

India and Nuclear Weapons: Role of Learning in the evolution of norms

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DECLARATION

I declare that the thesis entitled “**India and Nuclear Weapons: Role of Learning in the Evolution of Norms**”, submitted by me for the award of the degree of **Doctor of Philosophy** of Jawaharlal Nehru University is my own work. The thesis has not been submitted for any other degree of this University or any other University.

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CERTIFICATE

We recommend that this dissertation be placed before the examiners for evaluation.

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Abbreviations

AG	Australia Group
ASEAN	Association of Southeast Asian Nations
BMD	Ballistic Missile Defense
CIA	Central Intelligence Agency
CTBT	Comprehensive Test Ban Treaty
CTBTO	Comprehensive Test Ban Treaty Organisation
EEZ	Exclusive Economic Zone
ENDC	Eighteen Nation Committee on Disarmament
FMCT	Fissile Material Cut-off Treaty
IAEA	International Atomic Energy Agency
ICAN	International Campaign to Abolish Nuclear Weapons
ICJ	International Court of Justice
MIRV	Multiple Independent Reentry Vehicle
MTCR	Missile Technology Control Regime
NDA	National Democratic Alliance
NFU	No First Use
NPT	Non Proliferation Treaty
NSG	Nuclear Suppliers Group
NTI	Nuclear Threat Initiative
NWS	Nuclear Weapon States

PNE	Peaceful Nuclear Explosion
PTBT	Partial Test Ban Treaty
SEANWFZ	South East Asian Nuclear Weapon Free Zone
UN	United Nations
UNSC	United Nations Security Council
U.S.	United States
USSR	Union of Soviet Socialist Republics
WHO	World Health Organisation
WMD	Weapons of Mass Destruction

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Chapter 1 - Introduction

When India's nuclear journey began not many would have realistically imagined the upheavals that came in the way. The continuous process of complex balancing between respect for the international norms and its own struggles for security was a tough task. Over the years, India has been at the receiving end of sanctions for violations of nuclear norms as well as appreciation for its impeccable non-proliferation record. This *omnium gatherum* from international backlash to the 'exceptionalism' has been the result of its consistent nuclear learning process. This thesis attempts to subdue the oversimplification of the role played by Indian nuclear learning in the formulation of nuclear norms which is often seen as just negative.

When Nye (1987) coined the term Nuclear Learning, the suggestion was for India and Pakistan to learn from U.S. and USSR to avoid a nuclear war. The fear of a nuclear war in South Asia was obvious with two neighbours having developed their respective nuclear programmes as a result of insecurity due to each other. But the expectation from the states to follow exactly what was done before is unrealistic. India had proved in the past that it was not going to follow the East West boundaries and had made its own syllabus for learning lessons, to place itself amongst the contenders of global power status. This thesis aims to understand how that journey impacted the evolution of nuclear norms.

India has over the years followed a different path and did not necessarily follow the leaders. In fact a major feature of the India nuclear learning was the resistance against selective normative impositions. Due to that stance, it has been often blamed for weakening the nuclear norms order by several states as well as scholars.

This study will historically trace the two processes – nuclear learning and evolution of norms to understand them better. This will be done by identifying indicators that imply contribution to the processes. The next step will be to trace how the Indian nuclear learning and international norms impacted each other. The understanding is that both had a mutually dependent relationship and hence both these perspectives will be looked at in successive chapters.

In order to understand the relationship between Indian nuclear learning and evolution of norms, the first task was to define the scope. This was to avoid getting trapped into confusions because of the innumerable dependent variables that these processes had.

1.1 Understanding learning

Merriam-Webster dictionary defined learning as “modification of a behavioral tendency by experience”. This implies a change in thought process, actions and well as expressions. At a personal level, there is a tendency to accept what is learnt from routine experiences. In a society, habits are picked up and there are kinds of behaviour approved. Those count as experiences which are then shared by individuals within a community and that leads to the development of a shared understanding of what classifies as appropriate. That sets the standard norms in a society.

Learning is often understood as a basic expectation from all humans, families, organisations, societies, states, regimes and so on. When a child is born, it enters a world full of expectations. Experiences are shared between mothers of infants on how to ‘set them right’ or how to ‘teach them good conduct’. This is human nature. Expectations of having learnt the ‘right’ conduct governs almost every interaction. The problem is the definition of that right learning.

In the realm of international relations too, there is exceptional belief in learning from experiences. Jack Levy had described learning as “a result of the observation and interpretation of experience” (Levy 2004: 283). This definition in one line covers almost every aspect of learning but the subjectivity that is infused in this definition due to the role of observation and interpretation cannot be underestimated. That was a major challenge in this study.

Another reality of today’s international relations is nuclear weapons. They dominate the ideology as well as foreign policy of states. It is interesting to see what the expectations are from nuclear learning, and how are the outliers taught the right lessons. Much like children, states too are all very different and do not abide to norms in similar fashion.

But how does one impose the correction of the incorrect learning? Are the international norms strong enough to constrain the ‘defaulters’? Are the states willing to learn from others about nuclear behaviour?

1.2 Why Nuclear Learning?

It is general knowledge that nuclear weapons have the capacity to inflict damage that matches nothing else. It can very well be said that the introduction of nuclear weapons has created an absolutely unprecedented situation rendering all previous strategic theories and concepts

immediately obsolete (Freedman 1989: 3). The intensity of the fear of attack has increased immensely with the nuclear weapons in picture and so have the risks of accidental attack. In order to address issues that come up with the arrival of nuclear weapons there is a never ending process of reflection on the political, economic, moral and defensive connotations of the possession of nuclear weapons. It is understood that there is a need for the ability of complex organisations involved to learn from the mistakes that had been made before (Sagan 1993: 210). Repetition of errors is always a big risk in such organizations and that is true for the ones involved in nuclear weapons decision making processes. In order to avert any such situation, nuclear norms are needed to impose a basic conduct which the states must follow.

These nuclear norms set standards which the states had to abide. Jeffrey W Knopf in his article “The Concept of Nuclear Learning” brought out an assumption that existed in the minds of many that “new nuclear weapon states might not be able to learn the right lessons, or might not learn in time, to avoid stumbling into a nuclear catastrophe”. This was the premise for the establishment of nuclear norms in the first place. The aim was to ensure that the latecomers could learn ‘right’ lessons. Hence nuclear norms gave a hint of what exactly counted as nuclear learning. The question was who were to be the teachers and who were the students willing to learn? As will be seen in later chapters, this premise served as a foundation for inclination towards adopting different nuclear learning processes too.

The term “nuclear learning” introduced by Joseph Nye in his seminal article “Nuclear Learning and U.S. - Soviet Security Regimes” published in 1987, designed this concept based on his studies of the relationship between Soviet Union and the United States. Nye (1987) claimed that a nuclear war was avoided by the two super powers due to the process of learning that took place over time. The argument was that the process of Nuclear Learning, like any other form of learning involved change in response, behaviour, actions and inferences depending on the circumstances which implied the prevailing norms. Hence the relationship between the two processes was evident from the beginning.

These two processes were a part of the developing international system. Alexander Wendt (Wendt 1999:44, cited in Knopf 2003:195) argues that if the international system was ever to evolve from a Hobbesian state of war to a Kantian world of collective security, social learning was to be the primary mechanism of change . Nuclear learning too is a result of socialisation

which is an extended leg of social learning but it does not end there. This will be discussed in detail in further chapters. However, it seems important to mention that the current state of the international regime of norms control is the result of nuclear learning processes that has taken place on different levels. Norms were put in place as an overarching international system to ensure correct nuclear learning which changed its definition over the years. Nuclear learning seemed capable of avoiding nuclear catastrophe as well as of justifying decisions for several states like India and even Pakistan.

Nuclear learning is a work in progress primarily because of the challenging of defining a yardstick to evaluate a state's learning. Due to the absence of one universal evaluation system, just like learning it was usually kept in a grey area outside any boundaries and compartmentalisations. The question then is what is nuclear learning? Is it the idea of disarmament or protection of territories by restraint? Is it open declaration of nuclear policy or is it careful balancing of nuclear rhetoric and actions? In order to answer these questions, it was necessary to theoretically construct and empirically test models of learning (Levy 1994: 282). This was done by looking at the indicators of nuclear learning of powerful states since this study did not aim at a detailed theoretical analysis of the concept.

In order to understand the link between the concept and nuclear norms, it is important to understand that nuclear norms are different from social ones. Freedman (2013) points out the difference between societal norms and nuclear norms by means of a comparison between abolition of slavery and norm setting process for supervising nuclear weapons. He observed that abolition of slavery is an end in itself whereas nuclear norms are means to achieve a bigger end which is to prevent a nuclear war. Nuclear norms differed in another way. They portrayed malleability which was forced upon by powerful states as well as the outliers. This was the result of nuclear learning of different states which will be elaborated in successive chapters.

Hence nuclear learning is important to analyse the complexities and different behaviours of states especially the ones that joined in late. The process is interesting due to the evident unpredictability in gauging the path that a state followed. This topic was primarily chosen to understand how that got affected as well as impacted the nuclear norms. It is even more important to explore the options that the states have in the current context with the rise in unconventional nuclear weapon states like Iran and North Korea.

1.2 Norms and nuclear learning

Norms are defined as the prescriptions or the proscriptions for behaviour for a given identity (Katzenstein, Wendt and Jepperson 1996, quoted in Tannenwald 2008: 10). Following those norms helps in fitting in groups that abide by them. Norms are basically the standards according to which a certain kind of behaviour is evaluated to decide if an actor is suitable for a specific identity. Neo-liberals emphasise on the people that create those norms. For them, norms help “to encourage behavior congenial to the interests of the hegemon that created them” (Kowert and Legro 1996: 482). This was a concern with regard to nuclear norms as well. In that case, the initial Nuclear Weapon States were the hegemons that set up a code of conduct for other states. The grievances of states like India were that their interests were not considered in the process of norm making. The problem therefore was the emphasis on the hegemon.

Before going ahead with the detailed analysis of nuclear norms it is important to understand how norms are produced. Nuclear norms are political in nature as the general understanding is that those weapons are not for use but for political influence. There are thus certain processes intended to “generate, maintain and change political norms” (Kowert and Legro 1996: 470). Kowert and Legro (1996: 470) define three kinds of processes that shape political norms. The first are the ecological processes. They derive from the pattern of relationships between actors and their environment. The second are the social processes. They stem from the relations between actors themselves. The third are the internal processes. They spring from the internal characteristics of actors. All three of them are at work at the same time. But there is a difference. Unlike the internal processes which are reductive and can be looked at in isolation, the ecological and social processes are irreducible to just individual actors. They are influenced by systemic factors (Kowert and Legro 1996: 470). There are some discrepancies found when ecological processes are traced like if the actor perceived a situation with ambiguity or if there is suddenly some dramatic turn of events that forced a change in norms (Kowert and Legro 1996). The social processes are often seen as generalisations about the way humans, states, organisations and political actors interact (Kowert and Legro 1996: 474). Hence they are not even considered as norms. The three sources together form the international norm control regime. While the ecological and social processes work towards strengthening it, the third category is closer to the late comers in the club. The internal processes are responsible for the changes that are

incorporated in the nuclear norms. They are the nuclear learning processes. They emerge from already existing “other norms” (Kowert and Legro 1996: 470). States evaluate their behaviours based on those. The basic technique adopted to establish norms through this way is by the process of “in-group/ out-group distinctions” (Kowert and Legro 1996: 476). The aim is to form stereotypes which are characterised by being a part of a group. The process of learning is operative in emphasising selectively on information that “confirmed group stereotypes” (Turner 1982 quoted in Kowert and Legro 1996: 477). The response of others depends on the identity of the state whether it is in the group or out of it. The definition of in-group stereotypes is the process helping actors learn the right kind of learning.

In terms of nuclear norms too there are some “in-group and out-group identities established” (Kowert and Legro 1996: 478). That process began from the initial days itself by means of treaties like NPT. They aimed at ensuring that the new states learn from the old ones and in time (Knopf 2012). Learning also plays an important role when norms are produced through “semantics” which need actors to make sense of the world and then communicate the mental representations to others (Kowert and Legro 1996: 478). Those mental representations play a vital role in power dynamics of the world. Those representations unfortunately can not be predicted with absolute accuracy. The mental representation and communication with respect to NPT differed from India to China to the United States. This was the result of different interpretation of the experience. That was a different nuclear learning.

An interesting aspect about learning is that there is an assumption that not everyone has the ability to learn the right things (Knopf 2010). It is very easy to point out several actors in international relations who do not portray the ability to learn the right things. So, “learning to learn” in itself is important (Visser 2003: 269). Visser in his analysis of different kinds of learning brings out the study that was carried out by Gregory Bateson (1972). Bateson speaks of types of learning –simple, operational and Gestalt learning (alternatively referred to as “acquisition of insight” and “apperceptive habits”) (Visser2003: 270). He brings out how actors learn and all the sources indicate dependency on as well as effect on norms. The three sources are:

- **Feedback loops** are seen as relevant in terms of international reactions to decisions taken by states. States take those decisions on the depending on their experiential learning. Those decisions and actions set the future expectations and contribute to the maintenance of old and establishment of new norms.
- **Trial and error methods** involving biological and psychological setbacks are extremely important in evolution of norms. The ban on the use of chemical and biological weapons that was signed in 1993 and 1972 are examples of the new norms that have since emerged. So, learning by trial and error does lead to new norms but often involves high risks.
- **Mechanism of comparison** between different states is integral to the process of learning and norm construction. This feature is of utmost importance in learning from other's experiences and in debunking of old norms to pave the way for new ones. The discrimination felt by India with respect to Non Proliferation Treaty is an extension of the mechanism of comparison.

All these are operational in evolution of nuclear norms too. The feed back loops were at work at the time of negotiations of various non-proliferation treaties. The Hiroshima and Nagasaki bombings are the biggest example of learning from trial and error methods. They both played their parts in evolution of non-proliferation and non-use. But it is the mechanism of comparison that emerged as an important means of nuclear norms sustenance especially towards non-possession. Hence, a complementary relationship was visible between the two since the advent of nuclear weapons. These will be studied in detail in later chapters.

Nuclear norms infused a check on the actors while the states learnt from different actors and circumstances to deal with them. It is important as well as interesting to explore the overlaps between the two processes.

After exploring the existence relationship between nuclear learning and norms, it is important to cover the challenges that exist in understanding its nuances. Levy (1994:283) defines learning, as a “change of beliefs (or the degree of confidence in one's beliefs) or the development of new beliefs, skills, or procedures as a result of the observation and interpretation of experience”. This

has been taken as a basis for this study due to the lack of any moral connotation in it. But it has too much emphasis on interpretation of experience which makes it highly subjective. Interpretations of any international incident differ with respect to any changes in domestic leadership change, policy making, policy implementation, foreign policy analysis, defence equation analysis between different states and so on. For example, the German interpretation of the Treaty of Versailles is very different from that of French. The learning then was entirely different. This is another difficulty. Reaching a consensus about the 'lessons learnt' is problematic. So learning can basically be any transition from "simple generalizations to complex integrated understandings grounded in realistic attention to detail" (Etheredge 1981 quoted in Nye 1987: 378). The condition is that it should have "enabled the actors to achieve their purposes better", and then it classifies as learning (Nye 1987:380). This is problematic since all states have different interests and aspire exception be made for them (Kassenova 2016).

It is believed that the evolving shared beliefs about the "use of nuclear or chemical weapons, the legitimacy of military intervention, and even the spread of democracy are all examples of widespread and evolving political norms" (Kowert and Legro 1996: 452). Each of them have had exceptions and outliers which goes to show the absence of universality in the concept of political norms. Similarly learning is subjective. It is dependent on the notion of national interests which can change resulting from three causes – domestic shifts in power, normative evolution (a practice that is downgraded later in time) and cognitive change or learning (Nye 1987: 378). Any of these can lead to a drastic change in policies.

An additional difficulty with Nuclear Learning is the "ambiguous nature of nuclear knowledge" (Nye 1987: 382). Due to the high levels of secrecy it is difficult to achieve "learning that is shared cross nationally" (Knopf 2012: 81) which Knopf called 'international learning' (Knopf 2012). The states use the mechanism of comparison often to defy imposition of nuclear norms. Infact Nye (1987) points out that much of what passed as nuclear know-how was based on intuitions and assumptions about the intentions of states. This has been seen in India's nuclear behaviour as well as in Pakistan. In the absence of an international nuclear learning, the states start twisting the norms when they are not found suitable. This was what brought in the aspect of malleability in nuclear norms. The malleability would have reduced if the majority belief was

accepted as a norm. In order to get accepted in the group, the actors learnt to “match the majority within the radius” (Eipstein 1999: 2). But there were several instances when a few of them stayed out of the group or changed tracks mid-way.

Though this study is not focused on a theoretical framework of the concept, before approaching Nuclear Learning, some theories need to be referred to in order to understand the loop holes that have existed in reading nuclear behaviour of states. This will help understanding the importance of nuclear learning processes.

Realist theories maintain that states learn by responding to structural changes in their environment, or, to put it in game theory terms, they adjust their behavior to changes in the payoff matrix (Nye 1987: 372). It is under the shadow of the future that reward for cooperation is great therefore states alter the strategies by which they pursued their interests. In this sense, it is assumed that “cooperation can be learned” (Nye 1987: 373). So by that logic, the nuclear norms can prevail by evaluation of the payoff matrix. The international structure for realists is “defined by the arrangement of its parts” (Waltz 1979:80). Only changes in its arrangement are seen as structural changes. In the case of the international political structure, the ordering principle is that of anarchy, its units are not differentiated but seen as functionally similar, and the distribution of capabilities enabled identifying great powers (and lesser ones). By that logic, the international structure will uniformly determine the reactions of states to different situations and that leaves little or no scope for the concept of learning. So, all the states are expected to react similarly in the development of their nuclear programmes in similar circumstances which has never happened. So there must be an explanation beyond structural considerations for decisions taken by states.

A different way to address the international structure is the Liberal understanding of development of international norms. The international norms “interact with domestic politics of the states in an international system so that they transform states' definition of their interests” (Nye 1987: 372). Liberalism takes into account the way states learn by transnational and interstate interactions and norms that lead to new perceptions of interests and new coalition possibilities for different interests within states. As suggested by Kant:

There is only one rational way in which states coexisting with other states can emerge from a lawless condition of pure warfare. Just like individual men, they must renounce their savage and

lawless freedom, adapt themselves to public coercive laws and thus form an international state (civitas gentium) which would necessarily continue to grow until it embraced all the peoples of the earth. (Kant 1970: 107, cited in Hurrell 1990: 189)

The problem is that the notion international state failed in case of nuclear weapons as that assumes an international belief system (international learning) (Knopf 2003). It is however difficult to imagine translation of state learning into an “international learning” (Knopf 2003) if that is possible at all. International learning means sharing beliefs cross-nationally (Knopf 2012: 81). But the concept of ‘international learning’ is repeatedly challenged by the “misread lessons of history” (Nye 1987: 379). Often the lessons learnt at some point of time are questioned later. Moreover in case of nuclear weapons, the secrecy and ambiguity are so strong that they act as major hurdles in the path of any kind of sharing across borders. Hence the indication of faith that liberalism has in international learning fails in case of nuclear learning.

Constructivists and critical theorists also discuss shared learning, but they often do not treat it as a challenge. The constructivists emphasised on how social learning limited the focus to the diffusion of norms, which again exclude other possible forms of learning (Knopf 2003: 207). The problem with Constructivism is the emphasis on social learning whereas the nuclear learning is more than that. It is a combination of empirical and inferential components (Knopf 2003).

Knopf claims that “If the outcome one hopes to see achieved is peace or cooperation, it is likely that the “right” forms of learning will need to be shared cross-nationally.” (Knopf 2012: 88). The question then is how to define and avoid “incorrect learning” (Basrur 2009: 330). If learning is justified in helping fulfil the set objectives, then this limited the possibility of classifying various kinds of decisions as incorrect learning. In spite of this understanding, about the limits of ‘incorrect learning’ (Basrur 2009: 330), there is a constant search for ways through which the right lessons can be learnt by the different actors (Knopf 2012). These for the NWS are the efforts taken towards sharing of nuclear knowledge. But that did not lead to desired results. Nuclear weapons make it difficult to reach a consensus about various issues. India for that matter has fought against the dominant belief and demanded equality. In the absence of any consensus about what qualifies as incorrect learning, India’s decision to defy the prevailing “Nuclear Imperialism” (Subrahmanyam 1998) has too been learning. It has helped India in achieving its purposes better (Nye 1987: 380).

Knopf defies any attempts to define Nuclear Learning in one specific manner (Knopf 2012). It is open for multiple interpretations. But in order to pursue the study further it was important to define learning and limit its scope. After much research, Jack Levy's definition of learning being a change in beliefs is considered as accurate for this study (Levy 1994: 283). It helps in marking indicators that are signs of nuclear learning. This definition also avoids any moral limits to the process. Nuclear weapons are weapons of mass destruction. Hence any steps taken to develop them or policies for them are hardly normatively sound. The norms put in place to check their spread too are open for criticism and do not completely qualify as being moral steps.

Knopf defines the possibility of shared learning as follows:

...an evolution in both sides' thinking as a result of their bargaining or working together; persuasion of one side by the other side; lobbying of both by an epistemic community or, alternatively, by a transnational advocacy network that does not claim any special technical expertise; or separate internal processes that lead to the same conclusion.(Knopf 2003: 197)

The relationship between the U.S. and India seems close to this definition. It has seen its ups and downs. But the change in the U.S. attitude towards India was evident with the nuclear agreement signed between them in 2005. This is an instance of shared nuclear learning (Knopf 2003:197). The evolution in thinking about India's capacity to emerge as a nuclear power, the lobbying done by U.S. for its NSG membership and the conclusions regarding the need for extensive non-proliferation initiatives are all examples of their shared nuclear learning. There is one thing that needed mention. Often the process of learning can be confused with a mere adaptation by a state to achieve short term goals. Johnston (1996) tried to make a distinction between the two. He says that when a "change in policy is due to shifts in the central paradigm held by policy-makers...as the new information about the external environment is internalised by decision-makers" then that is learning (Johnston 1996: 31). Adaptation is when the "change in policy is due to tactical adjustment to changing external conditions" (Johnston 1996:31). However often it is difficult to distinguish between the two. If there are sudden changes in the environment then that can lead to short term changes in the central paradigm too. One example is the Indian decision not to be a part of the NPT. India had actively participated in the initial negotiations but when the circumstances did not meet its expectations, it changed its decision. This is not some short term decision. It is a well thought of policy change that changed the course of Indian and international nuclear learning altogether.

Nuclear Learning is a work in progress. There are still disagreements about the definition of the concept itself. There are different opinions regarding what qualified as correct learning. There is still much scope in identifying which actors had learnt the right lessons. In addition to it, Indian nuclear learning has been in the grey area (Jacob 2014). India is accused of having led to a world towards weaker nuclear norms. The question is whether India was the first one or the only one to do that.

1.3 Rise of Indian nuclear learning in the midst of norms

India has always enjoyed a special status even when it had not attained independence (Das 2015:53). It did attract the markets from U.S. and UK even as a colony. Frey (2006) links the identity of a state to what it stands for in case of norms as compared to others. He believes that it is the comparative identity of a state that defines its normative views to be “competitive or accommodative, reclusive or inclusive, high or low in the perceived international status making” (Frey 2006: 6). He points out that the nuclear behaviour of states like India hinted emotional patterns which showed the struggle against global regime of nuclear apartheid much like its freedom struggle (Frey 2006: 6). For Frey (2006), it was the identity of a state that defined its behavioural patterns in terms of foreign and nuclear policy decisions which translated into its position in terms of norms.

Indian decision making is deeply rooted in the culture since then and has evolved over the years from epics, mythology, pre-independence and post independence experiences and the personal belief systems. From the times of *Ramayana* and *Mahabharata*, the weapons of mass destruction were shunned (Weeramantry quoted in Mallavarapu 2012: 48). The use of the “Brahmastra”, the most powerful weapon capable of mass destruction mentioned in the Indian epic Mahabharata was feared. There were select warriors that possessed it after proving their mantle to the gods and teachers. Even then the warriors that could invoke the weapon practiced much restraint in doing so. The same mythology had attracted the American physicist Robert J Oppenheimer, who is known to have supported the use on nuclear weapons in the Second World War (Freedman 1989). He was a believer in the Indian epic *Gita*. *Gita* contains the excerpts from the great war of Mahabharata and is a compilation of how to behave in times of crisis and war (Hijiya 2000). Oppenheimer had a “home made” (Hijiya 2000: 125) version of Hinduism which he followed. He believed in three principal tenets – duty, fate and faith which were not ornamental but rather structural. He also believed in doing his job not for pursuing a result or with an intention but only

because it was his job to do (Hijiya 2000: 125). These are the crux of the Karma theory preached by Krishna to Arjun in the war. This philosophy was also followed by Oppenheimer in the policies designed for nuclear weapons. He had suggested some measures to check proliferation after the USSR tested its weapons but they are not taken seriously (Weiss 2009). That will be discussed in the later chapters.

The interesting point is that an American scientist took the Indian mythology as a basis to drive his policies. Such was the strength of the Indian normative identity. How then did it change so much over the years is what needs to be understood.

The India nuclear policy has remained consistent over the years. Basrur (2001:188) states that the threat perceptions and the domestic preferences remain same whether the leadership was in favour of nuclear weapons like Atal Behari Vajpayee or against like Manmohan Desai. The Indian strategic culture that evolved highlights nuclear minimalism, and keeping that in mind the changes made in the nuclear policy were “incremental” but “cautious” (Basrur 2001: 188).

The Indian nuclear learning played an important role in the evolution of the international process too. It was a carefully designed combination of a two level approach (Ramana 2009):

- At the international level, it kept a secrecy that created a rigid wall of concealment around an issue that affected the international image of a state.
- At the domestic level, it kept a secrecy that hid various aspects of the nuclear programme which are - the effects on the economy, on environment when sites are used abruptly for the tests, on the ‘technical balderdash’ and on the people who faced the radiations when tests are carried on and generations get affected by then unknowingly.

From the beginning itself on one level, India was learning from the west regarding the political, social and technological meaning as well as know-how of a nuclear programme. On another level, India went through a much personal process of learning as a result of its own experiences and relations with its neighbours that involved normative and crisis learning, attaining nuclear maturity especially in rhetorics and on the relevance of deterrence (Jacob 2014:27). India maintained a high degree of continuity and stability in its nuclear posture (Basrur 2001:188). The basic belief in political utility, non-use and initiatives towards disarmament remained the same. The changes seen were in the confidence with which India dealt with the pressures of nuclear

norms. Another change was in the once predominantly political understanding of nuclear weapons that has attained an operational conception (Basrur 2001: 195) but this goes hand in hand with the efforts towards strengthening the nuclear norms. But there is no specific white paper, vision document or periodic review regarding national security issues to testify the approach (Kanwal 2008). That leads to suspicion regarding its intentions. That however is a problem in the nuclear dynamics. The intentions can not be gauged and the insecurity because of that can not be undermined. But Indian nuclear learning did not evolve in isolation. It was not as different as pointed out by many. There were often glimpses of the lessons that India had learnt from the nuclear custodians on various issues. This will be dealt with in the chapters.

With the first set of atomic blasts on Hiroshima and Nagasaki, India was shocked due to the change in the image of the United States that had been perceived as benign (Mirchandani 1978). The United States had been supportive of India during the freedom struggle and was regarded with feelings of friendliness (Mirchandani 1978: 53) so the atomic blasts that resulted into large scale destruction were a reality check for the Indians. Indian scholars rejected the arguments put forward by the US that the bomb had saved a lot of lives by bringing an early end to the war (Mirchandani 1978: 53). That was perhaps the beginning of a new era of understanding of the power relations among the Indian scholars and the decision makers. It was true that nuclear weapons had made all forms of strategies obsolete and there was a need for a new thought process (Freedman 1989).

The nuclear learning in India began much early. Nehru was a proponent of modernisation and scientific temper. The first characteristic feature of Indian Nuclear Learning was the equivalence of nuclear science for national modernisation. Apparently he coined the term “weapons option” to allude to the other possibilities in the development of nuclear technology (Sidhu 2004:5). Gandhian aversion to nuclear weapons was not so robust in the Nehruvian policy. After Nehru’s death, his successor Lal Bahadur Shastri brought changes in the nuclear policies. Shastri is believed to be publicly against the building of nuclear capability for military purposes (Subrahmanyam 1998: 27, quoted in Basrur 2001: 186). Nonetheless, in December 1965, after the Chinese nuclear test in 1964, Shastri approved the secretive Subterranean Nuclear Explosion Project (SNEP) (Basrur 2001: 186). This was a change in beliefs for Shastri and he perhaps had started viewing nuclear weapons as something necessary. This was an indicator of nuclear

learning. His “non-nuclear half baked morality” was questioned (Perkovich 1999:76). The questioning was because of the belief in ‘correct’ learning. But India was in still in the process of figuring out its priorities. When Indira Gandhi came to power, the Indian understanding of the nuclear weapons was perhaps confined to mere political or rather symbolic status (Basrur 2001: 186). India went ahead with the Peaceful Nuclear Explosion (PNE) in 1974 but was not ready yet to develop a fully fledged weapons programme.

At 8:05 am, on 18th May 1974, when India went ahead with the detonation of the nuclear device, (Perkovich 1999: 178) Indira Gandhi called it a ‘normal research and study’ and tried to keep a low profile. She claimed that the new nuclear know how was meant to add to India’s development and was merely to utilise the peaceful uses of atomic energy. However, the reaction from the press, the Indian political party Jan Sangh and the international actors did not accept this. Jan Sangh called it as the “red letter day in the Indian history” (Perkovich 1999: 180). India had been placed on the “nuclear map of the world” (Perkovich 1999: 179). They proved that India found it necessary to defy the evil of the nuclear hegemonic order rather than passively accepting it (Subrahmanyam 1998: 1). This was a change in its central paradigm and was by all means an indicator of its nuclear learning.

In addition to developing nuclear weapons, India’s use of the peaceful nuclear assistance from Canada and the United States to produce plutonium was a complete negligence of the nuclear norms (Nye 1992: 1294). The nuclear explosion was described as a “Peaceful Nuclear Explosion Experiment” (Ramanna 1978: 32). Dr Raja Ramanna (1978) described the explosion as a peaceful experiment and justified it technically but the harm was nevertheless done.

While this was a big blow to the nuclear norms, another one soon followed with the Indian unwillingness to accept any discriminatory political norm and signing the NPT. It was publicised as being nothing short of an “unpatriotic act” (Mirchandani 1978 : 62). At the UN General Assembly, Defence Minister Swaran Singh said “While the Government of India continues to be in favour of the non-proliferation of nuclear weapons, it is equally strongly in favour of the proliferation of nuclear technology for peaceful purposes, an essential means by which the developing countries can benefit from the best advance of science and technology in the field.” (Mirchandani 1978: 62-63). The issue was with the fundamental discrimination of the states and Indira Gandhi demanded “balance of obligations” to prevail (Mirchandani 1978: 63). While

India's decision impacted NPT, it also demonstrated the Indian decision to defy any imposition of one correct learning by the West.

But India took its time to reach the 1998 tests. It attempted to be heard on various platforms to try and make the nuclear non-proliferation norms strong. The intention was protection from any illegal leaks or use in Pakistan too. The Rajiv Gandhi Action Plan was one such initiative. After the failure of the effort, Rajiv Gandhi went ahead and authorised the weaponisation of the nuclear programme (Subramanyam 1998: 44 quoted in Basrur 2001: 187). In 1998, India conducted 'Operation Shakti' (May 11 and 13), detonating five nuclear devices at its Pokhran test range at Rajasthan. They announced India's confident arrival in the nuclear club. But they also were to lead to a series of violation of nuclear norms ahead namely, non-possession and non-proliferation, whether direct or indirect.

Pakistan accused India of forcing it to develop nuclear weapons programme as a reaction to its precedent (Sharif quoted in Burns 1998). Such accusations became a routine and are often used as justifications for any of its developments even today. Although not entirely true, but India is responsible for providing Pakistan with an easy excuse to get away with its norm violations.

In order to understand the relationship between Indian nuclear learning and evolution of norms, it is important to study both the processes. The work done so far has been either an attempt to portray India as a responsible power or see it in a negative way that leads to weakening of norms. The NPT and NSG membership are seen as examples of how India has maneuvered its way into getting the exceptional tag. This study intends to look at both the sides and evaluate if it is possible to pass a judgement regarding Indian's nuclear learning in the evolution of norms. The present study looks specifically at the operational policy processes and not the theoretical conceptions. The focus however is on historical factors and not operational and tactical nuclear learning.

The study is based on the following hypotheses:

- Nuclear learning and nuclear norm building share a dynamic and mutually dependent relationship.
- India's nuclear journey shows that its 'nuclear learning' has contributed to change in the international nuclear norms.

This study examines various primary documents of major nuclear powers, especially India, and also uses secondary hand sources like books, articles, and papers written on the subject of nuclear learning. It is interdisciplinary in nature, drawing especially from political science and psychology and the work done in those fields regarding the relationship between learning and nuclear developments. It draws data from media and official reports, and the reviews written by experts in order to attempt an inference regarding the relationship between the learning and evolution of norms.

There are six chapters. The first chapter introduces the topic highlighting the need for the study and the motives behind it. It also discusses briefly the issues to be highlighted in the following chapters. It will try and give a context to the reader about the views about nuclear learning since it is a fairly new concept.

The second chapter “Understanding Nuclear Learning” will discuss the work done in the field and historically trace its indicators. This will set the ground and throw light on the how it evolved over the years. The third chapter “Evolution of nuclear norms – non-possession, non-use and non-proliferation” looks at the incidents that changed the international norms gradually. This chapter will address how there is a sudden realisation for the need of strict norms and then how they slowly became flexible.

The fourth chapter “Indian nuclear learning – the surprise” examines the transition of Indian state from a latecomer to a responsible nuclear power. It historically uncovers the indicators of the gradual change in the Indian nuclear beliefs i.e. its nuclear learning. The fifth chapter “Effect of Indian nuclear learning on norms” looks at the scenario from a different perspective. It examines the international actors and how they were impacted by the Indian nuclear learning. The last chapter “Conclusion” sums up the arguments and attempts to evaluate the relationship between the two processes. It finally sums up the answers to the questions regarding the evidence of Nuclear Learning in India. It evaluates in the end various classifications of correct and incorrect learning for India. Finally the study seeks to answer the question if India did debunk the existent norms and led to a new nuclear learning.

Chapter 2 – Understanding Nuclear Learning

International Relations is a complex domain to study. Much like a chemistry laboratory at the time of examination, even this field comprises of several processes happening at the same time. There are some actors who fail in their experiments, some succeed and others just wait and see what the others are attempting, to reap the benefits of the inferences later. This comparison seems simplistic but gives a picture of the functioning of actors in the international arena.

