CHAPTER 2: THE STRATEGIC IMPLICATIONS OF NUCLEAR WEAPONS: THE EFFECTS ON INTERNATIONAL RELATIONS

2.1 Introduction

The world is in the midst of an extended post-Cold War transition, which will probably still last a decade or more. On the one hand these changes have ushered in a new global political/security situation in which certain security dilemmas were minimised and on the other, this has created new international as well as domestic risks and threat perceptions. While some scholars regard these changes as a fundamental paradigm shift of global proportions, these changes viewed in historical context might prove to have elements not that fundamentally different from similar situations in the world’s history. It could be postulated that the main international traditions identified after the Second World War and even earlier, remain relevant in explaining on a macro level perceptions regarding international relations, especially regarding security related issues. Each of these traditions embodies a great variety of doctrines about international relations, among which there sometimes exists only a loose connection. These traditions, however, incorporate a set of distinctive questions and assumptions about the basic units and forces in international relations. Such paradigms or world views represent through the main traditions of political thought, a description of the nature of international relations and a set of prescriptions about international conduct.

Martin Wight identified these main traditions as the realist, rationalist and revolutionist traditions. He described these traditions as related to three interrelated political conditions which comprise the main subject matter of international relations. The first condition is that no political superior is acknowledged and a multiplicity of independent sovereign states accepts the use of military force and warfare ultimately as a method to regulate relationships. This is the basis of the realist worldview regarding international relations. Realists stress power and interest, rather than ideals in international relations. Realism is basically conservative, empirical, prudent, suspicious of idealistic principles, and respectful of the lessons of history. It is also more likely to produce a pessimistic rather than an optimistic view of international relations. Realists regard power as the fundamental concept in the social sciences (such as energy in physics), although they admit that power relationships are often cloaked in moral and legal
terms. Realists view theories as rationalising, rather than shaping, events. They criticise the utopian approaches to international relations for preferring visionary goals to scientific analysis. According to the realists a state’s ideological or ethical preferences are neither good nor bad but what matters is whether its self-interest is served.

The second condition identified is that diplomacy and commerce form the basis of international and institutionalised interaction between sovereign states. Rationalists tend to emphasise and concentrate on this element of international intercourse. The role of measures to create and enhance order in the anarchic world is focussed on. Emphasising how people ought to behave in their international relationships rather than how they actually behave, rationalists usually spurn balance of power politics, national armaments and the use of force in international affairs. Instead they stress international legal rights and obligations, the natural harmony of national interests as a regulator for the preservation of international peace, a significant reliance upon reason in human affairs, and confidence in the peace-building function of the “world court of public opinion.”

Thirdly the concept of a society of states, or family of nations, brings with it certain moral and psychological as well as possibly even legal obligations. Revolutionists tend to concentrate on the concept of society of states or international society but can be defined more precisely as those who believe passionately in the moral unity of a society of states. This view is strongly influenced by an ideological world-view. They postulate a transcendental source of authority behind political structures, social interaction and government. At first revolutionists endeavour to explain the overall structure of the global system, within which behaviour takes place. In this regard the tracing of the historical evolution of systems is especially of value. In general the revolutionists assume particularly that mechanisms of domination exist that keep disadvantaged people as well as nations from development, and that there contribute to world-wide inequalities. The revolutionists provide a framework for opposing this situation and foresee a deterministic solution to these problems.

The three competing world views offer different theoretical starting points, explanations and predictions. This leads to differences in the issues on which proponents of the different world-views would focus. It is, however, possible to contrast explanations and predictions with the aim of testing them against the
empirical situation. These traditions have a fundamental role in evaluating the impact of nuclear weapons and the means to deliver them, in international relations, especially regarding international security, as well as in global efforts to stop the further spread of these weapons through international non-proliferation measures and activities. In this Chapter these traditions are explained with the view to understand the global security dilemmas and pressures in general and then also relating these to the significance of the nuclear weapon. Thus before the problem of non-proliferation (which is closely identified with the rationalist viewpoints) can be properly understood, the strategic value of these weapons as well as the security context within which they are relevant (which are related to realists’ viewpoints), should be put into perspective.

The first nuclear weapon test in the USA had profound political and strategic implications for global security. The sheer destructive power of these weapons ensured they were destined to fulfil a political/strategic role based on their military capability. Either the state that used them would be totally destroyed by a retaliatory attack, or the devastation would be so great that no territory, wealth, or population would be gained after their use. The cost of a war would be unprecedented, bringing about total societal disruption in a few hours. While distance and time once protected states, the advent of sophisticated delivery systems such as ballistic, cruise missiles and unmanned air vehicles (UAV) made few targets unreachable. It became unnecessary to defeat an opponent’s armed forces before being able to destroy its people and wealth, as has been historically the case in conflicts.

The international security situation changed after the end of the Cold War. The nature and consequences of the proliferation of nuclear weapons changed inter alia, with greater emphasis on nuclear proliferation in the developing world. These differences, however, seem to be overemphasised because of the growing scholarly and political interest in the proliferation of nuclear weapons since the end of the Cold War. The attention devoted to the issue of horizontal proliferation (the spread of nuclear weapons capability to additional states) is especially a case in point, while issues regarding the continuing vertical proliferation (the enhancing of capabilities and the accumulation of more weapons by the existing nuclear weapon states) seem to be largely ignored.

South Africa presents a unique case, as a nuclear proliferator during the latter part of the Cold War
who decided to terminate the programme and commit to non-proliferation. In this Chapter the broad
global framework in which nuclear proliferation and non-proliferation occurred is explained. This is
done with the aim to provide some insight into these phenomena and the influences of these broader
paradigms on the South African nuclear proliferation and non-proliferation case.

2.2 Definition of Concepts Relevant to Proliferation and Non-proliferation Theory

Before focussing on the broad paradigms within which decisions related to nuclear weapons are made,
it is necessary to define concepts relevant to proliferation and non-proliferation. In Chapter 3 the focus
will shift to specific incentives and disincentives for governments to acquire these weapons. Important
related concepts such as arms control and disarmament will also be defined in this part of the study.

Proliferation refers specifically to the spread of weapons of mass destruction as well as the means to
deliver these weapons. The difference between “horizontal proliferation”, and “vertical proliferation”
(as explained above), remains vital in discussions related to efforts to eliminate these weapons from
the globe.\textsuperscript{10} Issues relating to horizontal proliferation generally relate to non-proliferation matters, while
vertical proliferation is more related to disarmament issues. Weapons of mass destruction are generally
regarded as nuclear, biological or chemical weapons while the means to deliver them, are regarded as
an integral part of these weapons.\textsuperscript{11} Some suggestions have been made in the past to include other
advanced conventional weapons such as precision guided weapons and fuel-air explosives or even
more experimental/theoretical weapons such as radiological weapons, but these have not been widely
accepted in most contemporary use of the term weapon of mass destruction.\textsuperscript{12}

In this study the scope of proliferation is limited to the spread of nuclear weapons with some references
to the means of delivering them. The spread of nuclear weapons is not limited to detonation or official
declaration of the possession of nuclear weapons, but is related to activities aimed at developing
nuclear weapons. Nuclear proliferation should be considered to be a process continuously taking place
in a state, which has taken a decision to develop the weapons.\textsuperscript{13} Non-proliferation is regarded as the
use of the full range of political, legal, economic, and military tools to prevent proliferation, reverse it
diplomatically, to recognise the non-proliferation norm, or protect national and international interests.
against an opponent armed with weapons of mass destruction or missiles, should that prove necessary. Non-proliferation thus includes not only international or multi-lateral political activities, but also a whole range of technical and legal measures, political security initiatives, and institution building. In terms of the Nuclear Non-Proliferation Treaty (NPT) five states, namely the United States, United Kingdom, Russia (as successor of the USSR), France and China (PRC) are the only acknowledged Nuclear Weapon States (NWS) and any other country would be the focus of non-proliferation efforts to prevent the further spread of these weapons. The development of the non-proliferation norm, as represented by measures, conventions and treaties which make up the non-proliferation regime will be discussed in more detail in Chapter 4. The concepts of arms control and disarmament, although distinct from non-proliferation, also need to be defined seeing that these concepts impact significantly on non-proliferation.

