REALISM AND ITS IMPACT TO THE NORTH KOREAN, SOUTH KOREAN, AND CHINESE NUCLEAR PROGRAMS

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A thesis submitted to Johns Hopkins University in conformity with the requirements for the degree of Master of Arts in Global Security Studies

Baltimore, Maryland August 2017

© 2017 Garth Thomas All Rights Reserved **Abstract**

This thesis paper is three sections covering three countries (North Korea, South

Korea, and the People's Republic of China) to study if and how realism explains the

origins and attitude of each nuclear program. First, it investigates the impact of realism

and its implications on the North Korean nuclear program. It explores what China's

involvement with North Korea and interactions with the Non-Proliferation Treaty (NPT).

The first chapter examines historical evidence of North Korea's nuclear experimentation

interaction with the United States, China, and South Korea in order to test if classical

realism accurately explains the origins of the program. My second chapter researches

how well neorealism explains the origins of the South Korean nuclear program. Lastly,

the third chapter will seek to evaluate the effectiveness of the concept of realism in

explaining the growth of China's nuclear weaponry. The aim is to determine whether

realism satisfactorily accounts for the rise in Chinese nuclear power.

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Thesis Introduction

Each chapter of the overall thesis will dissect how realism (in South Korea's case, neorealism) plays a distinct role in their ideology, history, and current operations. My hypothesis is realism and neorealism is the best explanation for the creation of North Korea's, South Korea's, and China's nuclear programs.

Specifically, realism and the quest for power explains the current and historical nature of the Asia Pacific area. The definition I will use for realism is that theory under international relations that believes conflict follows from human nature. Neorealism's definition is that conflict is derived from a turbulent state system, not human nature. Power is an important desire and concept within this area in the world compared to other areas of the world such as Europe and South America. North Korea, South Korea, and China leadership define power differently and regard their version of the concept superior. Other international relations theories on the study of non-nuclear (and nuclear) proliferation include idealism, which means nations pursue nuclear development based off of the utility of nuclear programs and its symbolism. Idealism takes on the form of perception from other countries toward the states seeking nuclear power. Based off the premise that states genuinely want to be seen as "good citizens," realism is more aligned to the situation in the Asia Pacific, namely because North Korea is not concerned about the opinions of other countries. Another theory is neoliberal institutionalism, which states that other countries should be concerned with their own institutions and upgrading them

¹ Jacques Hyman, Theories of Nuclear Proliferation, Accessed August 13, 2017, http://www-bcf.usc.edu/~hymans/Hymans2006Theories.pdf.

before concerning themselves over other ones in the international community.² This theory more concerns itself with global organizations, rather than countries in my opinion. Also, traditional studies have used realism and neorealism to explain historical decisions, which is why I wanted to test the realist's theories out. Another theory, constructivism, is defined as a theory in international relations theory we understand political institutions as social constructs.³ Differences in classical and modern realism are briefly evaluated, with more emphasis placed on the thinker's interpretation (e.g, Mearsheimer, Waltz, etc.) than the actual definition itself. Testing the neorealism and realism theories best describes the nuclear origins of North Korea, South Korea, and China

The first chapter briefly outlines the story behind American-North Korean nuclear relations and how well realism tests their capabilities. The first section tests how classical realism explains the origins of the North Korean nuclear program and its interactions with the NPT. Sanctions and traditional policies are examined and briefly evaluated.

The second chapter tests how well neorealism explains the lack of a nuclear program in South Korea. Both Neorealism and realism argue states are always in a perpetual quest for security. Realism centers on pessimistic views that argue security is needed because of human nature and its flaws. Conversely, neo-realism argues security is desired because of the flaws in the unstable international system, not human nature. The second paper dives into the differences between the definitions of neorealism and how the early thinkers thought of neorealism. Also, how structural realism is unique

² David Baldwin, *Neorealism and Neoliberalism: The Contemporary Debate* (New York: Columbia University Press, 1993) 16.

³ J. Samuel Barkin, *Realist Constructivism: Rethinking International Relations Theory*, Cambridge University Press, Cambridge, 13.

concerning South Korea's ideology is researched and identified. The second chapter also goes over the difference between power and security, and why neorealism thinkers regard security as more important than power. The security alliance between the United States and South Korea is unique in nature. Additionally, South Korea's nuclear history is briefly examined to discover if any related facts are explained with neorealism.

The third chapter to my thesis emphasizes the origins and complex nature of the People's Republic of China (PRC) nuclear program. The third chapter seeks to study the effectiveness in China's decision to build a nuclear program against the realism theory. The objective of the third paper is to identify if realism sufficiently explains the rise in Chinese nuclear power or if other theories need to emphasize growth. In the third chapter, classical realism is researched to see if external pressures from other neighboring states forced the PRC to upgrade their capabilities. Kenneth Waltz's studies on the subject of realism are bounced against Chinese's nuclear decisions and its quest for more power. The question of hegemony under the Chinese nuclear structure is also examined, on whether or not how much power is too much power. The fundamental difference in the research with the third chapter is that it directs more attention to the contrasts of offensive and defensive realism, due to China's obsession with hegemony.

This topic is a significant one to understand. North Korea and China consistently test their ballistic missile programs daily under the careful surveillance within the United States. North Korea is already upgrading their intercontinental ballistic missiles to target key U.S. territories in California, Hawaii, and Alaska. Not only researching the equipment capability but testing them against political theory assures the researcher a complete understanding of each nation's intentions.

China has always possessed a vigorous and consistent nuclear program since the early sixties. It would be a severe disadvantage from an American researcher's standpoint to be unaware of the progression of the Chinese nuclear program, to include its history. Realism and neorealism play a distinct and vital role in understanding why these nations possess a nuclear program because the political nature of realism is conflict. Also, the North Korean, South Korean and Chinese pursuit of power and security necessitates the study of neorealism and realism because of the uncertain nuclear future in the Asia Pacific area.

Each chapter is connecting in style, research type, and presentation. This thesis is a study of how realist and neo-realist theories explain country behavior and they're nuclear program background. Emphasis is briefly placed on history while more meaning is put on its relevance to realism. Each country (North Korea, South Korea, and China) is chosen due to its controversial history and unpredictable nature in modern times as its relates to the American political agenda. The basis for each country's unpredictable nature is the increase in both North Korean nuclear capability and Chinese ballistic missile capability, despite disapproval from the international community. The chapters in the thesis represent each distinct history, current situation, and anticipated future with America. The distinction is placed within the chapters to highlight the ally and rival differences.

America must remain diligent and vigilant against the rapid buildup of the North Korean and Chinese nuclear programs. American must also continue to support South Korea's ability to counter act both the North Korean and Chinese threats by adding capabilities such as terminal high-altitude area defense (THAAD) in other parts in South

Korea. Perhaps the United States leadership can take away key concepts under realism (pursuit of power, security as a core value, etc). Also, American leadership must continue to study the past, present, and anticipated future of the North Korea and Chinese nuclear threats. This scope of the nuclear expansion by both North Korea and China expands well beyond a thesis. Additionally, upgrading the South Korean nuclear systems and understanding of their neighboring threats is vital to American military mission accomplishment.