This study attempts to chalk out a relationship between two processes – nuclear learning and evolution of norms. The first step was to understand nuclear learning. As will be seen in the chapter, the concept was defined and then re-defined over the years. There has been some work done on nuclear learning but the aim of this chapter is to explore the process of redefinitions and identify the indicators that imply them. This has been done after briefly looking at the challenges and the various aspects involved in the process.

But to begin with, it is important to define learning. Earnest Hass claims that learning occurred internationally when "new knowledge is used to redefine the content of the national interest. Awareness of newly understood causes of unwanted effects often results in the adoption of different, and more effective, means to attain one's ends" (Hass quoted in Nye 1987: 378). This definition primarily encapsulates the crux of the concept of learning. The focus however, is on causes. There are several other factors that need to be looked at such as consequences, circumstances, power dynamics and so on.

For example, the Treaty of Versailles was described as “dictated peace” and was hence a failure (Carr 1965: 4). But in order to frame future treaties, it was important to consider the consequences and how they can have been avoided. Mere change of means to achieve the same goals was not enough to classify as learning.

In addition to that, there are various processes in international relations which are often confused with the concept of learning like structural adjustment, evolutionary selection and political change (Levy 1994: 280). They do not classify as learning necessarily. However, the challenge is to separate one from the other. It is believed that the policy makers aim to avoid the failures of the past but they have immense faith in the power of inferences drawn from self-experience as compared to the evidence put forward by others in the realm of international relations (Levy 1994). This is the process of experiential learning. It plays a major role in changing the course of history. But it is not simple to understand or streamline the process of learning.

Jack Levy defined learning as a “change of beliefs or development of new beliefs, skills or procedures as a result of the observation and interpretation of experience” (Levy 1994: 283). While this definition has been chosen as a basis for this study, it is well understood that this too leaves space for a lot of subjectivity in the evaluation. This point is the reason behind staying away from giving any moral categorisation to the concept or the process in this study.

2.1 Challenges in the definition of Learning

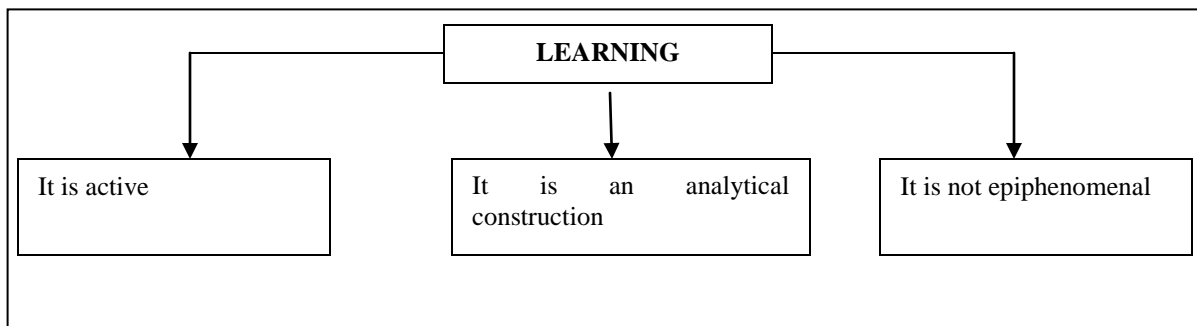
In order to reach a proper definition for learning, it is important to understand and try and overcome the challenges that have existed. Jack Levy (1994) threw light on the problems that existed in defining the concept of learning:

- There is often a restriction in the understanding of learning to empirically correct or normatively desired lessons defined by biases. This results in specific lessons being categorised as learning while others are not acceptable. This was a major concern for India with respect to nuclear norms. This will be dealt with in detail later.
- There exists a lack of proper conceptualisation of collective learning. The process is perhaps too complex to study comprehensively due to the various dependent variables in it like leaders, citizens, geographical situation, cultural history, nature of political system, etc.

- The major challenge often witnessed is the failure of distinction between genuine learning and rhetorical or strategic use of historical lessons. This proves to be the most difficult task.

In the absence of a unified theory of learning, states are open to “multiple interpretations and measures” (Stein 1994:156). Here lays the fundamental challenge in the concept of learning. It is easy to define the characteristics of learning and what does not classify as learning. The problem is to make it universal.

Levy’s (1994) definition of learning can be described by the following diagram:



These three characteristics make the distinction between learning and policy changes difficult especially when there are so many kinds of learning happening simultaneously. Since it became difficult to imagine a homogenous idea of learning, it was necessary to look at the kinds of learning operating in the world.

- ***Types of Learning***

As already stated before, there are different actors involved in the process of learning. If we consider the example of the Treaty of Versailles, the actors involved in the process of learning included the German delegation, the Allied delegates, United States President Woodrow Wilson and so on. Each actor when seen at the macro level had a different interpretation of the experience at that time. It is not possible for one kind of learning to exist in all situations and for all the persons.

All actors approach situations in different ways and infer them in diverse manners. In fact there are different levels as well as various kinds of learning. Joseph Nye (1987) speaks of two different levels at which learning takes place. He talks of ‘Simple’ learning that would refer to

“an adjustment in the means being employed by a state, with no questioning of the ends being sought.” This meant that the goal remains unchanged while the means to attain it can be changed with respect to the current circumstances. The change in the policy of U.S. towards management of knowledge with respect to nuclear weapons production can very well fit in this. The stated American aspiration or the goal even today is nuclear disarmament. The means changed from the earlier attempt at the absolute control, to efforts like the Atoms for Peace programme aimed at sharing of knowledge, to the engagement with the actors like Iran and North Korea. In simple words, simple learning meant when new information lead to a change in means but not in ends (Levy 1994: 286).

‘Complex’ learning involves a new understanding of cause and effect relations that can lead a state to rethink the fundamental goals of policy” (Nye 1987). It is often seen that recognition of conflicts among states lead to a modification of goals as well as means (Levy 1994: 286).The Indian nuclear learning can fit under the domain of complex learning. Unlike Pakistan that evaluated its nuclear policy and took the decision to join the club even if it meant illegally, India decided to change its goals gradually. The Pakistani goal has been to emerge as an equal to India. The Indian leadership kept short term goals and kept changing them as it went through its learning process. India began its journey with the criticism of the discriminatory attitude of nuclear-haves during 1950s and 60s, and then moved to being the exceptional case and joined the same league. Knopf (2012) uses the example of Pakistan to explain these two levels of learning further,

For Pakistan, simple learning after the Kargil conflict would have involved finding new ways to support the Kashmiri insurgency that would make it less likely that its role would be detected. Complex learning would have involved reconsidering the value of supporting militant groups in the first place. (Knopf 2012: 86)

For Knopf, the use of nuclear weapons only for deterrence and not for war fighting is also an example of complex nuclear learning (Knopf 2012: 86). This is not a question of morality but rather of a complete change in the fundamental goals of policy. As it is evident, the nuclear learning varies with time and space yet the concept has remained important in explaining several outliers and complicated scenarios. However there are different kinds of learning that take place depending on the circumstances, actors and several other factors. Similar to these levels are the two major kinds of learning that Levy (1994:285) speaks of:

1. *Causal Learning*: It is defined as “changing beliefs about the laws (hypotheses) of cause and effect, the consequences of actions, and the optimal strategies under various conditions”. An example of this could be the American belief in how the use of nuclear weapons had ended the war in time. The Indian nuclear learning was the resistance to accept that logic, realise the importance of possession of nuclear norms and the Indian post war nuclear strategy as it evolved. It was a result of a reevaluation of the cause, effect, consequences and the optimal strategies.
2. *Diagnostic Learning*: It is defined as changes in beliefs about the definitions of the situation or the preferences, intentions, or relative capabilities of others. This was seen in the American evolution of its nuclear engagement with other states. The preferences changed from complete control to negotiation. The intentions and capabilities of states like India and Pakistan were weighed and policies were spun around them.

It is however difficult to pin point the kind of nuclear learning that took place at different points. In fact it is essential to focus on the process of nuclear learning now.

2.2 Deciphering nuclear learning

The term ‘nuclear learning’ was coined by Joseph Nye in his article “Nuclear Learning and U.S. - Soviet Security Regimes” published in 1987 where he designed this concept based on his studies of the relationship between Soviet Union and the United States. Nye (1987) believed that a nuclear war was avoided by the two super powers due to the process of learning that took place over time. The Americans in order to ‘teach’ the other states the right nuclear behaviour, engaged in programmes to discuss issues “concerning how best to manage and control nuclear science and technology in the public interest” (Holl and Convis 1991: 175). The question is whether states like India and Pakistan follow the same path and learn from the experiences. The answer remains inconclusive as yet.

Knopf in “The Concept of Nuclear Learning” divided nuclear learning into three levels of analysis. (Knopf 2012: 86):

- *Lowest Level*: At this level, nuclear learning might involve only a budgetary adjustment. A state might increase spending for a program it decides is more effective or more necessary than previously thought or cut spending for a program that is less successful or

necessary. In the nuclear realm, such budgetary learning might involve devoting more funding to command and control or early warning.

- *Second Level:* At this level, states move beyond budgetary adjustments, and look at how the military works. This can be further divided into learning as tactical, operational, or strategic in nature. In the nuclear realm, tactical learning might entail changes in how military units respond to a raising of the alert level; operational learning might entail changing how the early warning system works, and strategic learning might entail change in the overall nuclear strategy.
- *At the highest level,* learning can imply a need to alter the entire direction of national policy. In the realm of nuclear issues, this can mean the policy change witnessed in Brazil as well as in Iran.

This chapter examines the third level and looks at the diverse forms of nuclear learning that have taken place within and amongst the states.

The nuclear behaviour of states is difficult to compartmentalise. Harnisch (2001) believes that “a constructivist model of foreign policy learning is superior to both realist or rationalist institutionalist accounts...” in explaining policy changes (Harnisch 2001: 609). Whether it is Realism or Constructivism, nuclear weapon decision making is too complex to be covered by any one of them (Nye 1987).

Nye believes that at the structural level, realism is not be able to explain several nuances of international politics and needs to be supplemented by different theoretical models for understanding them better. Iran and North Korea are examples of how the sanctions had failed to impose international norms like the sanctity of non-possession and non-proliferation. The North Korean leader Kim Jong Un believes that nuclear weapons are the reason behind his regime’s survival (Daniel Coats quoted in Griffiths 2018). Daniel Coats, the principal advisor to the American President Donald Trump had stated that Libya and Ukraine had taught the lesson to never give up nuclear weapons (Griffiths 2018). In fact North Korea believed that Libya was a “grave lesson that one should have power to defend peace” (Griffiths 2018). The nuclear learning in that scenario was not as expected by the dominant discourse. But like Rodger Baker, Stratfor stated “It’s hard to say out loud, because people say you’re justifying North Korea’s bad

behavior (but) Libya is a case in point of how U.S. promises are temporary at best” (Griffiths 2018).

North Korea is an example of how structural constraints failed. The belief that “the pressures of [international] competition weigh more heavily than ideological preferences or internal political pressures” failed to explain its behaviour (Zakaria 1992: 180). So it is true that strategic interactions alone are inherently indeterminate and in order to produce a proper analysis it is essential to look at the domestic as well as the systemic causes (Nye 1987: 372). But the main argument is that the nuclear norms have been unable to restrict the ‘different’ nuclear learning that emerged in several states. That process took place in spite of the efforts taken to facilitate imposition of some norms by advocating a certain kind of nuclear learning by attempting to share the idea.

Constructivists and critical theorists discuss shared learning. One of the drawbacks is the constructivist emphasis on social learning, which limited the focus to the diffusion of norms as the facilitator for learning, which again excluded other possible forms of learning (Knopf 2003: 207). That does not function properly as far as nuclear weapons are concerned and it will be seen later in the chapter. States behave very differently with their nuclear issues and just social learning is insufficient. The challenge then is to predict a state’s nuclear behaviour and see if there was a way in which a specific kind of nuclear learning had impacted nuclear norms.

Nuclear Learning (apart from the technical aspect) thus is any change in the policies or the responses made in the realm of nuclear weapons or in the nuclear shadow devoid of any moral connotation. This definition implies that anything from disarmament to re-armament to change in nuclear diplomacy is a part of nuclear learning. This definition will be used in this study to identify the indicators of the process of nuclear learning.

When Nye introduced the concept of nuclear learning, his intention was to try and replicate nuclear behaviour of two states (U.S. and USSR) for others. The concept as mentioned earlier had had an empirical as well as inferential aspect. The inferential part was what led to different trajectories of nuclear learning in new nuclear states. The yardstick to evaluate those nuclear learnings was the impact on nuclear norms. Both these were re-defined over the years in different phases. Interestingly the United States had a major role in defining nuclear learning and in the re-

definition too done by different states. The transition from one phase to the other has been complementary to the change in the self-perception of the United States (Harnisch 2001).

There is no clear cut demarcation between the different phases. Yet, the process of nuclear learning in the world can be divided in to three phases. The long time span of 70 years starting from 1945 witnessed changes in the policies followed by the states which possessed nuclear weapons and the ones that coveted them. The phases are characterised by:

- Absolute Control: where attempts are made to control the spread of nuclear weapons by the U.S.
- Attempt Restraint: where attempts are made to keep a check on the use of civilian nuclear technology for military purposes.
- Emergence of ‘different’ nuclear learning: where sharing of knowledge started getting importance and shared initiatives and diplomatic engagement is emphasised. This is the era where efforts from states outside the NWS came up exhibiting different kinds of nuclear learning.

2.3 Phases of Nuclear Learning

a) Nuclear Learning Phase I: Absolute Control over nuclear technology

The Second World War ended with a huge surprise attack. The decision to use the nuclear bombs was taken after a whole process of heated discussions between the scientists and the military. There are several nuclear scientists who are of the opinion that the knowledge of the bomb’s existence would be sufficient to demonstrate power and deter (Freedman 1989: 18). However, the American Secretary of War Henry L. Stimson, Chief of the Staff of US Army General George C. Marshall, Vannevar Bush, J. Robert Oppenheimer, Major General Leslie Groves of the U.S. Army Corps of the Engineers and James B Conant were in favour of the use. Not only was there a strong support for the use, it was well agreed upon that the shock and surprise was necessary to achieve ‘full benefit’ (Freedman 1989: 18). The Manhattan Project that had been set up in 1942 under the guidance of U.S. Major General Leslie Groves was a consequence of the fear of a possible German monopoly in atom bombs (Freedman 1989: 40). The Japanese surrender after the attacks, is seen as an effect of the power of the atom bombs. Freedman (1989)

stated that if one assumed that the bombs are responsible for the Japanese surrender, then clearly the lessons learnt from the “minimum operational experience” at that time are limited.

The process of development of nuclear weapons is complementary with the efforts to avoid nuclear proliferation. There was a certain hesitation in sharing them with the have-nots. While the realisation of the destructive power of the nuclear weapons came much earlier, only five states actually possessed the nuclear know-how till 1960s. Even though the possession came much later, it is well accepted by all that nuclear weapons are the end of the curve of weapons (Chengappa 2012). Hence what followed is a two way process- the states that did not possess nuclear weapons tried to develop or import the technology, and the states that did possess them tried to avoid that from happening.

The nuclear weapons are described by an American political commentator as,

the panacea which enables us to be the greatest military power on earth without investing time, energy, sweat, blood and tears and – as compared with the cost of a great Army, Navy and Air Force – not even much money. (Freedman 1989: 48)

There was a general understanding that there was an “Anglo-American monopoly” on the weapons and till the time that was maintained, the “world is controllable” (Freedman 1989: 49). This was the phase when absolute control over the nuclear weapons technology was seen as the only way to protect the world from further destructions or accidents too.

As a result on 24 January 1946, the UN General Assembly established the Atomic Energy Commission (AEC) and demanded for "Establishment of a Commission to Deal with the Problems Raised by the Discovery of Atomic Energy." (United Nations General Assembly (n.d)). Its main concerns were to make specific proposals to ensure peaceful use of atomic energy and to facilitate removal of atomic weapons from national armaments (Goldschmidt 1986: 58). It failed completely due to mutual distrust between the United States and USSR. There was no agreement on the type of organisation or the way in which the United States planned to give up the existing weapons (Goldschmidt 1986: 58).

In 1946, the Acheson-Lilienthal Report came out and its fate indicated that mere inspection and police like methods were not good enough to outlaw such weapons (Buck 1983). The report set the ground for American control over the international atomic energy (Buck 1983:1). The report stressed that international ownership of nuclear activities was essential since “national rivalries”

in the form of atomic energy can be easily put to destructive uses (Rydell 2006). The issue of national rivalries was picked up in this report however the non-state actors had not emerged at that time and hence were not taken into account. The report was an indication of the realisation of the dangerous consequences if any state decided to solve national disputes by using nuclear weapons (Rydell 2006). Hence, there was a suggestion for “geographical dispersal of Atomic Development Authority facilities” to make sure that in case of any violation by a state, others can react promptly (Rydell 2006). It was also agreed upon that since the United States was the only state that possessed the nuclear know how at that time, it was to handover all of its nuclear installations, fissile materials, finished weapons and its missile laboratories (Goldschmidt 1986: 59). This was to be accompanied with establishment of a global inventory of uranium resources but that was problematic for Soviet Union as that meant foreign intervention into the territory to keep a check. Thus in a way it was a way of ensuring an international check kept in case of any form of violation of international norms that a state committed.

In order to execute the mentioned objectives, the Baruch Plan was introduced on 14 June 1946 with the announcement by the U.S. Ambassador Bernard Baruch,

We are here to make a choice between the quick and the dead. That is our business. Behind the black portent of the new atomic age lies a hope, which seized upon in faith, can work our salvation. If we fail, then we have damned every man to be the slave of Fear. Let us not deceive ourselves. We must elect World Peace or World Destruction. (Nuclear Age Peace Foundation (n.d.)).

This announcement was a subtle indication of the huge amount of destruction that the nuclear weapons were capable of if not managed properly. The fear of offensive use of nuclear weapons was in the minds of many. It was decided that the Atomic Energy Commission would be responsible for (International Organisation Foundation 1947):

- extending between all nations the exchange of basic scientific information for peaceful ends
- control of atomic energy to the extent necessary to ensure its use only for peaceful purposes;
- elimination from national armaments of atomic weapons and of all other major weapons adaptable to mass destruction;
- effective safeguards by way of inspection and other means to protect complying States against the hazards of violations and evasions.

While it seemed like an attempt to strengthen the nuclear norms, it came through as a controversial attempt by the U.S. for international ownership and control over the nuclear

weapons and the related technology. Infact Bernard Baruch himself stated that the United States would cease its atomic bombs once the controls had been evolved through proper stages. He said

But before a country is ready to relinquish any winning weapons it must have more than words to reassure it. It must have a guarantee of safety, not only against the offenders in the atomic area but against the illegal users of other weapons-bacteriological, biological, gas, perhaps why not! Against war itself. (sic.) (Bernard Baruch quoted in Rydell 2006).

This statement proved that while all the states fought to preserve and strengthen the nuclear norms, there were some issues that existed from initial years too and hope for exceptionalism was one of them. Even then the United States was willing to disarm after it had a guarantee of its own safety. This challenge remained a permanent flaw in any disarmament initiative taken and became much more difficult when the number of nuclear weapon states increased. This is what began the process of making norms malleable. There were several instances later that added to it.

The Atomic Energy Act of 1946 passed in July adopted at the First session demanded for the Atomic Energy Commission that was established in 1947 to invariably maintain an American monopoly over nuclear technology (Holli and Convis 1991). It had alienated U.S. from the world in terms of nuclear weapons and encouraged autonomous atomic programmes in other countries (Goldschmidt 1986: 60).

This was the period where Nuclear Learning was equivalent to the knowledge that the US possessed about the weapons in all aspects. Sharing of knowledge was not considered as an option. Horizontal proliferation was a rising fear among the other states and 1947 witnessed the development of Cold War (Freedman 1989: 49). As the Cold War started creeping in after the Second World War, initiatives were taken to guard the knowledge even more with respect to nuclear weapons.

Infact, the Baruch Plan that was presented to the United National Atomic Energy Commission called for the establishment of the International Atomic Energy Agency (IAEA) to control all the fissile material production and to keep a check on violations (Preparatory Commission for the Comprehensive nuclear test ban treaty organization (n.d.)). The IAEA was supposed to be responsible for (Margulies 2008: 158)

- Managerial control or ownership of all atomic-energy activities potentially dangerous to world security.
- Power to control, inspect, and license all other atomic activities.

- The duty of fostering the beneficial uses of atomic energy.
- Research and development responsibilities of an affirmative character intended to put the Authority in the forefront of atomic knowledge and thus to enable it to comprehend, and therefore to detect, misuse of atomic energy. To be effective, the Authority must itself be the world's leader in the field of atomic knowledge and development and thus supplement its legal authority with the great power inherent in possession of leadership in knowledge.

These aims were perfect until they were put to discussion. The USSR resisted an international ownership of the fissile material production without the U.S. nuclear disarmament. Since this was the period of the beginning of the Cold War, the overwhelming role of U.S. seemed problematic for USSR. As much as the superpowers vouch for nuclear disarmament today, the insecurity of being left out of something so big was inherent since the beginning. None of them was willing to follow the path that is advocated today.

The feature that became a major problem was the provision of “no veto” mentioned in the Baruch Plan in case of actions to be taken against the violators. Bernard Baruch stated that “there must be no veto to protect those who violate their solemn agreement not to develop or use atomic energy for destructive purposes” (Goldschmidt 1986: 59). This was unacceptable to the USSR. In fact it was one of the pre-conditions put forward for participation in the “new world organization” (Goldschmidt 1986: 59).

Joseph Lieberman described the Baruch Plan as “a disastrous failure in statecraft” and saw USSR and the U.S. guilty and responsible for that (Baratta 1985: 519). The Soviet Union responded to the Plan with another proposal under the Soviet Union representative in the commission Andrei Gromyko. The alternate plan had another set of sub-elements. The proposal included a convention to “prohibit the production, storage, or use of atomic weapons and to require the destruction of all such weapons. Violations would constitute a “crime against humanity, but penalties would be imposed under domestic legislation”” (Rydell 2006). This initiative counted on national legislation towards observance of the non violation of the nuclear norms that had been proposed. It did not advocate any international inspection (Goldschmidt 1986: 59).

There were several sessions of debate that followed. However the U.S. and USSR did not budge from their opposite positions. America believed that it could force USSR into opening up for inspection before giving up its weapons. USSR was protecting its territory from any intervention and did not give in. Eventually the Soviet Union abstained and was not ready to not give away its

veto rights. The American plan eventually lost the spirit by 1947 (Nuclear Pathways Project (n.d.)).

The years post the Baruch Plan were the years of heights of rivalry and constant tension between the United States and the Soviet Union due to the onset of Cold War. The friction between the two super powers during the Cold War period was so acute that the US opted for a policy of secrecy in order to establish monopoly over the nuclear technology. The dynamics changed when six days before the vote on Baruch Plan, Soviet Union achieved criticality for its first reactor (Goldschmidt 1986: 60).

Soviet Union went ahead with nuclear tests in 1949 (Nuclear Threat Initiative (n.d.)) in Semipalatinsk, Kazakhstan and called it the “First Lightning”. Thus began a game of two superpowers. In the tense environment of the Cold War, it became extremely difficult to make any initiatives towards nuclear disarmament effective any more.

Soon there were peace treaties signed between Bulgaria, Hungary, Italy, Romania and Finland which highlighted the differences between the countries that had won in the World War II and the ones that had lost (Goldschmidt 1986: 60). These were the initial seeds of non proliferation discrimination that were used as excuse by the French for developing their nuclear weapons programme (Goldschmidt 1986: 60). Basically there were parallel negotiations done after the realisation that a universal treaty or organisation seemed unrealistic.

This phase began with the American monopoly over the nuclear weapons technology and with the idea of developing a mechanism to check any new developments by states other than the U.S. All the information was primarily with the scientists and policy makers of the U.S. It ended with a change in the international nuclear learning that impacted the process in states too. International Learning here does not imply a monolith but rather the existence of various processes of learning taking place simultaneously in the world. The following characteristics described the nuclear learning in this phase:

- Realisation that nuclear weapons were to stay.
- The Cold War made it impossible for the two nuclear states i.e. U.S. and USSR to share their nuclear knowledge. This was a major hurdle in the idea of shared learning.

- A lesson learnt after the Hiroshima Nagasaki bombing was that nuclear weapons were the worst and best form of weapons. They induced fear in humanity more with their existence rather than the use.

Nuclear Learning began in this phase as something absolutely abstract. States were adjusting to the newly introduced weapon. The effect of it was definitely intimidating. The world saw the Japanese surrender and learnt the disastrous consequences of the use of a nuclear weapon. The justifications for the use given by the American scientists by stating that it ended the war were not acceptable by all.

All the other states were slowly but gradually learning the military as well as political power of nuclear weapons. The nuclear norms were emerging. It was evident that non-possession and non-proliferation were as important as non-use. There was a fear in the US about their violation. Hence, the efforts are taken to 'control' the fissile material facilities. But, the Baruch Plan gave its way to an important lesson in the nuclear domain – nuclear control was impossible if carried out in a centralised manner. In order to ensure a world free of accidental nuclear leaks, there was a need for a decentralised control mechanism. This was the phase when except for the two main superpowers, the others were spectators. The world slowly moved into the second phase when there were some additions to the active players of the game.

Though there were unilateral efforts from both the U.S. and the Soviet Union to check the spread of nuclear weapons, by mid 1950s they had realised the certainty of the spread of nuclear weapons (Nye 1987). This inevitability was a reality check for both U.S. and USSR who dreamed of possessing the weapons and technology alone. This was new information. Unlike what was believed initially, U.S. was soon joined by the Soviet Union followed by the UK. The change in policy was an authentication of the nuclear learning that had taken place primarily because the existent assumptions about the world order were rejected by the third world states (Bull 1976). This shows the power of the have-nots since the beginning of the nuclear era in effecting the nuclear norms and decision making. Hence with the new information and experience (Nye 1987: 391), changes were made in their policies from the early 1950s to the middle of the decade. This gave way to the next phase of nuclear learning.

b) Nuclear Learning Phase II: Attempts at restraint over nuclear technology

With the failed centralised approach towards absolute control over the nuclear weapons technology, there were efforts to look for other ways to achieve some kind of regulation. In spite of the efforts initiated steadily by the United States, Soviet Union joined its league in 1949 by testing its nuclear weapons. It was followed by the United Kingdom detonating its first nuclear device in 1952. The decision was not upto U.S. alone to frame nuclear policies. But decentralisation in the decision making process often increases complexity (Harrison 2006). This is exactly what happened.

With three powers in the nuclear group, the instability and lack of predictability was rising. It was then that the United States came up with the “Atoms for Peace” programme announced by President Eisenhower in 1953. It was done to increase the U.S. cooperation with the other states and to assist them with the development of nuclear technology if they ensured that the technology would not be used for military purposes. This initiative was pushed forward by the then U.S. President Dwight D. Eisenhower in 1950s. Along with this, the public nuclear debate became focused on issues of nuclear disarmament (Holl and Convis 1991). It was difficult to decide what the U.S. actually intended. Perhaps the realisation of the inevitability of the spread of nuclear weapons overlapped with the debates against them.

The “Atoms for Peace” programme was one of the initial U.S. efforts to share the know-how of nuclear technology though the aim was to establish the monopoly in the market of nuclear technology and to infuse confidence among the U.S. allies. This was the result of new information about nuclear weapons altering the prior belief of absolute control (Nye 1987). It was an indicator of the American nuclear learning. The approach changed from control to restraint. However, this still had major limitations. The fundamental flaw was how to gauge the intentions of other states that they would not use the assistance for military purposes.

In his speech, at the 470th Plenary Meeting of the United Nations General Assembly President Eisenhower had said that the U.S. would be “proud to take up with others principally involved the development of plans whereby such peaceful use of atomic energy would be expedited” (International Atomic Energy Agency (n.d.)). He also claimed that it was their “purpose” to help people “move out of the dark chamber of horrors into the light, to find a way by which the minds of men, the hopes of men, the souls of men everywhere, can move forward towards peace and happiness and well-being” (International Atomic Energy Agency (n.d.)).

These statements proved that the Americans had realised the need for sharing their individual nuclear knowledge (primarily technological) in order to ensure that states followed a policy of restraint. That was an imposition of a correct nuclear learning. There was a fundamental difference in the policy followed by the United States from that of the Soviet Union. It seemed that the U.S. believed in the development and sharing of the peaceful uses of atomic energy and wanted to ensure that every nation could have a share in the “American dream” which was an “atomic dream” (Mian 2009: 23). Soviet Union on the other hand looked at the weapons as a means to achieve equality with the former. This feeling brought with it instances that weakened the nuclear norms. There were disagreements between the two on dealing with violation of norms from the beginning itself.

The “Atoms for Peace” programme introduced in early 1950s, might have aimed at the right development of nuclear technology but it eventually resulted in the development of nuclear programmes in Iran and Pakistan. In May 1954, Pakistan signed the Mutual Defense Assistance Agreement with the United States. Along with this, 1954 saw the establishment of the first Pakistani Commandant of the Military Command and Staff College, Quetta where the U.S. Nuclear Warfare Team visited for special sessions (Mian 2009:27). This was an initiative that led to sharing of knowledge in the nuclear issues however with respect to the complexities that existed between India and Pakistan; this was a source of insecurity. One state’s nuclear learning caused insecurity in the neighbouring state. 1954 also witnessed a change in the Atomic Energy Act in U.S. and the government there allowed sharing of “peaceful” nuclear science and technology with American industry and allies (Holli and Convis 1991). 1950s were clearly an era of the American opening up to the world with respect to the nuclear weapons.

The spread of nuclear weapons was a classic example of what George Schultz said once that “Proliferation begets proliferation” (Sagan 1996: 57). The efforts to balance against rival states were leading to insecurities in the other states which led to the development of nuclear weapons in the other states as well.

Zia Mian in *Fevered with Dreams of Future* throws light on the year 1956 when the U.S. Joint Chiefs of Staff compiled a list of states that are desirable to serve as bases for intermediate-range ballistic missiles armed with nuclear weapons. The list was divided into two categories – the “most desirable states” that included Turkey, Norway, Britain, Japan, Okinawa and France. The

merely “desirable” states included Pakistan, Greece, Iran, Taiwan, Denmark, West Germany, Spain, the Philippines, Italy and Libya. The U.S. went ahead with the plan and based its nuclear weapons in Turkey, Britain, Okinawa, Greece, Taiwan, Greenland, West Germany, the Philippines and Italy (Norris, Robert S., William M. Arkin, and William Burr. 1999:28). It is interesting that Pakistan, Iran and Libya were kept out of the list. These states eventually went on to be the challenges that U.S. had to face. Pakistan had been the constant source of the concern regarding non-state actor’s control of nuclear weapons. Libya took its time to convince the international community of its intentions about disarmament. Iran is still in negotiations with respect to its ‘nuclear weapons programme’. This will be discussed in follow up chapters. Basically, the mid 1950s saw the emergence of a policy where nuclear technology was shared by the U.S. and Soviet Union with their allies (Nye 1987).

Yet, the process of sharing the knowledge was accompanied with an important step taken to check the spread of nuclear technology. The U.S. was trying to develop norms to slow down the spread of nuclear weapons (Nye 1987: 391). This also resulted in the creation of the International Atomic Energy Agency (IAEA) in 1957. The IAEA was created to impose and establish safeguards and monitors over peaceful nuclear facilities. The aim of the IAEA inspectors was precisely to ensure that peaceful technology should not be used for military purposes. But this was also the time when the discrimination in terms of nuclear weapons had started irking states.

A major setback to the attempts of establishing international nuclear norms was the Cuban Missile Crisis of 1962. That tested the norm of non-use and questioned the existence of any shared nuclear learning between the U.S. and Soviet Union. It is one of the incidents in the history that tested the norm of non-use of nuclear weapons. In that process it weakened the other two norms because suddenly non use did not seem as sacrosanct as it was before the incident. Another development that raised eyebrows about ‘correct’ nuclear learning was the Non Proliferation Treaty. The NPT made certain states the nuclear Brahmins which was unacceptable to several states like India, Israel, Pakistan, Algeria, South Africa, Brazil, China and France. They all complained of the discriminatory nature of the treaty and refused to sign it (Nye 1992: 1294). The NPT came as a proof of the perpetuation of unjust distribution of power by the nuclear weapons club (Bull 1975: 179). France had tested its nuclear device in 1960 followed by China in 1964. So by 1964, there were five nuclear weapon states in the world. As a response to

the Chinese tests, India responded with its “peaceful nuclear explosion” though after almost a decade (Sagan 1996: 59).

Notwithstanding the intended pressure created by the NPT, India used the peaceful nuclear assistance from Canada and the United States to produce plutonium for a nuclear explosion (Nye 1992: 1294). Indian “peaceful nuclear explosion” of 1974 raised suspicions about the possible failures in ensuring insulation of the civilian and weapon grade nuclear technology. The Indian nuclear tests were the “most dramatic blow” for the newly concluded NPT (Bull 1975: 175). With the Indian entry into the nuclear weapons possessing states, the Nuclear Suppliers Group was established aimed at strict guidelines for nuclear commerce in 1978. It countered the earlier assumption about the “safe sharing of nuclear fuel cycle technology (Case 2011: 15). The bubble had been busted and Indian example was later to be followed by Pakistan. In 1998, India conducted ‘Operation Shakti’ (May 11 and 13), detonating five nuclear devices at its Pokhran test range at Rajasthan. It was followed by detonation of six Pakistani nuclear devices on 27 May 1998. As a result, South Asia became a fragile region with three nuclear weapon states placed next to each other. The nuclear age or the nuclear complex that was established in South Asia shaped and influenced the behaviour of both states and societies of India and Pakistan (Abraham 2009: 2). This phase of nuclear learning witnessed rise of insecurities, violation of nuclear norms and beginning of weakening of the international norms order.

This phase that attempted controlled sharing of nuclear knowledge brought about a realisation that restraint was not working. With the fragility of South Asia and West Asia, there was a need to check nuclear proliferation with initiatives based on equality. The process could be slowed down but the spread of nuclear weapons was happening at a steady pace not because of its military value but more due to the political and energy value that they brought with them. As an aftermath of unintended proliferation, strategic exchanges of views took place for better, substantial and productive steps towards nuclear disarmament.