Regarding scope, non-proliferation remains focussed on preventing the further spread of weapons of mass destruction, while “arms control” refers to a broader concept which could also include conventional weapons. According to James Dougherty and Robert Pfaltzgraff, “...arms control policies usually aim at some kind of restraint or regulation in the design, qualitative production, method of deployment, protection, control, transfer, and planned, threatened, or actual use of military forces and weapons.” In general such policies may imply a wide array of collaboration between adversary states including formal agreements, tacit understandings, informal cooperation, or even unilateral decisions taken with the expectation of reciprocal action. They may also embrace unilateral decisions deemed worth taking, even if the adversary does not respond, simply because they enhance the stability of the deterrent, controllability, and security against unintended war. The reduction of risks and dangers associated with military capability remains central to the thinking of most arms control proponents, but specific arms control proposals may have other aims including: the promotion of detente, effecting of budget cuts, permitting a shift in resources to non-defence programmes, and preserving “arms control momentum”.

“Disarmament” is also a distinct and often value laden term. It is regarded as “arms reduction of weapon systems and associated force structure”. The term disarmament is used to include arms reductions and/or controls, and simplifies an explanation that may encompass limitations (as in SALT I and II),
reductions (as in CFE and START), and disengagements (as in armistice or war termination). In its broadest sense disarmament also may include transparency and confidence building measures. Disarmament is the most stringent and utopian term, which carries a common assumption that it means a “zero” outcome.

While disarmament also has global peace and security as an aim, identical to that of arms control, the differences between these two concepts are seen in their different approaches to problems associated with the levels of conventional and unconventional armaments in the world. Krell suggested that these are differences between the views (a) that mankind can learn to live in a world of weapons and not use them, according to the supporters of arms control, or (b) is capable of organising collectively and on a global scale in such a way that no group needs, wants, or could have weapons, as stated by the supporters of disarmament.

Despite its obvious interfaces particularly with arms control, non-proliferation is a discrete activity directed to a very distinct problem, namely the prevention of the spread of weapons of mass destruction outside the current international agreements on acquisition and control. Although the concept of non-proliferation and the activities associated with it have been accepted globally and have been legitimised by the development of non-proliferation norms in the last part of the previous century, they have also been criticised as being a great power problem. Western strategic literature especially has been criticised as emphasising only the dangers of horizontal proliferation. The non-proliferation norms are regarded as discriminatory by some scholars, since only five NWS have a “legitimate” nuclear weapon capability while any others endeavouring to obtain such a capability are regarded as proliferators. For supporters of this view the issue is not the further spread of these weapons but the total disarmament of nuclear weapons by the NWS, within a specific time framework.

Non-proliferation principles and norms did develop substantially, partly because of the success in the arms control and disarmament fields, in the post-Cold War era especially. New theorising referring to more active measures against proliferation also took place in the United States after the end of the Cold War. The United States Department of Defence coined the concept of “counter-proliferation” in the early 1990s. It refers to the activities of a defence or security force across the full range of national
efforts to combat proliferation, including diplomacy, arms control, export controls, and intelligence collection and analysis, with a responsibility also for assuring that military forces and interest can be protected should they confront an adversary armed with weapons of mass destruction and their delivery systems.\textsuperscript{24} The main difference between non-proliferation and counter-proliferation is that while policies of non-proliferation attempt to preclude proliferation in the first place, counter-proliferation is designed to deal with proliferation once it has occurred.\textsuperscript{25} According to another view counter-proliferation is not regarded as superseding non-proliferation but as a set of pro-active preventative and protective measures to avert the proliferation of weapons of mass destruction.\textsuperscript{26} This remains a term used nearly exclusively in Western orientated military and intelligence structures and studies. In this study the term non-proliferation will be used.

Although it is not widely used in proliferation related theory at this stage, Kerry Herron coined the concept “anti-proliferation” in 1996. According to him this includes a full-range of non-proliferation, counter-proliferation and systemic deterrence concepts. According to Herron anti-proliferation calls “... for a policy framework that integrates: 1) preventive policies designed to slow and limit the number of nuclear states; 2) proactive policies intended to reduce nuclear dangers among proliferators by promoting nuclear deterrence, nuclear surety (safety, security, and use control), and responsible management of nuclear materials while reducing the risks of nuclear terrorism; and 3) reactive capabilities and policies for reducing risks associated with nuclear crises that are not deterred or otherwise prevented.”\textsuperscript{27} This conceptualisation might be applicable to US military views regarding the risks posed by nuclear weapons but has limited relevance as a concept for more general application.

In this study the focus will be limited to the concepts proliferation and non-proliferation as the more generally accepted and used concepts in scholarly study. When proliferation and non-proliferation theories are analysed it is possible to categorise these theories broadly according to realist and rationalist paradigms especially. Revolutionary based views regarding proliferation and non-proliferation are generally scant.

\textbf{2.3 Realist Tradition}
2.3.1 Defining the Realist Tradition

In the mind of the realist, power plays a central role in this world view. Realists postulate that any political unit (such as a state) will act in such a way as to maximise its power, which is defined mainly in terms of the security of its territory.\(^{28}\) Political power can be seen as a psychological relation between those who exercise it and those over whom it is exercised. Those who exercise power gain control by actions which have an impact on the minds of those over whom it is exercised. This impact derives from three sources, according to Hans Morgenthau, namely “the expectation of benefits, the fear of disadvantages, and the respect or love for men and institutions.” Power may be exerted through orders, threats, the authority or charisma of a person or of an office, or a combination of any of these.\(^{29}\)

The power being exercised by states within the international system is the aggregate of many attributes, including economic, technological, cultural, diplomatic, ideological and military factors. Two groups of factors that form the basis of power are identified by Hans Morgenthau: those that are relatively stable, and those that are subject to constant change. Some of the more stable factors underlying a state’s power include geography and natural resources. Less stable factors include industrial capacity, military preparedness, national morale, the quality of foreign policy management, as well as the quality of government.\(^{30}\) Military power, however, especially the capacity to use violence for the protection, enforcement or extension of authority, is an instrument which the vast majority of states still found impossible to totally dispose of.\(^{31}\)

In the view of many realist thinkers power has come to symbolise the capacity of a state to coerce others or to avoid coercion by them.\(^{32}\) This is especially relevant in the light of the lack of any central global authoritative power institution, and the consequent power vacuum that is regarded as the most prominent structural principle of world politics by realist thinkers.\(^{33}\) States can therefore ultimately rely only upon themselves for security and other purposes. This power vacuum or environment of “anarchy” in which states exist, is not to be confused with chaos. Anarchy may still, according to Holsti, be consistent “...with order, stability, and regulated forms of interaction between independent units.”\(^{34}\)