First Chapter: North Korean Historical Overview

The United States and the United Nations Security Council monitor North Korea's nuclear proliferation capabilities. Nuclear programs in North Korea date back to the 1950's through its nuclear energy program with aims of strengthening its international status and spreading communism to the South. During mid-1960's, an atomic energy research development developed in Yongbyon staffed by specialists modeling the Soviet foundation of nuclear science. In the 1970's, North Korea started concentrating on learning about nuclear fuel cycle to include refining, conversion, and fabrication. The country embarked on the construction of the second reactor with a 5-megawatt capacity. Officials in the U.S. declassified intelligence reports uncovering nuclear reactor development approximately 90km north of Pyongyang near Yongbyon. This led to

⁴ IAEA, https://www.iaea.org/newscenter/focus/dprk/fact-sheet-on-dprk-nuclear-safeguards.

increasing international pressure compelling Pyongyang to join the NPT in 1985. However, North Korea became part of the NPT on December 12, 1985.⁵

With South Korea's desire to promote exchanges with North Korea to promote contact in international forums, family reunification and trade, South Korea's president offered to discuss security issues with North Korea in the United Nations General Assembly. Consequently, a bilateral regime came into force to verify Peninsula denuclearization with over agreements that the two Korea states shall not manufacture, test, receive, produce, store, deploy, possess or use nuclear weapons. Another significant occurrence of the 1992 Joint Declaration was that the United States removed its nuclear weapons from South Korea in December 1991. No agreement could be reached on establishing a joint inspection regime. Little progress regarding inspection regime had been made bringing dialogues between the international community and Korea to a standstill by the fall of 1992. The Agreed Framework (started on October 21, 1994) mandated that North Korea stop the building of nuclear reactors in possible connection with a covert nuclear weapons program "in exchange for two proliferation-resistant nuclear power reactors."8 This agreement solidified several joint United States-North Korean responsibilities such as not threatening each other with nuclear weapons, full

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⁵ IAEA, https://www.iaea.org/newscenter/focus/dprk/fact-sheet-on-dprk-nuclear-safeguards.

⁶ "The Nuclear Information Project," accessed August 5, 2017,

http://www.nukestrat.com/korea/withdrawal.htm.

⁷ Park Ki-Tae, *Analyzing North Korea's Decision-Making Process on its Nuclear Weapons Program with the Rational Choice and Cognitive Choice Models*. (Albany: State University of New York, 2010), 20.

⁸ "Arms Control Association," accessed August 5, 2017,

https://www.armscontrol.org/factsheets/agreedframework.

participation from North Korea regarding reactor inspections, and North Korea remain part of the NPT. North Korea eventually left the agreement on January 11, 2013.⁹

Denuclearization became one of the most crucial and critical issues in the unstable Korean Peninsula. North Korea's violation of the September 19 Joint Statement that had been reached by the six parties in 2005 led to an objection by the United Nations Security Council (UNSC) since the country had promised to abandon all nuclear weapons and programs that were in existence. As a result, the UNSC adopted various Resolutions to impose strict sanctions against the Democratic People's Republic of Korea (DPRK) to date due to its unauthorized development of nuclear weapons that have in turn ignited the speculation regarding its future relationship with China. 10

First Chapter: China's involvement with North Korea

Despite the perception of many Western powers of China as an "ally" to North Korea, China surprisingly supported the UNSCR 2270 against the DPRK. Domestically, the North Korean leadership of the country has achieved more strength and shored up backing through the latest nuclear tests it has conducted. The DPRK's reputation internationally has severely been tarnished and has since isolated themselves from the international community. The continuous vicious circles of nuclear tests by the

⁹ Ibid.

¹⁰ "Security Council Imposes Fresh Sanctions," United Nations, accessed July 4, 2017, https://www.un.org/press/en/2016/sc12267.doc.htm.

¹¹ Joseph R. DeTrani, "After 20 Years of Failed Talks with North Korea, China Needs to Step Up". *Arms Control Today*, October, 2014.

DPRK has unintentionally given the United States reasons to heighten its military presence by placing U.S. Navy Aegis destroyers around the Korean Peninsula for surveillance operations.

During the post-cold war transformation, international relations and regional tensions in East Asia improved significantly. This backdrop created a natural incentive for China to rethink its relations with other North-Eastern states notably South Korea and Japan to reconcile Peninsula by ending the actual military hostility. China had to step up for the sake of its prosperity and security for its people. In 1992, China and the Republic of South Korea successfully formed diplomatic relations, a condition that brought discontent with North Koreans. This made North Korea start negotiating to end security pressure. The United States government increased policies on nuclear programs, intensifying tensions in the Korean Peninsula stalling any reconciliation efforts between the South and the North.

The stalemate between the United States and North Korea have left China with slim chances of coordinating policies and reconciling the Peninsula although their willingness to mediate for peace and stability in the region. Peace and security is limited in the Asia Pacific area of the world when North Korea exercises inconsistent adherence to rules regarding nuclear inspection and protocol. Initially, China's support for North Korea was premised on the unique relations the two countries had. Currently, its support to North Korea can only be conducted under the United Nations Security Council's

¹² Nicholas D. Kristof, "Chinese and South Koreans Formally Establish Relations," *NYTimes*, August 24, 1992, accessed July 4, 2017, http://www.nytimes.com/1992/08/24/world/chinese-and-south-koreansformally-establish-relations.html.

resolutions with the outset of the special relations taking a paradigm shift towards an ordinary bilateral status with features that would usually define an 'alliance' gradually wearing out in light of the DPRK's disregard of the international law. China's shift is due to North Korea's disregard for international law.

First Chapter: Research Question

The central question of the first section is if realism explains North Korea's nuclear program. Additionally, to test whether the United States security assurances to North Korea's neighbors and enemies instigate North Korea's efforts to acquire nuclear weapons despite threats, restrictions, and sanctions by the international community through strictest resolutions by the United Nation Security Council. Based on this scenario the sub-question will be as follows: will it be possible to halt or address nuclear proliferation in North Korea adequately without resorting to fully developed military tactics?

This research question will necessitate proper examination of the types of possible policies that could be adopted and utilized by the United States and the United Nations Security Council in an attempt to dissuade North Korea (DPRK) to denuclearize and stop proliferating nuclear weapons programs. Examination of these policies will delve into the successes and failures of prior diplomatic tools that have been designed and employed to change a country's incentives, particularly sanctions and the possible strategies that are engagement based rather than imperialistic actions. Through approach by approach

comparative analysis, the study will attempt to determine the policies that are best suited for the North Korean delicate situation.

