued to believe that it can be used both ways-for destruction in war and for development during peace. Since the advent of nuclear weapons, there have been dozens, if not hundreds of projections by government and independent analysts trying to predict horizontal and vertical proliferation across the world. Various studies examined which countries would acquire nuclear weapons, when this would happen, how many weapons the superpowers as well as other countries would assemble, and the impact these developments might have on world peace (Yusuf, 2009). However, its proliferation is a timely reminder

of the flaws in both the methodologies and theories they employed, over the decades.

In the context, the likelihood of the use of nuclear weapons for political ends was considered extremely high. It came from the realization that nuclearisation among most Asian rivals could cause one or both sides to contemplate suicidal moves and increase the fears of the use of nuclear weapons (Bracken, 1999). The "mad ruler" scenario was frequently mentioned in recent years as was the concern with an abrupt regime collapse in dictatorial systems like North Korea. Others argued that countries would be likely to pursue nuclear policies that would lead them to develop operational first strike capabilities in a quest to attain regional supremacy. In the circumstances there was an overwhelming belief that developing country proliferation would raise the specter of nuclear war. American analyst Joseph Cirincione in his book, Bomb Scare, pointed to India-Pakistan crises and a conflict over Taiwan as examples of situations where an escalation to the nuclear level may be swift and uncontrollable (Cirincione, 2007). The two sides found themselves embroiled in one limited war and one near-war crisis under the nuclear umbrella in 1999 and 2001-02 respectively (Chari, Cheema, & Cohen, 2007). Another American Michael Krepon, a noted theorist, has also supported the view that if the crisis has potential for a loss of face or a loss of territory, the prospective loser will seek to change the outcome.

1. PREVAILING NUCLEAR MOTIVATION THEORIES

Even today, it is still unclear among academics and policymakers why exactly states start nuclear weapon programmes or refrain from them. What makes nuclear weapons attractive or unattractive to the leadership of any state? In the context many theories exist but with supporting and opposing evidences. In the comity of nations each individual country's case is considered in its international and domestic circumstances and with all changes herein during history. Without understanding what are the motivations of states to aim for or refrain from acquiring nuclear weapons, it is not only complicated to forecast nuclear proliferation dynamics, but even more important: it becomes difficult to develop policies aimed at influencing these dynamics. To achieve this we do not require a brand new theory, but by increasing the insights in the large amount of existing theories on nuclear proliferation motivations.

Traditionally, thinking on proliferation has been dominated by the realist camp which considers nuclear weapons valuable states and according to this only strong supply side control measures can stop the world's natural tendency toward rampant proliferation. Over the years, the realist approach proved a poor guide to the realities of nuclear proliferation and then came the idealist camp which takes a different approach particularly to the demand side of the proliferation equation and became increasingly prominent in academic circles and in the policy world. To succeed the idealists are exploring the question of the demand for the bomb at three levels of analysis: international, domestic, and individual. For this purpose, apart from realist and idealist approaches, several theories were developed and divided into groups by various scholars. For example, a rather early study on proliferation motives by George Quester, dating from 1973, counted three groups of them (i) military motives; (ii) political motives; and (iii) economic motives (Quester, 1973). Scott Sagan in 1996 also developed a grouping of three "models" explaining why states wish to build nuclear weapons: (i) security; (ii) domestic politics; and iii) norms (Sagan, 1996). Further groupings on why states go for nuclear were given by Etel Solingen (2007), and by Joseph Cirincione in the same. However, the latest work on grouping for going nuclear was done by William Potter and Gaukhar Mukhatzhanova in 2010. They summarized the group of all theories on nuclear weapon's motivations into these four categories: (i) security; (ii) international institutions; (iii) international norms; and (iv). domestic circumstances. These groups are sufficient proof that not only the amount of theoretical groups differ, but also their content. On the basis of existing theories on motivations for nuclear weapons, four major factors have been counted:

i. Capabilities;
ii. Security;
iii. International Norms and Perceptions; and
iv. Domestic Politics Context (Meer, 2016).