There remains much predictability in the relations between states. International rules and law are obeyed, not because they could be regarded as just, but because it is in the interest of a state to be law-abiding and to encourage other states to obey the law.\(^{35}\)
In the realist perception, regardless of the goals and objectives of government, the immediate aims of all state action are to obtain and increase power. Seeing that all states thus strive to increase their power, international relations can be conceived of, and analysed as a struggle between sovereign units seeking to dominate others or at least to defend themselves against such domination.\(^3^6\) In this context security can be regarded as a state’s ability to defeat an attack on it, or at least deter such an attack. This ability depends on a state’s power. Sometimes power and security are thus regarded as synonymous. Power, however, is a relative concept representing the means whereby such values as security are safeguarded, while force is usually understood as the actual exercise of such power.\(^3^7\) The struggle to increase power by, for example, accumulating arms has negative consequences for the security of other states. Such actions would be interpreted by neighbouring states especially as posing a potential threat to their security. A security dilemma is thus caused by one state which provides for its security and consequently creates security concerns in other states, resulting in states remaining trapped in an arms race cycle.\(^3^8\) Basically the realist regards the instinct of self-preservation, which leads to competition for even more power, and thus strengthens the vicious security dilemma circle.\(^3^9\) If a state either requires a very high sense of security or feels menaced by the very presence of other strong states this drive for security could also produce aggressive actions.\(^4^0\) But since both sides obey the same imperatives, attempts to increase one’s security by standing firm and accumulating more arms will be self defeating.\(^4^1\)

Great inequalities in the power between states increase possible insecurities experienced by states. In this regard an equilibrium between states in the form of a balance of power remains a useful means of denoting contemporary and possible future strategies for security.\(^4^2\) The balance of power among states becomes a balance of all the capacities, including physical force, that such states choose to use in pursuing their goals.\(^4^3\) The concept of “equilibrium” as a synonym for “balance” is commonly employed in many sciences, including physics, biology, economics, sociology, and political science. It signifies stability within a system composed of a number of autonomous forces. Whenever the equilibrium is disturbed either by an outside force or by a change in one or other element composing the system, the system shows a tendency to re-establish either the original or a new equilibrium.\(^4^4\) Thus a balance of power system is generally in equilibrium because usually the territorial integrity and physical survival of
states are not in question.\textsuperscript{45}

According to Hans Morgenthau two assumptions form the foundation of all equilibria. Firstly, the elements to be balanced are necessary for society or are entitled to exist. Secondly, without a state of equilibrium among them, one element will gain ascendancy over the others, encroach upon their interests and rights and may ultimately destroy them. Consequently, it is the purpose of all such equilibria to maintain the stability of systems without destroying the multiplicity of elements composing it. If the goal was stability alone, it could be achieved by allowing one element to destroy or overwhelm the others and take their place. Since the goal is stability plus the preservation of all the elements of the system, the equilibrium must aim at preventing any element from gaining ascendancy over the others.\textsuperscript{46} Despite these efforts to maintain long term equilibrium and preservation of a system, some realist views tend to stress the importance of the balance desired by a state, which is a balance which neutralises or at least minimises other states’ power, leaving the home state with optimal manoeuvring power.\textsuperscript{47}

Characteristic of realist thought is thus that it tends to assume that the state will act in a certain, sometimes militant and aggressive, fashion or will adopt certain values or objectives just because it is a sovereign state in an anarchic world despite some systemic constraints.\textsuperscript{48} But realists do accept that states cooperate on many fields internationally. The important difference from rationalist thought is, however, that this cooperation is stemming from temporary converging of self-interests.\textsuperscript{49} According to realists, states will not trust other states to give up their power nor allow other bodies (such as international organisations) to look after the interests of their citizens on a permanent and irrevocable basis.\textsuperscript{50}

\subsection*{2.3.2 The Role of Deterrence}

Despite this inherent need for power projection by the state there are some constraints and inhibitions on states, preventing a situation of constant war. Deterrence plays an important part in this regard, according to many realist thinkers. The principal of deterrence is based on giving a potential adversary a view of the consequences that such a state might suffer, if it were to provoke war.\textsuperscript{51} It is believed that this view will prevent the said state from launching action that could result in war. Deterrence
rested necessarily on the assumption inherent in a calculation of risk versus gain. It is a psychological phenomenon involving a threatened intent and perception of that threat. As a matter of resolve; the real consequences for the said state are not always that important. The main problem regarding deterrence is making the threat believable. According to the realist, the state must often go to extremes because moderation and conciliation are apt to be taken for weakness. Although the state may be willing to agree to a settlement that involves some concessions, it may fear that, if it admits this, the other side will respond, not by matching concessions, but by redoubled efforts to extract a further retreat. Before the advent of the nuclear weapon, deterrence was created by, inter alia, the forming of alliances, erecting theoretically impenetrable fortifications along borders, deployment of forces in strategic places, and periodic and highly visible military movements. Since the advent of nuclear weapons the international system of multiple states of approximately equal strength has been replaced by two states (the USA and USSR) with unequalled military power. Deterrence then came to be more closely associated with the testing of nuclear weapons, ballistic as well as cruise missile development, and the dispersal and concealment of offensive as well as defensive bases to escape detection and premature destruction and to retain and maximise retaliatory capabilities.

Nuclear deterrence is based on the study of concepts encompassing a focus on either counter-value (targeting urban centres and other civilian facilities) or counterforce (targeting military forces and infrastructure), or on a combination of such concepts. Minimum nuclear deterrence is the notion that potential enemies can be dissuaded from aggression or war by the mere possession of enough nuclear weapons and delivery systems to destroy the aggressor’s homeland. Seeing that the destruction involved is enormous, the notion is that the rational leader would not choose aggression as an option to further his/her goals. Many military-strategic analysts did not generally accept minimum deterrence as sufficient for insurance against war. Assured destruction deterrence was considered the answer for a real strategic level of deterrence. The emphasis in such a case is on the “second-strike” capability of a state. That is, the ability of a state’s forces to survive a surprise attack by an enemy and then to inflict an unacceptable level of destruction on the enemy’s homeland. This ability must be unequivocally communicated in order to be effective.

A state that forswears preventative war must thus devote significant military energy to diminishing
substantially the advantage that the potential enemy can derive from launching a surprise attack, by guaranteeing the survival of the retaliating force under attack. Deterrence is achieved only if: firstly, the enemy knows that you have the capacity to deliver unacceptable damage even after absorbing a first strike, secondly, the enemy believes that you would in fact do so if attacked, and thirdly, the enemy is a rational decision-maker. This ultimate function of nuclear weapons (especially the strategic weapons) is to act as a counter value or as a counterforce war capability, or to support a threat to do so for the purposes of blackmail or deterrence. A strategy to ensure security that is satisfactory in both military and political respects must combine deterrence with a credible capacity for defence, if such deterrence should fail. Although the principal characteristics of this dominant deterrence paradigm include, first and foremost, the prevention of attack against the country itself (central deterrence), it also includes the commitment to use nuclear weapons to deter attacks launched by nuclear or conventional means against allies (extended deterrence).

In order to protect their second-strike capabilities, the superpowers did spend vast resources on the research, development, and procurement of advanced weapons. The arms strategies followed included:

- Producing large numbers of delivery vehicles so that an attacker would not be able to destroy all of them.
- Dispersing delivery vehicles widely, again to multiply the number of targets an attacker would have to hit, making
Hardening the launching sites of delivery vehicles.

Making the delivery vehicles mobile, since a moving target is hard to track and hit; submarine for one attacking war head to wipe out more than one delivery vehicle.
Concealment of missile launching sites.

The active defence of retaliatory forces, including developing systems which would interce pt bom bers and miss iles.

A “launch under attack” strategy. Land-based intercontinental missiles (ICBMs) that were vulnerable to a first-strike would be launched before incoming missiles could possibly destroy them. This would have been a desirable policy only if one could be confident of avoiding false alarms.67
All these ways to protect nuclear retaliatory forces required intensive and costly efforts to provide secure means of command, control, communication, and intelligence - also known as C3I - from headquarters to the numerous, dispersed, mobile, and well-concealed launching sites. Civilian leaders had to be confident that they had secure command and control facilities from which interact with the military chiefs and that the military personnel would operate only on orders from the civilian commander in chief. Neither side depended solely on one type of weapons system in its strategic forces. Each side possessed land-based ICBMs, large numbers of bombers capable of attacking the other’s home territory, and many submarine launched ballistic missiles (SLBM) on submarines. Together, aircraft, land-based missiles, and submarine-based missiles formed a triad of different kinds of weapons, each having different capabilities and each protected in different ways. In the case of the nuclear superpowers such a retaliatory force ensured a delicate balance of terror with the aim of ensuring a stalemate between them. Even mutual nuclear deterrence can break down by accident. Peace based on military strength remains a peace with risks. The most that the distribution of nuclear weapon power can do is to minimise the number of occasions on which war is used and to minimise the level of destruction in war. Even this does not ensure that the policy of nuclear deterrence does in itself totally remove the danger of accidental outbreak or even limit the damage in case deterrence failed, nor would it be at all adequate for preventing crises on the periphery of the global system.