The process of reflection on the political, economic, moral and defensive connotations of the possession of nuclear weapons had been a consistent one. This phase saw discussions about the possibility of obsolescence of nuclear weapons being the way to overcome nuclear proliferation instead of shared nuclear learning. But obsolescence of nuclear weapons was not expected soon. There could be different reasons that eventually lead to the obsolescence of any category of

weapons ranging from technical to functional, to planned or strategic ones. It was hard to imagine nuclear weapons as a part of any of the categories for the following reasons:

- Nuclear weapon technology was much coveted and, for a majority of the states, is still under development; hence, technical obsolescence is out of question in that respect. Iran and North Korea with their ‘nuclear weapons programmes’ prove this point. Whether the technology is in house or imported, it is still much desired for.
- The functional aspect did not apply to them since their use is not the reason for their possession. Though several states across the world believe that the development of nuclear weapons is “morally prohibitive” (Frey 2009: 196), there is a glory that is synonymous with them. As Karsten Frey points out in the *Guardians of the Nuclear Myth*, states see “nuclear weapons as either symbols of vulnerability, perceived threats or the regalia of major power status. This phenomenon is termed as nuclear myth” (Frey 2009: 196). Hence, the functional aspect of obsolescence is not even a criterion. Nuclear weapons are much about the identities and power images that they impose.
- The last category implying a strategic or planned way for obsolescence which was highly unlikely, given that states would rarely abide with or follow such a strategy. An additional problem would be that of verification of the intentions and the abiding of the states would stay in that scenario as well.

It was important to kill the rationale behind the possession and development of nuclear weapons which seemed clearly an unlikely proposition. Nuclear norms that emerged over time can at best succeed in delegitimising the possession of nuclear weapons. The effectiveness however, was something that was to ponder on.

The main problem was that the moral odium that existed in the realm of nuclear weapons was detached from the use of nuclear weapons. They enjoyed strong political status. The uniqueness of nuclear weapons and the taboo against them was unlike the other cases. For example if one looked at the chemical weapons, the taboo against them emerged due to the harmful effects that they caused. The experiential learning was enough to develop the taboo against their use. For the nuclear weapons, it was just one instance of use that shook the world. The new developments in the field of these weapons did not get used. Hence the nuclear taboo emerged more out of the

fear of use than anything else. The extreme destruction that was witnessed in 1945, itself was enough to create a resistance against the use in future.

It was believed that with the majority of the states abstaining from the acquisition of nuclear weapons, it seemed likely that the nuclear taboo would prevail over the nuclear myth (Frey 2009:198). But this is where the exceptionalism emerged. The minority which possesses the nuclear weapons were the ones that created and refined the nuclear norms later. Eventually it was the late enterants and outliers that changed the norms.

The second phase of nuclear learning can be summarised by efforts that came as a consequence of the realisation of the inescapable scenario in which the political value of nuclear weapons had been realised. In addition to that, there was a fear among the states about the possibility of ‘correct learning’ with respect to nuclear weapons. In order to keep a check on that, initiatives like the Atoms for Peace programme, the IAEA, NPT and so on are introduced. But, the other states were learning about the power of the possession of weapons not necessarily confined to military uses. Those states had something in common. That was the gradual change in their “operational code” (Harnisch 2001). Operational code can be defined as a “set of general beliefs about fundamental issues of history and central questions of beliefs” (George 1969 quoted in Harnisch 2001: 611). This concept of operational code helped in looking at the policy changes from a different perspective than just realist conclusions. The operational codes for the states with ‘different’ nuclear learning fell under similar categories if not the same. Resistance against discriminatory nuclear norms was one of the similarities.

By the end of the second phase of nuclear learning, there were new members in the club. With more actors at play, 4 Ds emerged as the pillars around which the nuclear learning processes of different states spun themselves. They were:

1. Deterrence
2. Discrimination
3. Disarmament
4. Disincentivisation

These 4 Ds played an important role in changing the meaning of nuclear learning for different states. Deterrence was a direct implication of nuclear weapons realised by newly aspiring states

like India and Pakistan. Discrimination was a major complaint of the nuclear 'have-nots' against the 'haves'. This is why treaties like CTBT could not prevail. Nuclear disarmament was an important goal of all the states but the initiatives planned usually covered the 'other' and not the self. Though there were several movements and networks that attempted to disincentivise nuclear weapons, there was not much success. The irony was that the disincentivisation completely failed in the unstable regions like South Asia, Middle East and Korea.

These four Ds failed to help strengthen the efforts towards a universal nuclear learning. It was believed that the original NWS had learned with experience to calibrate the challenges and react accordingly unlike the states who had joined the nuclear group much later (Horowitz 2009). It was then that engagement efforts began on much more egalitarian basis because of the "nuclear card" (Horowitz 2009: 253) played by the new nuclear states due to their lack of experience in nuclearised disputes. Levy (1994) links the process of learning to a lot of inputs and one of them is experience which came with time. The urge within the original nuclear states to share the 'correct learning' and the subsequent rise of 'different' nuclear learning in newly converted states was seen in the next phase.

c) Nuclear Learning Phase III: Emergence of 'different' nuclear learning

Nuclear proliferation emerged not as a single threat but as a wide spread multi-faceted disease and rose from all the directions. The first half of the 1990s is known as the golden age of proliferation. Nye (1992) threw light on the multi-dimensional ways in which nuclear proliferation was accompanied with other complex issues. There were several challenges faced including secrecy, unacceptability of universal norms, emergence of outliers etc. This section will touch all those to understand how and what led to the so called 'different' nuclear learning.

The collapse of Soviet Union had a huge impact on the spread of nuclear weapons and knowledge. Nuclear proliferation was visible in the form of Iraq's violation of the Non-Proliferation Treaty and Pakistan's achievement of nuclear weapons capability. With the increasing proliferators, the need was felt to come up with some new ways to diffuse nuclear knowledge but in a safe manner. There were events that suggested that efforts were made if not to prevent nuclear proliferation then at least to produce knowledge about the same to overcome the value that the weapons enjoyed because of added secrecy. Nuclear weapons were also a

special category where it had been the responsibility of the analysts of security studies and international relations to decipher the complexities of the matters (Abraham 2009:2). There was a clear demarcation between the technical and political aspect. But all in all, nuclear weapons were kept away from the realm of general public discourse because of the assumption that their understanding required great technical knowledge.

However there was an underlying reason as well, which was the fear of criticism due to moral and humanitarian reasons (Abraham 2009). States like India found it difficult to justify the progress of their nuclear programmes to their people since the programmes did not show the promised results (Ramanna 2009). It was also the mutual suspicions within South Asia especially between India and Pakistan that led to a “mindless race” (Prakash quoted in Dalton and Tandler 2012). Hence, the opacity led to nuclear proliferation becoming a huge risk in the rising instability in the environment.

Due to the absence of transparency, the efforts to convince threshold states to cap their nuclear weapons was not an easy task at all (Fortmann 1993: 152). With the new states into the picture and especially like India, Pakistan, North Korea, Israel, Iran it became difficult to stick to the status quo with respect to the nuclear norms regarding sharing and spread of nuclear knowledge. In fact when India acquired nuclear weapons, the effect was evident on it as well as its potential adversaries (Horowitz 2009: 238). This was the beginning of the third phase of nuclear learning. It was then that the insufficiency of understanding nuclear weapons only through structural realism or non-proliferation policy (Walker 1993 quoted in Abraham 2009:3) was realised. The importance of contextualising these issues was realised much later with respect to the different meanings they projected in the realm of material forces, techno-political space, symbolic and cultural referent and state practices (Abraham 2009). The discussion regarding nuclear weapons started extended to beyond just an instrument of diplomacy and national security or a large scale technological object for the production of electricity (Abraham 2009:2). States were learning all of this. But there was still a hesitation in share nuclear learning perhaps much like what Jack Levy believed that if the process of learning is shared, then it is insignificant (Knopf 2012: 193). The problem was not the absence of shared learning with the West and the late comers but rather the constant questioning of what the West had advocated and practiced. The next few sections

will look at some instances that challenged the existence of any universal nuclear learning even amongst the superpowers.

i. SEANWFZ Treaty – Questioning the existence of ‘right’ nuclear learning

The South East Asian Nuclear Weapons Free Zone Treaty was signed by the ASEAN leaders in Bangkok, Thailand on 15 December 1995 and it came into effect two years later. However, negotiations on the protocol between the ASEAN and the five recognised nuclear-weapons states have been on since May 2001. None of the Nuclear Weapon States signed the protocols mainly because of the French and American objections to the “unequivocal nature of security assurances and over the definitions of the territory, including exclusive economic zones” (Nuclear Threat Initiative (n.d.)). SEANWFZ Treaty in its definition and scope had two elements that had irked the P5:

- The first aspect was that the treaty was applicable not only to the territorial and geographic proximity of the ASEAN members but also included the continental shelves and the exclusive economic zones (EEZ) of the parties. The P5 had objections to such an extension since that would hamper the nuclear trade between the other states. Under the treaty, nuclear weapons cannot be used within the zone identified or from within the zone against targets outside the zone which supposedly questions the self-defence mechanism of the states. (Nuclear Threat Initiative (n.d.)).
- The other major aspect that was problematic was that the treaty had a negative security assurance implication. That implies a commitment by the nuclear weapons states not to use nuclear weapons against any contracting state or protocol party within the zone of application and also put a restriction on the passage of nuclear-powered ships through the zone (Nuclear Threat Initiative (n.d.)).

As seen in the second phase, the Non Proliferation Treaty was an important instance of dissent between the states. The West insisted on signature of states like India and Pakistan. Article VII of the same nuclear Non-proliferation Treaty (NPT) stated that,

Nothing in this Treaty affects the right of any group of States to conclude regional treaties in order to assure the total absence of nuclear weapons in their respective territories. (International Atomic Energy Agency 1970)

In spite of this clause, the SEANWFZ treaty faced several hurdles. The fundamental problem with such a nuclear weapons free zone was a hindrance in the freedom of movement of ships carrying nuclear weapons across international waters. Other treaties implementing NWFZs in other areas like Africa and Latin America had sub-clauses that ensure that the final right of decision-making rested with the NWSs or had an exemption in the transportation of the nuclear weapons. This treaty however tried to take the decision making power in its own hands and hence failed to fulfill the standards set by the P5.

The first two phases of nuclear learning threw light on efforts that should have not only advocated but praised formulating of a nuclear weapons free zone. It served the nuclear norms in all ways possible. Yet, this treaty was stuck because evidently the nuclear learning of the ASEAN members hampered the interests of the P5. This case proved that there was a difference between the rhetoric and practice in terms of nuclear weapons policies in the West. The undesired inference was that cooperation towards nuclear disarmament was acceptable only when it served the interests of the P5. This was also something that was 'learnt' by India and used much later as will be seen in successive chapters.

If the 'right' nuclear learning aimed to achieve a nuclear weapons free world then a treaty like SEANWFZ was a step towards achieving the same. But its fate proved that nuclear learning was malleable just like nuclear norms. Another aspect was that nuclear learning to be acceptable, had to happen collectively both at the individual state level and within the entire international system (Knopf 2012: 193). The international system in this case is pretty much governed by the P5. This is one of the lessons that India learnt. But this lesson soon led to a change of control over nuclear norms.

ii. North Korea and Iran – Nuclear learning gone wrong?

In light of the various efforts to control the spread of nuclear weapons, the cases of North Korea and Iran ensured that the strategic community stayed engaged in looking at different ways of propagating nuclear disarmament. The North Korean rocket launch on December 12, 2012 in the Pyongyang province, achieved the goal that it probably aimed at which was precisely an immediate deterrent. The North Korean launch was a clear indication of its intentions of developing the long range capability to deliver nuclear weapons as far as the United States

mainland. Though it was a 'peaceful rocket launch' and did not classify as a long-range ballistic missile test, it did come across as a statement made by North Korea to its people and the world. North Korea had been called a "rogue state" and seen as one of the "axis of evil". The country was economically isolated by the 'international community'. It has been under the UN sanctions since 2006 when they proceeded with their first nuclear test. The sanctions got expanded in 2009 after their second nuclear test. In spite of the tight sanctions, Kim Jong-un in April 2012 stressed on the need to strengthen the military in his first public speech after assuming the leadership of the state. He stated how the "first, second and third" priorities were to strengthen the military and to fight the technological superiority "monopolised by imperialists" (Hun 2012). The three stage Unha-3 rocket launch with a potential range of 8000-10,000 kms, however, proved its strong technical capacities and capabilities.

North Korea has often blamed the U.S. policy of military intervention as a justification for its nuclear programme (Griffiths 2018). The North Korean leader Kim Jong Un sees the difference in behaviour with states that possess nuclear card in comparison to those that do not. The states that possess nuclear capabilities enjoy leverage and the examples of Libya, Ukraine and Syria were made North Korea learn the lesson to not give up nuclear weapons (Daniel Coats quoted in Griffiths 2018). It can not be denied that the change in the Indian identity with the gradual development of its nuclear weapons programme did not go unnoticed. The link between the Indian nuclear weapons programme and its consecutive image of a responsible power is probably a source of lessons to the aspiring nuclear states. It can not be denied that the U.S. changed its policy vis-à-vis North Korea from a punishment strategy to engagement as a result of "foreign-policy learning process" (Harnisch 2001). The question then is if this was a case of the 'incorrect learning' that Basur (2009) speaks of.

With respect to Iran, there has been a continuous process of engagement which has not proved to be quite productive. The nuclear deal agreed upon between Iran and the six world powers (China, France, Russia, United Kingdom, United States and Germany) signified that Iran followed the path of not giving in to the domination of the original nuclear powers. Iranian policies are governed by two driving factors – national interest and revolutionary principles (Rafizadeh 2015). Both the factors had a different meaning as compared to the other states. Iran displayed a different streak of learning when pressurised. While the national interest aspect

supported the deal, the revolutionary principle opposed America primarily (Rafizadeh 2015). This was one of the reasons for Iran to proceed with the nuclear weapons development programme inspite of the sanctions.

The policy followed by the West towards the Iranian nuclear programme has been “stop, shut, ship” (Santini and Tabrizi 2012). That policy failed and the various rounds of talks proved to be unsuccessful in containing the progress of the Iranian Nuclear Programme. Iran’s image as the pariah state did not change despite the engagement. Even after the agreement was achieved, the U.S. Congress seemed skeptical of it. It is yet to be seen if the nuclear deal actually prevails and if the deal is passed the American statesmen. Another aspect to be seen is if Iran legally agrees to the additional protocol of the NPT. The Additional Protocol is a legal document that supplements States’ IAEA safeguards agreements. It grants the IAEA complementary legal authority to verify a State’s safeguards obligations.

The nuclear learning for Iran does not fit the prism of a lot of states but in some terms it fell under the path followed by North Korea. It too has managed to avoid geographical intervention in the name of deterrence. The similarity between Iran, North Korea and India has been geographical dilemma of survival from the neighbours. Though there are many differences between them, the one similarity is their operational code which ensured that they learnt unconventional (different from what the West advocated). nuclear lessons (Harnisch 2001). Since they were able to protect their territorial interests, it seems unfair to categorise their nuclear learning as ‘incorrect’. Moreover it is the U.S. behaviour in states like Libya, Ukraine, Iraq and Syria which was different from that with India and Pakistan that taught this lesson. So North Korea and Iran can not be isolated in their nuclear learning processes.

Nuclear disarmament initiatives- teaching the rhetoric to the new comers?

The nuclear learning phase I and II had concluded the need for serious disarmament efforts. Another bench mark in taking this forward was the Global Zero Movement launched in December 2008 in Paris. The movement called for a ‘phased’, ‘verified’ elimination of the nuclear threat including proliferation and nuclear terrorism (Simons 2013). The Global Zero movement had its aims set, which were to stop the spread and eliminate all nuclear weapons and secure all nuclear materials. The “four horsemen” (Henry Kissinger, George Shultz, William

Perry and Sam Nunn) attempted to shift the focus from nuclear weapons as essential weapons for possession to other threats to global security like chemical weapons, biological weapons, and climate change, to decrease the value attached to nuclear weapons (Simons 2013).

The movement not only merged the grassroots initiatives, civil society efforts and dialogues with different states, but also came up with a documentary –“Countdown to Zero” - to increase awareness towards the issue among all sections of society (Simons 2013). Attempts are made in all areas to increase the acceptance level of the issue. The Global Zero movement prepared a step-by-step action plan which in its first phase called on the U.S. and Russia to cut their arsenals to a total of 1,000 warheads each. All other countries with nuclear weapons were to freeze their arsenals, and the international community was to conduct a global effort to block the spread of nuclear weapons. In order to fight the mindset of many regarding it as being another tool to re-establish the divide between the ‘haves’ and ‘have-nots’, in 2010, the U.S. and Russia signed the New START Treaty. This was ratified later in 2011, ensuring that the number of deployed strategic nuclear warheads would be reduced by 1,550 for each side by 2017 (Chaturvedi 2012).

Efforts by the U.S. and Russia were commendable, yet a crucial aspect of this movement was that like many other nuclear disarmament initiatives, it was seen as an extension of the endeavour by powerful states to contain the ‘others’ which was again not acceptable. Russia even today has approximately 5500 total warheads with 1492 operational strategic warheads while the U.S. possesses approximately 5000 warheads with 1737 deployed strategic warheads, which is still a big number (Chaturvedi 2012). The problem still is difficulty in disincentivisation of the nuclear weapons. The states are not ready to follow any form of nuclear apartheid. The intention and methodology seemed perfect however this initiative lost the spark since states had learnt that nuclear weapons could not be disincentivised by a few states.

There were several civil society networks that came up after the realisation of the destructive consequences to encourage banning nuclear weapons. One of the major global campaigns was the International Campaign to Abolish Nuclear Weapons (ICAN) launched in 2007 in Vienna. ICAN is a global campaign launched to:

- Acknowledge that any use of nuclear weapons would cause catastrophic humanitarian and environmental harm.
- Acknowledge that there is a universal humanitarian imperative to ban nuclear weapons, even for states that do not possess them.

- Acknowledge that the nuclear-armed states have an obligation to eliminate their nuclear weapons completely.
- Take immediate action to support a multilateral process of negotiations for a treaty banning nuclear weapons. (International Campaign Against Nuclear Weapons (n.d.))

ICAN is not the only initiative that displays the realisation of the dark side of the nuclear weapons. There were several other follow ups like the intergovernmental conference in 2013 hosted by Norway to examine the humanitarian consequences of nuclear weapons. It was attended by diplomats from 128 states. In 2014, Mexico conference called for a ban on nuclear weapons. Such efforts taken consistently have not lead to any substantial results due to the failure of disincentivisation of nuclear weapons. States like India proved the power of nuclear weapons by transcending the boundaries and changing its entire identity in the global power dynamics. The reasons for such a transformation of the Indian identity are many. But, possession of nuclear weapons is one of them. India defines the river of reasonable returns as far as nuclear learning is concerned.

The third phase of nuclear learning thus saw the questioning of any form of correct learning by the P5 as well as outliers. It saw the rise of different nuclear learnings in the form of India, Pakistan, Iran and North Korea. It saw the increase in malleability of norms to serve interests of different concerned actors. It saw some serious efforts to encourage nuclear disarmament and yet projected the difference between the nuclear rhetoric and actions. This phase basically proved that even the West had gone wrong in their nuclear learning. It was thus unfair to accuse states that joined the club later of learning late or the wrong lessons.

All the above examples were a part of an ongoing process. The aim was to prevent misuse/ accidental leak of nuclear weapons or technology. But as many times as such initiatives were taken, there was an undercurrent among some states which felt cheated for being outside the group of the decision makers. They supported the cause but were evaluating all the developments in terms of implementation on the superpowers. Many states were learning the art of responding and behaving in discussions and conferences talking about nuclear weapons (Jacob 2014). India was one of them. While all these efforts show different kinds of developments, one thing is clear that there was no universal agreement on the process of strengthening of norms. The nuclear learning of several states did clash with the prevalent norms but they could not be compartmentalised as being wrong.

2.4. Conclusion

Scott Sagan in *Learning by Trial and Error* tried to show how difficult it was to formulate a nuclear learning process. He described a scenario in which a pilot flying a Boeing, 767 accidentally switched off the engines. In a time span of 60 seconds, he switched them on again however this was a near accident scenario. Sagan tried to analyse the impact of this event on the passengers whether this experience made them feel safer or frightened. In this case, the pilot was suspended and hence the people were reassured that standard operating procedures helped in preventing further accidents. However, Sagan with the help of this analogy pointed out an interesting observation which was that “serious errors can be an important source of future safety improvements” (Sagan 1993: 205). The problem is that there is no scope for “serious errors” in the domain of nuclear affairs. The idea of a possible error itself was scary.

Knopf divided the concept of nuclear learning into two components- empirical and conceptual (Knopf 2012: 79). According to Knopf,

The empirical learning would involve looking at the “facts of the case: the doctrines, strategies, and force postures developed by the countries in question, the decisions and actors each has taken during crises, the nuclear diplomacy between the countries concerned, and so forth. To judge whether or not these empirical developments constitute learning, however, requires having a concept of nuclear learning that can provide a yardstick against which to assess the facts.(Knopf 2012: 80)

This definition divided the developments in the nuclear domain into two distinct categories. It took into account the strategies and doctrines that different states might pursue and adopt. The other part of the definition aimed at formulating a specific definition to evaluate other actions and policies. But as the various instances described, the challenge was the demarcation of ‘right’ learning from ‘wrong’.

As seen in the chapter, a problem in learning the right lessons was when states felt those initiatives are “managed interdependence” (Knopf 2003: 188). The initial policy of secrecy followed by the U.S. in the first phase was responsible for seeing any effort towards shared nuclear learning with suspicion. The mood in the 1990s was more to overcome interdependence and rise above it to move towards self-sufficiency. This was a major cause of the lack of a proper definition of nuclear learning.

Jervis (1976: 216) described how what one learnt from key events in international history was an important factor in determining the images that shaped the interpretation of incoming information. That learning further shaped future decision making. The problem was that every state learnt unique lessons from similar events and that was what happened in the nuclear domain too. States like India traversed a huge change in identity from 1947 to 1998. In that time frame they witnessed a change in their position in the power dynamics of the world. Hence for India, the relevance of non-proliferation meant something different from the understanding of United States.

As the nuclear norms were felt getting weak, a shared nuclear learning could have made a lot of positive difference to the movement. But that required common inferences from events (Knopf 2012: 193). This was missing between the initial P-5 and the states that joined the nuclear club later. This was also a major cause of leading South Asia to the nuclear brink. That will be studied in later chapters. In short, India and Pakistan did not learn similar lessons from events in the nuclear history and hence went along different tangents of nuclear learning. Nuclear weapons more than being a materialistic addition, created a national sense of pride, accomplishment, strength and defiance in the newly converted states. In the case of Pakistan, this was accompanied with an international scare (Durrani 2009:91). This was true for states like Pakistan and Iran too. It can not be denied that there has always been a general tendency to exaggerate the importance of exact definitions in every field (Roseaneau 1980: 21). Nye pointed out that learning is a 'slippery concept' (Nye 1987: 380) because of the general tendency to build effectiveness into the definition. But just because a state did not fit the definition did not mean the process did not take place. Nuclear learning too fell into this trap and South Asia is an example of making the most of the 'slipperiness' of nuclear learning.

One of the reasons responsible for the slipperiness in nuclear learning was the secrecy that was followed by the U.S. initially and other states later. It is important to understand how that impacted the nuclear norms. As a result all the efforts towards nuclear sharing in later years were looked at with suspicion. The convenient outcome of the 'opacity' strategy was that it reduced the level of possible analysis or gauging of the qualitative and quantitative extent of the nuclear weapon capabilities (Ramana 2009: 64). But irrespective of that, due to the secrecy accidental proliferation became a risk. When the Pakistani nuclear scientist Dr. Abdul Qadeer Khan's

involvement in the nuclear proliferation was discovered, the importance of learning of states in proper time was highlighted. The exposure of his role in the selling of sensitive information and knowledge to North Korea, Iran and Libya had large implications. This was one of the instances when the newly nuclear weapon states did not learn in time the importance of establishing proper mechanisms to avoid the leak of nuclear knowledge.

In the realm of secrecy between states and within the states, it was difficult to evolve a policy that would slow down the spread of nuclear weapons since that would have resulted in causing friction between countries (Nye 1992: 1293). While nuclear weapons did create a balance between the two superpowers during Cold War due to the parity of power that they introduced, such a possibility can not be replicated in all the scenarios.

Despite being aware of the limitations, there have always been efforts to inculcate 'correct learning'. Nuclear norms played a major role in facilitating that. They helped in positive evaluative connotation: when the observer approved of the new conception of self-interest, it was called "learning"; disliked changes were not (Nye 1987: 380). By that definition Indian nuclear learning did not follow the right path since it violated norms on its way that had been put in place by U.S. and its allies. But this study taking from what Nye believed proposes that all forms of learning are justified and the question is whether the new information or skills had enabled the actors to achieve their purposes better, regardless of whether the observer liked those purposes or not. The West might have started defining what comprised of 'correct' nuclear learning but the analysis in this chapter proved that it was impossible to restrain other states from taking their own decisions. Moreover there were instances when the West too did not follow the path that it advocated. Waltz (1995) spoke of "two faces" of a weak state's deterrent threats – physical and psychological. The difference between the two faces in terms of nuclear deterrence was something that the states learnt over time (Sagan and Waltz 1995: 23). It was the psychological aspect of deterrence that weakened the nuclear norms. The next chapter will deal with the evolution of nuclear norms. It will be an attempt to see if the nuclear dynamics in South Asia was solely responsible for making the nuclear norms malleable or was it the other way round.

Chapter 3: Evolution of Nuclear Norms - Non-Possession, Non-Use and Non-Proliferation

When I'd had my coffee this morning and went upstairs to get dressed for work, I never considered being a nudist for the day. When I got in my car to drive to work, it never crossed my mind to drive on the left. And when I joined my colleagues at lunch, I did not consider eating my salad bare-handed; without a thought, I used a fork. (J M Eipstein 1999: 1)

These lines describe the mental state of any person who went to work and followed a routine. There is nothing unusual about them. But they implicitly bring out the basic characteristic of norms which is inability to think beyond them. That is the characteristic of norms. They slowly socialise the people around them to behave in a certain manner.

Norms are “self-enforcing behavioral regularities” (Axelrod 1984 and 1986 quoted in Eipstein 1999:1). They have a unique quality of forcing its “conformity without thinking about it” once it is developed (Eipstein 1999:1). These two precisely sum up how norms operate. While it is true that the tendency is to follow them without thinking, there are some people who look for a way out. Those persons are the ones that decide the future of norms.

As seen in the last chapter, the actors in international relations went through a process of nuclear learning. In that process there were several changes in beliefs, policies and decisions. In the midst of all these, the nuclear norms too got influenced. While it is believed that the norms formed the mechanism to keep a check on violations, the instances mentioned in the previous chapter prove that often there were exceptions. That exceptionalism often led to expectations from other actors of a different behaviour. Hence conformity to nuclear norms without thinking slowly became diminished.

The aim of this chapter is to understand the relationship between nuclear learning and evolution of norms. The last chapter traced the evolution of nuclear learning historically. The nuclear norms operated in the background and often became the cause for several states to adopt the different trajectories of nuclear learning. This chapter will look at how nuclear norms evolved,

changed shape and emerged after pressures created by different actors. In that process, a few examples will be looked at to understand if the nuclear norms were ever as robust as needed.

3.1 Emergence of nuclear norms

The bombing of Hiroshima and Nagasaki on August 6th and August 9th was the dramatic end of the Second World War. It was followed by debates about what could have been a better way to demonstrate power for the U.S. (Yoshida and Hippel 2016). In hindsight, it was believed that the use of nuclear weapons could have been avoided looking at the destruction it had led to. The American use of nuclear weapons was criticised because of two reasons - one, it led to a speedy arms race especially between Russia with its allies against the United States. The other reason was that it changed the American perception and people wondered if a country capable of such an act could be trusted with the responsibility of world peace (Yoshida and Hippel 2016). Both these reasons were indicators of the presence of the feeling of uneasiness about the use as well as fear of spread of nuclear weapons from initial years. They led to the realisation for the need of a regime that could impose nuclear norms to avoid any such recurrence. But it was these reasons that led to dissatisfaction among some states regarding the way the norms were developed and eventually resulted in their weakening.

Soon after the World War II ended, it was realised that use of nuclear weapons had to be made a taboo and all had to be done to prevent it. The destruction that followed the nuclear use was unprecedented and unimaginable and could not be repeated. The losses of lives, land and emotions were so huge that even the development of nuclear technology had to be prevented. Nuclear norms were necessary to keep a check on any such possible scenarios ever. While the nuclear taboo was initially associated with non-use, it was realised that for it to be protected, non-possession and non-proliferation needed to be strengthened. These three emerged as the pillars around which all the efforts were taken. To protect these, the P5 tried to put a regime in place in fear of any mis-haps, leaks or accidental uses. This chapter will study that process closely.

Norms are a “shared expectation about behaviour, a standard of right and wrong” (Tannenwald 1999: 436). Norms are closely related to taboos. A taboo is defined as a normative belief about

any kind of behaviour that is decidedly considered wrong (Tannenwald 1999: 436). It is primarily a “forceful kind of normative prohibition” (Tannenwald 1999:436). A major characteristic for any taboo is that it is not said, done or touched to protect individuals and societies from defined dangers (Tannenwald 1999: 436).

The nuclear taboo that emerged after the World War II referred to a powerful *de facto* prohibition against the first use of nuclear weapons (Tannenwald 2008: 12). After the nuclear weapons were used on Hiroshima and Nagasaki, the world went through its “experiential learning” due to the widespread destruction caused by bombings. It resulted in the development of an immediate and strong ‘taboo’ against the use of nuclear weapons. While there was no “fully robust prohibition”, the nuclear weapons were stigmatised as unacceptable – “weapons of mass destruction” (Tannenwald 2008: 10). Whenever there were instances of possibility of norm violations by actors, there were responses from all over the world with accusations of immoral conduct and such actions were condemned forcefully. However it is true that the nuclear taboo that exists is neither legalised nor universal or unbiased and is not actually a blanket ban (Tannenwald 2008). There was a regime set up by the original NWS(s) comprising of institutions, obligations and mandates. Later other states were allowed into it as long as they respected the taboo. In order to strengthen the non-use, efforts were taken to avoid possession and proliferation of nuclear weapons. Together these three formed the crux of nuclear norms.

Realists though believe that the non- use had prevailed not because of any taboo but rather due to the security threat that any state would face after first use (Irondelle (n.d)). This was a problem in effective functioning of the norms. They were respected not because states believed in them but because they were scared of consequences. More over nuclear weapons appeared to be both “seductive and scary” (Sood 2016). They were seductive due to the prestige that came along with the possession of the power. They were much more attractive to the states that were capable of or saw themselves as one that could develop them. The scary part was for the states that feared any recurrence of the massive destruction caused or being at the receiving end, or were unsure of being able to ever join the club of ‘haves’. The scary element was responsible for establishment as well as violation of nuclear norms.

The three nuclear norms were intertwined and influenced each other in different ways. Hence when Krepon called the existing nuclear order “wobbly” because they were primarily operating against nuclear proliferation and testing and not really against possession, it was a fair picture (Krepon 2016). That wobbliness was because of the two aspects of the scary element of these weapons. The flowchart below shows how the three norms operate.

Table 2.1 Expected Flowchart of the violation of components of nuclear norms

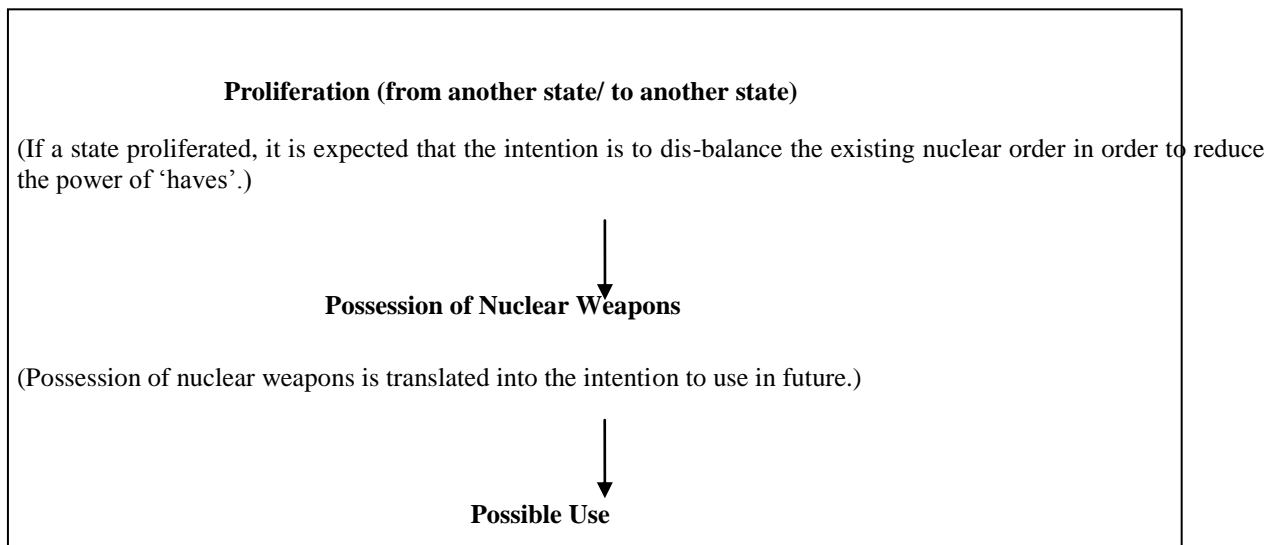


Table 2.1 depicts how any proliferation lead to suspicion regarding the state for possible violation of non-use. This proves that the three are inter-linked. It proved how norms “shape realms of possibility” (Tannenwald 1999: 434). Those in turn shape the learning processes in states. So, we live in a world where the norms determined the possible paths that can be taken by actors in terms of crisis or even in cases of normal decision making.

It was thus interesting to see how there was much support for the initiative to seek the Nuclear Ban Treaty and yet states were “acting in ways that weaken the NPT” (Krepon 2016). These differences have always weakened the nuclear norms. The efforts taken to uphold them are neither consistent nor complimentary. Hence there are loopholes and exceptions to every nuclear norm which eventually crippled them.

The process of norm creation is complicated. Mallavarapu (2012) stated that “efforts aimed at forging standards of appropriateness with a certain class of actors in mind clearly qualify as normative endeavours”. He threw light on the politics of norm creation by looking at the process

of its evolution. One such instance is when the United Nations General Assembly questioned the threat or use of nuclear weapons in any circumstance (Resolution 49/75K 1994 cited in Mallavarapu 2012: 12). International Court of Justice Advisory Opinion of 1996 that declared the use of nuclear weapons brought into light the legal status of the nuclear weapons threat or use (Mallavarapu 2012). The United Nations General Assembly Resolution 1665 (XVI) called upon,

All States, and in particular upon the States at present possessing nuclear weapons, to use their best endeavors to secure the conclusion of an international agreement containing provisions under which the nuclear States would undertake to refrain from relinquishing control of nuclear weapons and from transmitting the information necessary for their manufacture to States not possessing such weapons, and provisions under which States not possessing nuclear weapons would undertake not to manufacture or otherwise acquire control of such weapons; (United Nations 1961)

This resolution hinted at the seriousness of the issue of nuclear proliferation. While it aimed at strengthening an emerging nuclear norm, some actors differed in the accepting it. This hesitation to cooperate with full dedication in upholding nuclear norms resulted in making them malleable.