First Chapter: Hypothesis

Realism mainly justifies North Korea's decision and motivation to seek nuclear weapons and programs. Policies implemented by the United States have an enormous bearing on the position of North Korea on its nuclear weapons program.

Security assurances by the United States to North Korea's neighbors and enemies is a vital factor influencing North Korea's efforts to acquire nuclear weapons amid the threats, restrictions, and sanctions by the international community laws through strictest resolutions by the United Nation Security Council. With the strengthened commitment by the United States of America to improve its effectiveness and credibility in security assurances to its allies in the Northeast Asian states with the aim of deterring the development of latent nuclear capability only increases doubt about its motives in the region.

To explain North Korea's past courses of action pertaining its nuclear decision, this study will examine and test how well realism explains the country's motivation to advance its nuclear program. Since the end of the Cold War, the role of United States in security and economic assurances have substantially changed with doubts increasing on whether the U.S. can be trusted and whether they can fulfill the contemporary needs concerning security.

This study will analyze the critical factors (pessimism against the international community, quest for power, global isolation) that connect realism to North Korea's desire for nuclear sovereignty. The study will hence investigate the scope and extend to which these factors motivate North Korea to pursue proliferation of nuclear weapons by overtly testing their arsenal after developing them. Considering the efforts that have been put in place, the future of non-proliferation appears increasingly unsteady.

First Chapter: Literature Review

As the Cold War era drew to a halt, front-runners around the world thought the era of nuclear threats had automatically come to an end. In reality, it had advanced to a new phase. Threats from erratic militarism from rogue states (such as North Korea) escalated by bringing fear that these states were seeking nuclear weapons as 'equalizers' in their confrontations with their powerful enemies.¹³

The September 11th terrorist attack intensified the determination of the policy makers of the United States to strategize the arrest and reversal of nuclear weapon proliferation-particularly nuclear weapon acquisition by politically unstable and rogue states with the potential of transferring their fatal capability to terrorists either as a result of lack of adequate controls over their arsenals or deliberately. For the moment, Russia and the United States have amicably reached an agreement to lead by example and primarily reduce their nuclear stockpiles. Furthermore, missiles in the two nations are

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¹³ Yoshifumi Ide, Akira Igata, Gibum Kim, Sung Hyo Kim, and Tong Zhao, "Conventional threats from the Democratic People's Republic of Korea (DPRK)", *Journal of International Relations 26*, no. 3 (2016): 37.

being de-targeted with an initiation of negotiations and proposals to deepen their reductions further.

Although the U.S. is exercised by these developments and unambiguously contrasted additional nuclear proliferation, it has largely been part of the problem for the rogue nature of North Korea. This is because of its defense posture. Moreover, the United States has refused to adopt the policy of no-first-use, a measure that has made the North Atlantic Treaty Organization (NATO) validate the beliefs of other states in the political power of nuclear weapons program undermining the dissuasion and denuclearization process by other nations.

The future of non-proliferation of nuclear weapons programs increasingly looks unstable and a mirage chase. Therefore, creating multifaceted responses to address the plethora of issues posing international concerns on nuclear proliferation is assuredly a daunting aspect. Although the United States is justified to lead the way in this fight of denuclearizing unauthorized states in possession of nuclear weapons and deter any likelihood of other new states from fostering efforts to possess nuclear capabilities, the country's diplomacy is complex in the contemporary world possibly due to the context in which the country's policy makers operate. The situation between the United States and North Korea has given America unprecedented possibilities for leadership. This situation has orchestrated many ordinary states to be resentful of the power that has been concentrated in the United States.

Despite the existence of a multitude of laudable studies on the benefits of vigorous policies by the U.S to confront proliferation of weapons of mass destruction around the world both in the U.S and beyond, studies have specifically focused on diplomacy issues that effectively address the mushrooming of emerging 'third tier' nuclear weapon states in the twenty-first century. Little or no recognizable studies have uniquely examined the effect of threats and sanctions on rogue states that have been sidelined, 'proclaimed' as an enemy and targeted by the United States and the United Nation Security Council since time like North Korea.

With the predicament surrounding North Korea, U.S and the rest of the world, there seems to be no technical fix that can bring an immediate end to nuclear proliferation in the Korean peninsula. It is crystal clear that all the efforts that have been put in place have terribly failed to offer a lasting solution. Potential policies to deter nuclear proliferation have only proved further complicate the situation. However, there are some measures that either singly or combined that can be effective in the years ahead.

The phenomenon of nuclear weapon proliferation with its associated causes and policy choices undertook to combat it are relevant in a myriad of paradigms in the international relations scholarly field. As compared to other studies that have arbitrated between the contending paradigms, this study delves into the insights of various schools of thought to illuminate the primal problem by evaluating the desirability and feasibility

of alternative policy responses that could offer a better and desirable solution to nuclear proliferation in North Korea.¹⁴

The realist school, both in its Neorealism and classical variants, offers the most convincing fundamental explanation to the increasing desire of additional states apart from the 'Big Five' to attempt to arm themselves with nuclear weapons and other weapons of mass destruction. Classical realists perceive power as the most overriding consideration in International Relations (IR). It regards military capability as a primal ingredient to international power with the possession of nuclear weapons regarded as one of the most vital components of military capability with states preferring to own their own to maintain security independence. States advance power, particularly against rivals by seeking their nuclear weapons in arm for 'security dilemmas.' The unending security tensions when a nation arms herself with nuclear weapons result in security paradox based on an anarchic international system since advances by any particular nation to increase its security will compromise the strength of another state, hence the reason for the unending tensions in the Korean peninsula. In other words, realism confirms that there is no current solution on the Korean peninsula.

However, not all realists are afraid of the outcomes of the security dilemma. As a matter of fact, neo realists like Kenneth Waltz viewed nuclear weapons as bringing increased stability as backstopped by the concept of Mutually Assured Destruction (MAD) in which many IR theorists have since time immemorial believed to be the

¹⁴ Tuang, Liang, Explaining North Korean Nuclear Weapons Motivations: Constructivism, Liberalism, and Realism, North Korean Review, 2013.

principle of reason expounding why nuclear war has never occurred.¹⁵ Robert Jervis summed the justification up: "Explanation of the superpower caution with nuclear weapons: expounding on the increased probability of destruction arising from countries seeking excessive gains."¹⁶ Many states having plausible expectations of future conflicts with nuclear-armed states will instead have the incentive and rational strategic reasons to acquire substantial nuclear weapons.