A nuclear weapon provides an alternative to the use of conventional forces. It creates one more option. It was not surprising, during the period of global dominance by two superpowers, to observe that states with nuclear capabilities always desired to have more nuclear options and to update their existing inventory so as to hedge against technical breakthroughs by the state’s opponent. To hedge against the greatest anticipated threat, nuclear weapons would be continually improved or procured as a cushion against the opponent’s own possible developments. Realists generally regarded with scepticism the slowdown in this technological arms race brought about by a series of arms control, disarmament and non-proliferation efforts. Realists tended to explain these limiting efforts as the consequence of seeking excessive gains to the point of significantly increasing the probability of total destruction and thus as sensible moderation.
2.3.3 Nuclear Weapons Additional Utility

The acquisition and possession of nuclear weapons are thus more perceived to serve the ends of ensuring national security. What is important are the political utility that nuclear weapons produce, not the actual detonation of the weapons. The very existence of nuclear stockpiles created and enforced considerable caution in relations among the NWS. The availability of such military means enables a state to express unequivocal commitment to its national defence. A threat of nuclear response, therefore, promises a rational means of reaction or riposte in case deterrence fails. Possession of nuclear weapons may therefore not only be for deterrence but also have value as a defence instrument. Furthermore, possession of nuclear weapons could also be regarded as constituting a formidable expression of political power by enabling a state to honour its commitments, supplying the currency to sustain the status quo. Possession also serves other political purposes such as appeasing domestic and allied opinion. While nuclear weapons are regarded as strategically valuable because of their deterrent value, their further utility seems to be suspect especially for the rationalists, and even for some realists.

More recent views of realism, such as neo-realism, also have implications for views regarding the utility of nuclear weapons. Neo-realism is the basic classic realism with an added dimension, namely that the structure of the international system (whether unipolar, bipolar or multipolar) influences international relations and can be used to explain international outcomes. Kenneth Waltz, a prominent neo-realist, has two main arguments, namely that the existence of nuclear weapons has greatly enhanced international security by greatly reducing the probability of war, and that the further spread of nuclear weapons would be desirable to entrench peace. Waltz also argues that nuclear weapons have had the effect of greatly reducing the likelihood of war between states armed with nuclear weapons by reducing the possibility of a miscalculation because with “... nuclear weapons, stability and peace rest on easy calculations.” According to him nuclear reality has not been fully reflected in the actual force structures and doctrines of the nuclear powers, because states still desire counterforce options and they fear that small differences in the number of nuclear weapons matter politically.

Although the nuclear capability does provide security on a macro-strategic level, even these security
spin-offs have some serious limitations. Nuclear weapons have no use against guerilla operations or terrorists. They could not be used by a government to seize territory or topple a foreign government. The main value of nuclear weapons, once they were created, has rested in their nonuse: deterring the use of nuclear weapons by other nuclear powers. The use of force between two nuclear weapon states has also been regarded as dangerous because of the risk of escalation. This is a major dilemma, especially for the smaller state obtaining a nuclear capability. The actual use of nuclear weapons against a state not possessing nuclear weapons could result in dire international consequences for the nuclear aggressor. Except for possible international measures such as sanctions, the direct involvement of another nuclear power could be conceivable. This is also thus one of the important factors to keep in mind when analysing South Africa’s development of a nuclear weapon capability.

2.3.4 Realist Views on Proliferation and Non-Proliferation Theories

Proliferation theories falling within the realist paradigm, especially classical realism, have been described in some detail up to this point. The realist view of the proliferation of nuclear weapons dominated thinking about these weapons during the Cold War. Although other theories falling within the rationalist paradigm in particular have come to the fore since then, even today realism has a compelling influence regarding issues relevant to the proliferation of nuclear weapons.

According to the realist perception, once a state has acquired a second-strike nuclear capability, war between the nuclear armed states is unlikely to occur, because mutual destruction is virtually assured. According to this view non-proliferation cannot be regarded as a measure to enhance global security; on the contrary it would have the opposite effect and make war and conflict a reality within the global system. This is not to say that all realists regard non-proliferation as an impossibility or a threat to global security. Realists understand that restraint and cooperation can increase power and advance interests. The norm of non-proliferation developed because it was congenial to the interests of an overwhelming majority of states including the superpowers, and offensive to only a few. Realists do, however, have strong reservations regarding the effectiveness of non-proliferation efforts.

A realist-bounded non-proliferation regime operates, according to Zachary Davis, in terms of three
conclusions:

“1) The causes of proliferation are rooted in the security/power dilemma and will persist unless the anarchic system undergoes fundamental change;

2) The security/power dilemma also motivates states to exercise restraint and cooperate in non-proliferation efforts. The regime organises interests in preserving the nuclear weapon status quo; and

3) Neo-liberal institutionalist principles expand the possibilities for moderating the causes of proliferation. The nuclear bargain uses functional cooperation as an incentive for nations to participate in regime institutions such as the IAEA and the NPT. Such cooperation, and the threat of losing it, is the balm of mutual interests and the key to perpetuating the regime.”

Some problems can be identified regarding the usefulness of realist views on nuclear proliferation and its prevention. Realism remains a relatively simplistic theory, which is not able to explain the complex dynamics that are involved in the nuclear proliferation issue. The predictive power of this theory also seems to be relatively limited. The decision of a state to obtain or develop nuclear weapons remains a unit level decision, for which realism only has a relatively simplistic maximising power explanation. The reality seems to be more complex and it would be difficult to negate the domestic side of such decisions. According to Ogilvie-White it could be said that if “… nuclear proliferation is regarded purely as a security issue determined by external pressures, policy recommendations will tend to focus on external constraints such as arms control, security assurances, and confidence-building measures, overlooking other options, such as the diffusion of ideas, the provision of economic aid, and the possibility of designing custom non-proliferation packages for specific states.”

Realist views may indeed overshadow other factors which could have a significant impact on nuclear weapon decision making as will be studied in more detail in the following chapters. The decreased risk of nuclear war since the end of the Cold War has for example resulted in more attention being paid to rationalist views regarding non-proliferation.