2. CAPABILITIES

In general nuclear weapons are not easy to develop, nor are the materials that are required cheap and commonly available. Under this umbrella are brought the technological and economic capabilities to develop nuclear weapons. In this regard the most challenging and costly is the production of fissile materials. Transforming the nuclear materials into reliable and deliverable weapon is another challenge that requires highly advanced technologies, expertise, and the same applies to developing the delivery systems for the weapons, and perhaps, this is why states prefer ballistic missiles (Erickson, 2001). It is also argued that the technological and financial capabilities required for developing nuclear weapons are an effective barrier specially to less developed countries without an advanced scientific and technological infrastructure and without the financial strength to afford the investments needed to start a nuclear weapon programme (Keck, 2013).

Earlier in the first decade of nuclear weapons existence, it was generally assumed that any state would

like to have nuclear weapons, simply because these weapons were the most advanced and powerful military tools available. The idea was also supported by Stephen Meyer in mid-1980s and according to him the only determining factor becomes technology (Meyer, 1984). However, the factor failed to get a status of "principle". It has no solid answer to the question—when a state has the means available to build nuclear weapons, why should it refrain specially when it is rather easy to convert civilian nuclear energy technology programmes into military ones (Baker, 1976). But a more heavy-weight logic against the factor was that many countries have become technologically and economically able to develop nuclear weapons, but never did so. In a nutshell, it may be assumed that the capabilities factor is still important in determining motivations to pursue or forgo nuclear weapons, even though it may not be a decisive factor on its own. In circumstances, the availability of capabilities to develop nuclear weapons may compel the leadership of a state to start a nuclear weapons programme. On the other hand, a lack of technological and / or economical means may force state leaders with a wish for nuclear weapons to abstain from starting a nuclear weapons programme-although this is still a choice with its own motivations, because it could always be a possibility to start acquiring the capabilities needed, even when this requires tough choices on how to spend limited state budgets (Neil, 2009). In recent past the importance and relevance of capability factor has been faded forcefully since Pakistan and North Korea-both relatively poor countries acquired nuclear weapons in 1998 and 2006 respectively.

3. SECURITY

Since the beginning of research on dynamics of nuclear power, it has been and continues to be a dominant theory on motivations for states to pursue nuclear weapons. The realist school of thinking and several others consider the world as an anarchy. In this anarchy, the states are in continuous competition and will only be able to survive as an independent state by "self help", which can be summarized as individualistic behaviour aiming for its own power and benefits and thus strengthening its position in comparison with other states. In the context there is a strong pro-nuclear power weapon attitude while considering the ultimate survival, because this powerful tool will provide the best security guarantee against any external aggression. The only condition for having a successful nuclear deterrent is that the nuclear weapons arsenal should be so capacious that it cannot be totally destroyed by a surprise attack (White, 1996). In fact all states wish for nuclear weapons to be able to ensure their survival within the current international anarchy system. Although most realist thinkers agree that developing nuclear weapons is not easy, cheap or without risk, yet at the same time they acknowledge that only states with actual, pressing security problems will actively pursue nuclear weapons (Paul, 2000). Here is also to mention the other side of the coin in which sometimes acquiring nuclear weapons may be a bigger threat to a state's security because a weapon programme may cause more distrust and tension among adversaries than would be the case without a nuclear weapon programme. An adversary state may feel so threatened by the nuclear weapon programme that it will launch a military attack to prevent its adversary from acquiring them. In the worst case the adversary state may react by developing nuclear weapons itself, thus creating a nuclear arms race and causing even more insecurity and instability in the region. In the situation, the realists argue, states often refrain from starting a nuclear weapon programme.

