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Understanding Nuclear Proliferation: A Theoretical Analysis

Introduction

Since the end of the Cold War, there has been a renewed attempt on part of strategic analysts to see whether nuclear proliferation has a future.¹ A theoretical debate on how nuclear proliferation can be explained is also underway. Those engaged in this activity have been trying to understand the “proliferation puzzle” and what causes underlie its continued operation.²

The problem, however, is that this exercise is quite futile unless it is firstly understood that the concept of nuclear proliferation has not been adequately defined. What makes it further problematic is the question on how to separate or whether at all nuclear proliferation can be separated from other processes such as arms races and alliances. The lack of information does not make the situation any rosier. What this results in is that conclusions are reached upon the policies and possible trends in countries that are not open about their nuclear weapons programs utilising the analysis of countries that are more open about their nuclear weapons programs. So, when proliferation of nuclear weapons in opaque states is sought to be explained with examples, analysis from nuclear weapons states, it is bound to create problems of analysis.

An attempt to understand nuclear proliferation is further hampered by the fact that both the levels of analysis and the agent-structure debate are centrally involved in the proliferation debate. The fact that they are subjects in their own right does not make the attempt any easier.

However, in spite of the above mentioned problems with studying proliferation Bradley A Thayer has made a bold and impressive attempt to

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understand the causes of the spread of nuclear weapons. In the final analysis Thayer does not give much importance to prestige, bureaucratic push or technological pull as major causes of nuclear proliferation.³ Explaining how each of these reasons proves inadequate Thayer provides examples from various countries' attempts at proliferation.

Taking up the first reason, prestige is mentioned as a cause of proliferation in only three cases of Britain, France and India, and in no other.⁴ He, however, goes on to refute the prestige theory saying that states such as North Korea, Iraq, Israel, Iran, etc., did not acquire nuclear weapons out of prestige as these states have gone to great trouble to conceal their nuclear weapons program. If one tries to explain the British, French and Indian proliferation by using prestige as a cause this too does not go too far as these states acquired nuclear weapons because of security concerns, not for reasons of prestige. Especially in the Indian case, after the 1964 Chinese detonation, there were attempts at seeking nuclear guarantees from states like Britain or the United States. Such behaviour cannot be explained by the 'prestige' line of reasoning.

Bureaucratic push has been posited as the next possible causal explanation of nuclear proliferation. Allison and Halperin's work provides an excellent framework for understanding providing the governmental or bureaucratic politics and how it influences the decisions states take.⁵ In the proliferation arena the theory of bureaucratic politics has been employed to explain the French, Indian programs. They say that individuals like Homi Bhaba, and institutions like the Commissariat à l'Énergie Atomique (CEA) of France, have played a pivotal role in guiding the search of nuclear weapons in these states.

The simple response to these arguments would be that perhaps these individuals did have an impact on the program in these countries but, even if they weren't there these nations would still have taken the same decisions. They could have taken more time in reaching their objective but to say that the existence of these individuals was a prerequisite for proliferation to occur would be incorrect. This counterfactual argument proves the neo-realist argument beyond a reasonable doubt.

Technological pull theory says that once technology to acquire nuclear weapons is invented all states capable of acquiring nuclear weapons must do so. Proponents of this theory seek to explain the mind numbing build up of atomic arsenal by the United States and the Soviet Union saying, 'When technology beckons men are helpless.'

The neo-realist response is that the logic of this theory is flawed. One can sustain a claim that technology affects the decision maker and the decision, but saying that proliferation is caused by technology would be stretching it a bit too far. The theory does not explain how technology compels decision makers to do what is technologically feasible. The theory has not been able to explain a glaring gap as to how countries like Japan, Germany, Sweden, Belgium, etc., that clearly have the technological capability but have not built the nuclear weapons. This is so as to say the final frontier where the theory falls flat having expended all its power to explain.