2.4 Rationalist Tradition
2.4.1 Defining the Rationalist Tradition

In contrast to the realist paradigm, rationalists are of the opinion that order is not maintained in the global system primarily only through states and the balance of power.\textsuperscript{86} International cooperation or the potential for such cooperation are elements on which rationalists focus as the basis of their world-view of international relations. In general it could be asserted that domestic order within the modern state is the consequence, among other things of government. As previously stated, the fact that a central government is absent on the international scene creates a power vacuum, which is in turn used by realists to explain the vital value of sovereignty and efforts by states to secure it. Rationalists, however, argue that an element of order is maintained in the international society despite the absence of a central authority commanding overwhelming force and a monopoly of the legitimate use of it.\textsuperscript{87} They reject the realist view that the world is made up of clashing interests only. Consequently the belief that a global harmony of interests exists is supported by rationalists.\textsuperscript{88}

As is also the case in domestic society, order is maintained, inter alia, through commonly accepted values, a recognition of a high degree of interdependence between national societies, and the existence of accepted rules and norms of behaviour, as well as of accepted institutions or processes of governance. Order is thus achieved and maintained through a complex web of crisscrossing governing arrangements which bind states and societies together.\textsuperscript{89} According to rationalists’ views there are also factors operating in modern international society, that fall outside the structure of rules itself, encouraging the politically competent groups and elites to agree to these rules. These include the factors of mutual deterrence, of fear of unlimited conflict, force of habit or inertia, and the long-term interest these groups have in preserving the system of collaboration, whatever their short-term interest in destroying it.\textsuperscript{90}

For the international system to survive, the constant adoption of new technological, political and economic trends is necessary, according to rationalist views. The assumption flowing from this perception is that as the interactive processes grow and expand, as individuals and groups increasingly interact across international frontiers, they will be more prone to adjust their differences rather than resort to conflict which might destroy the system.\textsuperscript{91} The state-centric “realist” image, some argued, was becoming more irrelevant to the contemporary international systems as that system became dominated...
by new actors, increased interdependence, and the emergence of new issues.\textsuperscript{92} In essence, it was said by some scholars that the international system had been transformed to such a degree that traditional paradigms for understanding international politics were, to one degree or another, either outmoded or severely flawed, and new paradigms based on the consequences of these changes needed to be formulated.\textsuperscript{93} The world is thus seen as “... a system of patterned interaction in which the main units of action are individuals and a variety of functional groups, as well as national and sub-national government units.”\textsuperscript{94}

From the security perspective one of the main implications of the rationalist view is that it influences the central concept of sovereignty, which is such a fundamental concept in the realist point of view. Based upon the primacy of a conception of unrestricted national sovereignty, the international system would not long have survived unless states actually accepted and acted upon a set of well-understood, though limited and conditioned restraints. These limitations on state action, acknowledged by all (or at least most) governments as the price they pay for continued viability of the global system, are only partially formalised. They rest to a large extent upon tacit agreement and the force of practice.\textsuperscript{95} It is not that sovereignty is totally negated by the rationalist scholars, it is, however, not regarded as the core foundation of the international system as is the case with realist viewpoints. Associated with sovereignty is the concept of national interest. In realist terms it is seen as attaining security by maximising power but in rationalist terms, it is viewed as “... an abstraction that summarises the perceived purposes of a certain state at a certain moment in time.”\textsuperscript{96} This view is broadening the scope and importance of international interaction and influences, in developing the national interest.

Systematic relations at the international level require and imply a body of understanding about proper behaviour.\textsuperscript{97} The sense of common interests in elementary goals of social life does not itself provide precise guidance in international society as to what behaviour is consistent with these goals; to do this is the function of rules. The status of these rules differs and includes international law, moral rules, based on prudence, etiquette of custom or established practice, or they may even be merely operational rules or “rules of the game”, worked out without formal agreement or even without verbal communication. It is not uncommon for a rule to emerge first as an operational rule, then to become established practice, then to attain the status of a moral principle and finally to be incorporated in a legal
convention on the international level. States in their dealings with one another, remain bound by the rules and institutions of the society they form. Social change, however, is not always rooted in law. The members of a society can often translate alterations in their attitudes, values, resources, fears, or whatever, directly into action without the aid of new or amended legal rules. Some changes, however, can hardly be made without legal assistance. With the aim of ensuring these systematic relations between states, some of these international rules and tacit agreements are formalised in international law that in some fields has been developed over hundreds of years.

2.4.2 The Role of International Law

International society, as is the case with domestic society, thus relies to some extent on law for its framework of ideas about “proper” behaviour. This is so because of the different obligatory force of legal and non-legal rules. Non-legal rules carry a somewhat uncertain sense of obligation, seeing that observance is regarded as the done rather than the demanded thing. While a norm has been created to which it is intended that behaviour should conform, society and its members customarily feel that they have no ground for trying to insist upon it. Law, on the other hand, is in a different category because it is inseparably associated with the idea of strict obligation. Any individual subjected to law is bound by it and must behave accordingly. If such an individual does not, society, through its mandated institutions or members, is entitled to insist on obedience. Generally the main function of law is to create a clear as well as binding relationship.

Law can thus be described as being more than a group of prohibitions or provisions for penalties, as in what is known as criminal law. Of greater importance according to Philip Jessup, is the fact that “...law is the method by which society has always created devices to enable people to work together for the accomplishment of their proper ends and for the common good.” That is why according to him, in the domestic system basic institutions such as marriage and family, as well as the institutions of property and economic/business life, are all creations of law. The same could be said in the field of international law. The level of international law development has, however, not been developed to the extent to which national law has been developed. Despite criticism of this occasional impreciseness of international law, states commonly profess themselves to have rights and obligations of a legal
character in their international relations. There may be argument regarding the existence of particular rules, or their exact content, but most governments would state that the concept of law is relevant to its international activities.\textsuperscript{103} The sources of international law are, according to Hugo Grotius (who is generally regarded as the father of international law), customary practice and the rules agreed on by governments that would be binding on states. Such treaties or formal covenants would be binding in the sense that states are obligated to follow them in the absence of central authority to enforce their adherence.\textsuperscript{104}

The legal standing of the body of rules making up international law is, however, not diminished by the fact that it is not enforceable. For a rule to qualify as a law it is required that it can or will be enforced eventually in the majority of cases. According to Henry Bretton, “... more important than the enforcement aspect is the willingness of persons or entities subject to such rules to accept them on principle, to abide by them, and to accept enforcement on terms and under conditions mutually agreed upon between subjects and rule-setting or law-giving guidelines or standards of behaviour.”\textsuperscript{105} The development of international law through custom - the actual practice of states that is accepted as law - is an important example of informal norms that act as rules to constrain behaviour. Norms, principles, and customary law all have major psychological components in that the policy makers feel they should act in certain ways because they are expected to (and expect others to), whether or not a rule has been formalised by treaty.\textsuperscript{106}

International law provides the international milieu with a framework of predictability and with procedures for the transactions of interstate business and clarification of jurisdictional matters. It is a vital instrument of interstate communication by providing an indispensable framework for bilateral relations. International law also provides the basic general norms for multi-lateral conduct that a state could use. It thus also affords means of channelling conflict, thereby establishing the means to divert inter state clashes from turning violent.\textsuperscript{107} In general coexistence has proved to be more than merely an international aspiration but is manifesting as a fact. Seeing that no state exists in a total vacuum, states have inter-relationships and these inter-relationships must be and are primarily determined by international law, as well as by various legal rules.\textsuperscript{108} Just as a new law can be a necessary means of giving practical and orderly effect to a society’s changing values, so it can provide an indispensable
route to formal order in the exploitation of technological developments. In this regard international law played an role in global efforts to limit the spread of nuclear weapons. Its role became even more important in the context of spinoffs from international law, namely international organisations and regimes that will be discussed in more detail later.

This is not to say that problems regarding the use and abuse of international law do not exist. International law provides an instrument rather than a guide for action, but this tool is also often not used, when resort to it would hamper the state’s interest as defined by the policy maker. The greatest problem that can be identified as hindering the international society from fully developing international law, is sovereignty. Sovereignty in the sense of the unregulated will of states to do as they wish, as previously mentioned, is incompatible with the international rule of law, seeing that every time a state enters into a treaty it is not only exercising its sovereignty but is also thereby limiting its sovereignty by prohibiting itself from doing certain things in the future. One of the most important aspects that international law “communicates” is the solemnity of a commitment. Any international agreement or treaty, serves as a kind of early warning mechanism. When it fails to deter actions, the victim and third parties have a fateful choice between upholding the legal principle using all means, at the cost of a possible escalation in violence, and choosing to settle the dispute more peacefully, at the cost of obscuring the legal issue. For political reasons, the latter course is frequently adopted by, for instance, discarding any reference to the international legal principle at stake.

