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Pursuit of Deterrence: The Inspiration Behind North Korea's Nuclear Weapons Program

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April 2024

Disclaimer: This paper is part of an internship undertaken with the Istituto Affari Internazionali in Rome as well as being funded by the European Union (EU) Non-Proliferation and Disarmament Consortium (EUNPDC). This is part of a larger EU educational initiative aimed at building capacity in the next generation of scholars and practitioners in non-proliferation policy and programming. The views expressed within this paper are solely those of the author and do not necessarily reflect those of the Istituto Affari Internazionali in Rome, the EUNPDC, or other participating members of the network.

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Abstract

Efforts in nuclear disarmament and non-proliferation by the international community have encountered a stumbling block with North Korea. After the successful detonation of Pyongyang's first nuclear weapon in 2006, international policy efforts shifted towards accepting the nation as the world's newest de facto nuclear weapons state. The core dilemma is why North Korea thought creating its own nuclear weapons was pertinent for its security. Even with limited information on North Korea's nuclear ambitions, speculation continues to grow about Pyongyang's long term nuclear objectives. The goal of this paper is to understand the development of North Korea's nuclear weapons program, including the factors that influenced the arsenal's growth and development. Due to the delicate nature of relations on the Korean peninsula, it is crucial that the international community take all necessary steps to alleviate tension before it becomes unrestrained.

Introduction

In 2006, the Democratic People's Republic of Korea (DPRK), (aka. North Korea), unveiled the successful test of a nuclear device. The secrecy surrounding its nuclear weapons program created frustrations for the international community. Due to the limited dissemination of information outside of the country, foreign analysis on North Korea's nuclear weapons program proved difficult. As the world sat in astonishment, international experts began to ponder how a nation, so isolated, could have accomplished such a feat of scientific achievement.

The main question about North Korea's nuclear program is, what was the primary driving factor that influenced the creation of their nuclear weapons program? Many attempts have been made to further understand the driving influences within the regime in Pyongyang. The main argument is centered around North Korea's emphasis on self-preservation and the survival of its senior political leadership. Scholarship on North Korea to answer this question is not new. Therefore, this paper will provide an overview of existing literature on the specific reasons that the North Korean regime believed it was necessary to build nuclear weapons for its survival. This paper will link the history of North Korea's nuclear ambitions with the landmark achievements by Pyongyang in its quest for a working nuclear bomb. Such events illustrate how North Korea was able to create its own nuclear weapons in a relatively abbreviated period of time.

Finally, this paper will offer several policy recommendations. The aim of these ideas revolves on what objective the international community chooses to utilize when engaging with North Korea. If the goal is to continue efforts at the denuclearization of the Korean peninsula, then it is important to continue diplomatic efforts aimed at engaging the regime in Pyongyang. Should this idea no

longer be feasible, then it is pertinent to discuss living in a world where North Korea maintains nuclear weapons capability. This would entail further use of international sanctions and continued military buildup of the region. Lastly, should senior leadership in North Korea still believe nuclear weapons are the ultimate assurance of their existence, a compromise would alleviate their concerns of regime decapitation. Through a nuclear umbrella of its own, Pyongyang may feel its position of survival is no longer in danger and agree to nuclear weapons dismantlement.

The Nature of North Korea's Nuclear Weapons Program

The purpose of this section is to provide necessary background context for understanding how North Korea plans to utilize their nuclear arsenal in their strategic planning. We will assess the importance of deterrence in North Korea's nuclear strategy and whether the main purpose of their nuclear arsenal is in the name of self-preservation and regime survival. The lack of consensus among authors has generated a debate over what North Korea wants to achieve through the possession of its nuclear weapons.

Nuclear Strategy and Implementation

Thomas Schelling explains that before the advent of the atom bomb, it was common for nation states to unleash all their destructive powers against their enemies in war. This changed with the arrival of nuclear weapons and the threat of Mutually Assured Destruction (MAD). From now on, nation states have used deterrence to prevent the outbreak of war between nuclear powers.

In 1962, Robert McNamara, then Secretary of Defense of the United States, introduced ideas later known as the "counterforce strategy" that applied the principles of restraint in nuclear and conventional warfare in civilian dominated environments (Schelling 2008, p190). This strategy was also known as a "no-cities strategy" which acknowledged the value city centers were to a nation's morale. The purpose of this new strategy was to account for the new level of destruction presented by nuclear weapons in armed conflict. "In 'counterforce' language the principle is for the enemy's military forces, not for his cities" (Schelling 2008, p192). Schelling continues his argument that to be most effective employing counterforce strategy, "that a good use of weapons is to spend them in the destruction of enemy weapons, to disarm the enemy by trading our weapons for his" (Schelling 2008, p193). The significance of this shift in strategy is important in the application of nuclear weapons. At the time of McNamara's statement, several nations possessed nuclear arsenals leading to concerns over nuclear proliferation and a potential nuclear exchange. Therefore, this new strategy also needed a preventative measure to ensure these destructive weapons were never used.

It is important to now ask, how does counterforce strategy relate to North Korea? The main takeaway from this idea centers around restraint during armed conflict. To negate the potential damage to non-military locations and to halt the unnecessary loss of human life. Pyongyang faces this same concern on the Korean peninsula, where they must determine in their nuclear strategy if it is important to target cities in South Korea such as Seoul. During peacetime, North Korea values its survival through rational thinking that limits the use of deadly force against South Korean city centers. Therefore, Pyongyang cannot afford to engage in nuclear or conventional war without sacrificing its senior leadership through retaliation.

Deterrence Thinking and the Case of North Korea

Deterrence was also a popular idea, applied to nuclear weapons competition between the United States and Soviet Union during the Cold War. This style of thinking was analyzed by many scholars including Lawrence Freedman when he explained that "Deterrence is a coercive strategy" (Freedman 2004, p26). Coercion is the attempt to achieve a particular response from another international actor. Meanwhile when implemented, "A coercive strategy involves the purposive use of overt threats of force to influence another's strategic choices" (Freedman 2004, p26). The application of deterrence was also applied to other nation states such as North Korea, where the nation sought a resource to ensure its survival from international threats posed from South Korea and the United States.