However, 'a nuclear pessimist' by the name Sagan, denounced Waltz's rationale about nuclear nations behaving rationally. First, he questioned Waltz's assumption of small states developing second strike capabilities capable of deterring retaliatory and preemptive attacks. ¹⁷ Regarding this assumption, he questioned whether there would be implementation of command and control procedures aimed at guarding inadvertent use of nuclear weapons by these states. He also questioned Waltz's perception on military leaders similar to civilian governments refraining from preemptive nuclear strikes but instead argued that the future of the new nuclear states might use such weapons due to the lack of civilian control. ¹⁸

With this regard however, I overtly oppose this kind of reasoning as some nations may fail to effectively manage their arsenals allowing them to be accessed by terrorist groups that could be misused to target and destroy innocent lives. Additionally, failure to

¹⁵ Kenneth Waltz, "The Spread of Nuclear Weapons: More May Better," *Adelphi Papers*, Number 171 (London: International Institute for Strategic Studies, 1981).

¹⁶ Robert Jervis, The Utility of Nuclear Deterrence. Robert J. Art and Robert Jervis, eds. International Politics. Fourth Edition (New York: Harper Collins Publishers, Inc., 1996), 218.

¹⁷ Kenneth, N. Waltz, *Theory of International and the Spread of Nuclear Weapons*: Paper No. 171. (London: International Institute for Strategic Studies, 1981), 76.

¹⁸ Ibid.

restrict might endanger the peace and stability in the world. Premised on this theory, diplomacy should be well staged unconditionally to those nations in possession of nuclear weapons like North Korea without making them feel as if they are the target of every other nation. Whether or not the international community should accept nuclear weapons as a means of security remains to be seen.

According to Glenn Snyder, both the arguments might be correct premised on his 'stability-instability paradox' that premised on the incredible devastation that can be incurred after a nuclear war, neither side might perceive nuclear weapon as an effective instrument of war.²⁰ However, under the concept of mutually assured destruction, both sides may be more prone to conventional attacks. Therefore, realism is critical in the providing explanations for the most basic determinants of nuclear politics.

First Chapter Method

The research strategy and methodology employed in answering the research question of this study is grounded in qualitative research and content analysis. Qualitative research is premised on understanding, describing and expounding international relation phenomena by evaluating the different relationships and alliances with North Korea to its allies, enemies and the United Nations Security Council, associated patterns from history and configurations among other credible factors with the context in which these activities prevail. The focus is on the comprehension of dynamic and multi-dimensional evaluation

¹⁹ Tuang, Liang, Explaining North Korean Nuclear Weapons Motivations: Constructivism, Liberalism, and Realism, North Korean Review, 2013.

²⁰ Glenn Snyder. "The Balance of Power and the Balance of Terror." Paul Seabury edition, The Balance of Power (San Francisco. Ca: Chandler, 1965): 185-201.

and examining the impact of realism on North Korea's nuclear weapons and program.

The arguments that pose throughout this paper revolves around different factors across time that facilitated and promoted nuclear proliferation by North Korea from a broader perspective.

This paper hence focuses on phased engagements involving a chain of verifiable and significant reciprocal measures linking a broader spectrum of issues while evaluating diplomatic tools that have been employed in confronting nuclear proliferation and denuclearization efforts in North Korea. The paper clearly depicts the reality with the issue of the nuclear program in North Korea and the factors behind their stand and the reality that should be comprehended by the U.S. and the United Nations Security Council among other participants while pursuing their efforts to dissuade North Korea urging other nations to consider the historical grounding of the whole issue and strategize appropriately.²¹ The study will test various conclusions regarding the overall approach that should be adopted to address the North Korean predicament.

First Chapter: Discussion

With North Korea committing to a classical realist perception of power as the overriding tool in international relations and negotiations, the country has persisted with military capability as a vital component of its survival through furtherance of nuclear weapons. As a result, the state was subjected to coercions by the United States. However,

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²¹ Shepherd, Iverson, "The Korean Peace Fund." North Korean Review, 8 no.2 (2012): 62-75. Doi: 10.3172/nkr.8.2.62.

coercion only increased North Korea's urge to seek for more nuclear weapons.²² To this regard, other approaches besides coercion and application of pressure on North Korea remain the only option to restore sanity in the Korean Peninsula. This study, therefore, analyses two policies that have been undertaken to confront North Korea especially after the U.S. declared its unwillingness to engage the DPRK in any further sustained negotiations.

With the resistance of the American public to engage the DPRK with war amid the hostile political climate, the right wing of the Republican party was keen for the U.S. to proceed with unilateral sanctions on North Korea in the early 1990's. 23 Without withstanding the internal distrust and external opposition, the Clinton presidency endeavored to reopen talks with DPRK. To this end, a plan to invoke a 'carrot-and-stick' approach towards the DPRK was reached with options of subjecting Pyongyang to sanctions while concurrently presenting 'face-saving' inducements to trigger its cooperation. 24

Contrary to the expectations, North Korea turned down special inspection demands of the two nuclear waste sites that had been unreported by claiming to withdraw from the NPT despite the UNSC enforcing the April 1 compliances. Economic aid to the state from the United Nations was terminated with acute reductions in cultural, technical,

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²² Yoshifumi Ide, Akira Igata, Gibum Kim, Sung Hyo Kim, and Tong Zhao, "Conventional threats from the Democratic People's Republic of Korea (DPRK)", *Journal of International Relations 26*, no. 3 (2016): 36.

²³ Leon V. Sigal, "The North Korean Nuclear Crisis: Understanding the Failure of the 'Crime and Punishment' Strategy," Arms Control Association, accessed July 4, 2017, https://www.armscontrol.org/act/1997 05/sigal.

²⁴ David Cortnight and George A. Lopez, *Carrots, Sticks and Cooperation: Economic Tools of Statecraft In Barrett Rubin, ed. Cases and Strategies for Preventative Action* (New York: Century Foundation, 1998).

educational and economic exchanges. To worsen the consequences, the country was further imposed a complete ban on trade in arms and ballistic missile activity with resolution 1695.²⁵

Furthermore, the U.S discussed with China, South Korea, and Japan on attacking Yongbyon amid doubts that North Korea had started reprocessing spent fuel from cooling points, an inquiry to which all the three states sternly rejected premised on their national interests. Therefore, sanctions and embargos were only to be effective if the three states complied. To further discredit the possibility of sanctions succeeding, the spokesman of the ministry of foreign affairs of the time reiterated to the U.N. that imposing sanctions on the DPRK would be taken as a declaration of war. This led to a halt of deploying troops to Seoul as there was a sense of foreboding on Seoul if troops were to be deployed.²⁷

The United States began packaging all the spent fuel from Yongbyon in steel canister storages. It was thought beyond any reasonable doubt that North Korea was pursuing a covert nuclear program in 1999. This increased suspicions that there were secret underground sites with nuclear reactors which led to the need for verification which North Korea detested and demanded monetary compensation before accepting.²⁸

²⁵ "North Korea's shadowy Arms Trade," *theguardian*, accessed July 4, 2017, https://www.theguardian.com/world/2013/jul/18/history-north-korea-arms-dealing.

²⁶ Bruce W. Bennett, "Preparing for the Possibility of a North Korean Collapse" (Santa Monica: RAND Corporation, 2013).