However, in contrast to the facts given in favour of realist theory, many examples can be found of states in intense conflict situations that never started a nuclear weapon programme. This variant was most popular during the "Cold War" days which emphasises the importance of security alliances and even up to now many analysts favour the alliance explanation to account for nuclear nonproliferation. In this variant states may also chose another option: seeking for an alliance with a nuclear weapon state that is willing to promise nuclear retaliation in case of the non-nuclear ally will be attacked. This kind of security guarantee, often called a "nuclear umbrella" or "positive security assurance". It makes a nation's nuclear weapon programme less necessary and the costs, difficulties, and risks associated with it can be avoided (Tertrais, 2001). But there is always a risk and this extended deterrence may not work in the case of conventional military threats. Thus, the core of this contradiction is that friends today may become enemies tomorrow (Hymans, 2006). Under this strategy states go for the bomb themselves and thus avoid any pleasant surprises.

In addition, there is a concept of Neo-realist theory, developed since the 1970s, combines the importance of security guarantees with the dimension of the international system: whether the system is unipolar, bipolar, or multipolar will influence the value of security guarantees. In a bipolar world like the Cold War era, security guarantees by one of the two superpowers will generally solve any security concern of other states. In a multipolar world which arose after the end of the Cold War, the stabilizing role of security guarantees by the superpowers is loosened because these superpowers themselves have become less powerful (Mearsheimer, 1990). In a multipolar world states tend to start their own nuclear programmes more easily. However, specially since the 1990s the concept of "opacity," "latency" or "ambiguity"

has become more popular in nuclear proliferation studies. In this concept nations develop nuclear weapons without testing them or at least develop the means to be able to build nuclear weapons in a very short timeframe. This is called threshold capacity" —it takes little time to pass the threshold of nuclear weapon possession. In a balanced view, in the context, many analysts recognize the perceptions of external insecurity among state leadership are necessary conditions for decisions to start a nuclear weapons programme, but this condition alone is inadequate for explaining these decisions and other motivational factors have to be combined with the security motive (Rothstein, 1966).

4. INTERNATIONAL NORMS AND PERCEPTIONS

This category of motivational factor includes various theories focusing on the role of perceptions among states on the influence that nuclear weapon could have their position in the international community. On the one hand, these perceptions can be influenced by internationally shared norms that make the acquisition of nuclear weapons less attractive-especially those norms institutionalized in international treaties like the Nuclear Non-Proliferation Treaty (NPT). On the other hand, some of these perceptions may make nuclear weapons more favourable, because states may consider these weapons as increasing their status and prestige. Especially the prestige as a factor of influence on proliferation has been acknowledged by many. The norms theory in (non) proliferation studies claims that decisions regarding nuclear weapons serve important symbolic functions, depending on the perceived identity of the state. Decisions in this regard are determined by deeper norms and beliefs about what is legitimate and appropriate in international relations. The first and foremost effect of NPT as Jacques Hymans (2006) says,

> Most states think of themselves as, and want to be seen as, good international citizens. Thanks at least in part to the non-proliferation regime, there is today a widespread acceptance by states that good international citizens do not build nuclear arsenals. Therefore, the overwhelming majority of states have in fact not gone nuclear.

Not only today even before the coming into force of NPT, more than two-fifth of the states that possessed the required capability to start nuclear weapons activities did so. According to an estimate since 1970, less than 15% of the states that have the capacity to build nuclear weapons did actually start such a programme. Harald Muller and Andreas Schmidt also made strong claims on the norm —setting of the NPT and argued that since 1970 almost 70% of all states that once started a nuclear weapons programme ended this scheme (Muller & Schmidt, 2010). The authors explained this phenomenon by three ways in which the emergence of international norms influences the behaviour of states. First, the non-proliferation norms changed the costs-benefits calculations by states. Because of the broad supported non-proliferation regime, including its verification and export control policies, developing nuclear weapons will be more difficult and costly-technically financially, and politically. Second, the international norms affect the national balance of power between groups when they differ in opinion on whether or not to develop nuclear weapons. Third, according to Muller and Schmidt most importantly, the international norms change the assumptions about what is appropriate state behaviour.