The concept that North Korea requires nuclear weapons for its survival is discussed by Edward Howell who reinforces the notion when he explains that "As the then US Director of National Intelligence state in 2017, North Korea's nuclear capabilities are [intended for deterrence, international prestige, and coercive diplomacy]" (Howell 2020, p1052). Furthermore, he elaborates in International Relations scholarship, that one of the three reasons that a nation state develops nuclear weapons is for security against external threats (Howell 2020, p1053). For North Korean senior leadership, the external threat from nuclear weapons resides from the United States, where the American nuclear umbrella shields ally South Korea from attack. In addition, the US possesses its own arsenal of nuclear weapons, including ICBMs. These concerns weigh heavily on the minds of leadership in Pyongyang.

The idea that North Korea's strategic intentions lie in nuclear deterrence as a defensive posture against external threats is reinforced by Todd C. Robinson and James Platte, who assess there are several reasons why North Korea places significant value on nuclear weapons. "The nuclear weapons of the DPRK are just means for defense as it was compelled to have access to them to cope with the ever-escalating hostile policy of the U.S. and nuclear threat" (Robinson and Platte 2021, p319). The aim here clearly points to Pyongyang defending itself from perceived aggression by its rivals, the United States and South Korea. Although transparent in its desire to defend itself

from external threats, North Korea often remains secretive over how capable their defensive capabilities are.

North Korea historically has avoided releasing information regarding its nuclear weapons program, as well as information on the delivery systems. Hwee-rhak Park argues that "Nobody knows for sure what North Korea's nuclear strategy is, given the country's notoriety for secrecy and deception" (Park 2022, p208). He notes that North Korea's nuclear weapons actions are heavily influenced by deception. The lack of policy transparency provides difficulty to outside observers in understanding what Pyongyang truly intends for the use of its nuclear arsenal. In opposition to certain arguments about the goal of North Korea, Park argues that Pyongyang's goal is to reunify the Korean peninsula through war. The aim of its nuclear forces is to expel the United States military from the peninsula (Park 2022, p218). He furthers his argument by explaining "North Korea never actually requested to ensure its regime's survival or to exchange regime security for nuclear disarmament. It only demands the United States to give up its hostile policy towards North Korea, which is ambiguous but not a demand to ensure its regime's survival" (Park 2022, p218).

Park's argument is interesting, as it goes against the grain of many scholarly arguments that surmise that North Korea's primary objective with its nuclear weapons program is for regime survival. It is very possible, though, that Park's argument has a certain level of validity as North Korea likely seeks the reunification of the Korean peninsula. One can argue that both arguments illustrate the regime in Pyongyang emphasizing rationality in its decision-making process.

In general, deterrence works most effectively when the actors involved think rationally, where neither side is willing to gamble launching a nuclear or conventional strike on the other without weighing the possibility of massive retaliation. In the case of North Korea, the rational behavior of the regime, by upholding restraint by avoiding a conventional attack or nuclear strike on South Korea, is an illustration that their senior leadership values survival. This argument is supported by Howell, as he argues that if the North was acting irrationally, they would seek out the defeat of their enemies through sacrificing its existence (Howell 2020, p1053).

Criticism of Deterrence Theory

Although, substantial criticism of the rational actor theory began to manifest in the academic community after concerns arose over its effectiveness in deterrence strategy. Criticism included Alexander George and Richard Smoke claiming "deterrence had led to an exaggerated role for the military dimension in US foreign policy and had discouraged attempts to transcend the cold war" (Freedman 2004, p23). This thinking was reinforced by Richard Ned Lebow and Janice Gross Stein who described the existing state of deterrence as, "distorting strategy by encouraging an exaggerated view of the importance of demonstrating 'resolve' in the face of challenges that would

otherwise be recognized as minor; participating in an arms race; and aggravating and sustaining the degree of antagonism in the political relationship with the Soviet Union" (Freedman 2004, p23).

However, there have been arguments made against applying rationality in the case of rogue nations, such as North Korea. "Rational deterrence theory surmises that nuclear deterrence can minimize the chances of bilateral conflict between two nuclear-armed states, or one state that is nuclear-armed and one that is not, given that the threat of mutually assured destruction supports nuclear acquisition and subsequent non-use" (Howell 2020, p1053). This theory surmises that rational behavior is not a part of the thought process for rogue states such as North Korea. If the application of that theory were correct, Pyongyang would not value the survival of its senior leadership in the way it currently does. Howell agrees with this argument that because North Korea values its leadership survival, it acts in a rational manner (Howell 2020, p1053). This is also supported by Robinson and Platte when they elaborate on the strategic intentions of North Korea and its lack of initiative to strike non-nuclear weapon states with nuclear weapons, unless participating in hostile activity towards Pyongyang (Robinson and Platte 2021, p319).

International Response to North Korea

It is important to ask, how should the international community respond? Should North Korea resort straight to its nuclear weapons in a conflict, it would initiate a severe response and nuclear retaliation from the US in defense of South Korea. A nuclear exchange, initiated by North Korea, would end the existence of the North Korean nation and political regime in Pyongyang which would oppose the strategic interests and values of the North Korea leadership.

Successfully engaging with North Korea has long been difficult for the international community due to Pyongyang's unwillingness to halt progress on its nuclear weapons and nuclear capable ballistic missile programs. Now that North Korea has its own nuclear weapons arsenal, what are the best paths for engagement moving forward? Regardless of the strategy, it is crucial to deescalate tensions from reaching conventional war or a nuclear exchange.