²⁷ Shepherd, Iverson, "The Korean Peace Fund", North Korean Review 8 no. 2(2012): 62-75. doi:10.3172/nkr.8.2.62.

²⁸ Sachio Nakato, "North Korea's Fourth Nuclear Test: System Pressures, Decision Makers' Perceptions, and Foreign Policy." *The Institute of Korean Studies 47*, no.3 (2016): 630.

However, the economy of DPRK continued to decline with missiles playing an integral part in Pyongyang's trade policy.²⁹ This was a gap that could have been utilized by the U.S and the international community. This increased the possibility of Pyongyang acquiring nuclear expertise, equipment, and technology from Islamabad in return for missiles and other arsenals.³⁰

North Korea postponed its decision after which Israel immediately resumed negotiations. Israel again complied to pressures from the U.S bowing out of negotiations shortly after which reports surfaced after just one year that it had resumed further negotiations with North Korea to assist in raising \$1 billion towards a civilian scheme upon which DPRK pledged to restrain from the supply of No Dong missiles to Iran. Furthermore, North Korea continued with nuclear proliferation.³⁰

I studied historical data to examine and test how well realism explains North Korea's motivation to advance its nuclear program. Realist thinkers believe that military capability is a primal ingredient to international power. The first chapter proves North Korea committed to a classical realist perception of power as the overriding tool in international relations and negotiations. The realist school offers the most convincing fundamental explanation to the increasing desire to arm themselves with nuclear weapons. In other words, classical realism's meaning supports North Korean nuclear and political behavior. For example, North Korea signed an IAEA Safeguards agreement on

²⁹ Chung Young-Chul, Kim Yong-Hyun, and Moon Kyungyon, "State Strategy in the Kim Jong-un Era: The 'Byongjin' Policy of Pursuing Economic and Nuclear Development", *The Institute of Korean Studies 47*, no.1 (2016): 18.

³⁰ Sachio Nakato, "North Korea's Fourth Nuclear Test: System Pressures, Decision Makers' Perceptions, and Foreign Policy," *The Institute of Korean Studies 47*, no.3 (2016): 642.

January 30, 1992 but did not allow inspectors to inspect two military sites, which supports the realist theory that all states desire power so that they can ensure their selfpreservation. Also, in the early 2000's, the U.S. and North Korea were both unsatisfied from the results of the Agreed Framework (with the U.S. angry at delayed inspections and North Korea angry at limited progress of their nuclear reactor). Many U.S. officials thought that North Korea was developing a highly enriched Uranium program but North Korea later admitted to having nuclear weapons for self-defense, which supports the realist theory that nations are actors in the international political system are rational as their actions maximize their own self-interest. Even with the signing of the "Statement of Principles" in 2005, both U.S. and North Korean officials disagreed a transfer of a light water reactor (lwr) to North Korea. While North Korea argued that it was justified to receive the light water reactor, the United States believed North Korea was not allowed to have the lwr, only after getting rid of its nuclear program, supporting the realist theory that the international political system is turbulent sa there is no authority that can enforce rules over states. With this regard, the hypothesis perfectly worked for this paper and clearly provides sound evidence that realism explains the origins of the North Korean nuclear program.

First Chapter: Conclusion

For the U.S and the UNSC to successfully deter nuclear proliferation, there is need to continue to come up with real policies premised on reality to necessitate the easy selection of the right tools of international relations increasing the efficacy of the policy instruments. While none of these policies have been tested or worked, it has nonetheless identified a possible avenue for America to approach the North Korean situation. North Korea surprised the international community through defiant provocative actions.

Second Chapter: Introduction

The Republic of Korea (ROK) and the surrounding Asia-Pacific region has experienced periods of regional instability due to the Democratic People's Republic of Korea (DPRK) unpredictable behavior and the increase in nuclear capability from the People's Republic of China (PRC). Since exiting the Korean War with North Korea, in its early stages, the South Korean nuclear program initially started with the development of its first nuclear power reactor in 1970 but subsequently stopped the program by signing the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) in April 1975.³¹

Neorealism, a concept created by Kenneth Waltz, argues that power is the most critical concept in national development.³² Yet, South Korea purposefully chose to not create a strong nuclear weapon program despite advancements in nuclear capability from both North Korea and China. Why would South Korea stop pursuing developing their nuclear program when unpredictable neighboring countries such as North Korea possess one of the most capable nuclear weapons in the world?

31 "South Korea," Nuclear Threat Initiative, accessed May 29, 2017,

http://www.nti.org/learn/countries/south-korea/nuclear/.

³² Kenneth Waltz, *Theory of International Politics* (Illinois: Waveland Press, 1979), 120.

This thesis will outline and detail the origins of neorealism, the nuclear tension between North and South Korea (as its related to neorealism), and how South Korea is consistently searching for balance in the Pacific theater with many instances of imbalance. South Korea is in a period of unpredictable times: the impeachment of former President Park Geun-Hye, the selection of current President Moon Jae-In, and the frequency of the North Korean nuclear weapon tests are causing uncertainty in an area where certainty needs to exist.

Second Chapter: Literature Review

The threat of nuclear war remains a concern for most capable nations in the 21st century. The buildup of weapons in North Korea and the future missile increase in inventory in Iran has the potential to place the world in a state of frenzy. Military power is no longer directly correlated to economic growth within a nation. Using America as an example, their military dominance continues to prevail despite its economic turmoil experienced within the last couple of years in 2009 during the collapse of the housing market. Additionally, economic power provides security to states that are otherwise threatened by neighboring states. Indeed, nations that value the neorealism understand "power is the currency of international politics." Identifying what type of power (and more importantly, how much) is critical to a nation's success.

On the subject of structural realism or neorealism, Kenneth Waltz identifies two concepts that define how states operate: the first being that the state systems represent an

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³³ John J. Mearsheimer, *Structural Realism*, accessed June 12, 2017, http://mearsheimer.uchicago.edu/pdfs/StructuralRealism.pdf

anarchic structure rather than a hierarchy structure and the second is that the differences in the structure of these same systems is derived from the distribution of power.³⁴ Whereas Hans Morgenthau described human nature as to the reason states want power, structural realists under the neorealist theory argue it is more the structure that defines why states search for power.³⁵ Another strong concept within realism is how the different types are somewhat related to each other (with the exception of structural realism, which is the same as neorealism). For example, Political realism argues that states are the aggressors of action in their area, they seek power, and they behave rationally.³⁶

Structural realism argues for states possessing the necessity to compete for power in order to stay afloat within the international community. Nations such as South Korea, according to the neorealism theory, must compete for power within their means to ensure they remain a strong ally to the United States and a formidable foe to North Korea. In fact, Mearsheimer argues that "great powers are trapped in an iron cage where they have little choice but to compete with each other for power if they hope to survive." What would be a better way to increase a nation's power besides expanding the nuclear program of a country? Why would South Korea specifically not choose to increase their power by not choosing to raise their nuclear capability? Does the structural realist theory explain South Korea's absence for their nuclear program?