Security Drivers and Neo-Realist Understanding of State Behaviour

For the neo-realists security is the most important cause of nuclear proliferation. This is because the neo-realists see the international system as anarchic, where there is no superior authority to play the role of arbiter of disputes.⁶ For the neo-realists, the use of force is always a possibility. As Waltz writes, “Units in an anarchic order act for their own sake and not for preserving an organisation and furthering their fortunes within it (as compared to the domestic system). Force is used for one’s own interest.”⁷

Discounting all other aims states might seek to pursue, neo-realists see self-preservation to be a pre-requisite to achieving any goals that states might have, other than promoting the goal of their own disappearance as political entities.⁸

Three ideas that are central to a neo-realist explanation of state behaviour and why states acquire nuclear weapons.⁹

The first idea is that all military capability possessed by states can be used to hurt others. All capability is thus inherently offensive in nature. The second central idea is that intentions of states are hidden and are difficult to perceive, understand and most of all be certain of the intentions of other states. War for the neo-realists is always a possibility because states are firstly in possession of offensive military capabilities and can harbour hostile intentions towards other states.

The third idea central to neo-realism is that relative capabilities of states are more important than absolute capabilities. This is so because it is only when the capabilities are perceived in a relative manner that the complete picture emerges.

A close reading of John J. Mearshimer’s work can lead one to predict state behaviour that would broadly fall in to three categories.

Firstly, because of anarchy in the international system, self preservation being an aim that all states will pursue and a combination of these two elements with the three central elements of neo-realism, what results is a situation where states will find it very tough to trust other states, thus resulting in the propagation of a self-help system.¹⁰

States will further move to arm themselves realising the fact that in such a system they will have to guarantee their own survival. Waltz terms the development of the state's own armament to defend itself as 'internal balancing'.¹¹

The third behaviour that neo-realists predict is the idea that states will try to maximise their offensive power. Here however, there is a difference of opinion between the defensive and offensive realists, with the defensive realists like Greico arguing that states are basically interested in maintaining the balance of power¹² and proliferate in order to gain security from external attack.

The offensive realists like Mearshimer have a different viewpoint on proliferation. They say that states maximise offensive power in order to gain security, including developing nuclear weapons if the state has the capabilities to support the development.

Global Efforts at Building Nuclear Weapons and the Neo-Realist Reasoning

If one does a brief analysis of proliferation attempts in history, an overwhelming majority of them can be explained using the realist argument that the nuclear program was initiated and subsequently accelerated at various points of time because of security concerns.

This part of the paper will very briefly discuss the causes of nuclear proliferation by various states. It will, however, not delve into the subsequent development of the nuclear program as that falls out of the ambit of this paper.

The initiative and reason to build nuclear weapons was provided to the United States due to the prevalent misconception in the United States that the German program to develop a nuclear weapon was very advanced (it was only later realised that this wasn't the case and the German program was not as advanced as it was feared). However, the threat of a nuclear capable Germany and the leverage that such a capability would provide it with, led to President Roosevelt asking his scientists and advisors to press on with a nuclear program. Some commentators have also argued that the British Maud Committee report (that said that it would be possible for Britain to build the

nuclear bomb before the war is over) also played on Roosevelt's mind when he made the decision to push the Manhattan project.¹³ Thus, the neo-realist security centred explanation fits the logic behind the American attempts to build the nuclear weapons.

Going on to the Soviet case, it was the pace of development of the nuclear program in the United States, Britain and Germany that drove Stalin towards developing the nuclear weapon.

David Holloway in his book, *The Soviet Union and the Arms Race*, describes how the nuclear weapons program of the above mentioned countries was playing on Stalin's mind:

Perhaps Stalin had it in mind that after the war the Soviet Union would have to face a nuclear-armed Germany, for at this early period [1942] he may have only minimum war aims, which did not necessarily include the destruction of the Nazi state. Perhaps he foresaw that even with the defeat of Germany the Soviet Union would come into conflict with Britain and the United States; after all they were conducting their atomic projects in great secrecy, without informing the Soviet Union. More probably, the decision should be seen as a hedge against uncertainty. Given that Germany, Britain, and the United States were interested in the atomic bomb, was it not as well to initiate a soviet project, even though the circumstances in which the new weapons might be used could not be foreseen?¹⁴

The concern in Stalin's mind is brought out very clearly in a post-Hiroshima and Nagasaki meeting that Stalin had with some of his close aides where he mentions:

A single demand of you, comrades, provide us with atomic weapons in the shortest possible time. You know that Hiroshima has shaken the world. The balance has been destroyed. Provide the bomb – it will remove a great danger from us.¹⁵

Realism would explain this behaviour of self help and given the Soviet Union's capabilities it clearly had the wherewithal to take care of its interests.