Authors David C. Kang and Victor D. Cha attempt to answer what strategy would yield the most successful outcome while engaging North Korea from the lens of the international community. Both Kang and Cha believe in engaging with North Korea, even though Pyongyang remains adamant on the existence of its nuclear weapons arsenal. Although the two authors differ on the best approach as Kang supports a more open discourse with North Korea while Cha believes the only response requires the international community being stricter on Pyongyang's unwarranted activities.

Kang points out that deterrence does in fact work in the case of North Korea. The continued power disparities, while challenging for North Korea, do not put the nation in a position to launch a preemptive strike on the South due to the fear of retaliation and the fall of the regime in Pyongyang. Excluding minor strikes on the South, North Korea has not launched a massive conventional or nuclear strike on the South even with nuclear weapons and ballistic missiles. Kang therefore concludes that deterrence has succeeded on the Korean peninsula because, "For the first decades after the war, the U.S. deterrent made it very clear that a North Korean attack would fail" (Cha and Kang 2003, p55).

One point Cha elaborates on is that through coercive bargaining, North Korea can deliberately provoke, then seek additional gains explained by the following, "Pyongyang has followed a strategy of undertaking limited acts of violence against the United States, ROK and Japan" (Cha and Kang 2003, p72). The outcome if restraint fails is dangerous, "the coercive bargaining strategy is undoubtedly an extremely provocative and dangerous one which raises the risks of escalation;" (Cha and Kang 2003, p74). Cha concludes that deterrence works to prevent another major war on the Korean peninsula but does not stop North Korea from utilizing coercive bargaining against the South.

In opposition to previous arguments about the goal of North Korea, Park argues that Pyongyang's goal is to reunify the Korean peninsula through war. The aim of its nuclear forces is to expel the United States military from the peninsula (Park 2022, p218). He therefore believes that the only solution to the volatility from North Korea's nuclear arsenal lies in responding through nuclear deterrence. This appears in the form of "establishing another nuclear sharing mechanism on/around the Korean peninsula to counter North Korea's minimal deterrence to the United States" (Park 2022, p226).

The narrative that North Korea should only be dealt with through added nuclear presence on the Korean peninsula is risky. It relies on the belief that North Korea will back down from its threats to destroy the US and South Korea. Furthermore, it lends legitimacy to North Korea's argument that the American nuclear umbrella is a direct threat to its existence. This would escalate tensions in East Asia jeopardizing opportunities for peace through diplomacy.

Past scholarship in the case of North Korea notes that it is important for Pyongyang to act rationally in a manner that promotes survival over war. Therefore, nuclear deterrence is legitimate for North Korea for the purposes of regime survival. It is therefore pertinent to North Korea's deterrence strategy to compensate for its growing conventional inferiority. The best solution is a contemporary nuclear weapon arsenal, designed to deter any western military intervention to topple its regime. Ultimately, it is the concern over the survival of North Korean senior leadership that drives the regime in Pyongyang to dedicate its existence to nuclear weapons.

A History of North Korea: The Quest for a Nuclear Bomb

With the successful detonation of a nuclear device in 2006, North Korea demonstrated its technological and scientific achievements in nuclear science. How did North Korea reach this landmark event? And where does it intend to go now that it possesses nuclear weapons? This section will begin with a chronological history of North Korea's fissile material program and subsequently their nuclear capable missile program. Subsequently, this section will analyze the impact of North Korea's decision in the development of a working nuclear bomb and expanding missile program.

Fissile Materials

North Korea first began research in nuclear science after the division of the Korean peninsula following the end of World War II (KLS, Columbia University, 2018). Initial scientific research was sponsored by the Soviet Union, who provided logistical support and expertise to the fledgling program (Kirshin, n.d.). This support would manifest in the eventual creation of the North Korea *Atomic Energy Research Institute* and *Academy of Sciences* in 1952 (KLS, Columbia University, 2018). By creating a nuclear research institute, students and scientists interested in exploring nuclear science could further develop their knowledge and experience. Cooperation in this field between North Korea and the Soviet Union continued through the founding charter of the Soviet Union's Joint Institute for Nuclear Research which North Korea signed in February 1956 (NTI, 2021). This allowed for joint participation in nuclear research between their scientists.

As North Korea continued to educate its scientists on nuclear science, so did its ambitions for its own nuclear power facility. Beginning in the 1960's, the *Atomic Energy Research Institute* was moved to a new facility in Yongbyon (NTI, 2021). This new research facility flaunted the new experimental IRT-2000 nuclear power reactor acquired from the Soviet Union. One outcome of this technological transfer resulted in North Korea being able to conduct live nuclear experiments, without resorting to external assistance. The Cuban Missile Crisis in 1962, accelerated North Korean interests in becoming self-sufficient for its own national defense (KLS, Columbia University, 2018). Political thinking in Pyongyang was dramatically influenced as the Soviet Union engaged in a nuclear standoff with the United States. The concern was, if the Soviet Union did not fully engage in the defense of Cuba from an American military assault, why would they do the same for North Korea? As a result, the Yongbyon nuclear research facility was expanded into three branches to improve the nation's nuclear weapons development (NTI, 2021). Eventually, science in North Korea reached the stage of experimentation in nuclear fission. In essence, nuclear fission releases millions of times more energy than other chemical reactions (NMHB, 2020). With fission it is possible to create a working nuclear bomb.