³⁴ War and the State, Accessed June 12, 2017, https://www.press.umich.edu/pdf/9780472099818-ch1.pdf

³⁵ John J. Mearsheimer, *Structural Realism*, accessed June 12, 2017, http://mearsheimer.uchicago.edu/pdfs/StructuralRealism.pdf

³⁶ Robert Keohane, Neorealism and its Critics, (New York: Columbia University Press, 1986), 7.

³⁷ John J. Mearsheimer, *Structural Realism*, accessed June 12, 2017, http://mearsheimer.uchicago.edu/pdfs/StructuralRealism.pdf.

The neorealist/structuralist criteria for states remains constant and does not particularly distinguish between unique national characteristics such as government type, political background, and economic capability. Neorealism does not take into account that states could actually behave differently between each other based on political identity. Additionally, there is a distinct difference between defensive and offensive realists under neorealism. Not only are they different in definition but also in their associated theorist's ideology. Offensive realists insist that states must pursue power as much as possible while defensive realists understand that too much power is detrimental.³⁸ Yet, the common denominator is power and its control. But more important than mere power to a nation is security. Throughout its history, South Korea is known for consistently trying to establish security within the Asia-Pacific region. China and North Korea are also working to establish security but they have a different definition. Whereas China and North Korea want supremacy by controlling security, South Korea desires safety for the Asia Pacific region. Not only is security the highest end in an anarchic state, power cannot become the standard that nations pursue if tranquility and peace are the objectives.³⁹

Another type of power, called latent power, is comprised of a nation's financial inventory that supports militaristic goals such as nuclear weapon programs through economic means.⁴⁰ Structural realists understand that latent power defines the "raw

³⁸ John J. Mearsheimer, *Structural Realism*, accessed June 12, 2017, http://mearsheimer.uchicago.edu/pdfs/StructuralRealism.pdf.

³⁹ Robert Keohane, *Neorealism and its Critics*, (New York: Columbia University Press, 1986), 127.

⁴⁰ John J. Mearsheimer, *Structural Realism*, accessed June 12, 2017, http://mearsheimer.uchicago.edu/pdfs/StructuralRealism.pdf.

potential" for a nation to influence competition from other rival states.⁴¹ Perhaps nations such as South Korea purposefully push for the control of power because "the power wielder affects the behavior, attitudes, beliefs, or propensity to act of another actor."⁴² South Korea's ability to influence another nation's pursuit of nuclear weapons is clearly evident in North Korea. Understanding that North Korea will inevitably build up their arsenal as a result of the cooperation with the United States, South Korea exercises their latent power to counteract any potential attack from North Korea.

Neorealists argue that its power's influence on others that gives its users the true power. To expand on this notion over the power of influence, Mearsheimer identifies five assumptions that neorealists argue for in the international community: first, nations operate in an anarchic state; second, nations contain some offensive capability; third, nations are uncertain of the intentions of other nations; fourth, nations regard survival as their top priority; and fifth, nations are rational actors. Although power is definitely a broad term that can be considered relative to a nation's values, great nations will always seek to compete and measure their progress with one another.

Still, nations will push for opportunities to increase their power. This especially counts for the situation in South Korea. T.V. Paul, the author of *Power Versus Prudence*, argues that realism makes true power, which is indicated by a country's national behavior

⁴¹ Tim Dunne, Milja Kurki, and Steve Smith, *International Relations Theory: Discipline and Diversity*, (United Kingdom: Oxford University Press, 2013), 78.

⁴² David Baldwin, *Neorealism and Neoliberalism: The Contemporary Debate* (New York: Columbia University Press, 1993) 16.

⁴³ John J. Mearsheimer, *Structural Realism*, accessed June 12, 2017, http://mearsheimer.uchicago.edu/pdfs/StructuralRealism.pdf.

and nuclear acquisition.⁴⁴ But what happens when nations are forced to look for other means to increase their power? Kenneth Waltz has questioned what drives nations to increase their proliferation under neorealism. Conversely, he also believed that the "thinking and perceptions of military leaders about the usefulness of nuclear weapons move far afield from the normal comfort zone of neo-realism."⁴⁵ Yet, neorealism supports the structural realist concept that proliferation and power seemingly go hand in hand because must compete for power within their means to maintain their alliance with the United States and counterattack any threat from North Korea. Just because neo realism does not define specific structures that are desired within power (political, economic, or militarily), does not mean it is not related to the pursuit of power.

Also, if South Korea is aware of North Korea's desire to increase their nuclear capability, why would they not follow the concept to raise their power? South Korea is relying on the United States for defense against North Korea through AEGIS KDX ship upgrades, THAAD deployment, and the increased military presence in the Asia-Pacific theater. South Korea can remain a strong economic nation while simultaneously providing its own defense against North Korea by developing their own nuclear weapon program. Well known author Scott Sagan states that "states will seek to develop nuclear weapons when they face a significant military threat to their security that cannot be met

⁴⁴ T.V. Paul, *Power Versus Prudence: Why Nations Forgo Nuclear Weapons*, (Montreal: McGill-Queen's University Press, 2000), 14.

⁴⁵ K.P. O'Reilly, *Nuclear proliferation and the Psychology of Political Leadership*, (New York: Routledge, 2015), 11.

through alternative means; if they do not face such threats they will willingly remain non-nuclear states."⁴⁶

So, the next question must be why South Korea has remained passive and willingly accept their status as a non-nuclear state? In more recent times, South Korea is pursuing security and ballistic missile upgrades in response to North Korean provocations. According to Won Yoo-Chul, a high-ranked official within the South Korean conservative party, stated his country should create 'peaceful' nuclear weapons to counterattack the North-Korean 'fearful and self-destructive ones. '47 The reasoning for the absence South Korea's nuclear program was because of pressure from the United States to join the NPT. Nonetheless, South Korea contains nuclear deterrence since they covertly conducted nuclear experiments by admitting to the International Atomic Energy Agency (IAEA) to conducting secret nuclear experiments in 2004. This supports Mearsheimer's neorealist argument that states nations maintain some offensive capability, they are uncertain of actions from other nations, and that they are rational actors. It is clearly evident that the "absence" of the South Korean nuclear program has roots traced to neo-realism.

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⁴⁶ K.P. O'Reilly, *Nuclear proliferation and the Psychology of Political Leadership*, (New York: Routledge, 2015), 11.

⁴⁷ Adam Taylor, "Why doesn't South Korea have nuclear weapons? For a time, it pursued them," *The Washington Post*, July 31, 2017, accessed August 6, 2017, https://www.washingtonpost.com/news/worldviews/wp/2017/07/31/why-doesnt-south-korea-have-nuclear-weapons-for-a-time-it-pursued-them/?utm_term=.e8faca0a6646.

⁴⁸ Ibid.