In the context several analysts raise the warn on the ground that it is difficult to prove a casual relationship between support for the NPT and the restraint of capable states to develop nuclear weapons. They argued that the states that ratified the NPT simply did not intend to develop weapons before hand, instead of signing the NPT under pressure of the norm while actually wishing for nuclear weapons. Critics of the norms theory put forward that determined proliferators will do whatever it takes to acquire nuclear weapons and in that case international norms are probably the least obstacle. Today there are examples to prove that the NPT does not stop states from acquiring nuclear weapons automatically to do so. North Korea, Iran and Syria are instances of states that ratified the NPT but still started a nuclear weapon programme (Dunn, 2009). However, the non-proliferation regime has made nuclear weapons programmes less visible because states wishing for these weapons behave more secretly than before.

Contrary to the "negative" norms which prohibit states for going nuclear there are also "positive" norms which offer prestige and great power status to nuclear power states. Many scholars including Agatha Wong-Frazer describes the possession of nuclear weapon as a token entitling the holder to claim a certain major power status (Wong-Frazer, 1980). This kind of positive perceptions of nuclear weapons is regularly labeled as "symbolism," because the weapons are not regarded positively because of their actual usefulness as military weapons but more because of their symbolic value. And danger for going to a state in favour of nuclear programme for military purposes exists as long as states adhere to these positive norms which include-status, prestige, diplomatic leverage and international bargaining power (Sauer, 2011). In addition, just like the non-proliferation norms, positive norms are also linked to a state's identity, self image, desired position in the international community and to "gain attention". When a state wants to be taken seriously by other states but has little to offer, pursuing nuclear weapons or the demonstrated intention to acquire them is a sure way to attract attention and it may lead to diplomatic, political and economic benefits for the doing states.

5. DOMESTIC POLITICAL CONTEXT

The last and fourth cluster of factors influencing nuclear weapon motivations is directly related to the domestic political context and international situation-security, treaties, norms etc has nothing to do with it. Even by adding the word political, the role of other domestic factors like, culture, geographical situation or technological capabilities has been denied. Although scattered mention on domestic factors is found in the literature on (non-) proliferation dynamic, focusing on domestic political factors as drivers for decisions to acquire or forgo nuclear weapons is relatively a new branch on nuclear-related research. The domestic political context has several dimensions such as, domestic turmoil, regime pessimism, the type of regime, the importance of the psychological profile of state leaders, influence of elite groups and civilian nuclear power bureaucracies. It is all included under the umbrella of political domestic context and all dimensions within this factor are based on national political circumstances and dynamics that influence the decision to pursue or forgo nuclear weapons.

In domestic political context domestic turmoil is perceived as threatening the power of the state leadership. States facing domestic tensions may use a nuclear weapon programme and the international condemning reactions on it as a method of diversion. Nuclear weapons programmes may respond to, or even bolster, nationalist sentiments and international negative reactions may cause a "rallying around the flag" effect, ending domestic dissensions for some time. By diverting public attention from unfavorable domestic issues, the regime could strengthen its position (Dong & Gartzke, 2007). Related to the domestic turmoil aspect, as considered by Kurt Campbell, regime pessimism works as a factor of potential influence on nuclear weapons proliferation. According to him especially ''States in decline" tend to consider developing nuclear weapons because often they suffer from a kind of societal insecurity over future economic and security pitfalls. In that kind of situation the regime pessimism of states may use a nuclear weapons programme to prevent the state sinking into oblivion or being overshadowed by rival states (Campbell, 2004). In recent literatures, too, these factors are being emphasized.