An unusual shift took place in North Korean foreign policy initiatives beginning in the 1970's. Pyongyang agreed to a trilateral agreement in conjunction with the International Atomic Energy Agency (IAEA) in 1977, with the explicit goal of maintaining IAEA nuclear safeguards. The decision to participate in upholding international nuclear safeguards opened the door to additional cooperation, such as the ratification of the Nuclear Nonproliferation Treaty (NPT), in 1985. Through ratification, North Korea agreed to prevent the spread of nuclear weapons, materials, and expertise to other nation states. Therefore, if North Korea was so invested in acquiring nuclear weapons, why would it agree to sign and ratify the NPT? During this period, the international community was concerned with alleged nuclear weapons development occurring in North Korea. This resulted in additional pressure to ban further developments on the nation's nuclear weapons program. Pressure even came from the Soviet Union, which wanted international safeguards to apply to North Korea's nuclear reactor (Carrell-Billiard and Wing, 2010, p29). As an ally of North Korea, the Soviet influence aimed at de-escalating tensions along the peninsula regarding recent international concerns over unwarranted nuclear developments. Due to continuous pressure, North Korea agreed to sign the NPT. The belief was, Pyongyang had finally caved in to international pressure.

The start of the 1990's was a difficult period for North Korea, as the collapse of the Soviet Union in 1991, followed by economic struggles, left the nation weak and vulnerable (Wilson Center 2010). Substantial opposition over surprise inspections of the nation's nuclear reactors created tension with the IAEA (IAEA, n.d.). Relations between North Korea and the international community reached a breaking point resulting in increased tension with the United States. Fortunately, fears of escalation cooled when North Korea signed the Agreed Framework Agreement in 1994, which would provide two new light reactors from the U.S. in exchange for a complete halt to its nuclear activities (Hoover Institution 1997). This decision would be pivotal for the initial success of the agreement.

For several years, the Agreed Framework Agreement held firm. Unfortunately, differing interests, such as the country's opposition and eventual termination of safeguards and inspections, deemed highly intrusive, led to the collapse of the agreement. In 2002, it was assured by the U.S. that North Korea was seeking to obtain enriched uranium, violating the terms of the agreement (Carrell-Billiard and Wing, 2010, p30). Pyongyang gradually ceased cooperation with the IAEA over nuclear safeguards and inspections before subsequently resuming nuclear reactor operations. Beginning in 2003, continued opposition by North Korea in upholding the terms of the NPT led to its withdrawal later that year (IISS 2021). In 2006, the nation successfully detonated their first nuclear weapon ending a quest decades in the making. At long last, North Korea had finally achieved the ultimate assurance of their sovereignty.

The inception of North Korea's missiles program dates back decades. During the Cold War, the nation received various missile platforms from both the Soviet Union and China. After years of reverse engineering, North Korea began to develop its own missiles, setting off on a journey, with the goal of developing a nuclear capable ballistic missile.

Beginning in the 1960's, the Soviet Union began transferring various missile platforms and technology to North Korea (James Martin, CNS, 2008). This act was the genesis of the country's interest in missile capability. For the next few years, North Korean scientists began to reverse experiments with Soviet SCUD missiles exemplified by several design improvements in range and accuracy (NTI, 2018). After design completion was finalized, testing of the new missiles began.

The Soviet Union was not the only major power to supply North Korea with missile technology. China, which did not support the North Korean nuclear program (RAND, Bennett, 2023), did aid in missile acquisition, particularly with the Dongfeng ballistic missile in the 1970's (Rahul Krishna, 2018). The combination of Soviet and Chinese influence gave North Korea an advantage in developing its own arsenal of ballistic missiles. Unfortunately for Pyongyang, the missiles from their allies proved insufficient. Due to this failure, it was deemed necessary to seek additional external support, culminating in a deal for the acquisition of SCUD B missiles from Egypt in the mid 1970's (NTI, 2018). The arrival of these new missiles allowed North Korea to experiment for further missile testing. Eventually Pyongyang demonstrated the fruit yielded from years of research on their missile models. In 1984, North Korea began to conduct its own missile tests (Arms Control Association, 2023). The nation began the first of its 10 separate missile tests, between 1990 and 1994. In particular, the Nodong missile, tested in 1993, had a range of approximately 1,000 km (NTI, 2018). The significance of these tests was that North Korea had come a long way in missile technology development in a brief period of time.

Although it experienced the loss of assistance, due to the dissolution of the Soviet Union, North Korea still received substantial support for its missile program from China. This backing was demonstrated through the discovery of components and vehicles arriving from China (Anders Corr, Forbes, 2017). This even included heavy machinery such as transporter erector launchers (Anders Corr, Forbes, 2017). Support from China was substantial in maintaining the growth of North Korea's missile program.

A notable exception to missile testing occurred, coincidentally, during the Agreed Framework period starting in 1994. During this brief era, North Korea took the initiative to limit missile testing, with just a single launch between 1994 and 2002. (Arms Control Association, 2023). This was likely an acknowledgement of the progress established in the framework deal. As the Agreed Framework began to collapse, so did North Korea's pause on its missile development. After this collapse, Pyongyang began a substantial increase in missile testing correlating in their nuclear weapon test in 2006. The decision was exemplified by the introduction of the Taepodong-2 missile,

later used to launch the Unha-3 orbital launch system unveiled in 2009 (Arms Control Association, 2023). To the international community it was becoming clear that North Korea was seeking to construct a long range nuclear capable ballistic missile.

Between 2012 and 2024, North Korea conducted around 220 separate missile tests with a variety of different missile systems (Arms Control Association, 2023). Such a substantial increase in missile activity reflected a growing interest in furthering the development of North Korea's ballistic missile capabilities. Furthermore, this ambitious goal necessitated further improvements to the existing infrastructure. The foundation of new missile infrastructure led to the eventual creation of more sophisticated missiles including the KN-11, the nation's first submarine launched ballistic missile, and the BM-25, its first intermediate range ballistic missile (Arms Control Association, 2023). These new tests would eventually catch the eye of the international community raising concern over stability on the Korean peninsula.

In response to ongoing North Korean missile tests, in 2017, the United Nations Security Council adopted Resolution 2371, which, "The North Korea shall not conduct any further launches that use ballistic missile technology, nuclear tests, or any other provocation," (UNSC). The goal of this resolution was to end the threat of North Korean ballistic missiles. Furthermore, this legislation is also aimed at preventing further destabilization in the region.