The reasons for Great Britain's nuclear program are situated by the neo-realists in Britain's fear of a return to the 1940s when the US followed an isolationist policy and it (Britain) was faced with the ominous task of taking up the Soviet challenge alone. It believed that with nuclear weapons Britain could deter an attack from even the Soviet Union without having to rely upon an ally.

The French decision to acquire nuclear weapons was conditioned by two fears. First, the fears of a re-armed Germany dominating affairs in continental Europe. However remote, it was a fear that constantly played on French minds. What was probably more important was the lack of French belief on the American nuclear umbrella. The French did not believe that the Americans would come to the French assistance in case US cities were under threat from the Soviet Union.¹⁶

The crux of the realist argument was evident in De Gaulle's rhetorical question to President Eisenhower in September 1959 when he asked him whether the United States would take the risk of devastating American cities so that Berlin, Brussels and Paris could remain free.

The Chinese reasons for building the bomb were two-fold – fear of attack and doubts that their ally, the Soviet Union would not come to their aid if China were attacked. The fear of attack was strengthened by the US threat to use nuclear weapons a number of times, beginning with the Korean conflict. When the Soviet Union refused to assist China in its efforts to build the bomb its worst fears were realised and it went ahead full steam to build the nuclear weapon that it finally tested in 1964.

The Chinese acquiring the nuclear weapon is intrinsically linked to the Indian and subsequently the Pakistani nuclear program. At the very basic level, the main impetus that the Indian search for a nuclear program received was the testing of a nuclear weapon by China in such quick succession to the 1962 war that had completely devastated the Indian psyche. Thus, the fundamental cause of India acquiring the nuclear weapon can be termed as an attempt to match the Chinese capabilities. Until the Chinese acquired the nuclear weapon only the conventional side to Chinese superiority was looked at, but post 1964 a completely new element was introduced into the matrix. An Indian nuclear capability was seen as essential for staving off a Chinese attempt at nuclear coercion.

Similarly, the Pakistani nuclear program was greatly influenced by the 1971 war and the subsequent emergence of Bangladesh. It has been mentioned that it was the conventional superiority displayed in the '71 war and the desire on Pakistan's part to match Indian capabilities after the '74 tests that led to the Indian nuclear program. It was these twin concerns that pushed Pakistan along the nuclear path.¹⁷

The Israeli decision to build nuclear weapons was conditioned by two factors. Firstly, Jewish historical experiences which had made them realise

that as people they could not depend on anyone else, least of all on matters of security. This, however, did not necessitate an acquisition of nuclear weapons by Israel had it not been for the fact that Israel saw possession of nuclear weapons as being the easiest way to offset the conventional superiority of its neighbouring Arab states that were inimical to its very existence as a nation.¹⁸

Similarly, neo-realism can provide explanations for the proliferation activities of Iran and North Korea too. The Iranian attempts can be explained with the help of the adversarial relations that the United States has with it and also the Israeli nuclear and conventional superiority. Thus, the Iranian program can be seen as an attempt to deter any future American action that could prove inimical to Iranian interests and at the same time match Israel's capabilities.¹⁹

The beginning of the North Korean nuclear program can be traced to the South Korean attempts at building the bomb and also the growth in the conventional superiority of the South. If one tries to understand the recent actions of the North, it can be very easily understood in the Neo-realist framework.

In the Post Cold War era, the North Korean world came crashing down around it. Its two most important power bases had vanished overnight. The Soviet Union was no more and the successor state, the Russian Federation, recognised South Korea and went ahead and established diplomatic relations with it. China, on the other hand, too was perceived to be inching closer to the South Korean state, mainly driven by economic considerations. In such a situation, it would have been a miracle of sorts if the North Korean state had not done anything to preserve itself in the best possible manner. Given its access to nuclear technology, this was probably the best option available.