The resort to legal arguments by policy makers thus may be detrimental to world order and thereby counterproductive for the state that used such arguments. For example in the legal vacuum or confusion which prevails in areas as vital to states as internal war or the use of force, each state tries to justify its conduct with legal rationalisations. The result is an escalation of claims and counterclaims, whose consequence, in turn, is both a further devaluation of international law and a “credibility gap” at the expense of those states which stay committed to international law principles. Much contemporary international law authorises states to increase their power. Yet it is obvious that full exploitation by all states of all permissions granted by international law would be a perfect recipe for chaos. Furthermore, attempts to enforce or to strengthen international law, far from consolidating a system of desirable restraints on state (mis)behaviour, may actually backfire if the political conditions are not ripe. The
very ambiguity of international law, which in many essential areas displays either gaping holes or conflicting principles, allows policy makers in an emergency to act as if international law were irrelevant - as if it were neither a restraint nor a guide.\textsuperscript{112}

Despite these problems associated with the implementation of international law, the roles of international law but also those of international organisations as well as international regimes are regarded by some rationalist scholars as significant in their impact on the decision making of a state. This is especially the case with the development of international law, international organisations and regimes related to efforts to limit the spread of nuclear weapons.

\textbf{2.4.3 International Organisations}

Although international organisations have been established since ancient times, such organisations themselves were only established in the twentieth century among states. Before being linked by these organisations states already had diplomatic, economic, legal, and even war relationships.\textsuperscript{113} International organisations have assisted in the creation of, albeit limited, standardisation of these relationships. Thus international organisations are by their existence and functioning assisted in the introduction of a certain amount of bureaucratisation, routinisation, continuity, and predictability into international politics.\textsuperscript{114}

According to the rationalists international organisations form a practical part of efforts to move away from the anarchy of the traditional system. Contemporary international organisation is viewed neither as a facade for power politics nor an incipient world government.\textsuperscript{115} Since governments place a high value on the maintenance of their own autonomy, it is usually impossible to establish international institutions that exercise authority over states. It would therefore be mistaken to regard international organisations as well as the regimes of which they form part, as characteristically unsuccessful attempts to institutionalise centralised authority in world politics. They cannot establish patterns of legal liability that are as solid as those developed within well-ordered societies, and their creators are well aware of this limitation.\textsuperscript{116} In the contemporary world with its multiple issues, in which coalitions are formed transnationally, the potential role of international organisations in political bargaining is greatly increased.
In particular, they help set the international agenda, act as catalysts for coalitions formation and as arenas for political initiatives and linkages by weak states.\textsuperscript{117} International organisations proved to be of vital importance in global non-proliferation efforts, as will be discussed in more detail in Chapter 4.

The impact of globalization, particularly the use of modern technology in the creation of weapons of mass destruction, strengthened rationalist viewpoints with regard to issues such as non-proliferation. Modern society has created a myriad of technical problems that can best be solved by international experts rather than politicians. The significant growth of these universal problems requires collaborative responses from states. This is especially the case with nonpolitical, or less political, issues such as economically, socially and scientifically based problems.\textsuperscript{118} Rules associated with international law, practised usually within the context of an international organisation, focussed on a particular issue, bring the role of regimes to the foreground. Of especial importance from the rationalist viewpoint is that the creation of normative rules guiding international behaviour takes place within the context of international regimes.

\textbf{2.4.4 Regimes}

The term regime is borrowed from domestic politics where it refers typically to an existing governmental order (democratic, authoritarian or otherwise) or to a set of rules and institutions established to govern relations among individuals, groups, or classes within a state. In its international context, given the absence of a superordinate or overarching central authority, these rules are voluntarily established by states to provide some degree of order in international relations.\textsuperscript{119} The term encompasses more than only rules but also includes mutual expectations, regulations, plans, organisational energies and financial commitments, which have been accepted by a group of states.\textsuperscript{120}

The concept of international regime can be relatively narrow and precise or quite elastic. In the narrow sense it is defined by explicit rules, usually agreed to by governments at international conferences and often associated with formal organisations. According to a more elastic definition, regimes could be regarded as the rules and norms that guide the behaviour of important actors in a particular issue area. Of greater importance than the difference between implicit and explicit rules is the distinction between
strong regimes - in which predictable, orderly behaviour takes place according to a set of standards understood by participants - and weak ones - in which rules are interpreted differently or broken by participants. National governments, international organisations as well as global corporations are the sources of these rules resulting in the influences of national law, international law, practices/rules of international organisations as well as global corporations, all playing a part in evolving the rules of regimes.

Of course, the lack of a hierarchical structure in world politics does not prevent regimes from developing bits and pieces of law. But the principal significance of international regimes does not lie in their formal legal status, since any patterns of legal liability and property rights established in world politics are subject to being overturned by the actions of sovereign states. These arrangements are designed not to implement centralised enforcement of agreements, but rather to establish stable mutual expectations about others’ patterns of behaviour and to develop working relationships that will allow the parties to adapt their practices to new situations.

As stated above international regimes are often weak and fragile. Like contracts and quasi-agreements, international regimes are frequently altered. Their rules are changed, bent, or broken to meet the demands of the moment. They are rarely enforced automatically, and are not self-executing. They are often matters for negotiation and renegotiation. But despite these shortcomings, it should be noted that these rules, both formal and informal, are the products of national, transnational and international components. Much expertise is poured into developing these regimes and although usually protracted, consensus and growth remains a key-point for rationalists to underline the value of some regimes in developing some form of international consensus on sometimes complex issues. Regimes are in some cases in a constant process of flux and in cases where the focus is regarded as of interest by a majority of participants, it becomes strengthened over time.

International regimes alter the cost transactions between international members as well as between them and non-members. Some forms of transactions may be forbidden and retaliation against such behaviour is justified or even mandated by such agreements. International regimes reduce the transaction cost of legitimate bargains and increase them for illegitimate ones. Other transactions outside the international
regimes between members are also influenced by such membership. The negotiations of new regimes are made easier and cheaper because of prior commitments. Establishing some rules and principles at the outset makes it unnecessary to renegotiate every new regime from scratch. International regimes thus allow governments to take advantage of potential economies of scale. Once a regime has been established, the marginal cost of dealing with each additional issue will be lower than it would be without a regime. Regimes also affect the bureaucratic cost of transactions: successful regimes organise issue areas so that productive linkages (those that facilitate agreements consistent with the principles of the regime) are facilitated, while destructive linkages and bargains that are inconsistent with regime principles are discouraged. Building a like-minded culture within the context of the regime is making the attainment of consensus easier.

Given the uneven or asymmetric distribution of benefits and costs associated with interdependence, these relations have to be managed if major conflicts are to be avoided. Regimes may be the vehicles for accommodating differences and upgrading the common interests. The informational functions of regimes are also important. Regimes present some incentives for governments to reveal information and their own preferences to one another. The success of regimes is, for participants, closely linked to the preeminence of interdependence and integration in the contemporary global order.

2.4.5 Interdependence and Integration

The underlying factors promoting rationalist views are phenomena like international society, international law and international regimes as well as the perceived growing interdependence of and subsequent integration in the international system. Knut Vollenbaek aptly stated that the “... traditional principle of state sovereignty has been married to the reality of state interdependence.” Interdependence is promoted by the multiple channels that connect societies, including interstate, and transnational relations.

One of the problems regarding interdependence is the absence of an agreed definition of the term. At least three different notions have been employed, according to R Rosecrance and A Stein. In its most general sense, interdependence suggests a relationship of interests inasmuch that if one state changes,
other states will be affected by that change. A second meaning derived from economics, suggests that interdependence is present when there is an increased national “sensitivity” to external economic developments. This sensitivity presumably can be either perceived or unperceived. The most stringent definition comes from Kenneth Waltz who argues that interdependence entails a relationship that would be costly to break. In the present study, interdependence in international politics refers to situations characterised by reciprocal effects among states or among actors in different states. In practice interdependence refers to how events occurring in any given part or within any given component unit of a world system affect (either physically or perceptually) events taking place in each of the other parts or component units of the system.