During 2023, Pyongyang attempted three missile launches to successfully place a satellite into orbit. The first two attempts failed but the third was deemed successful (Arms Control Association, 2023). Within the international community, the launching of satellites is concerning due to the implications such technology could be utilized in the creation of ballistic missiles. This leads to the conclusion that a great deal of interoperability exists in these domains. Continued North Korean interests in missile technology has shown progress on new weapons. In January of 2024, North Korea launched a new ballistic missile with a hypersonic glide vehicle (Arms Control Association, 2023).

Pyongyang has demonstrated for quite some time that it seeks advanced ballistic missile capability. Progress within the past few decades continues to illustrate just how successful North Korean can be in the development of increasingly sophisticated missile platforms. Therefore, it is only a matter of time before the nation successfully tests a nuclear capable ballistic missile.

Influential Factors Surrounding North Korea's Nuclear Weapons Program

Speculation continues to swirl over the most influential factors in the creation of North Korea's nuclear arsenal. Thus, the question must be asked, why does North Korea require a nuclear weapons program? This section will discuss three critical factors that influenced Pyongyang's

interest in its nuclear program: first, the external threats from rivals South Korea and the United States, the nation's conventional military capabilities, and the utilization of international sanctions. This section will also include a brief reflection on how each factor is distinguished in the context of nuclear weapons.

Foreign Adversaries: South Korea and the United States

Conflict between North Korea and South Korea and the United States dates back decades. After the end of the Second World War, the Korean peninsula was split into two separate nation states. The North was backed by the Soviet Union and the South received support from the United States. Eventually, war broke out in the region, and when the dust settled further cemented the divide which remains (Pruitt, 2021). Throughout the Cold War, competition continued between the two Koreas over international recognition and legitimacy. As South Korea experienced new economic growth, the nation began to leave its northern neighbor behind (Council on Foreign Relations, 2023). By the end of the Cold War the two Koreas were in totally different positions as North Korea faced massive domestic struggles, South Korea emerged as a strong new nation (Council on Foreign Relations, 2023). These deficiencies prompted fear that North Korea was no longer capable of rivaling the South without a strong nuclear deterrence posture.

One of the issues for North Korea is the continued alliance of the United States and South Korea. Together, these two allied nations prompt opportunities to foster growth and development (US DOD, 2023). This cooperation creates serious jealousy as Pyongyang has no equivalent in terms of ally support. Furthermore, North Korea believes it is falling further behind South Korea and its U.S. ally as it cannot manage to compete in economics, technological development, or international prestige (Kang, 2018). This divide has only grown over the past few decades, alarming officials in the north. In the present day, relations between North and South Korea remain tense due to military threats posed through a nuclear exchange.

Relations between North Korea and the U.S. have been fraught with tension. The United States original intent was to stop the spread of Communism in East Asia while North Korea sought to defend its sovereignty from those who would seek to extinguish it. Military backing of South Korea has enraged party leaders in the North (Choi, 2023). In addition, the United States maintains a significant military presence through tens of thousands of soldiers and numerous advanced weapon systems (Shin and Lee, 2021). Pyongyang is envious of what it does not have, significant political, economic, and military allies which will support its endeavors in its nuclear and ballistic missile programs.

How did the relationship between the US and South Korea impact North Korea's nuclear weapons ambitions? The United States had initiated the possibility of threatening Pyongyang through its own nuclear forces. Due to the massive threat posed by these weapons, North Korea found itself

in a difficult predicament. Support from its ally the Soviet Union provided senior leadership in the country with enough assistance to counterbalance the US and South Korea (IISS, 2023). Although the Cuban Missile Crisis left Pyongyang with hesitation over support from its ally in the event of a possible nuclear exchange. Continuous threats from the nuclear arsenal of the US force North Korea into developing its own nuclear counterweight. After the collapse of the Soviet Union, developing a nuclear weapon became especially important, even during the years of the Agreed Framework during the 1990's. In North Korea there is still fear that the US could use its nuclear power to topple the regime. This perception continues to influence senior leadership in Pyongyang over its nuclear weapons capability.

Conventional Military Disparity

North Korea fears the military alliance of nations including South Korea, the United States, and Japan. This coalition of allied forces has high interoperability, shown through joint military exercises. The conventional military forces in North Korea may be numerically superior but provide little match to the highly trained forces of South Korea, the United States, and its regional allies. Concurrently, this weakness presents a serious strategic security concern for Pyongyang, fearful its conventional military forces are inadequate in preserving the integrity of the regime. To compensate for this weakness, North Korea deterrence strategy requires the existence of a nuclear weapons arsenal with working ballistic missile platforms.

The military relationship between North and South Korea is intriguing. There is a considerable numerical difference in the size of the two Korean conventional military forces (Council on Foreign Relations, 2022). Possessing a strong military is one of the focal points of North Korea's central doctrine (Howell, 2020 p1054). Without this, the country believes it is weak and cannot defend itself from foreign threats, such as the U.S. One of the perceived strengths of North Korea's military lies in its sheer size. Their army consists of at least one million active military personnel, with countless millions in reserves (Council on Foreign Relations, 2022). For reference, recent estimates place South Korea's army as roughly half the size of the North (Carnegie, 2020). The land emphasis also extends to their ground weapons systems. Furthermore, they possess 6,000 artillery weapons (RAND, 2020). The value of size cannot be underestimated in the case of North Korea. There is a clear working relationship in Pyongyang between military strategy and military force.

A significant difference between the two conventional military forces stems from external support, where Seoul enjoys a crucial advantage, while Pyongyang suffers due to poor international relations (OHCHR, 2023). Foreign aid, especially military assistance, has allowed for the production of indigenous weapon systems in South Korea. On the other hand, North Korea continues to utilize decades old weapons acquired from China and the former Soviet Union, many

of which are obsolete (Bechtol Jr., p167). Like its problems from foreign adversaries, Pyongyang cannot create a military industrial complex to match the gains obtained from South Korea's expanding military capabilities.