Critiques of Security Drivers as a Cause of Explaining Nuclear Proliferation

The neo-realists believe that other theories are valuable in garnishing each particular country's particular decision to proliferate. Prestige can be pointed out as being a factor in the British, French and Indian decision to proliferate; bureaucratic pushes to an extent can seek to explain the weapons program of certain countries like India, Pakistan, France, the US and the Soviet Union. However, their contention remains that as the brief analysis above of various countries point out, the basic cause of proliferation remains each state's fear for its security. Neo-Realism can thus provide a generic understanding of these state's decision to proliferate. Hair splitting on the particular aspects can be sought to be explained by utilising other theories.

Scott Sagan has questioned the neo-realist argument and uses the French example to press home his point.²⁰ He says that the nature of threat that France faced from the Soviets was not very different from the threat that other countries like West Germany, the Netherlands, Italy, Switzerland, Belgium, Norway, and Sweden faced. His contention is that the neo-realist explanation that the French suspicion of the American umbrella in face of a Soviet threat on its cities driving the French nuclear program, he says does not stand scrutiny.

However, others have argued that ‘prestige’ was an important consideration in the French nuclear programme. Until late 1954, despite the advances in the plutonium production capabilities, the French government did not approve the development of nuclear weapons. This sanction came only after the defeat of the French forces at battle at Dien Bien Phu in 1954 followed by the subsequent loss of French Indo-China.²¹

Similarly, following the Suez Crisis of October 1956 the British commitment to the operation dwindled as a result of the US opposition to the joint British-French (with Israeli support) invasion of Egypt. The Suez Crisis led to two results. Firstly, it hurt French pride thereby strengthening its commitment to procure an atomic weapon.²² Secondly, the British roll-back under American pressure made France suspicious of relying on support of allies for security French national interests. Bertrand Goldschmidt puts it beautifully when he describes the situation the French found themselves in the following words:

In the Suez crisis, French impotence in the situation had been clearly demonstrated. Abandoned by Britain, held back by NATO, thwarted by the United States, and threatened by the Soviet Union, France found herself suddenly and terribly alone, at the very moment when the war in Algeria was entering its most difficult phase. To many people, an autonomous French defense system based on national nuclear armaments then seemed the only answer to the failure and humiliation they had suffered.²³

This suspicion resulted in the later French decision to abandon NATO’s defence structure and develop its own independent nuclear deterrent also known as *Force de Frappe*.²⁴

While Scott Sagan may be partially correct in the argument he makes, he overlooks the fact that some of these states he mentions like Sweden or Switzerland made a conscious decision not to embark on a nuclear weapons programme. West Germany was under too great an influence of the allied powers

and thus could not possibly have made the decision to weaponise, though clearly, it had the capability, in terms of technology and manpower, both.

Another example that is often put up to criticise the neo-realists is the acquisition of nuclear weapons by Argentina and Brazil, two countries that by no leap of imagination needed the weapons to secure their national security. The neo-realists do seem to be on thin ice here.

The neo-realist response to this argument is that the Argentinean and Brazilian action of giving up nuclear weapons and joining the Treaty of Tlatelolco supports the realist argument. The countries realised that conventional weapons were enough for ensuring their security and bringing in the nuclear angle would only make them less secure. This realisation in the background of American hegemony in the region assuring an absence of external nuclear or conventional threats led to the two states to give up nuclear weapons thus strengthening the neo-realist argument.

To conclude, though the neo-realist explanation can prove to be very helpful in understanding causes of nuclear proliferation, if one seeks to understand the continuance of nuclear weapons especially by states like France and Britain, other explanations which emphasise nuclear weapons as being international normative symbols of 'modernity and identity', etc., also prove useful. However, to understand proliferation and its causes neo-realism remains the best possible theory as it provides a generic explanation to the phenomenon cutting right to the heart of the matter.

Notes

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23. Bertrand Goldschmidt, *The Atomic Complex: A Worldwide Political History of Nuclear Energy*, Illinois, American Nuclear Society, 1982, p. 139.
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