Non-use which is the biggest example of experiential learning too was touched closely. As mentioned before, during the Cuban Missile crisis, it seemed inevitable that the world would witness a nuclear war (Fidgen 2012). A CIA official spoke of the Cuban Crisis saying "It came close, I tell you, the countries had claimed we are going to go to the brink, and basically once we got to the brink, we didn't know what the hell to do" (Fidgen 2012). But it did not happen. But what drove the states to such a close call was pondered upon later. Such instances resulted in making the other two norms seem malleable.

In fact it was the malleability that questioned the nature of non-use. TV Paul (2010) believed that non-use was more of a tradition than a taboo due to its malleability. Malleability is "the ability to be hit or pressed into different shapes easily without breaking or cracking (Oxford Learners Dictionary). For Paul, the traditions had a greater degree of malleability than taboos (Paul 2010: 856). The difference between tradition and taboo seemed more of the consequences in case of violation. The violation of nuclear norms resulted in sanctions but did not have the expected impact on various occasions. But it is true that only certain norms are not always easily malleable (Sunstein 1995) and it is hard to think of any such example even in social terms that was never given up in a crisis. Taboos are strong bans deeply rooted in culture and they do not just shape decisions but rather "preclude some options from consideration" (Press et al. 2013: 2).

Non-use definitely fits in that category. The argument regarding taboo versus tradition is another debate but the dominant belief against non-use is undeniable.

But it is not the non-use that was directly softened. It was the other two norms that were the low hanging fruit for states. The consequence often was expectation of violation of non-use. That was the ultimate threat. It was the process of evolution of norms that itself weakened them in trying to accommodate. Not all state nuclear learnings fell in the category of normatively appropriate. But as the appeasement policy of the West continued towards the new nuclear weapon states, the norms started becoming pliable.

3.1 b) How did the norms become so malleable?

When the nuclear weapons entered the dynamics of inter-state relations, there was a new kind of fear that emerged. Deterrence came much after the fear of monopoly of US. When USSR joined the club and started stockpiling, Oppenheimer became alarmed and began to think of ideas to review the existing nuclear arms control measures (Weiss 2009). He was concerned about the Russians developing a comparable capability in a few years. Since there was a general understanding to work towards ending any possible arms race, Oppenheimer suggested that three things be done by the U.S. to achieve those goals. They were (Weiss 2009: 257):

1. Publicly discuss the crisis that lay ahead which included the consequences of nuclear weapons use or an arms race.
2. Make the information about the status of U.S. nuclear weapons programme public to let the people know as well as assure Soviet Union that Americans did not possess a “knock out blow capability”.
3. Start the process of negotiations with the USSR to take arms control measures.

These three steps were to ensure that a race did not follow and the menace could be controlled. These three could have ensured that a system be put in place before things went out of hand. But it did involve opening up and sharing details. The U.S. President Eisenhower did not agree with the proposition completely. He wanted to develop a big nuclear arsenal and the idea of opening up about the programme to the public was not acceptable to him. According to him, that would have resulted in anxiety (Weiss 2009:257). He probably referred to secrecy being the strength of

nuclear deterrence. In response to the suggestions made by Oppenheimer, he proposed the creation of a uranium bank administered by the IAEA and with inputs from both U.S. and USSR (Weiss 2009: 257). This was to explore the peaceful uses of nuclear energy. This gave way to the Atomic Energy Act of 1954 which was the first step towards the Atoms for Peace programme (Weiss 2009:257). But it took away completely from Oppenheimer's suggestions.

The Atomic Energy Act of 1954 was the first step that the U.S. took to preserve its interests at the cost of the nuclear norms. If Oppenheimer's suggestions had been taken seriously, it could have infused some level of confidence in the other states about opening up and arms control measures. But it failed. Interestingly the secrecy in states like India, Pakistan, Iran etc. about their nuclear weapons programme later irked United States. The nuclear norms however from 1950s started seeming like a regime to prevent states from attaining something that were the property of privileged few. After the U.S. and USSR, UK, France, China formed the nuclear club. Soon India and Pakistan announced their nuclear status and with every addition there were some instances in which norms got compromised.

More or less, there were some factors that can be pointed out as being responsible for making nuclear norms weak over the years. They are (Potter 2010):

- Rise of non-state actors and the lack of understanding between different states to reach a consensus about possible way forward for punishments or a proper transnational mechanism.
- The trend of explicit exceptionalism that emerged with the Indian behavior in the international scenario. The implicit version existed before when the U.S. kept its national security policy above all the arms control and disarmament initiatives.
- The complex situation that existed in South Asia with China playing an important role in promoting (in case of India) as well violating non-proliferation(in case of Pakistan).
- Outliers like North Korea and the support by powerful states like China.
- Absence of a universal idea of a system of checks and balances and course of action for violations.
- Evaluation of nuclear weapons with a sense of political power and prestige rather than for military purposes. Hence the traditionalist approach failed to make a difference.

All these were basically the consequences of actors looking for loopholes in the norms order to protect their interests. They were changing their policies and behaviour depending on the circumstances. This was how the nuclear learning was evolving. Much like the three phases of nuclear learning, the nature of norms too can be summarised depending on the strategies adopted to protect norms. The three phases thus are:

- Control: where attempts are made to control the spread of nuclear weapons by the U.S. (till mid 1950s). This was the phase when the urgency of nuclear norms was realised and the aim was to completely protect the technology from any new comers in the nuclear club.
- Restraint: where attempts are made to keep a check on the use of civilian nuclear technology for military purposes. This came after the realisation that absolute norms were being regarded as discriminatory by several states.
- Engagement: where sharing of knowledge started getting importance and shared initiatives and diplomatic engagement was emphasised. The new members of the nuclear club needed to feel involved in the norm creation process.

All the three phases saw a complete and strict check on non-use. But the maintenance of the physical character of the weapon was important throughout (Paul 2010). It meant much more than just a weapon. The states were well aware that nuclear weapons had political, economic as well and most importantly strategic benefits visible once possessed. There was a power that ensured fear as well as a guarantee of non-intervention. Hence, non-possession was violated by states like India, Pakistan, Israel, Iraq, etc. That led to weakening of non-proliferation - vertical and horizontal. Another reason was the discriminatory norms that were developed by the NWSs. They were unacceptable and forced certain states to obtain the technology as a way of fighting the inequality. The states outside the nuclear club were socialised into understanding the power of possession of nuclear weapons with episodes like American intervention in Afghanistan and Iraq. Gradually North Korea and the likes learnt from those episodes. Some states learnt that nuclear weapons technology was not something that can be kept within the boundaries of a few. Others learnt how important they were. In that process of distinct nuclear learning taking place all over the world, the international norms are suffering.

Jacob (2014: 19) opines that states have the tendency to learn by direct experiences as well as through persuasion by means of normative contexts. Options are weighed by states based from the ones that seemed most optimum mostly depending on their normative standing. This process is carried on by learning through socialisation* . It is believed that in order to reach proper conclusions, it is necessary to differentiate between state socialisation and learning (Alderson quoted in Jacob 2014: 20).

Socialisation, according to Kai Alderson (Jacob 2014: 20), is different from learning in the following ways with respect to norms:

- Learning focuses on how and why of a change of beliefs. Socialisation is concerned with how and why of the internalisation of foreign norms.
- Learning emphasises on a wide range of issues from changes of notion about social and material world to international relations. Socialisation is focused on norms primarily.
- Learning implies progress of some kind. Socialisation does not have any such connotation.
- Learning is more of a psychologically charged concept unlike the political socialisation.

For Kai Alderson, states internalise norms and abide by them as a result of socialisation and not learning. This seems like a temporary phase since the motives are purely political. Thus application to nuclear norms projects a scary picture of expected state behaviours. Jacob (2014) believes that even though all of the above differences are true there is no reason to say that both the processes are not complementary. It is necessary to study the importance that norms play when any kind of learning was being considered. One process could lead to the other. The conclusion was that states can learn to take decisions on purely political considerations. In fact North Korea is a classic example of justifying its decisions by socialisation as well as nuclear learning. The progress aspect is open for debate there. If learning is considered equivalent to some degree of progress (Alderson quoted in Jacob 2014), then a lot of decisions in the nuclear world suddenly become justified. Levy's definition of learning states that a change of beliefs is what is necessary. A combination of both these definitions is enough to justify the Indian

* Socialisation has multiple interpretations too. But theoretical study of that process is beyond the scope of this study. For this study, it will refer to the process of eliciting conformity to a desired decision by another actor or actors (Goodman and Derek 2004)

decision to defy international norms (eg. using civil technology for defense purposes) for the progress of its nuclear weapons programmes as a result of its nuclear learning. But it is unfair to study two distinct definitions and come to such conclusions. The point to be noted here is that norms play an influential role whether it is socialisation or learning. Infact socialisation can be seen as an extension of learning i.e. learning to behave in a certain manner to conform to the prevailing norms. Infact, it is interesting to see that norms that were put in place to prevent nuclear flexibilities ended up being shaped on various occasions to appease certain actors. So both norm creation and nuclear learning went hand in hand in making one another re-shapable. The next few sections look at the evolution of the three components of nuclear norms and how they became soft over time. It will also be seen if India can be held responsible for being a primary reason for the weakening of the nuclear norms order.

3.2 Studying malleability of nuclear norms

i. Norm of non-possession

The nuclear taboo that existed initially was equivalent to non-use. But as noted, all the three nuclear norms were inter-linked. Non-possession was the first step towards weakening of norms. It disturbed the status quo instantly. Any violation of non-possession by a state raised suspicions against it for intentions of possible use. Understandably, all the initial steps taken by the NWSs in the first phase of nuclear learning were towards controlling any new states from possessing any technology or material to develop nuclear weapons. This section looks at those attempts and tries to identify reasons that led to its weakening.

The Acheson –Lilienthal Report of 1946 had stated that it was “a place to begin, a foundation on which to build” to analyse the possibility of an “international control” to solve the “problem” (Barnard, et al. 1946). In the report, there were three reasons given behind the need for an international control over atomic energy (Barnard, et al. 1946: 8-9):

1. The development and use of atomic energy had “..placed at the disposal of mankind means of destruction hitherto unknown. The American people have been quick to recognise the really revolutionary character of these weapons...Enough has been said to

make unnecessary a repetition of the probable horrors of a war in which atomic bombs are used...”.

2. There is no possible military defense that worked against atomic weapons.
3. It was necessary that no single state had a monopoly over these weapons.

These three reasons were mentioned in the report that demanded an international control on all nuclear materials, technologies and know-how. The first reason mentioned how the Americans had been ‘quick’ to realise the destructive effect of nuclear weapons. The quick realisation came after the one instant of use which had destroyed two cities and had resulted in consequences that affected much later generations too. The second reason of no military defence against atomic weapons was justified. The third reason became the accusation against any initiatives taken towards establishing organizations and treaties to protect nuclear norms. There was a belief that the efforts were to achieve exactly what was mentioned in the third reason. The Baruch Plan that was the result of this report was denounced by the USSR for trying to establish U.S. supremacy over the technology especially since the international ownership of fissile material production was mentioned in it without indicating any nuclear disarmament for the United States (Godschmidt 1986).

The problem was that possession of nuclear weapons did not get disincentivised by this effort. It was hence difficult for other states to believe in it. Moreover the report mentioned that one of the reasons to absolutely abstain from developing the technology without any supervision was that the only guarantee against its use for military purpose was “national good faith” which was not enough (Barnard, et al. 1946: 10). The American consultants who had been given the responsibility of suggesting a plan to deal with the ‘problem’ were concerned that atomic energy can be used for military and peaceful purposes interchangeably (Barnard, et al. 1946).

Their observation was accurate but the rivalry between U.S. and USSR precipitated the seriousness of the issue. The Baruch Plan too failed to infuse any seriousness in the nuclear norm of non-possession. It was seen as an American ploy to prove its up-man ship. It categorised anything related to atomic energy as “restricted data” and suggested establishment of an Atomic Energy Commission to ensure American supervision over any steps taken towards it (Holli and

Convis 1991). It was assumed that only certain states were good enough to be able to handle nuclear technology. Hence from the beginning itself the initiative appeared flawed.

The suspicion in the USSR was enough to result in the failure of this first step to uphold the sanctity of non-possession. Non-proliferation and non-use came after that. This insecurity was not unique to USSR alone. Several states that were left out of the nuclear club consequently felt the same uneasiness and did not trust the dependency on “national good faith” as proof of abiding by the norms (Barnard, et al. 1946). The result was the ineffectiveness of the entire order at the time of establishment of IAEA, Atoms for Peace programme, the NPT, the NSG and so on. Possession of nuclear weapons was never undervalued since there were always some clauses and exceptions working for the NWSs.

U.S. unintentionally played a major role in the weakening of nuclear norms. The non-use had already been violated by it. As the next phase of nuclear learning came, even the norms changed their shape. Instead of absolute control, ways of sharing the correct knowledge were thought about. This meant loopholes in the non-possession and non-proliferation. Especially the Atoms for Peace programme also resulted in consequences that were not thought through. The U.S. President Eisenhower had announced that through the programme he was proudly taking the responsibility of helping other states accelerate the process of development of peaceful uses of atomic energy (International Atomic Energy Agency (n.d)). That programme eventually resulted in the development of nuclear programmes in Iran and Pakistan. The help given to Pakistan through the 1954 Mutual Defense Assistance Agreement with the United States, the establishment of the first Pakistani Commandant of the military Command and Staff College at Quetta under the guidance of a U.S. Nuclear Warfare Team all lead to insecurity in India (Mian 2009:27).

The 1960s was the era when the realisation seeped in regarding the impossibility of restraining certain states from adopting nuclear weapons. When China conducted its first set of tests in 1964, U.S. Intelligence was unaware of how it had got hold of weapons grade Uranium for a bomb (Rosen 2014). U.S. officials believed that the situation in South Asia could still be controlled and Chinese tests did not necessarily mean nuclear race in the subcontinent (Rosen 2014). But India had witnessed the handicap of the norms regime and was not ready to risk its

position especially in the background of the growing China-Pakistan affinity. The PTBT had been in place before the Chinese over ground nuclear tests and yet they could not be stopped. India was seeing the fragile nature of nuclear norms in controlling China and Pakistan both and their friendship on the other hand was growing.

India conducted its first nuclear test in 1974 after China launched their long distance rockets (Chakraborty 2013:16). The fear of “Chinese nuclear cascade” spreading to Pakistan continued to trouble Indian minds (Joshi 2016). It was evident that there was hardly any power or any fear of the potential of nuclear norms to check violations. With the Indian violation of non-possession, Pakistan followed immediately. India’s tests at Pokran in 1998 “set off corresponding explosions in capitals around the world” (Ganguly 2001). The tests as well as the following reactions from the international community incentivised the possession of nuclear weapons.

The NPT is another example of a weak attempt to discourage possession of nuclear weapons. After several suggestions, India complained of the discriminatory nature of the treaty and refused to sign it (Nye 1992: 1294). The NPT was again a part of the international nuclear regime that was acceptable to those states that were dependent in some way on the two major nuclear weapon powers – the U.S. and the USSR” (Subrahmanyam 2009: 12). But states like India never had any “explicit defence pact” with any of the nuclear powers (Kennedy 2011: 122) though there were some implicit umbrellas. Hence the terms for the NPT were not acceptable to them. The consistent problem from Baruch Plan up to the NPT was failure on the part of the ‘haves’ to disarm and insistence on curtailing this weapon from the ‘have-nots’.

Commenting on the existing international norms regime, Hedley Bull (1974) stated that “It is simply not credible that one of the most vital strategic and political instrumentalities of the time, which is technically within reach of many states, will remain permanently the monopoly of the few that first developed it” (Bull 1974: 180). This is what emerged as the major flaw that led to the weakening of the nuclear norms. Justification for selective normative imposition over certain states while the others continued to possess nuclear weapons for the purpose of strategic balance was flawed to the core. After the non-possession became weak, the fear of use became a consistent concern.

ii. Norm of non-use

The non-use has been the most sacrosanct nuclear norm. It forms the basis for the evolution of other nuclear norms. It was the fear of use that inculcated the need to put some system in place to avoid spread of nuclear weapons. However, non-use has also been one of the “most important puzzles in international relations” (Press et al. 2013). There were questions raised to understand the logic behind the sanctity of non-use. Explanations included economic and humanitarian costs, reputational reasons and so on. It is important to know how it became so important before moving ahead to its malleability. In trying to understand why the nuclear weapons were not used after the World War II, Daryl Press, Scott Sagan and Benjamin Valentino (2013) considered three possible opinions:

1. The first was the logic of appropriateness advocated by the Social Constructivist School. This school believes that decisions are governed by “preconceived notions of actors” about the kinds of behaviour that are appropriate in different conditions. This school believes that the reason for use being a taboo are the strong ethical and social prohibitions against it
2. The second was the logic of consequences that is utilitarian analysis of the available options. This school believes in the “immediate efficacy” of the options available to solve conflicts. Hence the crux was that till the use of nuclear weapons served more benefits than the costs of the destruction it caused, the use is not considered. This thought process most likely ruled out the use.
3. The third was the explanation by strategic considerations. They believed that irrespective of the logic of consequences, the nuclear use is let go because of the fear of precedent. This is the result of strategic interactions between states.

After seeing these three possibilities of the emergence of non-use as a powerful nuclear norm, Daryl Press, Scott Sagan and Benjamin Valentino conducted a survey to understand how effective the non-use was. After the survey, they concluded that at least in America, the public opinion against non-use was not very powerful. They were concerned that the people had more faith in the logic of consequences rather than it use being a taboo. The other category of people was those who did not wish for a precedent to be set. It is alarming to know that the sample set

for this survey was random common people and yet the logic of appropriate did not appear as serious as one might have thought. Clearly nuclear weapons push norms back when decisions are to be taken.

The findings of this survey spoke of norms having power to govern international relations till extreme conditions were at play. That is when the malleability worked. The non-use weakened the regime in different ways. The fear of its violation resulted in the crossing of boundaries with respect to other two norms.

When the U.S. took the decision to use nuclear weapons, there were different simultaneous thought processes that worked together. It was believed that the impression of a possible use but restraint would give a stronger message than actual use (Yoshida and Hippel 2016). That would have signaled a benevolent nature probably. However with the actual bombing, the age of nuclear weapons emerged and there has been no looking back from there. In spite of the efforts by the United States, the technology has not been contained to one or a few. The one use encouraged proliferation as well as possession.

Even during the 1950s, the U.S. had considered using nuclear weapons on several occasions (Nye 1987: 386). In spite of the rising public opinion against the use, there was still some inclination towards its possible use in times of crisis in both U.S. and the Soviet Union. There is immense faith in the power of deterrence for being responsible for the prevailing of non-use. However, Tannenwald questions the sanctity of deterrence in explaining the non-use that the world has witnessed till now on the following parameters (Tannenwald 1999: 433):

1. If deterrence is sufficient to explain the non-use how would one explain instances when there is no fear of retaliation of any sort like in the case of Vietnam.
2. Why was the norm of non-use not violated in the initial years by the United States to re-announce its supremacy when it had complete monopoly over the weapons or even later when it was ahead of the Soviet Union in terms of nuclear weapons supremacy? If deterrence is the only explanation for non-use then that did not exist fundamentally in those times.

3. How far can deterrence explain instances when non-nuclear state forces attacked the nuclear state ones like in the case of attack by Argentina on British forces in Falklands in 1982? What resulted in non-use at that time?
4. Why have so many states refrained from possessing nuclear weapons or demanding nuclear umbrella if non- use is not completely acceptable as a taboo.

By asking these questions, Tannenwald (1999) propagated that the world is not living in as big a security dilemma as claimed by many. The security dilemma argument is probably a hyperbolic connotation. While there is some credit that can be given to it, every instance is not explainable just by deterrence. TV Paul (2010) argues that the non-use prevailed due to reputational factors of the potential user. However, it seems that “nuclear non-use” prevailed due to the experiential learning that all the states had gone through after the Hiroshima and Nagasaki blasts. The experiential learning in that case was a combination of political, economical, reputational, humanitarian aspects and several other factors. The other two norms – non-possession and non proliferation also developed due to the extension of that nuclear learning to avoid any intentional or accidental violation of the non-use.

The sanctity of non-use was questioned by certain temptations in history that accompanied the possession of nuclear weapons – the ultimate weapons (Tannenwald 2008: 10). Those temptations were not confined just to the powerful states like US during the Cuban Missile crisis of 1962. It was feared that South Asia would have witnessed a use of nuclear weapons during the Kargil Crisis of 1999 between India and Pakistan. But a characteristic feature about any taboo or norm is that it is generally a reminder of the danger that lurks behind the temptations and why the latter should be resisted (Tannenwald2008: 12). Use of nuclear weapons too did that. Unlike the societal norms where you can violate a norm and keep it a secret, the nuclear norms and especially breach of non-use would have been known to everyone. Hence despite the malleability, complete defiance was not witnessed.

Unlike the other two nuclear norms which were flaunted by states who respected them, the non-use was never advocated too openly or patently. The reason was deterrence and projection of an image. If a state announced complete adherence to non-use of nuclear weapons, the political value of those weapons was lost. For example- the United States often spoke of no support to any

use of the nuclear weapons but had in built exceptions in its nuclear policy. Gradually China and then India too developed this in its doctrine. The once complete No First Use of India was amended with some exceptional cases in 2004. These instances resulted in creating insecurity among the other states and as mentioned before good faith was not enough for states to believe each other's intentions (Barnard et al. 1946).

The NFU policy of few nuclear powers has played an important role in signaling intentions of a nuclear armed state. That aspect will be studied in the next section to see how a change in policies of NFU resulted in weakening of the faith in non-use as well as in proliferation. That proliferation was vertical as well as horizontal.

No-First Use: political link between non-use and non-possession

The NFU is an interesting policy stance adopted by certain countries to display their commitment to no-use. This is far more complex when studied in detail. A lot of rhetorical politics has played roles in adoption and then change of NFU as is seen in the case of U.S. and later witnessed in India. Scott Sagan (2009) opines that “nuclear declaratory policy is meant to enhance deterrence of potential adversaries by providing a signal of the intentions, options and the proclivities of the U.S. government in different crisis and war time scenario” (Sagan 2009: 165). This was the original intention whenever NFU was adopted by a state.

When Obama spoke of letting go of the first use policy of nuclear weapons in his Prague speech, it created a lot of good will (Sagan 2009). It led to optimism in terms of nuclear disarmament in some states. Others, who were allies did not approve of it. The U.S. declaratory nuclear policy impacted the future of terrorism as well as proliferation (Sagan 2009). The U.S. governments successively weighed the NFU in terms of the benefits for addressing these two issues. This kind of external structural influences had started in 1949 itself with the tests conducted by Soviet Union.

When it became clear that absolute American control over the nuclear weapons was not possible, a subtle clause of possible first use was included in the American National defense policy (Feiveson and Hogendoorn 2003 : 2). Paul Nitz in 1950 had stated that if America opted for a No First Use policy it will signal Soviet Union of its weakness and its allies of its intention of

abandonment (Feiveson and Hogendoorn 2003: 2). This projected the dilemma that existed in the minds of the policy makers in the United States. That dilemma clashed with the nuclear norms and created a gap in the international norms regime for other states to decipher.

Moreover mere possession of the ‘ultimate weapons’ was not enough for any country. It was important to learn and speak the language of nuclear diplomacy. It was believed that NFU was one such step that was more of a declaratory policy and did not have any actual military significance (Feiveson and Hogendoorn 2003: 3). China adopted NFU in 1964 and the Soviet Union adopted that policy in 1982. However, how substantial it is stood open to debate (Feiveson and Hogendoorn 2003: 3). It is also important to analyse if that step created good will or security in the world.

The NFU has not been a strict rule to be followed. It was kept flexible and was often changed. This was true for India too. There are serious debates about the possibility of giving up the NFU by India. This will be discussed in next chapter but it is important to mention that such debates have led to insecurity in Pakistan about India’s intentions. It has led to weakening of non-proliferation (vertical majorly). Feiveson and Hogendoorn (2003: 3) throw light on how India has justified its possession of nuclear weapons by stating that there was a risk since several states had nuclear doctrines that allowed for possible first use of nuclear weapons. This too proves how the norm of non-possession has, over the years become malleable. They also state that the factor of uncertainty in the prediction of possible state responses adds to the power of nuclear weapons.

It is safe to say that NFU has been one way in which states have compromised their rhetorical positions of first use. Any change in that has often led to weakening of non-possession and non-proliferation. China had declared its NFU in 1964 and yet failed to convince India of its credibility. It is the same in case of India and Pakistan too. The crux was that nothing seemed enough for states to believe in each other’s “good faith” (Barnard et al. 1946).

Krepon (2016) states, that the power of a norm is inversely proportional to the number of outliers. By that logic, non-use has been powerful. The other two are inter-twined. None of them can be studied in isolation. It is non-proliferation that threatens the other two the most. The credibility of the system of norms was tarnished when states like North Korea and Iran

proliferated. Non-proliferation has been worked upon most to ensure that the other two are protected. But it is made soft by several actors. The next section will analyse it.

iii. Norm of non-proliferation

The norm of non-proliferation is responsible for as well as the consequence of the violation of the other two norms. Any hint of intention to proliferate lead to expectation of violation of the remaining two norms by the other states. When a state tried to weaken any of the two norms, a proliferation was the expected natural consequence. This did not happen always but this dynamics is well accepted knowledge.

Non-proliferation is classified into two types according to the text of the NPT (United Nations 2005) depending on the process:

- iv. Direct Proliferation- It refers to a direct transfer of nuclear weapons or control over such devices directly to the recipients.
- v. Indirect Proliferation- It refers to indirectly “assist, encourage or induce any non-nuclear state to manufacture or acquire any nuclear weapons”.

There are evidences of both kinds of proliferations. While both kinds were invariably denied by the accused, it is the indirect one that is more challenging to trace. An example of direct proliferation was the Abdul Qadeer Khan network. In 2004, the Pakistani scientist accepted selling nuclear technology to Iran, Libya and North Korea (Collins and Frantz 2015: 1). An example of indirect proliferation was the justification given by India for its nuclear tests. The “long-term security threat posed by China-Pakistan” was understood as the reason behind India’s resolve to develop a nuclear weapons programme (Ganguly 2001). Tellis stated that China’s security assistance to Pakistan in the 1990s was responsible for intensifying the insecurity in the minds of the Indian establishment (Tellis quoted in Ganguly 2001). India accused China for being the trigger for its insecurity and Pakistan in turn raised fingers against India. These were all indirect proliferations.

The norm of non-proliferation weakened as a result of failure by states to check initial violations itself with proper effectiveness. A major reason for that was that if there was any lax in the state control over nuclear weapons technology, they refused to accept it publicly due to fear of

international backlash. This proved to be beneficial to those responsible for proliferation and they often escaped the charges. This, in the long run, weakened the norm of non-proliferation since there were easy ways out. In the course of analysis, several such instances come to notice that throw light on how gradually the norm was weakened.

Role of states in checking individual proliferators

During the third phase of international nuclear learning, there were several engagements that were organised by the superpowers to share the right kind of knowledge. In spite of the strict measures taken to avoid any unintentional leak of information, there were several instances which used that knowledge illegally.

While the A.Q. Khan network is the well known proliferator, there were many other incidents of others as well who contributed to the “transnational, privatized nuclear proliferation” (sic.) (Collins and Frantz 2010: 1). Even though there were several figures identified who played a role in the network of illegal proliferation during the early 2000s, it was next to impossible to prove and/or punish the accused. The reasons primarily included fear of tarnishing of the national image of the country to which the different people belonged to.

One of the examples was of Gotthard Lerch, a German businessman who was associated with A.Q.Khan network and was allegedly involved as the middleman in the supply of uranium enrichment technology to Iran and Libya (Crail 2008). He like many other accused in similar circumstances escaped serious charges due to the “nationalist considerations” that handicapped the prosecutions (Collins and Frantz 2010: 3). He was charged with treason and similar crimes and there was enough evidence to prove him guilty for his role in the illegal sale of nuclear technology to Libya as an extension of the A.Q.Khan network. Despite the strong charges, nothing serious followed up because of the unwillingness shown in sharing of information by the CIA (Central Investigation Agency) of the United States and the MI6, the British Secret Intelligence Service (Collins and Frantz 2010: 3). Even after being arrested in Switzerland, the serious charges were dropped against him. The whole issue became complicated when the Swiss government insisted that the Germans drop charges of treason as that would fall under political crime which can not be prosecuted according to the Swiss constitution by any foreign country (Collins and Frantz 2010: 3). When the charges of treason were dropped, the case was

transferred to a local court in Mannheim where there was hardly any expertise in international crimes of such magnitude.

This is not one such occurrence. Several others like Gerhard Wisser and Daniel Geiges in South Africa who were also associated with the A.Q.Khan network were acquitted due to the lack of understanding between the countries namely South Africa and Germany. The prosecutors who were working towards building a strong case against Wisser and Geiges did not get enough support from the American government. The major hurdle was that the investigators needed testimony regarding the evidence that they had from American experts. But that might have exposed the intricacies of the intelligence operations that were in process at that time in America. In order to avoid the disclosure, American government requested for the procedure to be carried out away from public light and under covers but that was against the law of South Africa where the investigations were going on (Collins and Frantz 2010: 3).

Collins and Frantz (2010) threw light on several loopholes in the series of attempts towards punishing the accused. The Khan network which comprised of several other people like Friedrich Tinner along with his sons Marco and Urs, Johan Meyer etc all was under serious investigation. There were strong evidences against all of them. This was one of the major instances when the norm of non-proliferation is meddled with. Yet because of lack of a combined effort between states and insufficient understanding between the countries, nothing serious was done. None of the states were willing to drop their guard and accept faulty system on their part. All the persons involved escaped rigorous punishments and even an institution like IAEA can not take any effective measures.

Collins and Frantz (2010: 5) pointed out an important aspect which was the existence of dependence on cooperation of member states which proved to be a major problem in fighting the proliferators. In the long run, it was realised that there were no transnational rules that could be imposed to corner and punish proliferators and these instances set the precedent which questioned the strength of the non-proliferation regime. In fact the existence of one unified regime itself was questioned. More over the IAEA proved to be frail and powerless in the absence of cooperation between states. It was true that “IAEA is fighting tomorrow’s wars with yesterday’s tools” (Collins and Frantz 2010: 3).

In addition to the individual proliferators, there were some states that covertly believed in passing on the nuclear know-how. China and Pakistan both appeared in several examples of illegal passing on of information and materials when it came to North Korea and Iran. Both North Korea and Iran have been the consistent puzzles for the non-proliferation regime. It is difficult to understand what kind of engagement or punishment can contain them. To understand their impact in weakening of the norm it is necessary to look closely at these equations.

- *North Korea and China*

Apart from the individual proliferators, there are evidences of involvement of NWS in the development of nuclear weapons programmes in new states. One such example is of the complex relationship between North Korea and China. China is known for having played an important role in transferring nuclear technology to Pakistan and North Korea. But the relations with North Korea have been on a different tangent.

Over the years, China emerged as an important ally for North Korea. It has consistently opposed sanctions imposed against the latter (Eleanor and Xu 2016). Though there is some strain between the two countries after North Korea tested its nuclear weapons in early 2016, there has hardly been any serious change in China's national policy towards the North Korean regime (Eleanor and Xu 2016).

China had to apparently make changes in its policy towards North Korea due to the aggression in the latter's recent nuclear behavior. The problem has been the statements issued by North Korean leaders about his nuclear capabilities. One such statement is the claim about North Korea's nuclear capacity good enough to "wipe out the whole territory of the U.S. all at once" (Ryall 2016). According to the normative parameters these did not classify as words from a state that believed in international cooperation at all.

As a result China has sought to make its policy towards North Korea appear less biased in hopes for "great power relations with the U.S." (Mishra 2016). But there are two aspects that have pressurised China to re-iterate its old policy of allying with North Korea. They were:

1. When South Korea gave into the U.S. persuasion to allow Terminal High Altitude Area Defense.

2. The decision by the Permanent Court of Arbitration about the South China Sea which concluded that China had no legal rights on the resources falling within the “nine dash line” (Permanent Court of Arbitration 2016).

These two factors according to Mishra (2016) made China realise the relevance of North Korea for its power hold in the international community. As a result, China was seen following a more rigorous policy to increase its hold in the East Asia region. The way to do that was through North Korea. China supplied around 70 percent of North Korea’s total trade volume and has emerged as the only important economic supporter for it (Eleanor and Xu 2016). Even after the sanctions were imposed against North Korea there are assumptions that China has been involved in moving money and helping North Korea to promote its nuclear weapons programme (Brunnstrom 2016).

China being a powerful actor in the international power politics has emerged as a major influence with respect to North Korea. The nuclear weapons programme being developed by North Korea is a major violation of all the nuclear norms and yet China has always urged states to refrain from pressurising North Korea for a “fear of precipitating a regime collapse” (Eleanor and Xu 2016). Having support of China has helped North Korea in holding its ground against the U.S. pressure and the sanctions being imposed. In the absence of a unified powerful pressure group stopping North Korea from going on with the development, the non-proliferation regime again appears feeble in acting upon the violations being committed by Pyongyang. In fact it has rightly been observed by Jonathan Pollack from the Brookings Institution that the leadership of North Korea has by all means convinced themselves that they are in a different league. They strongly believe that North Korea is an autonomous state that “derives its existence directly from its possession of nuclear weapons” (Pollack quoted in Eleanor and Xu 2016). China has had a major role to play in that.

North Korean belief that its existence lies in the possession of nuclear weapons (Pollack quoted in Eleanor and Xu 2016) continues to keep the international community on its toes. As discussed in the last chapter the North Korean leader Kim Jong Un indicates that he has learnt from the experiences of Libya and Syria that nuclear weapons must not be given away. This has been their nuclear learning but for the international community and the norms order, the solution to the research puzzle that can explain North Korean behaviour has been difficult. The problem is that

it has been an era of exceptionalisms and precedents (Kassenova 2016). For example, this is what the Russian Deputy Foreign Minister had said about the prospects of the Indian membership into the NSG acknowledging the much speculated exceptionalism that India enjoyed (Kassenova 2016). To quote Ryabkov:

We recognize that at the moment there is no unanimity on Pakistan's application and that the same cannot be interlinked with India's. (Ryabkov quoted in Parashar 2017).

This exceptionalism is, however also one of the reasons for the weakening of the international norms (Potter 2005). The closeness between U.S. and India is seen as hinting the inevitability of proliferation and it being “not necessarily a bad thing” (Potter 2005: 343). The next section looks at India and Iran and how their nuclear behaviours impacted the norms.

- *The Indian 'peaceful tests' and the Iranian deal*

Togzhan Kassenova writes about the new era that seemed to have emerged for the non-proliferation regime hinting rise of “exceptionalisms and precedents” (Kassenova 2016). She throws light on how these two characteristics have emerged by taking the examples of India and Iran.