Due to the obvious conventional military disparity, Pyongyang encounters the problem of how to ensure its sovereignty without a formidable modern capable military force. This is addressed through its nuclear weapons program that aims to compensate for its conventional military weaknesses. North Korea cannot match the American and South Korean military forces in a war; therefore, it is important for the nation to possess adequate nuclear weapons capability as a strategic deterrent (Council on Foreign Relations, 2022). The glaring vulnerability associated with weaknesses in conventional abilities leaves North Korea with few options other than believing nuclear weapons guarantee the nation's existence.

In conclusion, the numerical advantage that North Korea possesses from its conventional military forces is little more than an obstacle for South Korean and American military forces. Although Pyongyang could inflict severe damage from its massive ground forces, it would not be enough to defeat its southern rival in a war. The clear divide in its military capabilities leaves North Korea asking how it can achieve parity, which comes from its nuclear weapons arsenal and ballistic missile program.

Implementation of Sanctions

Another major strategic security concern for Pyongyang is sanctions. North Korea has long experienced significant international condemnation for its nuclear weapons program and ballistic missile tests. This behavior has led to North Korea facing several waves of sanctions aimed at punishing the country for undertaking nuclear weapons programs that undermine stability in the region. Initial sanctions came from the United Nations Security Council (UNSC) which aimed at halting development in North Korea's nuclear weapons program (ISPI 2012). Unilateral actors, such as the United States and South Korea, also continue to encourage a halt to all nuclear and missile activities through sanctions from Pyongyang. Even though the sanctions have damaged North Korea's economic capabilities, they have not had the desired effect in achieving meaningful change.

The issue with sanctions comes from the following. First, if North Korea perceives its security as vulnerable to foreign intervention, it will continue to pursue whatever strategy is in its best interests. International sanctions will not change this thinking and may push Pyongyang to seek new cooperative efforts elsewhere. Furthermore, sanctions illustrate that the international community dislikes the current behavior of the North Korean political regime. This does little to promote dialogue between the isolated country and the rest of the world. It is safe to say that

pushing North Korea further into a corner fails to alleviate existing fears of being undermined or invaded (Bennett, 2023). As a result, the nation believes its only solution is to defend its existence through its nuclear weapons.

Even after immense external pressure, North Korea has not strayed from its objective of national defense through nuclear deterrence. The survival of the nation remains the utmost important objective of North Korean foreign policy. If threats remain from the United States, whose massive military presence in Korea is upsetting to Pyongyang, continuous waves of sanctions from the international community, and its own military weaknesses, then North Korea will continue to operate and expand its nuclear weapons arsenal.

Policy Recommendations: Dealing With the Challenge Posed by North Korea's Nuclear Weapons Program

Historically, it has been challenging for the international community to engage with North Korea over its nuclear weapons program. The past objective has been to condemn any escalation of conflict and prevent the launching of conventional and nuclear strikes on the Korean peninsula. To achieve this goal, there is a belief that Pyongyang must halt the development of its nuclear weapons and nuclear capable ballistic missile program. This section is aimed at examining previous policy goals and objectives from the international community, against North Korea, as well as offer several policy recommendations.

When suggesting policy recommendations there are two perspectives to consider. The first idea is whether the international community still believes it is possible for North Korea to peacefully give up its nuclear weapons arsenal. Should this option no longer be deemed possible, then the world must learn to engage with Pyongyang which has nuclear weapons. While it is still possible that North Korea agrees to peacefully disarm its nuclear weapons arsenal, this scenario is fraught with challenges. Should the international community believe this fight pertinent to regional security, then it should begin with a diplomatic approach.

What If North Korea Voluntarily Agrees to Give Up Its Nuclear Weapons?

A diplomatic solution between North Korea and the international community over Pyongyang's nuclear weapons program, has been highly sought after but continues to remain elusive (Jun 2023). Although challenging, diplomacy remains crucial for long term peace on the Korean peninsula. The primary aim of a diplomatic engagement with North Korea remains the dismantlement of the country's nuclear weapons arsenal. Furthermore, it is also seen as important to halt any further missile development by the nation's leadership. At its core, this solution is nothing new. A policy

of nuclear disarmament has been reinforced in past policy suggestions (Aum, 2022). By achieving these objectives, it remains possible to achieve peace and stability for the region.

The question on everyone's mind is, what should be included in discussions? North Korea believes in the survival of its senior political and military leadership (Howell 2020, p1051). Therefore, the international community must take measures to stop any notion of regime change in Pyongyang. A proposal worthwhile to North Korea should mention sanctions alleviation. This act of good faith would encourage, at the very least, a discussion about curtailing unstable behavior from its nuclear weapons threats against South Korea and the United States. Although the prospect of nuclear nonproliferation and disarmament is daunting, it is important to acknowledge the main fear for Pyongyang is collapse (Howell 2020, p1059). No diplomatic solution should require the forced removal of current North Korean leadership. This would be perceived as a direct threat to the regime and end interest in continued dialogue.

In the past, diplomatic solutions with North Korea have encountered continued obstacles due to a lack of cooperation. The policy of North Korean senior leadership exhibits a problem of priority. Any suggestion that the political and military elite should surrender any portion of that power to the international community is unacceptable. It is therefore unsurprising that North Korea makes decisions based on its own interests above the interests of other nations, particularly the United States. The second issue appears through the lack of accountability in agreed frameworks signed by North Korea, for example in its signing and subsequent withdrawal from the NPT. It is common for the nation to renege upon its previous agreements (IAEA, n.d.). This complicates efforts to establish a consistent diplomatic relationship with Pyongyang.

What If North Korea Does Not Agree to Give Up Its Nuclear Weapons?