In another grouped factor in this category is the regime type of countries. In International Relations there exist a number of studies suggesting that democracies are less likely to engage in armed conflict against each other compared to autocracies. It is generally believed that abiding by international law and its established norms is normal behaviour in the international society of states. But in comparison totalitarian states with a power-seeking or paranoid leadership are more likely to breach their obligations openly or clandestinely (Muller & Schmidt, 2010). However, on the other hand some authors also maintained that democracies tend to be slightly more inclined to pursue nuclear weapons, because democratic leadership may be more vulnerable to use a nuclear weapons programme to boost their popularity among nationalist population, because they wish to be re-elected-something about which a dictator does not need to worry. In the context of a relatively early study conducted by Richard Betts, he especially focused on states with an isolated position in the international community which generally is authoritarian states. Another pioneering research after a long gap (2007) also focused on the political-ideological orientation of state leadership regarding the economic integration of their state in the international system. When a state leadership is aiming for economic growth and prosperity by international trade, it will have much to lose if it decides to acquire nuclear weapons. On the other, if the state leaders are not interested in the economic integration of their country in the international system will have less to lose by acquiring nuclear weapons. In his study, Solingen concluded that nuclear programmes are less likely to emerge in countries where the political culture is in general sympathetic to economic openness, trade liberalization, foreign investments, and international economic integration (Solingen, 2007). At large, in the cluster of domestic political context of two different groups of domestic actors are seen as influential: political leaders themselves as well as societal group having the ability to somehow influence the political leadership.

In further and recent study Jacques Hymans, has focused on the importance of the psychological profile of state leaders on decisions to acquire or forgo nuclear weapons. In the context he argued that especially state leader's conceptions of the national identity are the most influential factor regarding these decisions. Hymans developed four categories of state leader's profiles: oppositional nationalist, oppositional subalterns, sportsmanlike nationalists, and sportsmanlike subalterns and concluded that state leaders with the psychological profile of the oppositional nationalist-characterized by a mixture of fear and pride-are most likely to decide to acquire nuclear weapons (Hymans, 2006). In line the "domestic elite theory" was first provided by Peter Pringle and James Spigelman in 1981 and later by Peter Lavoy who clearly links the domestic elite factor to the security issue and describes the process of domestic elites influencing nuclear weapons decision making as "nuclear mythmaking (Lavoy, 2006). Once a state has started civilian nuclear programme, the role of civilian nuclear power bureaucrats naturally become important as well as relevant.

CONCLUSION AND PROSPECT

To conclude, the set of factors may provide insight to anyone who got lost in the academic debate on nuclear

(non-) proliferation motivation, and could especially be helpful to analysts and policy makers who deal with potential current or future proliferating states. In larger as well as specific cases, states' nuclear weapons programmes are not a static process. These national policies are part of a constantly evolving situation, and international policies aimed at influencing such issues should match this dynamism as well. They need to be sufficiently fluid to cover the starts, stops, setbacks and shifts that comprise any state's nuclear weapons (non-)acquisition policy. Intuitively, security is the most important driving nuclear acquisition, but it is not in a position to explain why others are not. This lack of consensus on the causes of nuclear acquisition and forbearance has serious consequences for global non-proliferation policy, and decisionmakers are limited in their ability to identify the policies most likely to deter other states from acquiring the bomb.

In fact, the spread of nuclear weapons is a dynamic process in which the interests of several states to interact and the likelihood of proliferation are largely determined by the strategic interaction between a state deciding whether to acquire nuclear weapons and its adversaries. This interaction is shaped by the potential proliferators ability to defer a preventive strike on its nuclear programme prior to acquiring the bomb. This ability, in turn, hinges on the proliferators relative power and whether it benefits from the protection of a powerful ally. The higher the potential proliferators relative power, the greater the likelihood that it will proliferate unimpeded whenever it deems the security benefit of proliferation to be worth the cost of a nuclear programme.

However, in the sphere of theories that motivate a state going for nuclear or not is a complex one and it largely depends on various theories/influencing factors in which a state takes this crucial decision. While researchers and analysts are making in-depth studies in a fact finding approach, states acquiring nuclear weapon or on its threshold, are presenting more challenges before them. In the context, a continuous going-on research process on why a state favours nuclear weapons while others not is needed to make the study on theories of nuclear going more effective and purposeful to ensure disarmament and peace in the world.

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