The security dilemma states a strong and powerful nation increases its own security at the expense of other nations. ⁴⁹ Perhaps this is what occurred in South Korea with neighboring countries such as Japan and North Korea increased their military capabilities, which would support the structural realist theory.

What security calls for is a balance, regardless of any of region located around the world. From North Korea's perspective, the balance concept is arguably the reason why they pursue nuclear weapons, which would add another dimension to the security dilemma. The one concept that both offensive and defense realists can agree on is a balance. While offensive realist state pursuing power provides balance to a powerful nation, defensive realists suggest seeking too much power would create an imbalance. Moreover, defensive realists insist when nations look for more power (take the case in North Korea), balancing will occur in which other militaries from other nations form and work together to create a coalition to decrease the power given out.⁵⁰

Second Chapter: Theory and Hypothesis

Neo-realist theory tells us that states are competitive power seekers that will inevitably lead to anarchical interactions within the international system. ⁵¹ My theory holds that South Korea purposefully chose not to pursue a nuclear capability in order to avoid confrontation with North Korea. South Korea fully understands because that the United States supports them through military technology and support, the peace desired

⁴⁹ John J. Mearsheimer, *Structural Realism*, accessed June 12, 2017,

http://mearsheimer.uchicago.edu/pdfs/StructuralRealism.pdf. ⁵⁰ John J. Mearsheimer, *Structural Realism*, accessed June 12, 2017,

http://mearsheimer.uchicago.edu/pdfs/StructuralRealism.pdf.

⁵¹ Christopher M. Dent, *East Asian Regionalism* (New York: Routledge, 2016).

in the Pacific theater will ultimately be decided on how South Korea confronts the unacceptable and provoking actions from North Korea. Neorealism supports this South Korean concept: "while international structures can condition the behavior of nation-states, these in turn are ultimately determined by the interaction of nation-states themselves." The U.S.-South Korean alliance will influence the lack of respect from North Korea but it is the interaction between South and the North that will have the real impact to the Asia Pacific future.

Understanding South Korea not wanting a direct interaction with North Korea is reasonable; the nation is an economic powerhouse neighboring an unreliable and militant nation. Yet, South Korea desires to control the North with the assistance from the United States.

Second Chapter: Methods

The research question will be answered by studying how nuclear-capable South Korea has become since the end of the Korean War. The evidence gathered will be a combination of data, arguments, and conclusions about the South Korean nuclear program in the past and in the present. Initially, this will include a brief historical

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⁵² Ibid.

reference to South Korea's past about nuclear weapons. Then, neorealism will be tested against the reasoning in the absence of South Korea's nuclear program.

Second Chapter: Data

The United States and South Korea have been economic and militaristic cooperative partners since the conclusion of the Korean War in the 1950's. South Korea has since relied on the United States for military protection through deployment of thousands of U.S. soldiers, Aegis ships, Terminal High Altitude Area Air Defense (THAAD) system, and maintaining a ballistic missile arsenal. Dictator General Park Chung-Hee, South Korean leader during the 1970's, expressed a strong desire to gather material to create a nuclear weapons capability. The mid 1970's marked a period where South Korea was attempting to create its own nuclear agenda and identity. Numerous entities reported that General Park was serious about separating South Korea from its competitors in the nuclear capability field, purposefully leading scientists to create atomic bombs by the late 1970's in order to protect South Korea from the North. 54

The United States' leadership were confused about the recent nuclear development desires from South Korea in the 1970's. Secretary of State Henry Kissinger received numerous reports that South Korea wanted protection from North Korea in nuclear development. In fact, he learned that South Korea was "negotiating with France

William Burr, "The United States and South Korea's Nuclear Weapons Program," Wilson Center, Accessed June 25, 2017, https://www.wilsoncenter.org/article/the-united-states-and-south-koreas-nuclear-weapons-program-1974-1976.

⁵⁴ Burr, "The United States and South Korea," https://www.wilsoncenter.org/article/the-united-states-and-south-koreas-nuclear-weapons-program-1974-1976.

to purchase a chemical separation plant, which could be used to produce plutonium from spent reactor fuel." The United States government felt somewhat uneasy about South Korea pursuing its own nuclear program for several reasons. First, how would South Korea respond to North Korea provocations initially? Would they perform a pre-emptive nuclear strike or retaliate from an earlier attack? Additionally, preventing a nuclear war with both South and North Korea could prove exhausting to America. Not only would a South Korean nuclear program cause regional instability, the United States would have to provide much more than leverage from other countries to prevent South Korea from going far against North Korea should a nuclear war occur. The United States was ultimately determined to discourage the South Korean thought to produce nuclear capability, believing the idea would only cause more problems than solutions if pursued. On the other hand, South Korean leadership was strongly convinced that the United States would abandon them in the event of a conflict or war. It soon became known that both sides suffered from the mistrust of each other.

The United States continuously studied and tracked how fast South Korea could develop a nuclear program. Observing President Park's intentions and actions, National Intelligence officers under the leadership of the director of Central Intelligence concluded that "South Korea could have a nuclear weapons capability and missile delivery systems within ten years." This additional fact fueled America's pursuit to put a halt on South

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http://nsarchive.gwu.edu/dc.html?doc=3513497-Document-07-Director-of-Central-Intelligence.

⁵⁵ Ibid.

⁵⁶ Ibid.

⁵⁷ Director of Central Intelligence, National Intelligence Officers, "Status of Work in Progress," 10 January 1975, Secret, Exercised Copy, Extract, Accessed July 1, 2017.

Korea's intentions for a nuclear weapons capability. Perhaps South Korea's proliferation would undermine the United States' willingness to render assistance should a nuclear war occur is why the American government was so desperate to control them. Although the actual paper is still considered classified, the premise that South Korea had an ability to grow in a fast rate haunted the United States government.

South Korea's nuclear proliferation did not only affect the United States and North Korea. According to the State Department telegram 048673, South Korea possessing numerous nuclear weapons could also cause instability where nations such as People's Republic of China (PRC) and Russia would join in an alliance with North Korea to diminish the South Korean nuclear inventory. The United States wanted to eliminate any possibilities of rival nations forming an alliance, especially during the Cold War era. The repercussions for an established South Korean nuclear program would inevitably cause issues within the bilateral security for the region. 59

The United States has considered the alternative option that South Korea might desire nuclear materials for other reasons besides weaponry. Yet, regardless of the reasons, the United States government felt every justifiable reason for South Korea to create a nuclear program ran contrary to the interests of the United States. Allowing South Korea to create their nuclear program would also send a sign to other American allies that they are allowed to pursue nuclear programs on their own terms as well.

⁵⁸ State Department telegram 048673 to U.S. Embassy Seoul, "ROK Plans to Develop Nuclear Weapons and Missiles," 4 March 1975, Secret, Accessed 1 July 2017,

http://nsarchive.gwu.edu/dc.html?doc=3513500-Document-09-State-Department-telegram-048673-to. ⁵⁹ Ibid.