If the prospect of nuclear disarmament is no longer considered a plausible international objective, then it is time to accept North Korea as a *de facto* nuclear weapons state. Therefore, a different approach must be taken to ensure nuclear conflict is avoided along the Korean peninsula. This idea must incorporate existing international policies such as the implementation of sanctions as well as the possibility of increasing military presence in the region to respond to elevated threats stemming from North Korea.

From the successful testing of a nuclear device in 2006, North Korea has continued to weather several waves of international sanctions (Davenport, 2022). Sanctions are considered, "coercive measures applied against States, non-State entities or individuals that pose a threat to international peace and security" (Ministerio de Asuntos Exteriores, n.d.). Therefore, sanctions act as a form of punishment. Due to its continued developments in its nuclear weapons program, as well as, its ballistic missile tests, North Korea has found itself on the receiving end of a harsh series of

international sanctions. Despite stiff sanctions and a harsh economic decline, North Korea continues its trajectory towards becoming a nuclear weapon power.

What sanctions have been implemented against North Korea and its destabilizing nuclear weapons program? There have been several sanctions implemented by the international community against North Korea. Foremost are the sanctions implemented by the United Nations, particularly from the UNSC, which came as a direct result of the 2006 nuclear weapon test. Since then, the UNSC has adopted nine sanctions resolutions (Davenport, 2022). It is unanimous amongst the UNSC members to target any direct economic connections to North Korea's nuclear program. On the other hand, sanctions have also been implemented unilaterally, as was the case of the United States which implemented a wide series of sanctions that target a significant degree of North Korea's leadership (Treasury Department-OFAC, 2018). Additionally, South Korea initiated its own unilateral sanctions because of North Korean nuclear weapons and targeting individuals involved in military support for Russia (Dong-woo, 2023). The goal of these sanctions is to coerce North Korea, to alter its behavior with its nuclear weapons and nuclear capable ballistic missile programs.

This is not to say that the country has not been negatively impacted by sanctions. The issue is North Korea has not been successfully deterred against surrendering its nuclear weapons as demonstrated by its continued pursuit of these weapons until its successful test in 2006 (Wilson Center, 2009). Another point of contention is that sanctions themselves can only impact so much to limit economic, military, and political growth, with the goal of hindering a targeted nation's strategic objectives. In the case of North Korea, sanctions must be implemented by all international bodies to be successful. This includes close allies of the regime, notably China. Sanctions have been largely ineffective at containing the illicit activities of the North Korean regime (Bandow, 2022). Therefore, it must be asked, why have the implementation of sanctions failed in the case of North Korea? In addition, what can the international community learn from these failures? Unsurprisingly, sanctions have failed due to already existing economic hardships and a strong determination by Pyongyang to preserve its existence. There is a fiery determination to defend party leadership from its enemies, the US, with nuclear weapons regardless of the consequences (Robinson and Platte 2021, p323). Furthermore, the case of North Korea demonstrates a problem implementing sanctions against rogue state actors.

Without the complete support of China and Russia, sanctions will inevitably fail to successfully curtail the actions of North Korea on its nuclear weapons program. Moving forward, the question is, how can sanctions be successfully implemented to deter any future illicit activities from North Korea. As illustrated through past policy experiences, it is difficult to successfully deter leadership in Pyongyang from completing its nuclear and ballistic missile aspirations. Therefore, adjustments must be taken in the following sequence.

Should North Korea continue to expand its nuclear weapon capabilities, including through its ballistic missile development, a necessary military counterweight will be required to ensure an escalation of tensions does not lead to war. In the event diplomacy fails or one party decides the best course of action is by launching a preemptive strike, military preparation is critical for providing various potential responses.

North Korea continues to struggle with its own strategic objectives in a potential military crisis. Pyongyang cannot comprehend its national security without nuclear weapons and ballistic missiles. Currently no mutual understanding exists for peaceful denuclearization (38 North, 2023). Due to the lack of joint consensus on how to denuclearize North Korea without threatening its sovereignty, a peaceful resolution continues to evade the Korean peninsula. Without the clarity of designating the region as free of nuclear weapons, the option of military force remains on the table. As the facade of North Korea's conventional military capability is unraveled, South Korea stands to gain from its own rapidly growing indigenous military complex that has expanded to international markets (ITA, 2023). South Korea now maintains one of the most well equipped and trained fighting forces in the world. With the rapidly improving conventional military capabilities of South Korea, more precise deadly military force can be brought to bear against the north. A policy of continued military support must be supported both in South Korea and the international community. Undermining this key objective will delegitimize effective military deterrence against North Korea. This divide presents North Korea with the problem of remaining relevant outside of its nuclear weapons.

An adequate military strategy requires necessary preparation on both military and economic fronts. Should war break out on the Korean peninsula, maintaining strong support for South Korea and Japan remains crucial. To provide critical aid to these allies, it will be important to support a strong chain of logistics to ensure military forces on the peninsula and surrounding region have the necessary tools to appropriately respond. To supplement this assistance would be the positioning of U.S. military assets in the region including on the peninsula. The deployment of sophisticated hardware including strategic bombers, destroyers, and aircraft carriers is a strong message of support for South Korea. It also makes clear American intentions to defend its allies in the event of armed conflict (Aljazeera 2023). If North Korea were to engage its southern neighbor, it would require nothing short of all-out war.

One of the major concerns facing existing American, Korean and Japanese military forces in the region is the response by neighboring China. China has often opposed the deployment of sophisticated military weapon systems, such as ballistic missile defense platforms, on the peninsula (Asia Society, 2018). These deployments pose a serious threat to China's national security interests. An additional concern is the close association between China and North Korea along their shared border. The issue for American and South Korean forces lies in securing the border along the Yalu River before China intervenes in the region. To counter these concerns,

China is very unlikely to be the subject of a U.S. led invasion as current American military resources would not be capable of such a mission. American and South Korean military forces are designated in a defensive posture in the event of possible strikes or invasion from North Korea.