The Indian non-proliferation (direct) is considered an impeccable case. There are no instances or evidences of transfer of nuclear material or technology from India to any other states. However, there are two aspects that need to be highlighted after stating the former belief. One is the technical issue which calls for an explanation as to how India used the plutonium produced by the Canadian aided nuclear reactor CIRUS for the tests in 1974 despite the official assurance otherwise (Chakraborty 2013: 17). This was a major violation of the international nuclear norms. The second aspect involves India being seen as responsible for providing a legitimate cause for Pakistan to follow up. India justified its actions by citing the closeness between China and Pakistan specifically post the 1971 war and the Chinese launch of its long range rocket indicating possible attack on distant targets (Chakraborty 2013:16). Much later, the Indian overt weaponisation in the late 1990s was primarily to avert any form of “nuclear blackmail and coercion at the hands of China and Pakistan” (Ganguly 2001). Similarly argument was made by Pakistan to justify its nuclear weapons development. Ganguly (2001) summarises the scenario by stating that “India developed nuclear weapons to counter security threats from China and,

secondarily Pakistan. Pakistan, in turn, acquired its nuclear arsenal to cope with India's overwhelming conventional superiority". Hence India has had role in an indirect proliferation.

The follow up of the Indian test in 1974 was the formation of the Nuclear Suppliers Group to overcome possible violations of non-proliferation norms on similar lines in future. However, the U.S. has attempted to bring India into the NSG since 2005. The efforts to do the same involved attempts to convince all other members of the NSG to allow India for nuclear trade inspite of remaining outside NPT (Kassenova 2016). There was an India specific Additional Protocol drafted which limited the information sharing with IAEA to nuclear exports only. IAEA has not been given "complementary access" and hence is unauthorised from safeguarding any undeclared Indian activities (Kassenova 2016).

It is only China that continues to hold up against Indian membership into the NSG. If anyhow India is allowed entry into the club then that will again be a major blow to the non-proliferation regime. Such a step would prove that, "global non-proliferation objectives" are nothing more than calculations of "strategic and geopolitical interests" and that "it is possible to benefit from access to nuclear trade while being outside of the formal non proliferation regime" (Kassenova 2016). This in other words would permanently disturb the fundamental basis for putting nuclear norms in place.

Iranian deal or the Joint Comprehensive Plan of Action deals with same issue but in a different manner. The verification according to the Iranian deal is much more intruding for them. There were limits imposed on the enrichment of uranium and fuel reprocessing is banned (Kassenova 2016). According to Kassenova(2016), the Iranian deal has promoted high standards of non proliferation. Yet, the difference between the two deals highlights the exceptionalism that exists for India. Though one can not compare apples to oranges, a comparison between the two deals is unavoidable. It proves that the task of formulating a universal policy of norm imposition has been impossible. It has also been impractical to expect one state to act as a precedent for others to follow. But this also highlights the role played by strategic and geopolitical calculations in these state decisions.

Before reaching a decision about how to formulate a regime to promote a norm, it is necessary to look at Israel and its nuclear programme characterised by secrecy and ambiguity. While much of

the foreign policy work and discussions have gone into discussing the exceptions and outliers, the 'undeclared' nuclear power is left out of lime light on various occasions. Moreover according to Seymour Hersh (1993) India was the precedent for Israel that convinced the latter to develop its own nuclear arsenal.

- *Israel - another exception?*

Israel's 'undeclared' nuclear programme has been the most ignored violation of nuclear norm. Much like South Asia, West Asia is also an unstable region where Israel stands surrounded by hostile Arab countries. Joshi (2008) explains how Israel had a defensive military policy which has transformed into something totally different after the Suez campaign of 1956. There is a general understanding among the Israelis that they have to take their own measures to secure their boundaries and even the powerful Jewish lobby in the US is not of much help in terms of a crisis (Joshi 2008: 2090).

This insecurity has pushed Israel to approach France, Norway, U.S., Germany and Britain to buy material and technology (Borger 2014). All these are states trying to strengthen the nuclear norms on various platforms and yet they have played different roles in Israel's development of nuclear programme as well as promoting a policy of opacity towards it (Borger 2014).

Joshi (2000) throws light on the entire process of Israel- France cooperation in developing the coveted nuclear weapons programme. Israel had first approached France in 1956 for assistance in building a nuclear reactor at Dimona in the Negev desert. There were many more facilities that developed in 1957. By 1968, Israel possessed 200 tons of processed uranium, secretly acquired from Antwerp, 100 kgs of U.S. owned highly enriched uranium, 200 tons of heavy water from Norway on the condition that it would be used purely for peaceful purposes.

Israel has pursued a "Deliberate Ambiguity" (Joshi 2008: 2092) about its nuclear arsenal. The secrecy regarding its programme is also extremely intense. There are no public discussions about the same internally as well. It did not sign the NPT and developed a doctrine that spoke of nuclear weapons being the need for survival in case of a "concentrated attack" by the Arab (Joshi 2008: 2092). They called it *ein brera* or no alternative (Hersh 1993). It was during 1950s that Israel realised that they need their own nuclear arsenal to fight the Arabs as they did not have faith in the nuclear umbrella offered by America.

Seymour Hersh in his detailed analysis of the development of the Israeli nuclear weapons programme discussed about how the Americans began compromising their security ethics when they had shared the photographs taken by its KH-11 satellite² with Israel in 1979 (Hersh 1993). This process began under Jimmy Carter but was kept a big secret. It helped America in monitoring Middle East and provided Israel a detailed picture of activities along its borders. This was the beginning of many such mutually beneficial secretive agreements. The alliance between the United States and Israel goes deep to the times when America used the latter's spies in countries of North Africa as well as in former Soviet Union (Hersh 1993). It is interesting to note that even the Western countries like the U.S. and UK have never overtly spoken against Israel's suspicious opacity. Infact help was offered by western countries on various occasions from training to finding the site for uranium to funding, and so on (Hersh 1993).

It was in 1986, when a technician Modechai Vanunu “blew the whistle” about the programme in Britain (Borger 2014). He was however kidnapped, drugged and smuggled back to Israel and faced serious charges (Taylor 2016). When Avraham Burg, a former speaker of the Knesset openly declared that Israel possessed both nuclear and chemical weapons in April 2014, he too was charged with “treason” by a rightwing group (Borger 2014).

The Israeli nuclear arsenal can be studied in much detail and at every step there were violations of the nuclear norms. Yet the international community continued to demand Iran and not Israel to accept the safeguards. An obvious difference between these two states is that Israel is not an NPT signatory but the way in which it developed its programme is an example of the weakness of the nuclear norms that have existed over the years. Hersh (1993) mentions several examples were American businessmen unknowingly funded the Israeli nuclear programme thinking they were giving the money for some textile industry or just sharing information for scientific benefits.

It is instances like India and Israel that have given rise to beliefs in exceptionalisms in nuclear order. They then lead to what is called malleability of nuclear norms. It is evident that beneficial exceptions are capable of moulding the nuclear norms and get them to cater their needs.

² *KH-11 was a communication intelligence apparatus which could transfer information, take photographs and was a big support system for military and civilian intelligence agencies across the world. It had a sixty four feet long satellite with a down ward facing mirror in front of the camera. It could capture high quality photographs from the atmosphere which could then be further enhanced on computers (Hersh 1993).

Conclusion

Nuclear norms have been a clear result of the realisation of avoiding the repetition of the destruction that is seen in the use of atomic weapons during the Second World War. The non-use, non-possession and non-proliferation have gradually become tenets to ensure that. The non-use of course has been the ultimate norm. As these norms developed it was interesting to see some states developing strategies to bend them.

On one hand there was time and again a realisation towards “urgency of strengthening the non-proliferation regime” (Rajamohan 2007: 152), on the other there was a rise of states like India, Pakistan, Israel, Iran and so on. The western powers have been rhetorically promoting the cause of upholding various nuclear norms but often turn a blind eye to various developments that shake the nuclear regime. Exceptionalism and precedents often emerged over the years and juggled and moulded the rules put in place. India with its bargaining power, Israel with its much accepted secrecy and China with its overtly active yet mismatched role in the international scenario have led to the nuclear taboo being translated into a milder version that could be skipped or bent at the least.

What emerges is the softness of the international nuclear regime. It has become evident that the nuclear taboo is actually closer to being a tradition. T V Paul (2010: 856) had stated that the difference between taboo and tradition was that of malleability. The evidences of exceptionalism highlight that aspect clearly. In trying to understand how that became so easy it also makes it obvious that on several occasions the super powers took decisions to preserve their interests and image that led to the weakening of norms e.g. Atoms for Peace programme. Sometimes shortsightedness in terms of expectations from the ‘have-nots’ became responsible e.g. the structure of NPT. But on all occasions, it was the failure to respond with effectiveness that set the precedent.

It was not just a category of states that were involved. U.S. invariably had a leading role to play in most of such decisions. When it was not involved, China emerged as an active role player in case of North Korea. South Asia emerged as a major reason for the feeble nature of nuclear norms. India and Pakistan did not conform to norms and continue to take decisions based on their experiences. Their specific nuclear learning processes resulted in emphasising the

powerlessness of the international order. They are all learning to distant their words from their deeds in terms of nuclear weapons decision making. That is nuclear maturity catching up for several states (Jacob 2014:27).

India undoubtedly played a major role in evolution of nuclear norms. It is often accused of weakening the norms by their defiance. But it is not so simple to blame a single state for failure of a regime to restrain. India has carved its path of nuclear learning and attained maturity in strategic terms (Jacob 2014). With that it has impacted the nuclear norms too. But the circumstances have had a major role to play. The relationship between nuclear learning and evolution of norms has not been linear one. They both mutually impact each other. This two way relationship will be seen in the next two chapters.

Chapter 4 –Indian Nuclear Learning – the surprise

As elaborated in previous chapters, there were two simultaneous processes complementing each other. They were: nuclear learning and evolution of nuclear norms. As explained in the previous chapter, nuclear norms will primarily be non-possession, non-proliferation and non-use. Both

these processes were intertwined and emerged as consequences of each other. The process of nuclear norms was put in place initially to limit the process of nuclear learning to some select states. Eventually it was these norms that lead to 'different' nuclear learning in several other states. This was the case because, these states felt bullied by the superpowers into believing what they thought was correct. After the Second World War, the colonies were gradually gaining independence and such imposition was a reminder of being controlled by another country.

India was among the first few states who saw, understood and internalised their own beliefs about nuclear weapons. Its interest in the nuclear technology was comparable to the West from the advent itself (Weiss 2010: 256). Its journey from an outsider of the nuclear club to the status that it enjoys today has been the result of the evolution of this understanding. A fine balance between caution and boldness is what describes the Indian nuclear learning process. Several actors have figured in that process with different parts to play. They include an unstable environment, hunger for a powerful identity, closeness of China and Pakistan and, of course, domestic factors.

This chapter will look at the Indian nuclear learning and how it has surprised the world on different occasions (Ramanna quoted in Abraham1998:1). The decisions taken by the Indian leadership and scientific community often puzzled the international community about the country's long term intentions. One fundamental message, however, was that India was not ready to play the game of follow the leader. This chapter makes an attempt to analyse how this approach affected the nuclear norms for which there have been allegations of weakening by the country. However during the course of this study, there were various instances found that proved otherwise. The next few sections will look at both sides of the argument with an impetus on the Indian perspective.

4.1 External and internal struggles that shaped India's learning process

India has traversed the journey from a country that resolved to "never use the atomic energy for military purpose" to testing nuclear weapons and announcing its status as a nuclear weapons power (Frey 2009: 195). This transition has been the result of the change in understanding of various actors towards different policies. A lot of factors have played important roles in this

process – both, negative and positive. India understood very early that the power and value of nuclear possession is far beyond that of other conventional weapons. But framing a strategy that could take into account these contrasting views within the country was a difficult task. With states like Iran and North Korea, who defied the nuclear norms put in place, it was even more crucial for India to distance itself from such associations. However, before getting into that discussion, it is important to study the factors and indicators that describe the process of nuclear learning in India. The Indian nuclear learning can be divided into the following two aspects:

- The reasons that changed the Indian belief regarding nuclear weapons. They were the shapers of the Indian nuclear learning.
- India's experience of the international non-proliferation regime. That is what led to the changes in the international nuclear norms.

An analysis of both will be covered in the next few sections to bring out the relationship between these two processes.

a) Contrasting views within the country

India's "postcolonial modernity" after the World War II (Abraham 1998: 3) was difficult for other states to fully accept. The 1950s saw a division among the international system leading to a clear East and West. There were supposed differences in everything between these two worlds: from culture to power. But in trying to close the gap between the two, India opted for a policy of "selective incorporation of Western science and technology with its traditional values" (Das 2015: 49). This approach intended to take the best of both the worlds. Such an approach was necessary to pacify the adversaries of the Indian lineage that relied on non-violence and yet kept pace with the new developments in the world.

India's understanding of nuclear weapons as well as world politics changed drastically when it witnessed the blasts at Hiroshima and Nagasaki (Mirchandani 1978: 53). The blasts were a sharp contrast to the American image in the Indian minds. America was no longer the big hearted protector state. The power of these weapons was felt all over the world. Even though the U.S. justified the decision by claiming that the weapons had been used to end the war, Indians read much more into it (Mirchandani 1978 : 54). The problem was overcoming the then predominant Indian belief in non-violence.

Even before India's independence, discussions about nuclear weapons were common. Gandhi thought that the atom bomb was the most "diabolical use of science" whereas Nehru thought of it as an "awesome development" (Mirchandani 1978: 53). These contradicting views made it difficult to reach a common understanding.

At an Inter Asian Relations Conference held at New Delhi in 1947, Gandhi gave a "message to Asia" and spoke against atomic bombs saying that the west was "despairing of atomic bombs, because atom bombs mean utter destruction, not merely of the West but of the whole world" (Gandhi quoted in Weiss 2010: 257). He also added that it was "upto Asia to teach the world "how full of wickedness and sin the weapon is" (Weiss 2010: 257). This was the belief in non-violence that Gandhi and his followers propagated.

The Indian nuclear aspirations were not even taken seriously initially by the international community due to consistent statements by Nehru indicating no inclination about ever building a bomb (Perkovich 1999: 34). His views changed with time. Later Nehru started speaking a different language which did not differentiate between nuclear technologies for peaceful and defense purposes (Abraham 1998: 46). With this, there began a gradual redesigning of the Indian attitude towards nuclear weapons and the international approach towards India. India was gradually learning to delink different aspects of nuclear weapons. This was all a part of its nuclear learning process.

Nehru in 1948 had floated the idea of developing atomic energy mainly for peaceful purposes but even in saying that he hinted that if there were circumstances, he would not shy away from using it for other purposes (Nehru quoted in Weiss 2010 : 257).

This meant that while the fundamentals of non-violence were kept in mind, there were some new policies adopted to ensure that the new Indian image also exhibited power. The Indian leadership collaborated with the scientific community to include and develop new defense policies. This was also a confusing time for other states about India's intentions. India, like any new entity, weighed its options and learnt from other's experiences to frame its own set of principles. This phase of experimenting coincided with the era of awareness for nuclear weapons. The scientific community was all for the technology as that translated to modern science. The challenge for the

leadership was to fit that symbol of power into the historical non-violence belief. Nye (1987:381) said that one person's learning did not signify and entire organisation's. This is true for states too. One state alone can not claim to have developed the nuclear learning. India too was slowly finding its own ways of making its own roads.

Nuclear learning combines two simultaneous processes – technological and political. In India, these two communities were divided in their belief systems and it took some time for them to reach a consensus. The following sections first deal with the political contributions and then decisions.

In 1954, the Atomic Energy Establishment Trombay was established followed by the Indian Atomic Energy Agency and Homi Bhabha was appointed as the Secretary. Bhabha was a believer of possessing the capability. He said

We must have the capability. We should first prove ourselves and then talk of Gandhi, non-violence and a world without nuclear weapons” (Weiss 2010: 256).

Bhabha was a part of a “nuclear brotherhood” because of his contributions to the international scientific community (Weiss 2010: 257). He believed in the future of nuclear energy and in developing that at home. His faith in the Indian capability to build was an important factor that changed the way nuclear learning progressed in India. He was of the belief that Indian strive for fundamental research to develop indigenous nuclear energy must be supported by the British (Das 2015: 52). It is interesting that even at that time, India enjoyed a different status from any other “colonial war economy” (Das 2015:53). It attracted attention from the U.S. and UK and in order to encourage the scientific development, there were various “collaborations” planned between the scientists from U.S., UK and India (Das 2015: 53). These efforts of sharing knowledge continued till the USSR conducted its tests in 1949 (Weiss 2010:257).

It is worth noting that as a part of one such initiative, five scientists were invited to the Carnegie Institute at Washington DC. The effort seemed like a positive step but the experience reaffirmed the Indian belief in the power of nuclear weapons. While it was encouraging to be a part of such a programme, it was problematic that the group of scientists that was called had to go through a process of scrutiny. Meghnad Saha, the Indian scientist was also a part of that group. He was extremely inquisitive about the Manhattan Project and as a result had to go through investigation

and was accompanied by security agents throughout his stay (Das 2015: 53). This experience gave rise to a feeling of Orientalist xenophobia among the Indians with regard to the United States (Das 2015:53). The result was the strengthening of the Indian atomic dream (Das 2015: 55). Human psychology demands something that has been denied. That was the case with Indians too. The U.S. evidently has always had much to do with shaping the Indian nuclear learning.

The rebellious attitude against the U.S' selective attitude that created a wall between the nuclear weapons and the late aspirants was rising in India. India had started finding it difficult to accept the unequal standards put up by the non-proliferation regime. In spite of the feeling of uneasiness about being treated as the 'other', Indian representatives were unsure of expressing their discontent about the nuclear norm regime on international platforms. There was also probably some hope left in nuclear disarmament then. India was optimistic about the development of a strong programme to attain nuclear disarmament till late 1950s. So, during the 1950s, India spoke at the UN to draw attention to the fact that the growing arms race would be a threat to international peace and security and was a means of draining economic and human resources that can be used for better purposes (Singh and Sethi 2004: 23). It was heard, but, no substantial steps were taken to take this assertion forward. Gradually the Indian approach too started changing. China became the catalyst for the same.

b) China – the trigger

An unstable neighbourhood full of animosity is a source of concern to India since independence. The partition had created difficult conditions for India on all borders. Yet, even the idea of a nuclear dream seemed far away till China conducted its nuclear tests on October 16, 1964. A total of 45 tests are conducted at the Lop Nur site out of which 22 are underground and 23 are atmospheric (Comprehensive Test Ban Treaty Organisation n.d). Till then, there was some faith in the international regime with the Partial Test Ban Treaty (PTBT) in place. Those tests acted as a trigger for India. Bhabha immediately pushed for an “explosives programme” (Perkovich 1999: 84). The Chinese tests came as a jolting realisation, more so because the PTBT had been introduced and violated (Kennedy 2011: 125). India had fought a war with China in 1962 and it was well known that the economic boom from early 1990s was helping the latter to rise towards

joining the superpowers. The message was clear. There was no treaty or institution that could restrain China's behaviour.

The feeble power of the nuclear norms was evident and India had to take steps to guard its national security interests against China and its all-weather friend, Pakistan. The problem was that norms were put in place and guarded by the West. Fighting them was not an easy option. India started by insisting on curbing the spread of nuclear technology from one country to another (Perkovich 1999). It wanted the non-proliferation regime to take strong measures to prevent the technology from reaching Pakistan. There was some faith in the capability of the Non Proliferation treaty to controlling what was known as the "Chinese nuclear cascade" (Joshi 2016:3).

It was after seeing the absence of any evident hope of containing China that India realised that the power of the non proliferation regime was limited. Indians claimed later that the Chinese tests were responsible for leading India to join the club. Some agreed while some like Perkovich (2002) felt otherwise and insisted that the reasons behind the decision were primarily domestic. In any case China rising as a nuclear power did not have any positive impact on either Indian or the international norms. India had raised alarms when China went ahead with its nuclear tests. The question of "how much" of the role of those tests in affecting the Indian nuclear mentality are debatable but the responsibility cannot be denied completely.

When India conducted its 'peaceful nuclear explosion' in May 1974, it faced severe criticism from the Western countries. The Indian Prime Minister Indira Gandhi had made a statement before this nuclear test saying, "The Government of India does not propose to manufacture nuclear weapons," but had been silent about the notion of PNEs which had come to light with the discussions about NPT (Weiss 2010:262). There was also an agreement that PNEs would be requested by the interested state and would be taken forward only when "approved by the weapon states" (Weiss 2010: 262). Hence the suddenness was unacceptable to the international community. Barring France, there was little support from the non-aligned and developing countries (Chari 2009: 8). All the other countries were shocked and upset by the step that India had taken, especially by keeping it a secret. This in itself was a failure on the part of the non-proliferation regime. But this was just the beginning of the role played by India in shaking the

nuclear norms. This threw light on a different face of nuclear learning in India and also gave a jolt to that of the international bodyguards.

Following India's nuclear test of 1974, there were reactions from different countries. Canada suspended its assistance for the heavy water reactors in Kota. France delayed the Experimental Fast Breeder Reactor development in Kalpakkam. United States went back on its commitments for help in the Tarapur reactors. But the most important reaction to India's action for the purpose of this study was the creation of the Nuclear Suppliers Group (NSG) "to constrain and restrict the transfer of nuclear technology to countries that had neither entered the Non-Proliferation Treaty nor accepted "full-scope" safeguards to bring their entire nuclear program under IAEA inspections (Chari 2009: 7). This was a major step in the history of international nuclear norms. There was fear among the NWSs that India had set a precedent which others would follow. Infact the Indian nuclear behaviour at the time of negotiations with Canada to obtain the technology set a precedent for Israel to follow (Hersh 1993). It can also not be denied that Indian test in 1974 acted as incentive for other states like Pakistan to achieve nuclear weapons (Bull 1975:218). This was undeniably a major contribution from Indian side.

Though 1974 nuclear test was a violation of the international nuclear norm, it was the 1998 tests that announced India's entry into the nuclear club and made a stronger impact. China was extremely critical of it. While the nuclear status of India itself was an issue for China, the problem increased when a letter written by the then Indian Prime Minister Atal Bihari Vajpayee to the U.S. President Bill Clinton got 'leaked' in the New York Times. In the letter, Vajpayee justified India's nuclear tests by blaming China for the insecurity in the region. The letter called China the sole reason behind the nuclear decision of India (Burns 1998). China was also described by India's then Defence Minister George Fernandes as the "enemy number one" (Burns 1998).

China in response started behaving in a most unexpected manner. It refused to recognise India as a nuclear weapon state politically (Kondapalli 1998: 493). Much like the post 1974 interactions, even after the 1998 tests China kept all negotiations away from the slightest mention of the Indian nuclear capability. It did not want India to be at par rather stay as a "junior partner" in all the discussions (Kondapalli 1998:493). But this was not enough to demoralise India.

India had finally, in 1998, announced its nuclear capabilities. By doing so, India had created insecurity in South Asia, had incentivised the nuclear weapon possession and weakened the international nuclear norm regime. There was another change seen in the Indian behaviour at international platforms. The representatives became much more vocal about their problems with discriminations in the existing nuclear order.

A major Indian experience that shaped the Indian behaviour had been the negotiations for the NPT during which the Indian role and response had evolved gradually and it was a clear indicator of Indian nuclear learning process. It changed the Indian image, apparent belief system and put it on the table that India was willing to defy norms rather than accept unequal ones.

c) India and the NPT experience

India's role in the NPT negotiations had changed from being interested in giving suggestions for strengthening it, to boycotting it, and then to again negotiating. These were pretty much the three phases of Indian nuclear learning too. They were accompanied by changes in the Indian identity as well. India was a hesitant nuclear aspirant in the initial years post the World War II. India then was a part of the group that wanted strong non proliferation methods. This was the first phase when India fought for firm consequences to be put in place in case of any proliferation.

The second phase was when India joined the nuclear club in 1974 and it did not want or accept any rules that could curb its freedom to expand its programme. This was the phase when Indian behavior was seen as defiance by some. Today, in the third phase, it has changed its opinions on several issues. There are voices arguing for signing the CTBT as well. Jacob (2014:24) describes the Indian nuclear learning lying in a grey area now where it is a threat to some in spite of being normatively right in its conduct. But as Dewey (1923) had pointed out morality is difficult to maintain in international relations then and so is the case now. India threatened the norms primarily by being used as a precedent by other states. That is what happened.

India of 1998 was clear about its beliefs. It had entered the nuclear club with a changed belief system after understanding the international standing of possession of nuclear weapons. That

process had started majorly with the Indian participation in the negotiations about the NPT itself. At the Eighteen Nation Disarmament Committee(ENDC) meeting held in Italy in 1965, to discuss the formation of NPT, the Indian representative Vishnu Trivedi had raised major problems with the ‘correct nuclear learning’ that was being advocated there. India was one of the states with the most impressive “historic credentials” being a signatory to PTBT and having proposed an end to nuclear testing in 1954 itself (Weiss 2010: 260).

But at the ENDC, the Indian delegate was disappointed. He believed that it was the existing nuclear powers that needed to realise the importance of strengthening the nuclear norms. He pointed out that the main problem for proliferation regime was the “behavior of the existing nuclear powers, not that of non-nuclear powers” (Kennedy 2011: 127). But he sensed that instead of understanding the concern, the efforts being made were directed at the ones who had little standing in the matter. In an attempt to suggest a way that could address the real problem, he suggested that there be a two stage treaty (Kennedy 2011: 127):

- The first stage would curb all the production of nuclear weapons and delivery vehicles and then reduce their remaining capabilities.
- The second stage was pointed towards the non-nuclear weapon states to commit to not acquiring nuclear weapons.

These suggestions if followed could have helped formulate an equal treaty putting an end to the uneasiness that existed in minds of states like India. They hinted the Indian perspective to stand for nuclear disarmament but only when the ‘haves’ too followed that path. Discrimination was not an option. It was also clear that India though being a relatively new state (having gained independence just 20 years ago) was not ready to listen to plans that regarded it as second grade. This was different from the way states had behaved earlier. India had openly stated its changing policies. But Indian position at that time was not one that could dictate or influence such decisions.

In spite of the Indian efforts, the NPT that emerged looked like an attempt towards a nuclear apartheid rather than fighting it (Rajamohan 2009: 132). So began India’s struggle against NPT. An important lesson learnt from this experience was that it was necessary to be in the nuclear

power club to influence the decisions being taken. It was clear that only states that possessed nuclear weapons were seen as ‘talking seriously’ about disarmament initiatives. Nuclear possession seemed like a ticket to enter the club of serious actors to be able to influence policies.

India’s concerns about the NPT and the barriers set to protect the norm of non-possession were highlighted in a crux by Hedley Bull (1974:80). He said,

It is simply not credible that one of the most vital strategic and political instrumentalities of the time, which is technically within reach of many states, will remain permanently the monopoly of the few that first developed it. (1974:80).

This was exactly how India felt. Having understood the power of the nuclear weapons, India was unwilling to accept any discriminatory norms. Unfortunately, NPT was just doing that. Hedley Bull was right in pointing out the major flaw which led to the Indian resistance against the justification for selective normative imposition over certain states. The fact that the others continued to possess nuclear weapons for the purpose of strategic balance was problematic for India. This imbalance forced India to take certain steps that in the long run weakened the regime to some extent.

The aims of NPT were to address the serious dangers in the occurrence of proliferation of nuclear weapons; the devastation that any possible use of nuclear weapons could cause in case of a nuclear war and to ease the international tension to “facilitate the cessation of the manufacture of nuclear weapons” (United Nations 2005). These were intended towards a stable balanced international control. But the implementation phase showed signs of favour of few. What prevailed was an unequal nuclear order. The select few states that were already established as NWS set a few standards of appropriate nuclear behaviour’ for others. The latecomers were expected to abide and follow the ‘correct’ nuclear learning in terms of their nuclear behaviour.

The NPT experience taught India that all the other concerns are secondary. A state will be considered as being morally right once it had the capability. The feeling of missing out on something necessary was becoming stronger in the Indian state. According to Happymon Jacob

(2014: 21), nuclear learning counted as positive if it aligned with the general norms of nuclear security and safety. India never had any intentions to compromise on both those fronts. By that standard, India always stood on the right side. This was the reason why it became difficult later to gauge its intentions.

Once the NPT was put on paper, India refused to sign it. As pointed out by N.D Jayaprakash in “Nuclear Non Proliferation Treaty: ‘The Greatest Con Game’”, India had its reasons (Jayaprakash 2008 :43):

- The original UN Resolution that aimed at a treaty to prevent nuclear proliferation was against the vertical as well as horizontal proliferation. NPT just mentioned the horizontal one. This was definitely a point of concern since it set the basic criteria for discrimination between the states that possessed nuclear weapons and those which joined the club later.
- The responsibilities and obligations mentioned in the NPT were highly bent in favour of the nuclear weapon powers. It was irking for India that the treaty problematised spread of nuclear weapons to other states outside the club and did not focus on nuclear weapons proliferation per say.
- The conditions mentioned to curb the nuclear arms race were stricter for the non-nuclear weapons states rather than the nuclear weapons states. This was highly discriminatory since the haves were probably more at risk of giving rise to nuclear arms race than the have-nots.
- The assumption that the states that had tested nuclear weapons before 1967 had the “right” to proliferate vertically was highly problematic. This also stated that those states were far more responsible and privileged than the late comers, which was unacceptable to India.
- There was no clause that prohibited use of nuclear weapons against non-nuclear weapons state. This obviously failed to dis-incentivise possession of nuclear weapons as it created a fear among the minds of the non-nuclear weapon states.

These reasons were all red flags for India. But even though India was not a signatory, it “honored the central commitments and principles” (Bisis and Rajgopalan 2015). This was a matured evolution in the Indian nuclear behavior.

The two basic tenets of the NPT were “first, not to transfer potential nuclear weapon technologies to countries that do not have them and second, to work assiduously towards nuclear disarmament” (Bisis and Rajgopalan 2015). India struck a delicate balance between the two. The unique nuclear equilibrium between power and responsibility that India planned for itself, led to it emerging as exceptional in several senses.

The 1960s are extremely important in the evolution of Indian nuclear learning. On the one hand, India participated in the discussions about the various non proliferation efforts. On the other hand, India witnessed the weaknesses of the non proliferation regime when China conducted its tests. In spite of what the NWSs said, nuclear weapons were not getting devalued in any sense. It was also clear to India that the NWSs had plans to do very little for decreasing their arsenals. Nuclear deterrence was emerging as the central tenet for the foreign policies and national security strategies of the NWSs (Sethi 2004:32). There was hardly any scope for disarmament. This realisation was enough for India to weigh its options to place itself in the global map as a major power. This became the catalyst in the ongoing process of internalisation and change of approach towards nuclear weapons and the decision was taken to move ahead with the PNE of 1974. All these factors were adding to the Indian nuclear learning which was shaping up to be slightly different from what the West expected.

The Indian official position stated that the 1974 test was just peaceful in nature. It was much later in 1997 that Raja Ramanna, the bomb designer openly accepted that “the test is not all that peaceful” (Ramanna quoted in Weiss 2010:262). So, the nuclear diplomacy had begun in India since then. But it was the 1998 tests that formally brought India onto the nuclear weapons states map.

Two immediate consequences emerged. One, that India’s 1998 nuclear tests were followed up by Pakistani tests leading to South Asia emerging as a concern with respect to nuclear arms race. The other was sudden interest in attempting to gauge Indian intentions with respect to its nuclear programme. There was also an opinion discussing how India and Pakistan could ape the nuclear learning model of US and Soviet Union as studied by Joseph Nye (1987). The circumstances, historical baggage and the background players intervening continuously made it seem unlikely.

The next step in India was to frame a doctrine to clarify its objectives and make a different place for itself away from the accusations of being a norm violator and outlier.

- ***Indian nuclear doctrine- preserving the non-use?***

When the Indian nuclear learning is to be studied, it is important to look at the official state position. That is the Indian nuclear doctrine. Much has been said about its various features which changed over time. This section tries to understand if the Indian nuclear doctrine upheld the sanctity of norms.

Nye (1987:378) describes “awareness of newly understood causes of unwanted effects” as an important component of learning. This relationship was very true in the Indian case. For India one of the causes for not being taken seriously was non possession of nuclear weapons. Hence a rethinking was done by the leadership and the scientific community. But every state has an inherent nature. India owing to its projection through the mythology as well as history was perceived as a morally inclined country. But as Dewey (1923) observed, no morality can exist in international relations unless the “war is outlawed by conjoint international action”. This was the case for South Asia too and India felt cornered by the growing proximity of China-Pakistan friendship.

Not much has changed since Dewey wrote that Foreign Affairs piece about scope of morality in international relations. He wrote about how “resort to force is the *ultima ratio* of states” to settle disputes (Dewey 1923). That fear was dealt later by deterrence. Deterrence became the weapon to fight the insecurities that existed in international relations. It operated between U.S. and Soviet Union during the Cold war and became the plausible explanation for nuclear weapons programmes by India and Pakistan. Yet, deterrence was looked down upon as an over hyped concept in South Asia by western thinkers. But with all this in mind, India had a responsibility which was to formulate a nuclear doctrine that can balance its old beliefs with the new awareness.

When India conducted its tests in 1998, it was aggressively questioned about its objectives by the international community and specifically by the U.S. (Tellis 2001: 2). Indian government declared that it would develop a nuclear doctrine that would aim at upholding its identity of a responsible state (Tellis 2001:2). But this did not translate well into the doctrine that was

released. It was at best a description of an “open-ended nuclear arsenal” that irked China, Pakistan, the U.S., and several advocates of non-proliferation (Tellis 2001: 3). In fact there was never an official document produced at that time that could be described as a detailed doctrine discussing the nuances of critical concerns (Tellis 2001: 10).

The Indian guarantees of behaving responsibly and coming up with a doctrine that justified its claims of being a responsible state were washed away when the “draft doctrine” was released in August 1999 (Tellis2001:10). Not only was it unfinished in terms of syntax and grammar, it was a half hearted attempt and did not clarify any objectives at all. It was problematic to all the non-proliferation advocates around the world. Moreover it became the source of panic in Pakistan and made China suspicious (Tellis 2001: 12). But in spirit, it defended the nuclear weapons for the mere purpose of deterrence and political weight by putting on table its beliefs in credible but minimum deterrent and NFU.

The “draft doctrine” was criticised within the country too. The NDA government that came to power later disowned it and said that it was just “a draft that is only meant to stimulate public debate and elicit opinion” (Chari 2012:3). The Cabinet Committee on Security later came out with its decisions in 2003 about the same.

The Indian leadership on several occasions expressed its views regarding the limited political utility of nuclear weapons. This was India’s way of saying that there was no intention of use but if forced upon, India did have its required weapons. The NFU policy that India advocated from the initial years was a clear example of the same. The then Indian Prime Minister Atal Bihari Vajpayee stated “nuclear weapons are weapons of mass destruction” which for Tellis implied non-use in military (Tellis 2001: 18). K.R Narayan, the former Indian President had described them as of use only as “a deterrent in the hands of a nation” and as “useful only when they are not used” (Tellis 2001: 18). Tellis (2001) also mentions Jasjit Singh talking about nuclear weapons being instruments of politics mainly. This was the Indian stand for about 5 years. It was clear that use was never going to be considered.