Despite differences of definitions, rationalists tend to agree that there is a growing and continuing degree of interdependence among nations in both the political and economical spheres. This is a consequence of the rapidly growing transaction rates between societies worldwide. Closer and multidimensional contacts between societies constitute one of the fundamental forms of system changes in the twentieth century, according to Karl Holsti. The result of this is, according to the rationalists, that the state can no longer be regarded as the effective agent of political and economic security. Furthermore, technological development, particularly nuclear power, has made the state even less viable, for it can no longer truly protect its citizens. One of the consequences of the growing levels of interdependence is, inter alia, the phenomenon of regional integration according to some rationalist scholars.

Regarding later developments in integration theory, the role of actors (consisting of governments but also increasingly international organisations, as well as other entities both private and official) within the international system are highlighted. Actors are seen as sources of demands on the system and as sources of leadership coping with demands. External actors are not seen as particularly important participants in the integration process, except in the contexts of whole systems being transformed. According to these views system changes revolve around the notions of commitment and obligation. Actors are committing themselves to take on new obligations or to behave differently from their previous behaviour. In contrast with neo-functional theories which see change as brought about by the unintended consequences of incremental decision making, the more recent theories link changes, to integration with two types of commitments or obligations: a commitment to participate in a joint decision
making process or a commitment to implement agreements already arrived at, or to enforce rules already decided upon.\textsuperscript{136}

The focus of factors influencing integration has also shifted to the degree that trans-regional perceptions, processes, and interdependencies can influence the course of integration. The role of national leadership as well as the influences of external factors are also taken into account in the more recent theories of integration.\textsuperscript{137} While the maturing of a full-blown system of multiple interdependence, where power would be exercised largely in the form of constructive exchanges of valued resources rather than threats of physical destruction, cannot be forecast with confidence, interdependence and integration have a significant impact on the management of international issues and problems.\textsuperscript{138} The changes brought about by the more significant role of global and local actors result in some issues confronting governments being pushed up to the regional or global level (as happened with concerns regarding proliferation) while other functions may be pushed down to local levels to try to re-engage the individual in the decision-making process.\textsuperscript{139} The rational approach to global security related issues can be identified in the development of nuclear non-proliferation efforts since the early 1960s.

2.4.6 Rationalist Based Views on Proliferation and Non-Proliferation Theories

Rationalist-based proliferation and non-proliferation theories are based on the above mentioned theoretical explanation of international law, international organisation, the non-proliferation regime and the growing interdependence and integration linked to globalization. The motivational, situational and structural factors (domestic, regional and global) contributing to nuclear proliferation are diverse.\textsuperscript{140} These factors will be discussed in detail in Chapter 3. The realisation within the international community that the further proliferation of nuclear weapons would pose a threat to world security has, however, led to the development of a non-proliferation regime, encompassing many rules and institutions, both national and international.\textsuperscript{141} With the theories operating broadly within the rationalist paradigm one of the most important aims remains the creation of such a proliferation-resistant political climate in the international community. This idea, indeed, underlies all existing and relatively successful non-proliferation policies including the Nuclear Non-Proliferation Treaty (NPT).\textsuperscript{142} The development of the non-proliferation regime and its supporting norms will be explained in Chapter 4.
On a macro level Glenn Chafetz has also focussed on some issues relevant to proliferation theory. According to him the world is divided into “core” and “periphery” states. The fact that the domestic political systems of the core states are dominated by liberal democracies leads them to develop shared norms and values, which is likely to result in international cooperation rather than becoming involved in arms races, according to Chafetz.\(^1\) States at the core do not regard each other as military threats, but rather as partners in a so-called pluralistic security community.\(^2\) Because of this, the incentives for these states to acquire nuclear weapons are dramatically reduced. National security interests are attained by regional and international cooperation, according to him. States on the periphery have had little experience of liberal democracy and thus have not developed these shared values. Therefore it is concluded that such states would be more likely to regard each other as military threats, and so respond by seeking to develop nuclear weapons.\(^3\)

It should be noted that realist theories regarding nuclear proliferation could then be used to explain nuclear proliferation on the periphery while rationalist cooperative views could be used to explain it within the core states. This theory could be regarded as ethno-centric and will prove difficult in explaining the nuclear proliferation phenomena in practice. According to Ogilvie-White this approach “... can help to explain cooperation among certain democratic states to an extent, just as it can shed some light on how the internal political systems of other states can lead to isolation and insecurity and, therefore, might make those states more prone to proliferation.”\(^4\) Many important variables relevant to proliferation decision making are not taken into account in this theory. If full nuclear security assurances are not provided, it would remain highly unlikely that such cooperation would stop a country with acute security concerns from obtaining a nuclear capability.

2.5 Revolutionary Tradition

2.5.1 Defining the Revolutionary Tradition

The revolutionary regards the international system as the starting point for analysis. The behaviour of individual actors is explained by a system that constrains and provide opportunities for such persons to function.\(^5\) According to the revolutionary tradition, transnational social bonds exist that link
individual human beings who are subjects of the different states in the world. The relations between states, however, are seen as only an apparent focus of international relations. The real important driving force behind international relations is "... the relationship among all men in the community of mankind - which exist potentially, even if it does not exist actually, and which when it comes into being will sweep the system of states into limbo."\(^{148}\)

According to the revolutionary view the interests of all mankind are thus seen to be the same. The conflicts of interests which are experienced exist only among the states’ ruling cliques. Even these conflicts are regarded either as superficial or transient, directly linked to the existing system of states. What really typifies international activity is the horizontal conflict of ideology that is borderless and divides mankind into two camps - "...the trustees of the immanent community of mankind and those who stand in its way, those who are of the true faith and the heretics, the liberators and the oppressed."\(^{149}\)

Ideology forms the basis of revolutionary world-views. Ideology is built on perceiving sometimes doubtful views as historic inevitabilities. Ideologies are centrally preoccupied with the exercise of power, just as is the case with realist thinkers. The difference is that the concept of power is closely linked to dominance by the specific world view which the revolutionary visionary is supporting. In practical terms such systems includes the extremist views of communism, religious fundamentalism or capitalism.\(^{150}\) The focus area of each view may be different, with communism and capitalism focussing on the material conditions of life and fundamentalism focussing on a transcendental religious source of authority. All of these ideologies assume that there are fixed causes or ends to be achieved by national as well as international action.\(^{151}\) Combined with the close commitment to ideology, a historical perspective plays an important part in revolutionary views, as it is only by tracing the historical evolution of the system that it is possible to understand its current structure. In this regard the role of dependency relations between rulers and the ruled, in terms of states as well as individuals, is especially important.\(^{152}\)

Criticism is regarded as hostile by revolutionary scholars and explained away by a further building of theory.\(^{153}\) Seeing that the relevant ideology presents the “truth”, no criticism of these views can be effectively accommodated, while absolute judgments concerning issues can be made. Such views led
Nikolai S Khrushchev to declare with confidence that: “In the competition between the two systems, the capitalist and the socialist, our system will win. Our confidence is based on a knowledge of the laws governing the development of society. Just as in its time capitalism, as the more progressive system, took the place of feudalism, so will capitalism be inevitably superseded by Communism, the more progressive and more equitable social system. We are confident of the victory of the socialist system because it is a more progressive system than the capitalist system.”\(^{154}\)

In contrast with the realist and rationalist tradition, the views and focus of revolutionary thought on the role of nuclear weapons in the global security system are more difficult to rationalise. The generally accepted doctrinal principle in the former USSR, that it is possible to win a nuclear war, could have been based on the ideological perception of the superiority of the Soviet system and the inevitability of global communist victory.\(^{155}\) A realist perception, however, seems to have been the basis of USSR’s security policies. In this study the role of Calvinist views will also be investigated to ascertain if they played a significant role in South Africa’s nuclear weapon decision making.