Consideration Towards an Alternative Solution

This alternative suggestion is aimed at providing North Korea the fortitude to disengage from its nuclear weapons program and remove them from the Korean peninsula. Now, South Korea falls under the protection of the United States nuclear umbrella. In addition, by acknowledging the conventional military disparity facing North Korea, it is no surprise that it feels threatened by its rivals. Unfortunately, the divide between the two nations will only continue to grow. Meanwhile, North Korea continues to falter under failing economic, political, and social policies, undermining its potential growth. The harsh reality facing North Korea leaves the country no choice but to resort to its nuclear weapons arsenal. The goal of alternative compromise would be to offer Pyongyang an approach which would cement the legitimacy of their regime by ensuring the political government cannot be overthrown by international forces. For this policy to succeed, it would require the full cooperation of China, Russia, and the international community as a whole.

This policy recommendation aims to provide North Korea with its own nuclear umbrella solidifying its protection from foreign invasion. This would come from the nuclear weapon strength of either Russia or China. More than likely, Russia would find this mutually beneficial through its already existing military cooperation from war in Ukraine. As in its past interactions, China would refrain from offering direct nuclear weapons protection to North Korea, without a radical shift in the existing status quo.

How would this look? The reality surrounding this policy suggestion requires interest from several different international parties, an already difficult prospect to begin with. Of the two major nuclear powers in the region, Russia would have the greatest interest in spreading its damaged power and influence into a new region. First, Russia would see this as a financial gain through an agreement trading money for protection. Due to the tremendous pressure from the international community over their actions in Ukraine, this has the potential to limit some of the economic degradation facing Russian society. Secondly, Russia becomes a more influential actor in the region. By promoting their interests in the region, a new opportunity for geopolitical influence in opposition to the United States presents itself. An already strenuous relationship challenges American influence in world affairs.

It is likely this policy suggestion is met with stiff resistance from the United States and the nonproliferation regime because of the expansion of nuclear weapons capability in Asia. The U.S. would heavily oppose a military rival pushing for nuclear protection of North Korea due to the

already tense geopolitical dynamic along the Korean peninsula (Klinger, 2024). In addition, many in the international community would strongly oppose any conventional or nuclear military power and influence being exerted by Russia. It is possible this puts Russia at odds with the Chinese, especially with the prospect of nuclear weapons being positioned so close to Beijing. Furthermore, any idea of promoting nuclear weapons protection would be heavily opposed by the nonproliferation community, as this action would clearly violate the parameters of the NPT. Concern over the spread of that protection or the further acquisition of nuclear weapons by other nations would undermine international efforts at peace.

It is likely that providing a nuclear umbrella for North Korea via China or Russia would be met with serious opposition from both South Korea and Japan. Neither nation wants China and Russia exerting increased influence in East Asia where self-interests become crucial for these nations. The necessary tradeoff to ensure South Korean and Japanese cooperation would mandate an increase in American military assets into the region. Furthermore, it would be important for both nations to develop improved military capabilities, independent of the United States.

Another matter to consider is whether North Korea believes a nuclear umbrella of its own is sufficient protection against its enemies and the prospect of invasion. If Pyongyang were to accept this idea, they would lose a certain degree of autonomy where their nation would be at the mercy of Russia or China. This would not sit well with the current North Korean leadership which values flexible options in military retaliation. To reiterate a previous point, Pyongyang would need to reflect on the case of Cuban Missile Crisis in 1962, where the Soviet Union deployed nuclear capable missiles to the island nation, which almost resulted in nuclear war (Wilson Center 2010). Eventually, the Soviets withdrew these nuclear capable missiles which questioned the credibility of their resolve in the face of massive American military retaliation. What if Russia were to follow its Soviet predecessor and back down in the face of massive nuclear warfare or international pressure? In conclusion, based on the case study of Cuba, North Korea would balk at forfeiting its nuclear weapons arsenal.

At the end of the day, this policy recommendation comes with a significant degree of difficulty and controversy. Increasing nuclear weapons in the region may increase tension and the risk of conflict in the region, but it may provide North Korea with an alternative to its own volatile nuclear arsenal. To reiterate, the aim is for North Korea to voluntarily forfeit their nuclear arsenal. Heavy opposition from all sides will impact the success of this policy measure. Only time will tell if this policy becomes a reality.

Conclusion

North Korea's journey to nuclear weapons acquisition required decades of hard work and experience. It involved extensive knowledge of nuclear science and technology, which further allowed for the evolution of their weapons acquisition. The threats posed from international sanctions, the prospect of U.S. and South Korean influence in the region, combined with the deficiency of its own conventional forces leaves North Korea no choice but to pursue its own nuclear weapons program. This logic solidifies the country as a rational actor, heavily prioritizing survival of its political leadership. Past literature reinforces the notion that nuclear deterrence can indeed be successful at achieving survival. Their nuclear weapons arsenal, does in fact, create a legitimate deterrent against potential American intervention on the Korean peninsula. In contrast, many will argue that the prospect of North Korea's nuclear weapons arsenal destabilizes the region and challenges international norms for constructive dialogue. Due to this concern, greater efforts must be presented to ensure there is not an escalation of conflict or a nuclear exchange on the Korean peninsula.

In the end, it comes as no surprise North Korea came to the realization that nuclear weapons were required for its security. Regime survival remains its number one priority. If persistent fears of regime collapse seem plausible, it is very unlikely that a peaceful solution, involving the removal of nuclear weapons from the Korean peninsula, will come to fruition. It will require a united international community response to persuade North Korea that it is not under the threat of invasion or regime change. Pyongyang has come a long way to achieve its goal of building a functional nuclear weapons arsenal, but the fear of its own demise far outweighs its fear of the international community.

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