When the official doctrine was released in 2003, some aspects changed. The belief in NFU started getting questioned. The NFU policy was often criticised for projecting India as being on the back foot and “made it axiomatic that it would have to face the consequences of a first strike”

(Chandra 2014). The rising opinion about the possibility of use of tactical nuclear weapons by Pakistan was another reason for the pressure to revisit the NFU clause.

The 2003 document was much more flexible in language with respect to the NFU. The press release threw light on a nuance of the possible use of nuclear weapons. It said that

in the event of a major attack against India, or Indian forces anywhere, by biological or chemical weapons, India will retain the option of retaliating with nuclear weapons (Government of India 2003).

The Indian think tank, Institute of Peace and Conflict Studies, established a task force to review the 2003 doctrine and found this aspect as opening options for a possible first strike (Institute of Peace and Conflict Studies 2012). This was a compromise of the initial belief system that India projected for itself. This was problematic for the advocates of non-use. This along with the command chain that still exists together created confusion about Indian intentions. The comprehensive command chain ensured that a sudden attack was not responded to in the heat of the moment but the flexibility that was incorporated in the NFU clause created skepticism regarding the same. But ambiguity was often seen as the strength of a nuclear doctrine. It was one of the supporting hands for deterrence to operate. Keeping both the aspects in the doctrine gave it a stable but powerful nature.

The Indian nuclear doctrine and its defenders exuberate the belief in deterrence more than in the use of these weapons. The non-use was the most critical component of the norms order. It was well accepted knowledge that slightest hint of use could create a mess. Yet, there were incidents as discussed in the previous chapters that saw coming close to use in different countries. Indian government too faced extreme pressure on two specific occasions –the attack on the Indian parliament in 2001 and the Mumbai attacks in 2009 that created enormous pressure on leadership to respond ‘strongly’. This meant use of nuclear weapons. But the moments passed.

India has always been ideologically against use of nuclear weapons. Tellis argues that the reasons behind this firm belief in non-use are embedded in the political culture of a state in the formative years shaped by “interwoven strands of idealist and liberal thought” (Tellis 2001: 34). Tellis believes that it was India’s inherent culture that ensured it to stay away from giving nuclear weapons any kind of “axiological legitimacy” (Tellis 2001: 34). The Hiroshima and Nagasaki experience was enough to teach the world of the dire consequences of a use. Despite

the awe that those blasts led to, the destruction was unprecedented. India did not have any intention of repeating that ever.

If one was to evaluate what India was learning while drafting its doctrine, the answers were as vague as the document itself. But over the years, the ambiguity too has strengthened India's deterrence. Perhaps not being precise did add to deterrence in some ways. A flexible and open ended doctrine helps in giving rise to speculations about what India was capable of. The doctrine's revision in 2003 added to uneasiness among strategists across the world majorly because of two reasons. When a possibility of nuclear response was mentioned in times of a "major" attack, there was no definition given (Neog 2014). Another thing that was problematic was the option of a nuclear attack in response to a biological or chemical attack actually classified as a first use (Neog 2014). This put India into a grey area with the nuclear norms.

While studying the Indian nuclear behaviour, it was important to understand the geographical pressures that it faced. In the existing scenario, the Indian nuclear doctrine does justify its choice of possession by putting faith in "maximin strategy, that is, the best of the worst choices facing India" (Tellis 2001: 34). The Indian leadership and the concerned security officials have learnt that ideals cannot survive without power hence the doctrine aimed at devaluing the weapons in "militarily translatable terms" so as to reach a balance between the demands of security concerns and its political morality (Tellis 2011:34). The vagueness in India's nuclear doctrine has been intentional.

The Indian nuclear doctrine often comes up in discussions sometimes to emphasise the ambiguity it has or to show how it did not literally respect the nuclear norms as was indicated earlier. In its 2014 election manifesto, the Bhartiya Janta Party mentioned intention to "study in detail India's nuclear doctrine, and revise and update it, to make it relevant to challenges in current times" (Sidhu 2014). This was followed by talks that India was hinting doing away with its NFU (Sidhu 2014). The fear of India taking such a step was not unimaginable considering the neighbours that it has. But Sidhu (2014) also throws light on a different aspect. He writes how it was a routine exercise for "responsible nuclear states" to review their doctrines. He cited the examples of US, France and China who did so as a regular exercise over different span of time. He explains the need for a revision lying in the Indian development of the submarine leg of its nuclear triad. In addition to this he points out China and Pakistan being two external factors that

effect the doctrine. China had deployed a DF-25 missile which was mobile and accurate capable of delivering single or multiple nuclear and conventional warheads till a distance of 3500 km and Pakistan had induced an “extremely short range (60 km) battlefield tactical nuclear weapon” (Sidhu 2014). These along with the border tussles, terrorist attacks and Pakistan’s half hearted efforts in dealing with them have given India all the more reason to update its doctrine.

Chandra (2014) summarises reasons that are against the revision of the Indian nuclear doctrine. Four important points are:

1. India enjoys a special status amongst the international community due to its restraint practice. These include “termination of sanctions, support for entry in multilateral nuclear export control regimes as well as civil nuclear cooperation agreements” (Chandra 2014). Risking all this is not a smart move.
2. Any revision required a change in command and control mechanisms which meant a major increase in the expenditure.
3. The use of tactical nuclear weapons against India would be considered much more thereby increasing the stakes. In fact the possibility of a conventional warfare without a nuclear shadow would become feeble.
4. South Asia would emerge as a nuclear flashpoint and that would give rise to international interventions in its affairs.

Due to all the above reasons, there was an opinion against the revision of India’s nuclear doctrine towards a more detailed or aggressive one.

In order to look at the complete picture, it is necessary to look at Pakistan’s nuclear doctrine too. This was never released publicly and does not indicate any inclination towards non-use. Tellis (2001:108) summarised the major components of the Pakistani doctrine as follows:

1. Belief in “strategic division” which aimed at weakening India by low intensity conflicts which India can not respond due to fear of nuclear holocaust.
2. In case India responds by conventional means, the “defense and deterrence” choice for Pakistan’s nuclear weapons exists due to its policy of “flexible response”.
3. The nuclear weapons work as a guarantee for international intervention on Pakistan’s behalf if there is ever a scenario of South Asian political-military crisis.

These three hardly show any interest in preserving the nuclear norms. It is thus necessary for India to hold its fort even if the costs are borne by the entire nuclear regime. The Indian nuclear learning is evident in its doctrine that catered to all the purposes – deterrence, ambiguity as well as nuclear norms. A perfect balance is an impossible task but India did come as close as possible.

While the Indian nuclear learning has been aimed at having what is necessary and yet supporting the cause for prevention of the worst, Pakistan's policies have been different. It can not be denied that an indirect proliferation did occur to and from Pakistan because of the Indian policies. This did lead to weakening of non-possession and non-proliferation which are the two other tenets of the nuclear taboo as discussed in the previous chapter.

India has risen above all the existing complexities that emerged out of its ambiguous policies with the help of its deft nuclear diplomacy. The next section will attempt to understand the role played by India's nuclear diplomacy and how that has become a major indicator of the evolving nuclear learning.

- ***Indian diplomacy – indicator of nuclear learning***

Nuclear Diplomacy is an important component of the empirical aspect of nuclear learning (Knopf 2012). He believes that while studying the nuclear learning process evolving between two countries, it is essential to look closely at the kind of diplomacy they were designing (Knopf 2012:80). He goes on to talk about factual and inferential learning too. These have been discussed in detail in the second chapter. The inferential learning plays an important role in influencing the nuclear diplomacy. It is important to balance deterrence and diplomacy. That balance for any new nuclear state is under pressure from the nuclear norms. It is interesting to see how the states change their policies gradually to strike that balance. That is the indicator of nuclear learning.

This section looks at the evolution of Indian nuclear diplomacy from the 1970s onwards. This is studied here as an important indicator of Indian nuclear learning. The change in the Indian nuclear diplomatic behaviour has broadly been a transition from hesitation to confidence. The conditions of course have also changed drastically from 1970s to 2000.

When India conducted its first nuclear test in 1974, the expectation was that there would soon be a follow up. But there was a gap of 24 years, before the next set of tests were conducted. There is an opinion that believes that if India had proceeded with further nuclear weapons development and testing consistently then in 1970s, it might have changed the nuclear proliferation regime much earlier or it could have led to India joining the regime as a declared nuclear weapon state (Dasgupta and Cohen 2011: 167). How much of that is plausible is open for debates even today.

It can not be denied that the Indian mind-set was clear after the American bombings on Hiroshima and Nagasaki itself. The power of the weapons as well as the image of the United States had changed. As discussed in the earlier section, the nuclear aspirations were present in India much before independence. Though the opinions were divided, yet there was a section that aspired for the nuclear weapons as a part of the “postcolonial modernity” (Abraham 1998: 3). Why then did India exhibit a sudden pause over its nuclear programme? While studying the learning process, it is important to understand that any international decision is a result of various factors that operate at different levels. To understand the nuclear learning it is important to go beyond the Waltzian three level analysis.

The scenario during the early 1970s was much different from the late 1990s. It was a time when the Soviet Union was into the balancing game during the cold war. The relations between China and Soviet Union were not cordial any more. But India’s relations were at its lowest with the West during the 1970s (Dasgupta and Cohen 2011). So, if India had decided to continue with its nuclear weapons programme to join the club ‘properly’ in 1970s the damage would not have been much. Soviet Union would have supported India to balance China even after not being in favour of the emergence of a nuclear India (Dasgupta and Cohen 2011:167).

One explanation for the gap in the Indian tests is the Indian belief in “strategic restraint over risk taking” (Dasgupta and Cohen 2011: 167). The risks were too much and in the absence of a support system from the western countries, it was a perilous step to just depend on the Soviet Union’s support. The reasons also included less stable domestic conditions and economic constraints. The country was still fighting the non-violent cultural image and probably testing waters. Sen (2000:64) says that there was a visible change in the Indian policies and belief system from 1974 to 1998.

The test of 1974 was completely guarded as a big step into the nuclear world. India at that time was hesitant as it was a new arena completely where the entry was not just frowned upon but looked at with some admiration. The audience was divided. While the NWSs were unhappy with any new member in the club, they later congratulated India on the practice of its restraint (Quester 2002:304). Such is the power of nuclear weapons. The official position in 1974 was that the test was for “peaceful purposes” (Sen 2000: 65). There were several statements made about India’s definite rejection of the nuclear path and much talk of the destructive power of nuclear energy. This was much later denied by Dr Raja Ramanna in the 1970s, who believed the inclination towards any military option was not evident. The 1974 test however, brought India into immediate global focus. It established South Asia as the centre for the need for reinforcement of non-proliferation for the outside world (Quester 2002: 306). The weaknesses in the nuclear norms became suspect due to failure to prevent South Asia from at least potentially racing towards nuclear arms race.

In South Asia, India was often blamed for starting it all. The 1998 tests however were to forever change the Indian identity. If 1974 was the Indian gate crash into the nuclear club, 1998 was the license. India had announced its arrival boldly and confidently. There was a stark change in the way India engaged with the world after the 1998 tests. India’s diplomatic engagements had a hint of an open declaration of its nuclear capability.

Earlier, the hesitation had been visible. India had refrained from overtly participating in discussions involving nuclear issues. India was “frightened that any engagement on the nuclear issue would rob the nation of its nuclear potential” (Rajamohan 2009: 124). But post the 1998 tests, India openly engaged with the United States and transformed from being a “protestor against discrimination” to being a state that supported the existing nuclear order and asks for its “incremental reform” (Rajamohan 2009: 124). This period saw a change in its identity too.

The denial of accepting what the West taught has been embedded in the statements made. The then Indian Defence Minister George Fernandes had questioned the existing nuclear order by asking “Why should the five nations that have nuclear weapons tell us how to behave and what weapons we should have?” (Fernandes quoted in Sen 2000: 65). This was a clear indicator of India questioning any kind of ‘correct’ nuclear learning and the existing nuclear norms. But this

was just the beginning. The Indian behaviour in the negotiations and platforms after this, spoke of its efforts to carve a special status for itself. The general understanding was that to be accepted as different, it was important to detach itself from any comparisons with North Korea and Iran in terms of norm violation. So, on several occasions the Indian representatives clarified that they being the members of NPT are entitled to honour the commitments of the treaty which was not the case for India (Rajagopalan 2009: 108). In all the statements made, there was a hint of inclination towards nuclear restraint and support for disarmament.

One of the important characteristics of India's nuclear policy is the "nuclear minimalism". Minimalism according to the Merriam Websters Dictionary means a technique characterised by extreme sparseness and simplicity. This phrase is commonly used for art and music. The problem is that when used in terms of defense, much of it had to be quantified and that was left as subjective and dynamic (Basrur 2001:183). But that is how the Indian nuclear policy and diplomacy is described. Basrur (2001) summarised the characteristic features of the Indian nuclear posture from the initial days. They are:

- A very limited acceptance of the utility of nuclear weapons as a source of national security.
- A political rather than technical understanding of nuclear weapons.
- Restrained responses to pressures either to enhance or to reduce nuclear capabilities.

These three characteristics are the crux of the progression of the Indian course of nuclear learning. The first one aimed at a realistic evaluation of the utility. The second one was the major driver for the change in the Indian beliefs. Tellis (2001) found this to be the most interesting feature of the Indian nuclear doctrine. In fact for him nuclear weapons gave India a "psychopolitical reassurance" (Tellis 2001: 9). He went on to praise the explicit mention of the political utility by saying how this spoke of the Indian understanding of nuclear weapons as "political instruments because they are emphatically not usable weapons in any military sense" (Tellis 2001: 17). The third one aimed at a larger audience to clarify its responsible outlook in matters. Rajagopalan (2009:111) observes that the Indian nuclear diplomacy always displayed caution not

only towards the threats but in advancing nuclear arms control and disarmament agenda. This is the crux of the Indian nuclear learning.

India has consistently increased its nuclear arsenal to a more “robust and reliable” one and is expected to go ahead and include many more ballistic missiles, submarines capable of firing long range ballistic missiles, develop its BMD and so on (Rajagopalan 2009). On the other hand, it has campaigned “vigorously for nuclear disarmament” (Rajagopalan 2009:111). Its behaviour in nuclear negotiations has been a way of projecting one’s intentions to promote nuclear disarmament and responsibility while keeping its nuclear capabilities. India has begun to support causes to curb the arms race, strengthen the measures to control new states from entering the nuclear club and speak of nuclear disarmament and arms control at various fora. This is what it has ‘learnt’ from the West.

Nuclear minimalism was a brilliant concept that India came up with. It propagated that power was essential for security in the current anarchic world. But it also acknowledged the moral unacceptability along with the threats that existed due to these weapons (Basrur 2001: 184). This concept was a good justification. But soon, once predominantly political understanding of nuclear weapons slowly gave way to a more operational conception (Basrur 2001: 195).

The operational leg of the Indian nuclear diplomacy has also been often criticised. On the one hand, India comes across as a powerful responsible state having signed the nuclear deal with the US and attained the waiver from the NSG guidelines. On the other, its responses in times of crisis are seen as being weak due to the fear of nuclear escalation (Rajagopalan 2009).

The Indian leadership and the diplomats have struck a balance between what is the strategic need at the South Asian level and a vocal support for nuclear disarmament at the global level. To attain this balance, India on several occasions has had to maneuver its course. But the change in the nuclear policy has been gradual rather than dramatic (Rajagopalan 2009: 111). The consistent trend has always been “cautious and risk averse” (Rajagopalan 2009:111).

This balanced two faced diplomacy has worked. But, this was not an original thought of India. It was just an extension of what India received from the former nuclear powers. The American policy of selectivity and duality in its response towards the nuclear activities of North Korea,

Iraq, Iran, Israel and China probably encouraged India to do the same. The unique way of managing its nuclear diplomacy enjoyed support from leading parties and different Prime Ministers across the years 1947-1998 (Sethi 2017). While the basic spirit remains the same, keeping faith in nuclear restraint and demand for equality, the public behaviour has changed with time. The next section looks at the Indian responses to various initiatives taken by the international community to check the spread of nuclear weapons. These responses are seen as outlier behaviour, but India did not give in and has gradually managed to rise above those accusations to be in a better position.

- *Fissile Material Cut-Off Treaty (FMCT)*

In 1946, the United Nations Atomic Energy Agency had recommended “prohibition of national manufacture and possession of fissile materials” for all states (Chakraborty 2013: 60). Since then there have been attempts to frame a treaty that bans the production of these fissile materials. However, a formal agreement has not been adopted as yet.

In 1995, the Canadian Ambassador Gerald Shannon had proposed a mandate to form an ad hoc committee to negotiate the FMCT. But the lack of consensus and desire to hold parallel negotiations about Preventing an Arms Race in Outer Space (PAROS) led to stalling of the effort (Kimball and Reif 2017). The United States under President George Bush as well as President Barack Obama tried to initiate the process for starting the negotiations but Pakistan blocked the start of any international talks in this regards in 2009 (Mian and Nayyar 2010). The reason is that if this treaty came into force, Pakistan would be locked in a “disadvantageous position with respect to India’s superior nuclear stockpile” (Kimball and Reif 2017).

The FMCT is different from the NPT and CTBT because it addresses the five recognised NWS and the states that are not NPT members (Israel, India, Pakistan and North Korea). India sees this treaty as one that deals with the real issue and supports it from the inception itself. This aligned with India’s demand for a non-discriminatory treaty. Hence India whole heartedly supported the cause.

Professor R Rajaraman, of the JNU School of Physical Sciences says that there is no need to compete in terms of numbers of nuclear weapons like “horses, elephants or tanks or guns or

armory during the old days” (Rajaraman quoted in Chakravarthi and Joshi 2009). He believes that India has enough fissile material to develop its credible minimum deterrence. When asked if FMCT is the answer to the security dimenna in South Asia, he categorically says that nuclear equations are not enough to deal with that insecurity (Rajaraman quoted in Chakravarthi and Joshi 2009).

But despite such Indian opinion, Pakistan continues to stand against this treaty. The main concern is regarding the “capping” versus cutting on the existing stocks. Pakistan is unwilling to accept the large gap between the stockpiles of the two neighbours.

According to the Arms Control statistics, the fissile material production dates are as shown in the table on the next page:

	Highly Enriched Uranium (HEU)	Weapon Grade Plutonium
United States	1992	1987
Russia	1987-88	1994
United Kingdom	1963	1989
France	1996	1992
China	1987-89	1990
India	Ongoing	Ongoing
Israel	Status Unknown	Ongoing
Pakistan	Ongoing	Ongoing
North Korea	Status Unknown	Ongoing

©<https://www.armscontrol.org/factsheets/fmct>

Table 4.1 above was updated in September 2017 and showed how helpless the regime is in terms of the late comers. India has supported the FMCT even while producing the two elements banned by this proposed treaty i.e. Highly Enriched Uranium and Plutonium (Arms Control 2013). This displays a new side of the Indian nuclear diplomacy.

The openness in supporting this treaty speaks of the confidence that India has as far as its minimum nuclear deterrent is concerned. But it could also be India’s hope in the treaty not

coming through. Why take the blame when Pakistan has blocked it already? Another view states that it is India's short sightedness similar to that exhibited in the joining the negotiations for NPT and CTBT (Rajagopalan 2009: 109).

Whatever be the case, the positive role played in working towards advancing the FMCT has helped in improving India's image. India has learnt that the "rhetorical commitment" to working towards disarmament is a good strategy to appease the West (Rajamohan 2009 : 126). This change in strategy is seen by Rajamohan (2009) as a transition in the Indian approach "from the normative to the pragmatic, from ideas of collective security to those of the balance of power, and from the notion of disarmament to arms control". This evolution in itself is a major indicator of the Indian nuclear learning. Another concern for Pakistan has been the deal signed between India and the US in 2004 that has since exempted India from international controls on the import of uranium for its civil programme (Mian and Nayyar 2010). This means that India could use the uranium that it had produced freely to make its weapons. This creates additional insecurity for Pakistan. Pakistan as also demanded a similar deal in return for negotiations on FMCT (Mian and Nayyar 2010).

That seems unlikely but the talks on FMCT are stuck and India unwillingly has a major role in that. However it can not be denied that the two states can not receive similar treatment from the international community. Even if the how and why of Pakistan's nuclear weapons programme are ignored, their doctrine and behaviour can not be overlooked.

After the FMCT was proposed, there have been various other counter proliferation initiatives introduced. India has not become a party to several of them. The counter proliferation initiatives that India skipped include "coercive measures to stop and roll back proliferation of nuclear weapons programme of the non-nuclear weapon states aspiring to join the nuclear weapons state club and counter the possibilities of nuclear weapon technology, equipment and fissile material falling into the hands of non-state actors and terrorist outfits" (Subrahmanyam 2012: 47). India was however involved in activities like detention by the Indian Customs in the case of the North Korean ship *Kuwolsan* carrying scud missiles in as early as 1999 (Subrahmanyam2012: 47). This decision was a result of political and reputational calculation. In short the Indian policies have not followed a set model. They have evolved over the years with different experiences and

political leadership playing a major role. A restraint was followed in adopting anything that the west did or advocated.

The Indian restraint in the nuclear weapons decision making is another aspect that has given India a different diplomatic standing in the world. The next section will look at how has that evolved and if that is a positive indicator of Indian nuclear learning.

- *Nuclear Restraint*

Nuclear weapons have a unique quality about them. While they are the strongest deterrent they come along with a responsibility. India has always tried to live up to the status of a responsible nuclear power and one of the ways to do that is its belief in restraint.

That restraint has been evident in the Indian nuclear doctrine as well as its behaviour in testing and stockpiling nuclear weapons. India was often accused of behaving like a soft state in times of crisis like the Parliament attacks of 2001 and the 26/11 Mumbai attacks of 2008. There has always been a strong opinion to “give it back” to Pakistan however India has maintained a calm posture. Such Indian behavior has at times invited a lot of criticism but the response was never a follow up with a high scale attack. This restraint was always more than a belief. It is a politically correct diplomatic move that has helped in “greater accommodation of India’s rise as a responsible power in the international community” (Dasgupta 2012:129).

Pakistan has threatened India with nuclear use in 1986, 1990, 1999 and 2001-2002 but India has responded with restraint by means of counterinsurgency campaign and by talk of limited war in 1990 as well as 1999 (Dasgupta 2012: 130). In 1986, some military exercises were conducted on the Pakistani border under the supervision of the Indian army chief K Sunderji. Pakistan responded with a threat of nuclear use but there was no war. Similarly in 2001 after the terrorist attack on the Indian parliament, Indian troops and nuclear capable missiles were deployed at the border. It came close to a nuclear war and the international community was worried. But India did not cross the limit. India had learnt that when nuclear weapons are in background, a regional crisis can also turn into an international conflict (Jacob 2014: 25). Moreover with “Pakistan playing the nuclear madman” (Jacob 2014: 25), it was not just the ideological belief in restraint but a strategic compulsion to practice it. If India ever planned an attack or a strike, Pakistan

would not refrain from using their nuclear arsenal (Unnithan 2015). This involves a bigger risk that India can not take.

Over the years, India learnt to respond in terms of nuclear issues (Jacob 2014:26). There was a change seen in the nuclear rhetoric which reduced and there was hardly any emphasis on using nuclear weapons in a military situation (Jacob 2014: 27). After the attacks on the Indian parliament, the Indian Army came up with the Cold Start doctrine of India but the leadership never committed or patronised it (Rajagopalan 2009:107). A Cold Start would cause “rapid attack inside Pakistani territory to gain quick tactical victories without allowing the space for nuclear retaliation” (Das and Akhtar 2015 : 37). But that would not serve much purpose and had major reputational costs attached.

Jacob (2014:27) described India as having attained nuclear maturity by not going overboard in advertising its assets to public as well as the international community. The tone became subtle over the years. This is the Indian nuclear learning. Nuclear weapons were the antidotes for possible blackmail for India (Tellis 2001:6). But Indian conduct on international forums helped in getting it different benefits.

The Indian nuclear restraint has also been in conformity with the existing nuclear norms. The world has seen how Pakistan had been quick in following up with the nuclear tests. Hence much later when a nuclear attack was discussed at the time of Bombay attacks, the urge was curbed. As PR Chari said, “Pakistan exploding their nuclear weapons within weeks of the Indian tests then led to the realization that this may not be possible” (Chari quoted in Das and Akhtar 2015: 64). Pakistan’s response to an indication of nuclear use was not expected to be matured and could have resulted in a nuclear fiasco.

This restraint portrayed India in a different light and has helped in getting exceptional treatment from the international community whether it was the NSG waiver or the talks of membership for NSG. The restraint has also led to it being considered a soft state and much criticism domestically. Due to the restraint forced on India by the west, Pakistan emerged braver gradually (Tellis 2017). For Tellis, nuclear restraint has been based on the faith in the possibility of reaching peace by means of talks which is proving counterproductive in terms of India and

Pakistan. But the good child always bears the brunt of being advised more than the spoilt one. There is an exemption given to the spoilt one with no hopes of improvement.

Rajagopalan (2009:105) observes that it was the Indian restraint at the time of the parliament attacks that unveiled the handicap that India has because of Pakistani nuclear weapons programme. Retaliatory strategies were not even considered. This was true for the Mumbai attacks too. Khan and Jacobs said that the learning in South Asia suffered a big shock with these attacks (Khan and Jacobs 2014:6). The Indian response was firm but confined to demanding the accused and waiting for the international actors to pressurise Pakistan into doing so. It led to international shaming of Pakistan. This was a break in the learning process between India and Pakistan but was a big lesson for India specifically. India learnt that instead of planning a physical attack, shaming led to international isolation that was much more disastrous (Jacob 2014: 26). India seemed to have learnt that nuclear restraint served the larger picture which is international support.

Alongwith the restraint, signaling emerged as a different branch of Indian nuclear diplomacy. From hinting its intentions to support nuclear disarmament to the statements about upholding the NFU, there were various instances that strengthened the Indian image of a responsible power. Gen Bikram Singh, the Indian Army Chief has said “Nuclear weapons are not for fighting. Let’s be quite clear on it” (Singh quoted in Jacob 2014: 27). Though there was much upheaval with the Bhartiya Janata Party members claiming to rethink the NFU, the Indian Prime Minister categorically said that there was no such intention and that the nuclear weapons are “necessary to be powerful – not to suppress anyone but for our own protection” (Modi quoted in Busvine 2014). A proof of the nuclear maturity was when he dismissed weakening the NFU clause and said “No first use is a great initiative of Atal Bihari Vajpayee - there is no compromise on that. We are very clear. No first use is a reflection of our cultural inheritance” (Modi quoted in Busvine 2014). This was a clear display of India’s responsible behaviour.

All the above initiatives and responses of India displayed the unique nuclear diplomacy that was specific to India. In spite of fighting the odds to attain the nuclear capability, it has managed to emerge as one of the important actors in the international non proliferation regime. The change

that came, was as Rajagopalan says gradual and not dramatic. But all the changes are indicators of how the nuclear India was learning.

Conclusion

It cannot be denied that the Indian nuclear learning does not classify as a normative one as per the standards of the international community. Whether it was the NPT or the FMCT, India did weaken the norms indirectly. However merely blaming it for that was too simplistic. In its efforts to make a place for itself on the global map, it did blur some lines but never crossed them.

In spite of being the reason for the establishment of the NSG, India is now being considered for its membership. This evinces that something might have gone right in case of India's nuclear learning.

The Indian nuclear doctrine has in no way weakened the nuclear norms. Despite the talks of revisiting it, there has been no substantial evidence to suggest that any process was in play to let go off the NFU. The reasons for supporting NFU and nuclear restraint have often been stated as being the only option. But the other option is always available to let go and behave as a “nuclear madman” (Jacob 2014:26) and join the other ‘category’ of nations.

Over the years, the Indian nuclear learning has worked towards promoting in spirit any initiative that worked towards nuclear safety and security. By that standard, it classified as a positively normative one (Jacob 2014:28). If the criteria was to follow the leader then it fell back on various grounds. But then the question arises – who decides? That question is beyond the scope of this study. A simplistic answer would be the dominant view. But India fought its way through the dominant view always to emerge as what it is today. Whether it is the secrecy or the ambiguity, the play of words, the rigorous strive towards advancing the nuclear non proliferation regime; all of it went together.

There are some limits that have existed in South Asian region that inhibited nuclear learning. They were pointed out by Jacob (2014:34-35),

1. The difference between India and Pakistan about the role of nuclear weapons in national security strategies.
2. Ambiguity between the states with respect to the nuclear balance in the region.
3. Opacity and limited understanding of nuclear issues and extreme forms of nationalism.

All the above reasons have slowed down or changed the course of Indian nuclear learning. That in the background of emerging international nuclear norms, was a difficult balance to strike for India. But there was never any intention to violate the norm of non-use or non-proliferation. Yet, the indirect weakening can not be denied.

As stated initially, the Indian nuclear learning was a surprise. It was unexpected that a ‘soft state’ like India could take bold steps. But as seen through the chapter, there were several factors that influenced the Indian process. The initial efforts by the west to share knowledge and then the sudden decision to pull the plug were all responsible in raising the aspirations in India. It was these incidents that changed the Indian belief system.

The nuclear diplomacy that evolved was a result of learning too. After experiences like the negotiations at the time of NPT, the realisation of feeble power of nuclear norms to contain China and the American rhetoric versus reality sobered down India. The diplomats learnt to keep a low profile when discussing nuclear weapons overtly.

The Indian nuclear learning lies in the grey area with respect to nuclear norms. It is still open for debate as to who comes first – international norms or national security. India did put its feet in both the boats and has managed to gain respect from several actors. A simple evaluation of its nuclear learning is difficult.

Yet, the next chapter will look at how the international nuclear norms were impacted as a result of the Indian nuclear learning. The aim is to look at the relationship between the nuclear learning and norms. Hence it is important to look at how one impacted the other.

Chapter 5 – Effect of Indian Nuclear Learning on norms

In the course of this research, much has been covered regarding what is India’s experience and how it reacted to various developments in the nuclear world. The last chapter dealt with how

India developed its own trajectory of nuclear learning in response to the prevailing nuclear norms. It was not easy for a non-western country to attempt to shake pre-existing narratives. As discussed in earlier chapters, the initial belief was that the western powers were the only actors capable and responsible enough to have control over the knowledge of nuclear weapons (Freedman 1989: 49). This is where the problem began.

It is human nature to aspire something that one is denied. Nuclear weapons were that for India, only much more precious because of the power that came by merely their possession. The nuclear norms that had been put in place to prevent states like India from disturbing the western control over them gradually became unacceptable. As noted from the findings of the last chapter, it was the Indian experience in various incidents and platforms that changed the Indian belief system. Those changes are the indicators of the Indian nuclear learning (Levy 1994: 283) and they had a major impact on the international nuclear norms.

The urge to ape western 'modern' ideas was embedded in the Indian leadership from historical times whether it was the attraction towards English language or the introduction of science in the school curriculums. There was always an inclination to follow the west. But, there was also a parallel line of thought in India that aspired and demanded an identity of its own. There was a hunger to get acknowledged as something more than an erstwhile colony. The nuclear weapons seemed like something that could fulfil both the yearnings for India.

The Second World War ended with the nuclear bombings on Hiroshima and Nagasaki. The result was a realisation of the power of the weapons. The Indian nuclear learning as examined in the previous chapters was accompanied with a consistence process of restraint attempted by the international community through the nuclear norms. But India in its course for charting its different path also impacted the norms of non-possession and non-proliferation majorly.

This chapter looks at the relationship dealt with in the last chapter from a different perspective. Unlike the previous chapter which focused on the Indian actions, this will look at the international reactions.

In the last chapter the causes were the international nuclear norms and the effect on the Indian nuclear learning was observed. In this, the roles will reverse. It will be an attempt to analyse the situation from the prism of the international community. It is a difficult task to cover the ideas of

all the actors hence a dominant view will be focused on mostly. An additional difficulty is that sometimes there are many actors who are not directly involved but had a major role to play.

To begin with, it is important to understand what classified as norms and their understanding in India. Was India at variance with the dominant narratives on what constituted nuclear norms?

5.1 Norms and India

Norms as seen in previous chapter were always without doubt dynamic entities. They were malleable not because it was desired but because they dealt with human nature. Humans make norms to check that a certain code of conduct is followed but they themselves bring in the aspect of malleability. That is done depending on the power dynamics at a given space or time. The crux is its acceptance. A universal acceptance affects the supporters of the norms as well as outliers. In fact, universality increases the cost of non-compliance as well as the chances of a collective response in reaction to such an instance (Miller and Scheinman 2003). That in return imposes a compulsion on actors to follow it. All these characteristics are true for norms in international relations too.

This chapter aims to look at how the Indian nuclear learning impacted the international nuclear norms. The aim is to evaluate if it led to their strengthening or as weakening. Since both nuclear learning, as well as norm evolution are dynamic complex processes, a simplistic judgement will not do justice to the study.

It is beyond the scope of this study to cover all the aspects of these two processes but the attempt is to understand the intricacies that operated at different levels. There were several channels through which India attempted to carve a different place for itself. Some of them resulted in strengthening the nuclear norms while others weakened it. The last few chapters have already indicated that a linear explanation is not possible to appreciate the relationship between Indian nuclear learning and norms.

The aim is not to quantify the relationship between the two but understand the factors that played the role of intervening variables. Although the study deals with norms, a difficulty was that seemingly India compartmentalised its behaviour and policies depending more on consequences than appropriateness. This was much in line with the survey done in the United States discussed

in the previous chapter. Hence what is seen as diplomacy at the domestic level got projected as hypocrisy at the international level on various occasions.

The first section will look at how India started defying the original norms.

5.2 'Victims' of 'different' Indian nuclear learning

Nina Tannenwald observed that identity, norms and behaviour were co-related but not in a linear relationship rather a circular one in which one led to other (Tannenwald 2005: 8). This parameter is chosen as a basis to study the Indian role in the evolution of nuclear norms.

India has been working on its identity consistently. The dual strategy that sought to support nuclear disarmament and yet work towards building what was later called credible minimal deterrence was in progress. In 1993, World Health Organisation had approached the International Court of Justice for an advisory opinion on the legality of threat or use of nuclear weapons (Weiss 2010: 265). The basis was the adverse effect that any of these had on the health and environment but this was rejected by the ICJ saying that WHO did not have the legal authority to question it (Weiss 2010: 265). The request was later raised again by the General Assembly and was responded to by India.