2.5.2 Revolutionary based Views on Proliferation and Non-Proliferation Theories

Revolutionary based views regarding proliferation may no longer be relevant in the post-Cold War world in which the rationalist approach to security issues seems to be a growing phenomena. This may, however, be shortsighted if the possibility of the potential impact of religious and/or political belief systems on security views is taken into account.

Such views on proliferation are limited to ideologically based governments and groups. A Chinese government view, from the Cold War perspective and in anticipation of China’s nuclear weapon capability, can serve as an example of revolutionary based views regarding proliferation and non-proliferation:

> “With regard to preventing nuclear proliferation, the Chinese government has always maintained that the arguments of the U.S. imperialists must not be echoed, but that a class analysis must be made. Whether or not nuclear weapons help peace depends on who possesses them. It is detrimental to peace if they are in the hands of imperialist countries; it helps peace if they are
in the hands of socialist countries. It must not be said indiscriminately that the danger of nuclear war increases along with the increase in the number of nuclear powers. Nuclear weapons were first the monopoly of the United States. Later, the Soviet Union also came to possess them. Did the danger of nuclear war become greater or less when the number of nuclear powers increased from one to two? We say it became less, not greater. Nuclear weapons in the possession of a socialist country are always a means of defence against nuclear blackmail and nuclear war. So long as the imperialists refuse to ban nuclear weapons, the greater the number of socialist countries possessing them, the better the guarantee of world peace. A fierce class struggle is now going on in the world. In this struggle, the greater the strength on our side, the better.”

2.6 Conclusion

Nuclear proliferation has a distinct meaning referring to the spread of nuclear weapons to more countries than the five NPT members. While this compromise has been accepted by most countries, three (Israel, India and Pakistan) have developed a nuclear weapon capacity and one (the DPRK) has suspended its NPT membership. The issue of vertical proliferation has not been addressed by multi-lateral measures but primarily by bilateral disarmament arrangements between the US and the USSR (later Russia).

The end of the Cold War had a significant impact on the global security order, especially regarding the role of nuclear weapons in maintaining national and international security. The advent of nuclear weapons was firmly within the realist tradition, each state endeavouring to maximise power, ensuring their “Great Power” status, reminiscent of the experiences of the Second World War. The basic strategic aim foreseen for nuclear weapons was to deter an attack by an opponent, while they provided an unequalled power base for the state, which possessed them.

On the other hand international interdependence and integration have impacted significantly on the field of international relations since that time. Part of this trend was the growing promotion of the concept of non-proliferation. The Cold War diminished to some extent the initial effectiveness of rationalist views
and action on issues related to nuclear weapons. Despite continuing scepticism regarding the non-proliferation norm’s ability to lessen the threat associated with nuclear weapons, it is difficult to ignore the strengthening of this norm in the form of more concrete and intrusive measures during the last decade (these are all issues that will be more closely examined in Chapter 4). The South African experience ought to reflect the changes in perception on the role of nuclear weapons. In Chapter 5 the researcher will endeavour to look at the South African situation and at whether this more theoretical focus is also reflected in reality as experienced in a once proliferating state during this time period.

While in this chapter reference has already been made to the security implications created for the decision maker by nuclear weapons, the aim in Chapter 3 will be to investigate more thoroughly the incentives and disincentives that influence the decision makers’ choices when confronted with the prospect of obtaining a nuclear weapons capability.
2.7 Notes


8. Viotti, P.R. and Kauppi, M. op.cit, pp. 399 - 400.


12. The spread of advanced weapons using such technologies as stealth, precise targeting and guidance also increases the impact capability of conventional weapons making these weapons also a major security concern. See for example The Nonproliferation Centre, The Weapons Proliferation Threat, March 1995 as well as The Nonproliferation Centre, Proliferation of Advanced Weapons: A Primer on the Problem, Undated. On the classification of a radiological weapon as a weapon of mass destruction see Subrahmanyam, K. “The Emerging Environment: Regional Views on WMD Proliferation,” in Johnson, S.E. and Lewis, W.H.


21. In practice the Nuclear Non-Proliferation Treaty (NPT) prohibits the acquisition by the overwhelming majority of states of the most destructive weapons yet invented, while tolerating the retention of the same weapons by few.


30. *Ibid*, pp. 112 - 149.


38. Holsti, K.J. *op.cit*, p. 5.


40. *Ibid*, p. 64.


42. The balance of power theory has been thoroughly criticised by many theorists including realists such as Hans J. Morgenthau, describing it inter alia “... as a crude, unsophisticated, naively


45. Twitchett, K.J. op. cit, p. 24.


47. Twitchett, K.J. op. cit, p. 24.


56. Taylor, T. op. cit, p. 133.


60. Ibid, pp. 244 - 245.


63. Dye, T.R. op.cit, p. 245.


68. Ibid. pp. 300-301.


70. Taylor, T. op.cit, p. 133.

71. Wohlstetter, A. op.cit, p. 234.


74. Ibid. pp. 203 - 204. Herman Kahn argued that deterrence could serve a wide spectrum of political aims including providing “… support for the achievement of ‘peaceful’ political objectives and for tactics such as controlled reprisals, other limited wars, mobilisations, negotiations, and so forth.” Kahn, H. “Thinking About the Unthinkable,” in Evan, W.M. and Hilgartner, S. (Eds) The Arms Race and Nuclear War, Prentice-Hall Inc, Englewood Cliffs, 1987, p. 108.

75. Wong-Fraser, A.S.Y. op.cit, p. 12.


92. New issues coming to the fore, especially since the Second World War, include issues related to the proliferation of weapons of mass destruction, global environmental threats, international terrorism and developmental issues in the developing world.


100. James, A. op.cit, p. 72.


103. James, A. op.cit, p. 60.

104. Viotti, P.R. and Kauppi, M.V. op.cit, p. 39.


109. James, A. op.cit, p. 73.


111. Hoffman, S. op.cit, pp. 92 - 93.


115. Ibid, pp. 41 - 42.


118. Viotti, P.R. and Kauppi, M.V. op.cit, p. 206.


123. Ibid, pp. 95 - 96.


126. Ibid, p. 98.


130. Viotti, P.R. and Kauppi, M.V. op.cit, p. 10. Interdependence and integration are phenomena that have been identified for some time. More recent formulations of interdependence concepts have included those by Karl Deutsch, Ernst Haas, John Burton and Immanuel Wallerstein. Deutsch conceived the “transactional” approach to integration theory according to which integrative changes result from increases in the volume and frequency of communication and transactions between states. This leads to greater mutual trust and confidence, which further increases in communications and transaction thereby creating a perpetual feedback loop. Haas formulated a functionalist or neo-functionalist approach to international relations and especially stressed co-operation and the need for international institutions, even a supranational organisation. Burton regarded world politics as a cobweb where pressure at one point would ripple out to many others. Wallerstein focused on the role of global economics. According to his views the international system was dependent upon the world economic system. This


137. Ibid. pp. 60 - 61.


142. Müller, H. op. cit., p. 42.


144. Ibid, p. 128.
145. Ibid, pp. 139 - 146.
146. Ogilvie-White, T. op.cit, p. 50.
147. Viotti, P.R. and Kauppi, M. op.cit, p. 399.
149. Ibid, p. 94.
152. Viotti, P.R. and Kauppi, M. op.cit, pp. 399 - 400.
156. Peking Review, 16 August 1963, as quoted in Goldblat, J. (Ed) op.cit, p. 46.