On 20 June 1994, India had presented a document before the ICJ stating a number of reasons that proved how use or threat of nuclear weapons was in fact illegal. The four reasons put down were:

- (1) Nuclear weapons cannot be used in self defence...nuclear weapons cause such destruction which far exceeds the measure of proportionality and the object of destruction necessary and relevant to the attainment of military objectives.
- (2) The use or threat of use of nuclear weapons [is] not justified by international law under any circumstances.
- (3) The use of nuclear weapons in response to attack by a conventional weapon would patently violate the principle of proportionality but also a nuclear response to nuclear attack...would violate the principle of discrimination, humanity, environmental security, and probably the principle of neutrality as such an attack would not distinguish between combatants and non-combatants...causing civilian casualties, ravaging the environment and contaminating the territory of neighbouring and distant neutral countries.
- (4) Since the production and manufacture of nuclear weapons can only be with the objective of their use, it must follow that if the use of such weapons itself is illegal under international law, then their production and manufacture cannot under any circumstances be considered as permitted. Besides, the manufacture and stockpiling of nuclear weapons would constitute a threat of their eventual use. (Weiss 2010: 265).

The above reasons were enough to prove how seriously India believed in preserving the nuclear norms order. It had its own insecurities especially with respect to the growing China-Pakistan friendship and hence was in favour of strengthening the norms. But this suggestion was outnumbered at the time of voting. The ICJ issued the following statement:

The threat or use of nuclear weapons would generally be contrary to the rules of international law applicable in armed conflict, and in particular the principles and rules of humanitarian law. However, in view of the current state of international law, and of the elements of fact at its disposal, the Court cannot conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self defence, in which the very survival of a State would be at stake. (Weiss 2010:266).

This statement made it clear that the norms were malleable in the favour of the powerful. Why then is India accused of being responsible for making them so? Many instances like these are experienced by India at the time of NPT negotiations too. As a result India learnt the real meaning of nuclear maturity which was to delink the nuclear rhetoric from national policy (Jacob 2014:26). This had its effect on the nuclear norms later but it was evident that the norms themselves had shaped India's nuclear learning.

Post the 1998 tests, India faced severe sanctions and blame for leading South Asia to a nuclear brink. The result is that the leaders and policy makers started their work on improving the image. But there is a change in the basic behaviour. India had developed confidence. The first step towards rectifying the damage done by 1998 tests was announcing the voluntary moratorium immediately after the tests. This was done to announce that India did not have intentions to become a rogue state. The next important step was adopting the NFU. India's record of non-proliferation was generally considered as impeccable. Though, it was not a member of NPT yet, the policies advocated by the treaty are supported wholeheartedly. These brought out a different aspect of India's perceived identity. India started emerging as a state that was in a different category from the previously existing NWS and the late comers.

Gradually it became evident that inspite of being an outlier , India made the non-proliferation regime take notice of its opinion as well as cater to its needs and demands. This was unprecedented. The NPT was to become the first victim of India's different learning.

- *Nuclear Non Proliferation Treaty*

It is well known that India did not sign the NPT and is one of the major reasons for the treaty being stuck up for so many years. To be fair, India had tried on various occasions to express its displeasure with the way NPT is being formulated.

In as early as 1964 itself, India had put forward a set of suggestions to form some mechanism to control non-proliferation. It is placed as an item for discussion at the UN and is called “Non-Proliferation of Nuclear Weapons” (Sethi 2004: 250). Sethi (2004) wrote how the NPT could have been different if the Indian recommendations had been taken seriously. She summarises the three major components of the Indian suggestions as:

1. Absence of any loopholes that might permit the NWS and NNWS to proliferate weapons either directly or indirectly.
2. Establishment of an acceptable balance of mutual responsibilities and obligations of both the NWS and NNWS.
3. Marking a step towards general and complete disarmament. (Sethi 2004: 250)

These propositions spoke clearly of India’s priorities as well as the red-lines. Yet, the NPT that was formulated, followed different lines. Like every other treaty or initiative that had been worked upon earlier, the NPT too suited the NWSs. In the past, India had seen how the arms reduction treaties negotiated as per the convenience of the superpowers (Sethi 2004: 167). The message was clear. There were no steps in sight that even remotely sought to constrain the NWS. Hence India decided to stay out of the NPT.

This was a big loss for the NPT and denial from the Indian side sent two clear messages regarding the non proliferation regime (Miller and Scheinman 2003):

- It was true that containing nuclear proliferation is an “impractical” task.
- The value of the Article IV that spoke of the responsible states being provided peaceful nuclear technology was not worth the brouhaha.

These two were not the intentions of India while refusing to sign but they prevailed. India was coming across as an outlier taking its own decisions and getting away with them. India on the other hand was also fighting its own struggle. It did not deliberately signal the weakening of NPT but that is a consequence of Indian persistence to not follow what the west thought was best. Hedley Bull (1975: 175) points out the major problem that India and other “Third World”

countries had with the NPT. It was the belief that the new nuclear weapon states were in some way less responsible than the former five “custodians of the weapons” (Bull 1975: 178).

The NPT was a major lesson for India. As seen in the previous chapter, the entire negotiation process was a watershed for India. The strategic community was adamant to stay away from doing what the “custodians” (Bull 1975: 178) said. The Indian strategist P.N.Haskar had an important role in the Indian nuclear policies from 1967-1973. This period was important since India fought its way through an emergency and went ahead with its first “Peaceful Nuclear Explosion” immediately after. This was also the time when NPT was the hot topic. He had mentored the Indian Permanent Representative at the UN on dealing with the NPT. It was interesting to read his views about how the Indian diplomats should behave. All these added to the evolution of the Indian identity. Haskar’s suggestions for participating in the negotiations were:

...avoid polemical tone against the nuclear powers, mention the Chinese threat..should not mention Pakistan; mention that our policy as hitherto continues to be to refrain from doing anything which would escalate the nuclear arms race” and “on the question of the time table for conclusion of the Non-Proliferation treaty, we should not spearhead any move for delay and postponement (Haskar quoted in Joshi 2017).

So, the intentions were to cautiously clarify the Indian position which was against escalation of nuclear arms race. This also hinted the nuclear maturity that was mentioned in the last chapter.

The Indian behaviour strengthened its position but that disturbed the international nuclear proliferation regime. It was interesting that although it was one of the “dissenting states”, the doctrine that spread of nuclear weapons was undesirable was never challenged (Bull 1975:180). The peculiar aspect was that India tried to prove that “an exception be made in their own case” (Bull 1975: 180).

The main reasons for weakening of non-proliferation regime were the “failure of making NPT universal, the reinforcement of that failure by the indefinite extension of the treaty in 1995, and the inability to prevent or effectively punish cheating”(Weiss 2010:269). India had a role to play in all these. While the first two were the result of the Indian participation in the negotiations, the third was to result from the nuclear deal signed between US and India in 2008.

But the NPT RevCon in 2010 was an eye opener for India when it was not accepted as a NWS. After the notion floated that India was capable of maneuvering the pre-existing norms, the conference proved that there was much more power in the non-proliferation regime than the nuclear exceptionalism that India was boasting of (Joshi 2010). The “back –door entry” into the global non- proliferation regime (Joshi 2010) in the form of the nuclear deal with the United States was not good enough to shake it. It became clear that international law was more than being just a “function of power” (Joshi 2010). Hence it is not entirely true to say that India catered the non-proliferation regime to its demands completely.

- *Comprehensive Test Ban Treaty*

After the indefinite extension of the NPT in 1995, the CTBT emerged as another well thought out initiative that aimed at banning any nuclear testing or explosion. At the same meeting, the Clinton administration proposed the treaty aimed at “systematic and progressive efforts to reduce nuclear weapons globally, with the ultimate goal of eliminating those weapons” (Weiss 2010: 264). This was done primarily to put a quantitative capping on states developing any further nuclear programmes. Another implicit linkage that was expected out of the treaty was contribution to total nuclear disarmament by banning the production of fissile material too. This would have meant all the states stopping at where they are. This could have put an end to the nuclear race that continues to threaten the global power dynamics today. But India had its reservations. The major concern was that CTBT did not come with the timeline that had been suggested by Rajiv Gandhi in 1988 and hence seemed open ended (Weiss 2010: 264).

After the NPT experience, the Indian mood was set to contradict anything that was discriminatory. This is one of the important features that formed a major part of the ‘different’ Indian nuclear learning. India blocked the CTBT and the treaty remained at the same place at the Conference on Disarmament at Geneva. As an unprecedented move, it was then presented at the UN General Assembly for signatures. But sufficient members of states have not ratified it and till date it has not been adopted. Among the major objections that India had with regards to the CTBT, the following were major (Manpreet Sethi 2009: 53):

- To begin with, there was no linkage between the treaty and universal nuclear disarmament which for India was the eventual goal for any such effort.

- Secondly, Indian geographical placing and the growing China-Pakistan affinity did not permit it to accept the clauses of any treaty that addressed the concern of nuclear disarmament but only partially.

India of 1990s had become much more confident now about its demands. The Chinese had conducted their nuclear tests just four days after the NPT got extended hence the weakness of the regime was evident. If India had signed the CTBT, what lied ahead was not a good sight. Infact,

a China with tested nuclear weapons and all the privileges accorded to a permanent member of the UN Security Council , an NPT that relegates India permanently to second tier 'non-weapon' status, and a forthcoming CTBT that can prevent India from testing nuclear weapons designed to be delivered by Prithvi and Agni missiles (Weiss 2010:265).

These were unacceptable to India even at the cost of being accused of weakening the regime. To emphasise the Indian view point, Arundhati Ghose at the Conference on Disarmament in 1994, had described the treaty as one of the many “narrow and futile exercises aimed only at controlling non-nuclear weapon states, (and thereby) further strengthening the discrimination inherent in the non-proliferation regimes ...” (Ghose quoted in Sethi 2009: 55).

The Indian Prime Minister Atal Bihari Vajpayee had defended the decision by stating that a voluntary moratorium on testing meant that India “accepted the basic obligation of CTBT” (Rajaraman 2017). However this was not enough. A major global power which is often seen as a responsible nuclear state having not signed a nuclear test ban treaty affects the credibility of the treaty.

One domestic reason for India’s unwillingness to sign the treaty was the difference of position among the scientific community. There were some who declared that they had a credible minimum deterrent and did not wish to perform any tests in future (Rajamohan 2012: 130). But there were a few who believed that the H-Bomb test in 1998 was not a success (Rajagopalan 2009: 109). A statement was released on behalf of Indian scientists claiming that the tests had provided with critical data which was useful in validating the Indian nuclear capability for different applications and delivery systems (Pratap 1998).

There was a change in opinion later. Rajaraman (2017) highlighted the factors that could benefit India if the treaty was signed. The thought process that went behind this consideration was an

indicator of how the Indian confidence had evolved. If India decided to sign the treaty, the result would be diplomatic gains primarily intended to serve the cause of the Indian membership of the NSG (Rajaraman 2017). Signing the treaty would add to the responsible power image too that India has established for itself and maintained over the years. Another factor that Rajaraman (2017) pointed out was an operational one which stressed on the clause of credible minimum deterrent that was specified in the Indian nuclear doctrine. According to him, quantitatively as well as qualitatively too, the current status of the Indian nuclear programme was sufficient and he did not see the need for any further testing.

While he did not see any chance of tests in the near future he did point out a way out in case such a scenario came up. That was the sanctity of the clause of sovereignty of a state that prevailed over everything else. India could take any decision under that umbrella if it was ever pushed against the wall (Rajaraman 2017).

The role played by India in blocking the treaty did make it look like being solely responsible for its failure (Weiss 2010: 265). This did weaken the non-proliferation (vertical). However if India decided to sign the treaty now after declaring itself as a nuclear weapon state, India agreed to join the CTBT then that would make it “as cynical as the other nuclear weapon powers” (Rajamohan 2012: 131). That in turn will weaken the sanctity of the nuclear norms and again emphasise the malleability aspect. The Indian approach seemed to “put off such decisions for as long as possible” (Rajamohan 2009: 110).

FMCT and CTBT were two such treaties that were “universally applicable, non discriminatory agreements” (Miller and Scheinman 2003). But like other treaties, they got stuck because of Indian decisions directly as well as indirectly. In addition to them even the nuclear ban treaty that was opened for signatures in 2017 was not welcomed by India. Its negotiations were skipped by all the nuclear states including India (PTI 2017). The Indian representative had said that the nuclear ban treaty did not “address the longstanding expectation of the international community for a comprehensive agreement on nuclear disarmament” (PTI 2017). There were accusations against India for not doing enough to promote nuclear disarmament and Marshall Island has sued the country alongwith UK for the same (PTI 2017). The argument against India was that even though it was not a member of the NPT, there were some obligations that were necessary for all states under the customary international law. The case was decided in favour of India since there

was no legal basis for any dispute between the countries (PTI 2017). Such accusations were common for India along its journey.

India did not participate in the negotiations for the nuclear ban treaty but nor did any of the other nuclear weapon possessing states. India might have displayed a different course of nuclear learning but it displayed signs of similarity with the already learned ones even if they are not acknowledged.

The relationship between India and U.S. changed its nature several times post 1998 till the Indo-US nuclear deal sealed the exceptionalism given to India. Joshi (2010) pointed out that it was not just the 'good behaviour' but also the material capabilities that India possessed that helped it get the tag. It was clear that everything else aside, it was the "convergence of great powers which define the nuclear order" (Joshi 2010). U.S. did play a major role in defining the Indian nuclear learning. That went on to impact the international nuclear regime altogether. The next section will look at how U.S. influenced the Indian behaviour and identity and consequently the prevailing nuclear norms.

5.3 India-US dynamics and the prevailing norms

There have been several judgement calls evaluating India's nuclear behaviour. Its appropriateness was often under scrutiny. But this section attempts to show that the Indian nuclear learning is not very different from the original custodian - the United States. This statement seems too simplistic initially and undermines India's credit of crafting its own policies. But the American influence was evident from the beginning.

From the advent itself, the U.S. had incentivised the nuclear weapons. There was a glory in which the Second World War ended even if the destruction was unimaginable. The U.S. was majorly responsible for increasing the demand for nuclear weapons in states like India (Lavoy 2003). Eisenhower came up with an idea in the 1950s intended to promote the idea of a U.S. governed superseding authority that overlooked the management of nuclear weapons stockpiles and technologies in all the other countries. As discussed in the previous chapters, there was a natural opposition from the USSR. Seeing the diminishing possibility of any Soviet support for letting U.S. emerge as the overarching authority with respect to nuclear weapons technology, efforts with different intentions came into picture. In 1955, U.S. President Eisenhower began to

introduce ways to help certain states with “limited amounts of raw and fissionable materials” and “generous assistance for building power reactors” (Lavoy 2003). Lavoy (2003) observed that this nuclear sharing led to an increase in the appetite of new nuclear weapon states.

On paper, these efforts were strictly guarded and there was no scope for any lax. But it did happen. States like India, Pakistan, South Africa and Israel benefitted from the “nuclear sharing initiatives” and eventually developed their own weapons programmes.

The Atoms for Peace plan was laid out in 1954. It was one of the first attempts of the second phase of international nuclear learning as observed in the previous chapter. It was an effort to get over the secrecy and contribute to a constructive diffusion of nuclear technology. But it did not exactly fulfil those aims. There were some drawbacks in the plan itself. Unintentionally, it led to some slips in the nuclear order itself. Lavoy (2003) pointed out that on one hand it did lead to positives like establishing IAEA, that helped countries understand and share the concept of nuclear safeguards and most importantly introduced the norm of non-proliferation itself. On the other, it made it easy for states like Israel, India and Pakistan to “divert” the U.S. nuclear assistance to military uses (Lavoy 2003).

India had been in awe of nuclear weapons technology because it was symbolic of scientific modernity as well as generated a sense of power. So, when U.S. was in the process of promoting interest in the nuclear energy, India was a major market. There were exhibitions put up in the Trade Fair at New Delhi in 1955, showing an explicit diagram of the reactor (Lavoy 2003). India was the recipient of more than 93 million dollars of grant which was used in the building of the Tarapur power reactor (Lavoy 2003).

These helps given in different forms acted as catalysts in the development of the Indian nuclear programme. But, an interesting aspect was that after increasing the Indian appetite for nuclear knowledge, the U.S. stepped back and often stated its emphatic disinterest in providing any more details of nuclear explosion and technology (Lavoy 2003). But, it was too late.

It can not be denied that India did respect the spirit of nuclear non-proliferation and stuck to the basic tenets. But it refused to give into the pressure of signing treaties that were found to treat the countries in different ways depending on the “when” of nuclear weapons programme development. Even though there was a strong opinion that pressed for a “constructive

engagement” with the outliers as extremely important for strengthening the non-proliferation regime, not much was done (Miller and Scheinman 2003).

The superpowers attempted to project and propagate a devaluation of nuclear weapons but that failed. The major reason was that nuclear deterrence and defense played an important role in the strategies of all the NWS. Hence the two different approaches clashed with each other. NPT also became one of those treaties that bore the brunt of an overlap of these two. Soon the dominant view in India became that it was a foolish step to close the nuclear option forever (Joshi 2017).

India had benefitted from the U.S. assistance majorly. Weiss (2010:258) summarises four basic contributions of the U.S. that helped India in achieving its nuclear aspirations. They are:

1. Encouragement of thousand of Indian scientists to participate in U.S. nuclear energy research projects from 1955 to 1974.
2. Sale of heavy water to India in 1960s that eventually fuelled the CIRUS reactor for the first nuclear explosion in 1974. At the time of the deal the only stated requirement was the use for peaceful use.
3. The role played by the U.S. Company Vitro in designing India’s reprocessing facility at Trombay.
4. The assistance by General Electric which was a U.S. company for establishing the Tarapur reactors from designing to fuelling.

All these had helped India gain the initial push that it needed. Canada and France had also helped India in developing its nuclear reactors. CIRUS was funded by Canada as a part of a Colombo Plan under the Commonwealth. It is designed on the basis of a Canadian reactor (NRX). In 1969, India and France signed an agreement to obtain the design for its Rapsodie test Reactor and the Phenix Reactor. This was done to make India’s first Fast Breeder Reactor. Indian engineers and scientists are trained in France and the result is the reactor at Kalpakkam in 1971(Ramana 2009: 2-3). They were all instances of concessions from the strict norms to India by the U.S. Of course the idea behind the help is the U.S-USSR rivalry and then the U.S-China differences. But they all weakened the norms. Since India was the willing recipient, its role in the process cannot be denied. It was after the 1974 explosion, that the U.S. along with other countries realised that it was necessary to strengthen the nuclear norms for export control (Ramana 2009).

When India tested its nuclear weapon in 1974, one of the consequences was the formation of the NSG in 1975 by seven states. It was established to ensure that the nuclear exports meant for commercial and peaceful purposes were not used to build nuclear weapons. There were a set of international measures and inspections that were put in place to ensure that the nuclear materials, equipments and technologies were not used to develop nuclear weapons by other states. India had used the plutonium from the Canada supplied research reactor in a nuclear explosive test (Hibbs, M. and T. Dalton 2012). This was in violation of the only requirement mentioned in the agreement made between the two countries (Ramana 2009: 3). The NSG currently has 46 member states and all the decisions are taken by consensus (Hibbs, M. and T. Dalton 2012) including allowing the new members to join. India is currently an applicant for its membership.

The NSG has two sets of guidelines that need to be followed that basically require assurances that the technology import or export would not be used for building nuclear weapons (Davenport, K and D, Kimball 2012). The International Atomic Energy Agency (IAEA) is the authority that imposed safeguards to “prevent nuclear material or technology from being stolen or misappropriated for weapons, IAEA safeguards include inspections, remote monitoring, seals, and other measures” (Davenport, K and D, Kimball 2012).

The NSG comprises of “like minded states dedicated to the common global nuclear nonproliferation norms” (Hibbs, M. and T. Dalton 2012). This is the criteria for allowing new members into NSG rather than including a state merely because it is capable of exporting nuclear technology, materials and equipment (Hibbs, M. and T. Dalton 2012). In order to ensure a transparent membership, there are certain principles put in place to allow membership and they were divided into two parts:

- The first part is a direct consequence of the Indian nuclear test in 1974. This listed down various techniques, fissile materials and equipments that are designed specifically for nuclear use. These are not to be used to build nuclear weapons and have to be verified by the IAEA safeguards.
- The second part is a negative list that identified goods that are not allowed. These are possibly mentioned to refrain from dual purposes. These items are basically non-nuclear items

that have legitimate civilian applications but can be used for building nuclear weapons technologies.

It was almost as if the NSG had been tailor made to contain any occurrences like India in the future. It was also responsible for slowing down the development of nuclear plants in India (Ramana 2009). But somehow, over time India changed its perception and is now being considered for membership in the regime. This is a major indicator of how the nuclear norms have been maneuvered by India and its new ally the United States.

A major shortcoming in the Indian consideration for the membership has been its not signing the NPT which is a pre-requisite. China too opposes the idea of allowing India this exception strongly. It is believed that there is a difference between India and China in terms of their understanding of nuclear responsibility. China believes in respecting the “legal accession to key global non proliferation instruments” (Sullivan and Leveringhaus 2017). India on the other hand “complied with the normative infrastructure” in spite of being a non signatory of NPT and so on (Sullivan and Leveringhaus 2017). NSG was put into place to control the export of nuclear technology to ensure that the atomic energy shared is used only for peaceful purposes. India justifies its plea for membership by saying that it is just an export control regime and should be “de-linked” from NPT membership (Aneja 2017). There is a difference in the records of both the countries as well. China cooperated with Pakistan, Iran, Iraq, Saudi Arabia, Algeria and Syria despite it being a signatory (Sullivan and Leveringhaus 2017). The Indian record on the other hand has been clean.

The Indian nuclear behaviour does fall in a grey area with respect to norms. It respects all the treaties in principle but refuses to sign any discriminatory proposals. It is accused by China and Pakistan of developing a nuclear arsenal because of its ambitions of emerging as a regional hegemon in South Asia (Sullivan and Leveringhaus 2017). China is clear about not accepting India as an equal in terms of nuclear power and hence is strictly against the idea of Indian membership into the NSG.

An incident that cannot be skipped in the discussion about the impact of the US-India relationship on prevailing norms was the agreement signed between the two countries with respect to nuclear cooperation. As Perkovich said the deal announced the

desire to change a series of national laws and international rules that the United States had helped create over a 30 year period to strengthen the non proliferation regime (Perkovich 2010 : 20).

The agreement in 2010 signed exempts India from the rules that had been established by the NSG. This agreement really hurt the burliness of the non proliferation regime. It proves that an exception is possible. A state that is not a party to NPT signed the deal with the original 'custodian' of the nuclear weapons. Hence the possibility of exceptionalism was open for exploring (Squassoni 2010).

India has covered a long distance from complete belief in non-violence to developing a weapons programme to being considered for membership in the NSG. There is a complementary process that accompanied the Indian journey which is the evolution of norms.

India did not sign the CTBT, produced fissile materials and has hardly followed the stricter commodity control lists (Aneja 2017). When the Indian membership was considered during 2016-17, out of 48 members, 41 supported the Indian entry. Amongst the states that are against the idea, China has emerged as the strongest opposition. The Chinese opposition is simply based on the Indian non-membership of the NPT. The assertion is simple that the membership for non-NPT states should be non-discriminatory for all the other (Aneja 2017). The implication is that if India was allowed then Pakistan would follow suit. China goes on to make statements that suggest that Indian membership would disturb the balance in South Asia since it will go ahead with a massive nuclear weapons programme (Sajjanhar 2016).

But the India specific protocol got approved by IAEA and was another example of an unprecedented exception made for any country by the international regime. India agreed to give access to IAEA only to specific civilian facilities where the imported fuel was being used (International Atomic Energy Agency 2009: 1). As per the Additional Protocol, the IAEA Director General was authorised to negotiate Protocols with states that were not party to NPT on grounds that those states accept the measures written in the Model Protocol and agree to safeguard the effectiveness of the regime (International Atomic Energy Agency 1997).

India announced its “Separation Plan” in 2006. This basically implied a separation of the “civilian nuclear facilities in a phased manner and to file a declaration regarding its civilian nuclear facilities with the IAEA...” (Robertson and Carlson 2016: 3). Following this, in one of its kind instances, India got a clean waiver from the NSG in 2008 despite the limited transparency in terms of nuclear activities especially after the separation plan.

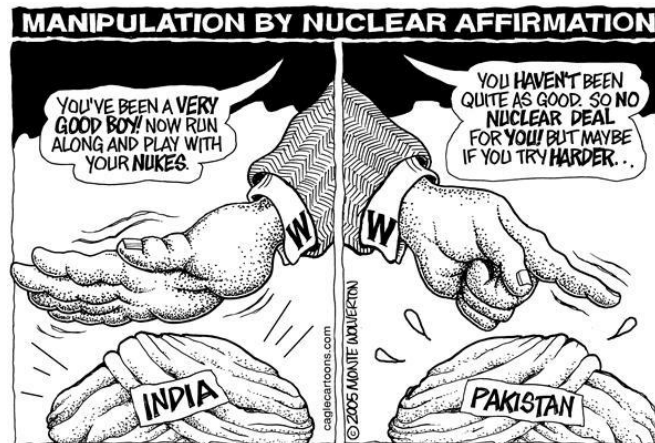
U.S. has also supported the Indian admission in four specific multilateral export control arrangements. These would control its nuclear, chemical, ballistic missile, and dual-use technologies (Hibbs 2016:2). This is an unprecedented exception. This came after the nuclear dialogue between India and the U.S. to strengthen the monitoring processes and in developing procedures to prevent transfers of sensitive items that can be used to make Weapons of Mass Destruction (WMD). The waiver given by NSG to India in 2008 is a recognition of its non-proliferation credentials (PTI 2008).

Pakistan’s response was not be a pleasing one. The “discriminatory waivers” have bothered Pakistan. The former Pakistani Foreign Affairs Advisor Sartaj Aziz in a statement said that his country is “opposed to yet another country specific exemption from NSG rules to grant membership to India” (Haidar 2015). He indirectly spoke about how the Indian inclusion in the group would hamper the stability in South Asia which according to him was “fragile”. He explicitly stated that such a step meant weakening of non-proliferation regime and undermining its credibility (Haidar 2015).

Pakistan and India have a shared history and have always been pitted against one another by them as well as others. As Yogesh Joshi (2010) points out, without A.Q.Khan of Pakistan, there would be no comparison to infer the responsible nuclear behaviour of India. There was always a sense of rivalry between the two countries. After the agreement was signed between the United States and India, Pakistan too wanted a similar one. This instance was not different from earlier times. Pakistan had followed Indian steps from the initial 1974 test itself.

Even if India did not accept it, the fact is that India is responsible for proliferation to, from and in (vertical) Pakistan even if that is indirectly. The next section studies how India compromised the nuclear norms by indirectly and directly (according to some scholars) leading Pakistan to possess and develop its nuclear weapons programme.

5.4 Pakistan – India’s unwanted compromise of nuclear norms



(Source-<http://indiandefence.com/threads/political-cartoons-caricatures-and-illustrations.22539/page-2>)

The picture above was shared on an Indian blog along with several other satires on the international nuclear control regime. This depicted an opinion that existed within the strategic community mostly in Pakistan. There is a difference in the way the international community behaved with the two neighbours. A far sighted look at that is enough to cry out manipulation but there is more to it. This section deals with the perspective projected by the picture in detail.

South Asia has two nuclear states placed next to each other sharing borders, history and a feeling of insecurity against each other. The two states are not comparable due to differences in political systems, economic situations and most importantly nuclear doctrines as already seen in the previous chapters. Yet, they are seen as rivals by each other as well as the international community. Both share a mutual blame relationship for developing nuclear arsenal. But since India went ahead first, it is blamed for starting it all and forcing Pakistan to follow.

The American accommodation of the Indian nuclear programme played another important role in making Pakistan insecure and eventually weakening the nuclear norms altogether. The American security personnel believed that the Indian nuclear programme “can be managed rather than reversed” (Miller and Scheinman 2003). The 1990s were a time when friendship with India meant a lot for U.S. especially since the communist China was rising. In the past, the U.S. has weighed its options by changing its attitude towards new nuclear weapon states from denouncing

to accepting depending on the prospects of the state attacking U.S in future (Miller and Scheinman 2003). India did not fall in that category. But even then U.S. was caught off guard by the secrecy and the speed of the Indian tests in 1998. Immediately after the Indian tests, the then U.S. President Bill Clinton had requested Nawaz Sharif to refrain from testing on the day of tests itself and had offered military and economic assistance too (Burns 1998).

Pakistan irrespective of the consequences went ahead with the tests. Sharif explicitly stated that the Pakistani tests were a “natural reaction” to the Indian ones (Sharif quoted in Burns 1998). The statement was indicative of the extent to which India had influenced Pakistan. The Pakistani Prime Minister Nawaz Sharif stated on 28 May 1998 that “Today, we have evened the score with India” (Burns 1998). The anxiety that had crept within Pakistan after the Indian tests, was overcome by these tests and the occasion was celebrated.

America can neither stop India nor Pakistan from violating the nuclear norms. Soon the U.S. President Bill Clinton had announced imposition of similar sanctions on India and Pakistan. It is interesting to note that the regime that consists of such powerful states could not prevent two neighbours from nuclear testing within a span of roughly 10 days. India had already experienced the vulnerability of not having nuclear weapons when the Chinese had conducted their tests in 1960s and had learnt that in order to influence a power group it was necessary to be a part of it. Pakistan too followed the same path. Non-possession as well as non-proliferation got compromised in South Asia and consequences were not only accepted but rather welcome.

The Pakistani Prime Minister Nawaz Sharif justified their tests despite the sanctions by calling them a means to overcome “decades of profligacy and corruption” (Sharif quoted in Burns 1998). He went on to say:

By imposing sanctions, the Western powers will have done us a favor. They will have given us a chance to effect a revolution in our way of life, to learn to live within our means and to stop this cynical wastage of our national resources. We must conserve every penny of foreign exchange, and treat it like oxygen, essential to our country's survival. We will have to be disciplined, at all times, in all places. (Sharif quoted in Burns 1998)

The impact of the indirect proliferation was felt not only in Pakistan but all over the world due to the illegal A.Q.Khan network that sprang up later. The then Pakistani Foreign Minister Gohar Ayub Khan had blamed India and the Western countries for forcing Pakistan to test (Burns 1998). According to Khan, India could have been “restrained” by the “Western world and the

entire international community” (Burns 1998). But the seriousness of the matter was not understood hence he justified the Pakistani reaction as necessary for security concerns.

So basically from the beginning itself India was to be blamed for the non proliferation regime failing in South Asia. Pakistan had to acquire its nuclear technology “surreptitiously through nuclear black markets and exploitation of loopholes in the export control system” (Salik 2015: 2). It is well known that Pakistan’s nuclear project “from its inception relied on outside support” (Mian 2009: 37). This was another consequence of the Indian tests. Extra efforts had been put in to strengthening international nuclear norms post the Indian test in 1974 (Salik 2015:2). Hence Pakistan ‘had to’ resort to other means to match up.

When Pakistan framed its nuclear doctrine which was never released or materialised, the idea behind the doctrine was primarily to “deter Indian conventional as well as nuclear aggression” and to “deny India victory in the event of a war” (Tasleem 2016). The primary aim for Pakistan was to keep a dynamic approach too in order to maintain the “deterrence status quo” with respect to India (Tasleem 2016). The feature of flexible response which is one of the components of the Pakistani nuclear policy is an extension of the same belief. The intention is not to let India have an upper hand.

The strategic community in Pakistan believes that the possibility of a nuclear use is highest in South Asia (Tasleem 2016). These might be speculations but there is a definite fear in Pakistan of a potential nuclear use by India. The faith in non-use that India firmly supported and advocated failed to convince Pakistan. The reasons can be several including the vagueness of the Indian nuclear doctrine that is often a subject of criticism, the statements issued by different leadership and mostly the insecurity that crept in because of the US-India proximity. These led Pakistan to compromise the nuclear norms that existed not only by the way in which it attained its programme but even later.

In addition, the A.Q.Khan Network brought Pakistan into focus for the wrong reason. This was discussed in the previous chapters in detail. It projected India in a better light due to its impeccable record of non-proliferation. But it was a source of embarrassment for Pakistan and threw light on the nuclear security capabilities that it possessed. It also intensified the feeling of

insecurity in Pakistan due to sudden projection of its irresponsible image in contrast to India. This was a violation of non-proliferation completely.

The insecurity against India led to the China-Pakistan closeness and the illegal exchange of the nuclear technology. This was again a major blow to the norm of non-proliferation. Even after the international backlash, Pakistan did not take any steps to strengthen the norms ever. It was clear that “far from rollback or freeze, Pakistan would continue to undertake qualitative and, if necessary, quantitative upgrades with the objective of consolidating the national deterrence in line with its minimum deterrence needs” (Durrani 2009: 95).

Over the years, Pakistan has used the “cry of nuclear wolf” for India on several occasions to justify its actions and proceeded with testing new nuclear weapons (Sethi 2016). Its behaviour was described as “nuclear brinkmanship”. Brinkmanship according to Thomas Schelling means “manipulating the shared risk of war. It means exploiting the danger that somebody may inadvertently go over the brink, dragging the other with him” (Schelling 1999 quoted in Sethi 2016). This was not the strategy that India intended to follow but Pakistan justified all its actions by this convenient explanation. India was the one reason given by Pakistan for all its nuclear developments.

India and Pakistan have both shown that faith in the power of nuclear deterrence in South Asia can not be undermined (Tasleem 2016). Apart from deterrence, several Pakistani analysts have had several other things in mind. There are many who argue that in times of a “breakdown of deterrence” between India and Pakistan, nuclear use will be the only resort left for it to prevent an Indian victory (Tasleem 2016). This is one of the factors that have led Pakistan to work towards keeping a dynamic nuclear doctrine to keep pace with the Indian nuclear developments and policy changes. This also explains its development of war fighting tactical nuclear weapons.

The nuclear dynamics between India and Pakistan is often compared to the one that existed between the U.S. and the USSR. As discussed in the first chapter, there is enough work done to insist that India and Pakistan can learn from the nuclear experiences of U.S. and USSR. But as discussed, such suggestions are half baked. Even though there were several efforts in the past to improve the relationship between the two countries post 1998, they all end up in the same way. There was the “hand of friendship” by the then Indian Prime Minister Atal Bihari Vajpaaye in

2003 in Srinagar, the Composite Dialogue, the historic Islamabad Declaration in 2004 and many more such initiatives (Durrani 2009: 93). However these efforts were futile in influencing the nuclear policies of the two countries (Durrani 2009). Both India and Pakistan refuse to lower their guards by any substantial standards inspite of these good will gestures. It was as if the nuclear policies were off the table for any talks. The talks were all repetitive and actually displayed a trend which ended in similar stalemates and led one to question if they are actually “worth a damn” (Tellis 2017).

India’s role in this is deeper than just creating insecurity. In fact much like the Indian justification for nuclear weapons being pointed towards China, Pakistan too often claims to have been “forced” to develop nuclear weapons because India did so by upping the ante in the regional security balance (Durrani 2009: 95) . Both the countries, however, vouch by their national interests. Durrani (2009) quoted Achin Vanaik and Praful Bidwai in summarising the state of affairs between the two countries in the following words:

On future bomb tests, the left hand took what is given with the right – e.g., the moratorium on further nuclear tests in both the countries would continue unless the “national interest” dictated otherwise! (Durrani 2009: 93).

It is clear that once the security community decided otherwise, any policies could be undone to protect the national interest. Hence a fear of vertical proliferation has never been off the table for both.

But even if both the countries behave similarly in stating their policies, and in justifying their reasons of developing nuclear weapons, India by logic can be seen as the one who started it. The “nuclear pride” that India projected was soon sought after by Pakistan and was one of the major sources of contentment and security in the minds of the people of Pakistan. After India entered the club none of the measures taken by the non-proliferation regime were enough to stop Pakistan from doing the same. Discrimination was not acceptable to Pakistan when compared to India. Pakistan wanted to prove that it “cannot be pushed around, called backward, or sent to the bottom of the pecking order of nations” (Durrani 2009: 94). Hence India did eventually create conditions that weakened the non-proliferation control over states even if it did not manage it single handedly. It had supporters who did not see the extent to which India was willing to go to place itself on the global map. As seen, the US too was one of them.

Immediately after its nuclear tests in 1998, India announced its voluntary moratorium. The NFU doctrine became a part of the Indian nuclear policy to promote non-use. But the damage had been done. The Indian nuclear learning over the years had led to conclusions that believed in the power of nuclear weapons possession. Often the developments of its Cruise Missiles, BMDs and MIRVs have hinted the difference that it had kept between its rhetoric and practice.

The general understanding has been that if there was ever a scenario when India crossed its line, the international community will intervene and restrain Indian responses. But Pakistan has refused to give in to this argument (Sethi 2016). This is understandable since India too had refused to believe this connotation vis-à-vis China and developed its own defense mechanism. The cases are not completely comparable but one precedent nullified the impossibility of the other.

Hence, even though India gradually became the 'responsible power', the accusation of indirect proliferation can not be denied. Pakistan's nuclear programme continue to develop in trying to match up with India. Pakistan's Inter Services Public Agency on 9 March 2015 announced about the "successful test launch of Shaheen III surface to surface ballistic missile, capable of carrying nuclear warheads to a range of 2,750 kilometers" (Tasleem 2016). Khalid Kidwai, advisor to Pakistan's National Command Authority said that this development was "meant to reach India's nascent strategic bases on the Andaman and Nicobar Islands" (Tasleem 2016). The intentions of Pakistani arsenal have been stated by the leadership there time and again. The competition does not seem to end.

There were some clashes between what nuclear India claimed to be its intentions when compared to its actual progress. The efforts put in for development of BMDs by India is seen as contradictory to its initial statements about nuclear weapons serving purely political purposes (Rajagopalan 2009:97). Missile defenses are developed when there is some possibility of use (Rajagopalan 2009: 98). In addition to try and develop an indigenous BMD, India tried in the past to attain the "Russian built S-300, the Israeli American Arrow, and the US Built Patriot ballistic missile defense systems" (Rajagopalan 2009: 98). These searches were without doubt a consequence of the insecurity that existed vis-a-vis the China-Pakistan exchange of technology. The Indian announcement of a potential BMD system was a big source of concern for the Pakistani strategic community who had put their faith in deterrence (Jaspal 2014:120).

An Indian BMD has been intended to decrease its vulnerability but that also implies “decreasing the regional strategic stability” (Jaspal 2014:122). The discourse in Pakistan suggests that Indian ambitions of a BMD are responsible for catalysing the arms race and has also facilitated its doctrine of Cold Start (Jaspal 2014: 122). The statement by the U.S. Deputy Defense Secretary Ashton Carter about BMD being a potential area for cooperation with India had led to serious concerns in Pakistan as that meant non-interference from U.S. in any such Indian political space (Jaspal 2014: 125).

India’s nuclear views display a lot of inconsistency (Rajagopalan 2009: 97). It spoke of how nuclear weapons were “essentially political weapons and unusable militarily for India, but other states might not be as restrained” (Rajagopalan 2009: 98). There are efforts that project its immense faith in disarmament initiatives but simultaneously it pursues BMDs (Rajagopalan 2009:99). So, even if the intentions were not so, Indian actions did result in catalysing another state’s weapons programme (Pakistan). India chose the path of emerging as a nuclear power by totally circumventing the existing nuclear norms. It managed to make them cater to its needs to some extent but in that process did weaken them.

Why was India weakening the norms?

This chapter looked at the examples which prove how India has weakened nuclear norms. Whether it was the non-possession, non-proliferation or the non-use all were shaken by India directly or indirectly. Before going ahead with a normative analysis of the Indian nuclear learning it is important to highlight the inferences from the last chapter too.

In the previous chapter, we saw how Indian nuclear learning had aimed to maintain the sanctity of non-use through its NFU and the nuclear doctrine that emphasised the political aspect of the weapons more than the military one. After internalising the lessons of the nuclear revolution that was taking place in the world, India had come out with a nuclear doctrine with extremely specific and limited goals (Tellis 2001:5). The non-proliferation remained one of the fundamental motives of Indian suggestions and policies advocated on international platforms. The non-possession was encouraged by disincentivising of nuclear weapons by means of statements that spoke of the destructive side effects by various Indian representatives. It can not

be denied that India covered a lot of ground in terms of negotiating the norms (Jacob 2014:24). Today India is in a better position to understand the necessity of these norms.

The norms that existed when India entered the market of nuclear weapons were openly biased. But as time passed India learnt to rise with if not against them as was evident in its role in the FMCT. There is a huge contrast between India of today from the one that announced its nuclear status in 1998 with much confidence than that of the 1974 blasts. There is a visible nuclear maturity in terms of how to behave (Jacob 2014). This chapter threw light on how that maturity along with hunger for equality and identity weakened the international nuclear norms. The Indian contribution to them can not be undermined. However equating that contribution to mere negative influence is too simplistic and parsimonious.

As examined in the previous chapters, the relationship between norms and learning is interdependent. Hence as the international nuclear learning was moving away from the correct learning, norms naturally became weak. Correct learning here referred to the learning imposed by the West which made a few powers custodians of the nuclear weapons technology and did not see any point in any other states aspiring for it. There was no faith in late comers in being able to learn properly. The Chinese tests happened in the presence of the nuclear norms. They were a threat to India especially due to its close knit relationship with Pakistan. China suddenly became the “protector” for Pakistan and provided it with nuclear weapons technology, economic aid and conventional arms (Tellis 2017). It stayed away from suggesting or forcing Pakistan to take steps to control its non-state actors or take progressive steps towards improving ties with India. It quoted its policy of “non-interference in the affairs of other sovereign nations” as the reason often (Tellis 2017). But the statements like one from the Chinese Foreign Ministry spokeswoman Hua Chunying praising the Pakistani efforts and sacrifices in fighting terrorism indicated its inclination (Tellis 2017). China has consistently blocked the Indian efforts to declare the Jaish-e-Mohammad chief Masood Azhar as a UN designated terrorist too. In addition to that India faces cross border terrorism, illegal migration, secret nuclear exchange and many more such problems.

How then could India have faith in the nuclear norms when it has such a hostile neighbourhood with no support to help fight Pakistan backed by China? A reason given for the Chinese support

to Pakistan in the Masood Azhar case was its belief in its security if the U.S. and India stay as prime targets for terrorist organisations around the world (Small quoted in Tellis 2017). This explanation seems far-fetched but can not be overlooked seeing the Chinese tendencies to circumvent what seemed obvious to all the other states.

The U.S. which has almost singlehandedly weaved the norms too has its hands tied beyond a certain limit when it came to South Asian dynamics. In spite of having its reservations against the Pakistani assistance to terrorism, it has not been able to take forceful actions. The reasons included dependence on Rawalpindi for wiping out Al-Qaeeda, for communication with its troops in Afghanistan and bureaucratic hinderances in taking coercive measures (Tellis 2017). All these factors stop America from taking any hard core measures against Pakistan. This has been a disappointment for India but it taught an important lesson – in order to protect itself, there was something more needed than just being a non-violence preaching democracy. U.S. being under the pressure from taking any substantial steps was a call for India to develop a self help mechanism. Pakistan has used its “cover of nuclear weaponry” combined with the presence of the “state supported jihadis” to make the most of the situation and even the pro-Indian and sympathetic U.S. failed to make any difference (Tellis 2017).

Hence the message is clear. India has to protect its territories, people and resources on its own. It is rightly observed by Tellis (2017) that “larger international competitions have cemented the extant primordial rivalry within South Asia”. U.S. had stakes in Afghanistan and needed access from South Asia (Pakistan) to fulfil them. These international competitions (namely U.S.-USSR before 1991, and then U.S.-China) did force India to develop its nuclear programme primarily to deter China and Pakistan, prevent any situation of blackmail from any adversary due to the lack of nuclear weapons and were also assuring devices for the political leadership of the stature of the country (Tellis 2001 : 103).

India had two choices – one to adhere to the existent norms and get socialised in what was seen as the ‘correct’ nuclear learning by other states. The other option was to trace its own unique trajectory. India has followed the latter. It went through a process of international socialisation and placed itself within the tenets of normative nuclear learning of the NWS (Jacob 2014:21).

It is extremely extravagant to say that India is solely responsible for weakening of norms. The norms that existed are made malleable depending on who was seen as a responsible state. It was done for the mostly invisible nuclear state Israel. It was done for India. Nina Tannenwald's understanding of the circular relationship between identity, norms and behaviour discussed in earlier sections fits perfectly when the role of Indian nuclear learning and norms is being studied. India was forced to behave differently to fight against the prevalent norms to build a strong image for itself. That change in behaviour has been its nuclear learning. That process of image building has resulted in ending up being one of the causes of weaknesses of the nuclear norms.

Whether it was non-use, non-possession or non-proliferation India is responsible for weakening them at some point. But so are the United States and China. Hence it is safe to say that to make a difference to an organisation it is required to be a part of it. India did the same. A value judgement for India would mean evaluating the international regime as a whole for mending Indian beliefs and teaching it how to emerge as a responsible nuclear power. The Indian nuclear learning is a combination of its experiences with its neighbours as well global powers. It is thus incorrect to categorise it as having only negative impact.

Chapter 6- Conclusion

When nuclear learning appeared in one of the writings by Jeffrey Knopf (2003), it seemed to have much more scope for research on it in the context of South Asia than other parts of the world. This was primarily because of the good willed suggestions to the region from the West and the original NWS regarding the right lessons to be learnt (Knopf 2012: 79). The interesting part was that there was already scholarship emerging in India and Pakistan describing their nuclear learning processes. It not only explained the nuclear behaviour of India and Pakistan but also justified it. The scholars from both the countries saw the other state as being a major contributor in the process. The aspect missing was how that learning can be placed in the midst of the international norms that had been put in place for the two countries primarily (especially NSG). This is why it was exciting to see what role had India played in influencing the nuclear norms and how.

Every state like each individual and organisation goes through a learning process (Jacob 2014:16). There are doubts regarding whose learning actually matters in terms of nuclear weapons. During the course of this study, it was seen that political leadership along with the scientific community influenced it. Along with that, external factors played major roles by creating situations that often resulted in change of decisions and beliefs.

This study was an attempt to understand the role of Indian nuclear learning in the evolution of norms. The topic was chosen in light of the accusations being thrown at India for being majorly responsible for weakening of norms. There was an undercurrent of exceptionalism that was linked with the Indian rise as a 'responsible' nuclear power. In order to understand the relevance of such talks, an extensive study was done to highlight such instances. After looking at the arguments and instances put forward over the years, it has been found that India did not necessarily weaken the nuclear norms. The softness of norms has actually been a result of the complex power politics that existed from the Cold War times. In fact unlike dominant discourse, the Indian nuclear learning has been a combination of its experiences and lessons from the American behaviour as also behaviours of other NWSs. Hence it is not fair to blame India alone for the state of the international norms regime.

This study was done in parts. The chapter that focused on understanding nuclear learning focused on how and why of the process and the challenges faced in it. It also defined the scope by streamlining the understanding of the nuclear learning for the purpose of this study. Role of actors from U.S., USSR to Iran and Israel was studied. During this it became clear that nuclear learning was not a linear uniform process that had a well defined definition. In fact the attempts to reach a well accepted understanding of 'correct' learning (Basrur 2009) had failed. They were the ones that had pushed states to opt for alternative paths. The lessons learnt by India, Pakistan, Israel, Iran were all different from the universally accepted ones. It became clear that the notion of one correct learning is not only a biased approach but is also one of the major reasons for leading states to defy norms later.

The focus of the opening chapter is more on the process than the concept. There were several actors involved and it was beyond the scope of this study to cover all of them in detail. In order to do justice to the work, the highlighting incidents in the history which were the indicators of a drastic change in nuclear policies of a state or regime were taken into account. They later depicted the nuclear learning processes in states. As the study progressed, it became clear that the international nuclear learning was not a monolith to study altogether. Moreover as Stein (1994) says, the idea of an international learning is problematic since every lesson is open to multiple interpretations. Thus an effort was made here to understand what contributed to that process instead of defining it specifically.

Nuclear learning began from the moment the idea of nuclear weapons came. This study deals with the political aspect of it. That was divided into three phases. The first phase was the time of supremacy of U.S. and USSR over the nuclear weapons. They were concerned about their spread and took initiatives to contain any new entry. The problem was that none of them could rise above their national aspirations. U.S. introduced the Baruch Plan that hinted U.S. dominance and USSR rejected it. That itself had displayed a sense of competition and insecurity that existed in the world due to nuclear weapons. The next phase saw more actors joining the nuclear club. There was an inter state rivalry to extend its influence in the form of nuclear knowledge assistance. The Atoms for Peace programme was the highlight of this phase. It intended to ensure that the correct information was passed into right hands however it backfired as was seen later.

The second phase of nuclear learning saw the rising of South Asia as a nuclear threat. India and Pakistan tested their weapons and were unwilling to give up that option due to each other. This led to a fear of accidental use since the animosity between the two states was obvious. India had a major role in this phase. On the one hand, there were nuclear norms being put in place like the NPT, on the other, India was upholding any signatures on such treaties that took away a state's right to develop its programme based on any discrimination. This was the phase when a different learning was taking place. India was accused of defying the norms. Sanctions were imposed against India and Pakistan because of their nuclear tests. But neither of the states took any steps back.

The third phase of nuclear learning saw the emergence of various instances of 'different' nuclear learning. The chapter threw light on the SEANWFZ treaty, North Korean tests and Iranian decisions. None of them followed the mainstream beliefs. The point to be noted however was that in the case of SEANWFZ treaty, it was the western countries that refrained from giving into an option of nuclear disarmament and cooperation. The importance of strategic and economic factors prevailed in all these examples. North Korea had realised the power of possession of nuclear weapons and thought of them as the only way to protest itself against any big power's intervention. This was done at the cost of its deteriorating economic condition. Iran also stood its ground inspite of the international pressure. The engagement process often met with stumbling blocks on its way. Another interesting observation was that all of them had some original NWS playing an important part whether it was the U.S., China and so on. This was covered in the chapter to understand that the accusations against India alone were unfair.

Nuclear learning was a process that combined cognitive capacities with strategic calculations. Hence it was difficult to define its scope at all times. However in this study, certain indicators were identified using definitions given by people who worked on it before. Nye, Levy and Knopf's understandings were taken as basis to explore the incidents and come up with conclusions. It was found that deterrence, discrimination, disarmament and disincentivisation played important roles in giving nuclear learning a different meaning from time to time.

The next chapter looked at the evolution of nuclear norms. The historical approach was followed and different initiatives were studied to throw light on how and why of different norms. The nuclear norms were seen as an extension of the concept nuclear taboo. That in itself was open for

debates. It was believed that nuclear taboo which was initially understood as being confined to non-use was more of a tradition than a taboo (Paul 2010:854). The reason given was simple. Taboo was something absolutely unthinkable and untouchable. Nuclear norms however were considered as malleable (Paul 2010:857). Over the years they had been moulded into a more desirable version of the original ones.

Nuclear norms were established by states as a result of fear of the spread as well as unwanted sharing of information about the weapons. Nuclear learning evolved in states from the fear of being strangled by those norms. Hence both were inter-related. In the third chapter, it was found that much like nuclear learning, the norms too changed in phases.

The chapter first studied how the meaning of nuclear taboo had extended to covering more than just non-use. It also included non-possession and non-proliferation. These two elements were supplementary but more important to protect the norm of non-use. It was found that in trying to make the norms stronger, there had been some lapses on the part of several states including U.S., China and India that eventually did the opposite. The biggest irony was that though these weapons were not for use but they gave rise to fear of use. The trust deficit got intensified as soon as any state proliferated – vertically or horizontally. There were several reasons highlighted that were responsible for making the international nuclear norms seem weak. They included rise of non-state actors, emergence of Indian exceptionalism, complex relationship between India-China-Pakistan making South Asia volatile and back hand support to various states by the original ‘guardians’. All these reasons had two kinds of actors at play. One was the actor that defied the norms and one was the supporter. Both combined resulted in the feeble power of the regime.

In the absence of a strong international overarching authority to keep a check on the violation of norms or to impose complete abidance, nuclear learning often happened as a result of socialisation (Jacob 2014:23). That socialisation included learning from inter state relationships and experiences as well as the international environment. Unlike the opinion that socialisation and learning were different from each other, it was found that one often led to another (Jacob 2014:23). Epistemologically there were claims that they were absolutely divergent approaches but that study was beyond the scope.

The three norms – non-possession, non-use and non-proliferation when studied separately revealed how each of them had been moulded into different meanings by outliers as well as the NWS. The non-possession was the first step. The Acheson Lilienthal report that attempted to make an “international control” possible over the nuclear weapons (Barnard, et al. 1946: 8-9) failed. The reason was that this attempt too resulted in hinting U.S. supremacy over the others. All the efforts made to strengthen the norms usually ended up patronising one actor. This was problematic. Even later much of the problem that India had was the distinction that was assumed between states on the basis of their nuclear status. That defined their privileges with respect to norms. That also defined how easily the rules could be skipped.

The non-use was the most feared norm. The consequences had been seen. However in an experimental survey done by Daryl Press, Scott Sagan and Benjamin Valentino they found that the non-use prevailed because of the logic of consequences (Press et al. 2013:2). They had done a survey based on the public opinion in America. When asked, people responded saying that nuclear weapons are not used because of no utilitarian benefits and not because it is a taboo (Press et al. 2013:2). This meant that whenever there was a time which gave prospective benefits, use could be considered. This was a sign that even the non-use was not absolutely sacrosanct. This was an indicator of the possible malleability of non-use too if the powerful states aligned or decided that a common enemy deserved it.

It was problematic that the logic of appropriateness did not get enough votes in terms of non-use prevailing even amongst common public. Not only the public opinion, there were instances when the states considered nuclear use too. The Cuban missile crisis is one example when the U.S. had considered use of nuclear weapons. Even India was under a lot of pressure to use them against Pakistan. In fact even the Korean peninsula has avoided it on three occasions when the situation was extremely heated up (Lewis 2017). The question then was can we actually call it a taboo? After reading the mixed opinions, it was concluded that taboo was perhaps too strong a word for non-use. In fact non-use was the most sensitive norm. Whenever the other two norms are violated, the impact is uneasiness and expectation of violation of non-use.

The norm of non-use has another special characteristic. It was never advocated openly nor nullified by states. Either of the options can result into problems of different kinds. Over advocacy would endanger the nuclear umbrellas and nullification would risk international

bashing or reactions. This is why violation of non-use has often led to crisis situations among states.

The non-proliferation is the third norm. It has two facets- direct and indirect. Both, as discussed, were compromised in South Asia. In fact it was these violations that made states realise the need for immediate steps to be taken to strengthen the norms in general. Yet as seen, the failure of cooperation between the states and fear of international criticism resulted in weakening of this norm too due to absence of proper system of checks and balances. The chapter on nuclear norms discussed instances of failures of states to punish individual proliferators. The consequences of accepting to have proliferated were huge. As a result, states protected their identities but made the nuclear norms seem powerless.

India maintained its clean record of direct proliferation. But the indirect proliferation has been open for debates. There is no denying the fact that Pakistan had used the Indian tests as excuse for its own and for seeking help from China. This fell under the category of indirect proliferation by India. This phenomenon played a major role in weakening the norm of non proliferation. It had two effects – one was the illegal transfer of nuclear know how or materials and the other was the failure of the international community to act upon such instances.

In addition to the weakening of norms that had been initiated by the West itself, there was a simultaneous process happening. It was the rise of exceptionalism (Kassenova 2016). This emerged slowly but soon became the reason of concern. India has often been described as an exception in terms of its nuclear behaviour, drastic change in its beliefs and even in the way it was treated after its nuclear tests. But India is not the only one. Israel falls into the same category too. Its opacity and deliberate ambiguity in terms of the nuclear weapons programme and the consequent silence about it was an example of the different treatment that Israel enjoyed from the international community (Joshi 2008). As seen in the chapters, it is interesting to note that the U.S. played a prominent role in both the cases. Then it is unjustified to blame India alone for softening the norms when all it did was cater to its strategic needs with support of the West on most occasions. The exceptional treatment was given to India after economic and strategic costs and is not a hasty decision. This depicts the reality of international relations where behaviour and norms both change depending on the identity of the state. The Indian nuclear learning emerged as an amalgamation of its internal processes and already existing norms. It fought against the in-

group/ out-group distinctions (Kowert and Legro 1996:476) to make its place on the global map. In the process it did emerge as a powerful dependent variable for the study of international nuclear norms. This journey was studied in the last two chapters of the thesis.

The Indian nuclear learning was a classic example of an actor that developed the capability of “learning to learn” (Visser 2003: 269). Its ability gradually got approved by the international community. The most intriguing aspect was the huge difference that was visible in India’s nuclear learning in a short span. Its perception in the minds of other states changed a lot due to its decisions to not give in to any discriminatory treaties or norms. It defined the fate of many initiatives like NPT. The Indian tests had surprised the world because of its speed as well as secrecy (Burns 1998). But along with that it is the nuclear diplomacy and maturity that evolved gradually and helped India attain the responsible power status of today (Jacob 2014:26). India was learning to learn the right things and slowly fighting the neo-liberal expectation of hegemonic interests prevailing, realist expectations of conformity to similar behaviour, constructivist understanding of shared learning. **But it did fit Kai Alderson’s definition of learning leading to some form of progress (Jacob 2014: 19).** India developed its programme, announced its voluntary moratorium on testing, adopted the NFU, was a part of various disarmament initiatives and proved its responsible stature through its clean proliferation record. Learning happens when actors are able to achieve their purposes better (Nye 1987: 380). Indian nuclear learning thus has been a successful one. This study focused on how that happened, attempted to understand why India had to change its policy and the reasons that impacted the Indian nuclear learning.

India was not pro-nuclear weapons from the start. The leadership had faith in the Gandhian belief of non-violence but they were also unsure of how relevant that was in the changing times. Nehru for that matter had started developing an inclination towards them for the simple reason that they represented modernity. Soon he had stopped differentiating between the peaceful and military uses of nuclear power (Weiss 2010:256). The transition was accompanied by a similar thought process in the scientific community too in the form of Homi Bhabha. Those were the times when there was openness and collaboration between U.S. and UK in helping India attain scientific modernity (Das 2015). There were exchange programmes organised and Indian scientists were trained. There was just one hitch. There was no equality. The Indian scientists were expected to

learn as much as the U.S. and UK wanted and not beyond that. The questioning of the Indian scientist Meghnad Saha for being over inquisitive was just one of the many incidents that irked Indian prestige (Das 2015). The undertone of inequality had sowed the seeds of dissent.

Along with the consistent feeling of discrimination, India feared the speed with which China was moving ahead in terms of geographical reach as well as economic growth. After several unpleasant exchanges across the border and a war in 1962 there was not much faith in the Chinese intentions. China had played various roles – aggressor, proliferator, economic dominator and so on. So when China conducted its tests in 1964, Homi Bhaba realised the necessity and the urgency of developing the weapons in India too (Perkovich 1999). The chapter discussing Indian nuclear learning dealt in detail about the steps in which India took the decision but the crux was after realising the feeble power of the norms in containing China the path seemed clear. India faced criticism and the help promised earlier to develop nuclear power reactors was taken back. The Indian intentions were not considered as clean any more. They got questioned further when it refused to sign the NPT.

Although India had actively participated in the negotiations process suggesting ways to strengthen the NPT, the final product left India with a feeling of having been cheated. The Indian representatives felt a sense of inequality being evident in different kinds of rules operating for states. That was unacceptable. Thus inspite of believing in a mechanism to make non-proliferation powerful, India stayed out of the treaty. India's refusal resulted in the treaty being stuck indefinitely. That was a major blow to the perception of power of nuclear norms.

Indian stand was clear. While there was no intention to use or proliferate, it was not willing to accept double standards in terms of treatment of sovereign states. Infact the Indian nuclear doctrine of 1999 itself projected Indian belief in nuclear norms. But that too evolved with time. In light of the pressures, the doctrine was tweaked in 2003 to show that India would not shy away from a resort to nuclear weapons in adverse scenarios. The details were not explicitly mentioned. The talks in India about giving up the NFU have been looked at with suspicion. But one thing that Indian diplomats and leadership have mastered is the maturity in nuclear rhetorics. They have learnt that it is not always necessary to boast about the capability (Jacob 2014:26).

The Indian nuclear diplomacy was learnt with time. It is the product of multiple interpretations of experiences over time, that were the result of continuous evaluation of choices between the in-group and out group identities. The evidences of its success were seen in the negotiations of FMCT, in crisis situations like the 2001 attack on the Indian parliament, the 2009 Bombay terrorist attacks and so on. The way to operate was participating in all positive negotiations, keeping a low profile about the weapons and trying to encourage measures to strengthen the international regime of norms control. While this has helped India in the long run it has also impacted the norms. The FMCT has been blocked by Pakistan because of its insecurity about Indian nuclear programme. The CTBT and NPT met similar fates. The Indian request for exception to be made in its case for the NSG membership due to its promising record (Bull 1975) was not acceptable to other states. But it was a sign of the confidence that India has developed over the years.

The Indian exceptionalism has been existent whether it was the aggressive scientific exchanges in 1960s between India and the U.S. and UK or the 2010 U.S. nuclear agreement with India or the ongoing consideration for India's membership in the NSG. Like any exception, this too has come to be an excuse for other states to complain regarding the effectiveness of the norms. This has been one of the main accusations against Indian image of a responsible power.

The facts when looked at simply proved that Indian unwillingness to sign and be a part of several initiatives had been responsible for weakening of nuclear norms. But during the research it was found that the crack in the regime was always there. The unwillingness to accept supremacy of one over another has been present from the time of Baruch Plan itself. The strategic and economic considerations were prioritised by all states as was seen in the case of SEANWFZ treaty. There is no reason to single out India for doing the same.

When this topic was selected the existent literature comprised of state specific learning processes. The Naval Postgraduate School had specially done a series that covered the process in India and Pakistan and the impact on South Asia. This study aimed at looking beyond the region to understand how the aspirations for a different nuclear learning were not South Asia specific. This was analysed in different chapters by addressing certain research questions. The first one was to trace the evidence of Nuclear Learning in India. This was done by using the work done on the topic before to identify indicators and historically study them.

The next question was to understand if there was a difference between the nuclear learning of India from that of the West. This question had mixed responses initially but as the chapters progressed it was realised that India did not have a different learning. It was following the same path as had been set by the superpowers earlier. The difference was that a latecomer had started speaking the same language and hence the inertia.

As seen in the preceding chapters, U.S. had shown extreme dedication in training Indian scientists and encouraging them but within boundaries. Indians had learnt to make the most of the opportunities but did not wish to limit their reach. In fact U.S. had been really supportive of India in various ways and is as much responsible for the weakening of norms. The biggest example of that is the agreement between India and the U.S. that set the ball rolling for calls of exceptionalism. It also proved that there is not much scope for classification of correct and incorrect nuclear learning. Even if there was a notion of incorrect learning it was probably outweighed depending on strategic importance of the state. India proved this. But the puzzle is if there is no incorrect learning where can one place the North Korean case.

According to experts, the North Korean leader Kim Jong Un believes (family wisdom coming from his grandfather) that if they did not possess a strong nuclear weapons programme that can scare the Americans, he too would end up being killed after a ruthless American intervention like Iraq and Libya (Lewis 2017). This was the result of experiential learning due to external factors. As a result Kim Jong Un has continued rehearsing a scenario in which the U.S. territory is attacked using scud missiles (Lewis 2017). This too was a fight for survival. A far fetched yet interesting opinion was that the North Korean leader is absolutely rational and is actually behaving in a way that American President Richard Nixon had started (Boyd 2017). The “madness” that Kim John Un is seen as displaying was once used by the former U.S. President Richard Nixon to scare the North Vietnamese of being capable of ‘anything’ (Boyd 2017). Hence the mad attitude was the only way to avoid intervention. How is protection of geographical territories incorrect learning? But if one looked at the same issue from the other perspective, an economically suffering state that was barely self sufficient is spending so much money on the nuclear weapons. What kind of learning is this? It brings us back to the question if there is anything as incorrect and how can one define it. India on the other hand has neither intervened in another state or compromised its basic necessities to such an extent. It has used

nuclear weapons for deterrence but has never projected the mad man image. In fact the rational behaviour and expectation has often been criticised by the Right wing of India.

The Indian case study has been used to understand the relationship between nuclear learning and norms as well as see if there is a notion of incorrect learning. The Indian case is different due to the positive change in the way India has been perceived by the international community with time. Though it has never been considered a rogue state, its objectives were scrutinised initially (Tellis 2001:2). It was a slow process that led to the image that India has today.

The nuclear agreement with the United States proved that India has come a long way from the 1990s when the dialogue between the two countries led to suggestion to India for stopping production of fissile weapons grade material, curtailing the missile programme and signing the CTBT (Lak 1999). The relations between the two countries became better gradually and one of the reasons was the political instability in Pakistan from 1990s itself (Lak 1999). That and the A Q Khan network have been responsible for highlighting India's clean image. They signaled that India is the obvious choice for collaboration to ensure nuclear peace in South Asia and consequently in the world.

The way in which Indians continued to engage in different initiatives to encourage nuclear disarmament and non-proliferation measures has added to its image and stature. So much so that India has already become a full member of the Missile Technology Control Regime (MTCR) and the Australia Group (AG) and is being seriously considered to join the NSG. It must be kept in mind that NSG was the consequence partially of the Indian nuclear test of 1974 in the first place. States are today considering India's membership though it is not a signatory to the NPT. All but China are in favour. The Chinese head of Arms Control Department Wang Qun spoke about the NPT clause being mandatory and said "This is a pillar, not something China set. It is universally recognised by the international community" (Wang quoted in Pearson 2016). But China is being pressurised to allow India to get into it and even in other export control regimes like the Wassenaar Agreement (Haidar 2017). The U.S. believes India to be a state that "plays by the rules and is not a proliferator" (Pearson 2016). There was a draft document prepared setting down rules for allowing non-NPT members into the group by Argentinian diplomat Rafael Mariano Grossi (Iqbal 2016). The requirements mentioned in that draft were extremely vaguely worded and are open to multiple interpretations (Kimball 2016).

If that happens, it would become another instance of exceptionalism. In fact Pakistani Foreign Affairs Advisor Sartaj Aziz has openly stated that “If the group forms such a uniform criteria, then Pakistan has stronger credentials for NSG membership than India” (Aziz quoted in IANS 2016). If India is allowed into the group, it can result in Pakistan feeling cheated and might result into further nuclear build up to match up with India (Kimball 2016). This would again compromise the non-proliferation norm.

U.S. President Barack Obama had stated that he wanted to see progress in India and Pakistan to ensure that they were not moving towards the “wrong direction” in terms of their nuclear technology (Obama quoted in Kimball 2016). It is the Indian exceptionalism that is doing the completely opposite with support from the U.S. In addition to that, China somehow comes across as a protector of the norms even though in the past it has not adhered to them technically.

The intervening variables thus in the complex relationship between nuclear norms and nuclear learning included several factors. They range from economic factors, to geographical location, political system to the relationship of states with the U.S. They included majorly the factors that play a role in the general power dynamics in international relations. All of them are responsible for India emerging as a responsible power with advances nuclear technologies.

This has lead to a new nuclear learning. There are risks of giving rise to outliers and promoting defiance but any two states are incomparable in international relations. My hypotheses were:

- Nuclear learning and nuclear norm building share a dynamic and mutually dependent relationship.
- India’s nuclear journey shows that its ‘nuclear learning’ has contributed to change in the international nuclear norms.

Both these stand validated by this study that shows how right from beginning the norms were vulnerable to softness and changed its shape with the evolution of nuclear learning. The second hypothesis though is true in parts. While the Indian nuclear learning had impacted the norms, it has taken much from the American nuclear behaviour and was also backed by it over the years.

It is thus not simplistic to say that India has weakened the norms. Non-proliferation and non-use are especially given a lot of importance by Indian decision makers in all these years. Non-

possession was weakened directly as well as indirectly. But a judgement given on mere one aspect is never sufficient for evaluating any international decision.

Despite stating the above, it was found that the Indian nuclear learning has been different from that followed in the West in terms of its evolutionary process. The West had developed its own depending more on internal factors as there was less competition. The aim then was to emerge as superior by possessing some thing that was new and unique. India however is fighting to possess something that was being denied to most states. That is the difference. The Indian nuclear learning is unlike any other and yet a combination of several precedents. It shows progress, change of beliefs, dynamic policies with new knowledge and is a result of socialisation too. This made it distinct.

The nuclear learning of India is still work in progress. There are discussions happening about its membership to NSG and the fate of the nuclear ban treaty. In context of an aggressively nuclear North Korea, the Indian role has to be planned with caution. A strong nuclear power like India can help the non proliferation regime gain some strength but its inclusion can also be used as precedent for other states to justify outlier behaviour. It is also difficult for states to see if there was much substance in the Indian promise to convince Pakistan and China too of its benign objectives.

To conclude, nuclear learning is a dynamic process. Hence it is impossible to completely define it belonging to a state or to study it in isolations. This study is an attempt to understand the factors that impacted India's nuclear learning. The research proved that there is more to it than just exceptionalism. Fighting the international pressure and the discriminatory norms, overcoming geographical insecurities, keeping restraint in crisis, developing nuclear maturity were all parts of the Indian nuclear learning. They all made India achieve the image it has. All these on different occasions have had roles to play in the current state of international norms. Thus it is safe to say, India has contributed to international nuclear learning as well as nuclear norms. The positive and negative both have co-existed. What counts is its journey from a blot as a former colony to a responsible nuclear power on the global map.

Thus it might be open for debate whether Indian nuclear learning helped the international norms but it is clear that it did not adopt an entirely new path. The accusations against India for

weakening them are half baked. This study was an attempt to analyse is Indian nuclear learning had played a role in impacting the process of evolution of norms. It is evident that the two share a mutually dependent but dynamic relationship sans any moral classification possible.

And so like any fairy tale, the international nuclear norms and the Indian nuclear learning live together ever after. The happily is debatable.

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