⁶⁰ Ibid.

Clearly, this was not the message that America did not want to send within the international community. A nuclear South Korea meant militarily, economic and political repercussions that America was not willing to confront.⁶¹ Hence, this presented another reason for America to urge South Korea to ratify the NPT.

The United States was not the only nation concerned with South Korea possessing nuclear weapons. On June 17, 1975, nuclear suppliers met in London to go over regulation for nuclear material exportation. At the meeting, Canadian diplomats and their leadership stated concerns over the South Korean nuclear regime agenda. The Canadians worked closely with the South Koreans for nuclear reactor development. Yet, the Canadians wanted a closer eye and supervision about the reprocessing for the reactor. Canada mandated that mutual consent was required in order to provide nuclear fuel for their reactors. South Korea learned quickly that more capabilities meant more responsibilities.

On July 3, 1975, Canadian Minister of External Affairs Alan MacEachen met with South Korean President Park to discuss South Korea's agenda on pursuing a nuclear program. President Park stated that the ROK has no intention to pursue nuclear weapons because the possibility of a pre-emptive strike from the PRC or the USSR would be highly likely in that situation.⁶⁴ This confused MacEachen, since President Park admitted

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⁶¹ Ibid

⁶² U.S. Embassy London telegram 09224 to State Department, "Nuclear Export Policy: Bilateral with Canada," 17 June 1975, Secret.

⁶³ Ihid

 $^{^{64}}$ U.S. Embassy Seoul telegram 4902 to Department of State, "Canadian/ROK Talks on Nuclear Energy," 3 July 1975, Confidential.

to the Canadian Trade Minister Allistair Gillespie that ROK needed a nuclear program because of the United States withdrawal of the "nuclear umbrella."65

South Korean leadership, in particular Park, truly questioned the reliability of the U.S. military against the North Korean nuclear threat. Specifically, it was the Nixon's administration's choice to take back a U.S. Army division that made Park uneasy against the protection in future nuclear clashes with North Korea. 66 Park secretly conspired with his leadership to create plans for developing a strong South Korean nuclear program. He researched fissile material, constructed ideas for future plans, and devised strategies for increasing the nuclear capability without letting America know. Yet, America found out about Park's intentions. However, South Korea remained steadfast and determined to create a well-developed nuclear program by insisting their program would be for "peaceful purposes."⁶⁷

As the years passed, South Korea had cemented itself into the peaceful reason for pursuing a nuclear program. South Korea, by the mid 1970's, had to adhere to the peaceful intentions it expressed early on when its leadership ratified the Nuclear Nonproliferation Treaty. ⁶⁸ While the motive for peace was clear, South Korea still expressed unwavering determination to not only possess a strong nuclear capability. South Korea felt standing idly by while nations such as Japan and North Korea increased their nuclear payload and arsenal was unacceptable. Park understood a nuclear program

65 Ibid.

⁶⁶ Ibid.

⁶⁷ Ibid.

⁶⁸ Ibid.

would possibly mean separation from the United States and he was willing to pay that price. While Park focused on nuclear material development, creating nuclear weapons would mean much more severe consequences. Moreover, weapons development would have required a renunciation of the Nonproliferation Treaty, which would have set off an international crisis between the United States and South Korea.

South Korea's government received immense pressure from American leadership to validate the NPT. For example, on February 26, 1975, Ambassador to Seoul Richard Sneider urged South Korea to ratify the NPT earlier than expected to contain the nuclear proliferation issue and "would serve to help in the international arena." Part of the reason for the meeting was to control the fast pace South Korea's government was moving towards for nuclear proliferation. The speed at which South Korea moved was deemed troublesome from the United States government. Other countries in the international community such as France were also being reached out to by South Korea for assistance in growing their nuclear capability. At the time of the meeting at the U.S. Embassy Seoul, Canadian First Secretary Longhuir informed the audience that South Korean President Park had already made the decision to ratify the NPT.

Although South Korea signed the nuclear Nonproliferation Treaty in 1968,

President Park still believed in weighing in his nuclear option by acquiring a capability to

"separate plutonium" intended for nuclear weapons.⁷¹ South Korea arrived at a political

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⁶⁹ U.S. Embassy Seoul telegram 1239 to Department of State, "Non-proliferation Treaty," (paper presented to Department of State, Washington, D.C., February 26, 1975).

^{70 &}quot;Non-Proliferation Treaty."

⁷¹ Kane, Chen, Lieggi, Stephanie, and Pomper, Miles, Arms Control Association, Accessed June 27, 2017, https://www.armscontrol.org/act/2011 03/SouthKorea#sidebar.

crossroads: provide more protection through nuclear capability or continue to rely on the United States for protection? Ultimately, South Korea chose the second option of continuing to hold the United States as an important ally. Yet, the Republic of Korea (ROK) remained steadfast to their decision. South Korea's decision to remain a nonnuclear state led to the "Joint Declaration of South and North Korea on the Denuclearization of the Korean Peninsula" that defined both the ROK and Democratic People's Republic of Korea (DPRK) will not be in possession of nuclear or uranium capabilities. 72 1992 marked a period where both North and South Korea would not utilize any means of developing, increasing, or gaining access to nuclear weapons or capability. This was simple for South Korea since the previous years meant weapons protection from the United States. South Korea's International Atomic Energy Agency (IAEA) agreement also held the nation to utilize America's protection vice their own nuclear capability. Throughout the years, North Korea has been in clear violation of the Joint Declaration on the Denuclearization of the Korean Peninsula by purposefully hiding their nuclear capability. Nonetheless, South Korea has remained professional and in most cases honest about their lack of a nuclear capability.

Although there is no South Korean nuclear capability per se, the ROK has been discovered to have conducted nuclear experiments in the past after 1992. Specifically, South Korea admitted to testing nuclear tests at the Korea Atomic Energy Research Institution (KAERI).⁷³ South Korean leadership understood what a nuclear state meant:

⁷² Kane, Chen, Lieggi, Stephanie, and Pomper, Miles, Arms Control Association, Accessed June 27, 2017, https://www.armscontrol.org/act/2011_03/SouthKorea#sidebar.

⁷³ Ibid.

more scrutiny from the United States, more reliance on nuclear power to finance their economy, and more observance from North Korea. Although the South Korean government at the time denied being aware of the nuclear experiments conducted, there is evidence that suggests this is false according to the IAEA investigations at the time.⁷⁴ This discovery eroded trust from several entities and countries that were planning to assist South Korea with the development of their nuclear capabilities but have since withdrawn their assistance.⁷⁵

Second Chapter: Discussion

South Korea fits the neorealism concept: all states aim to acquire power and state cooperation can only be temporary. South Korea also fits some of the tenets in classical realism in that states are unitary, rational actors seeking relative gains, and are the actors in international politics. The reasons why theorists questioned classical realism and transition to the theory of neorealism is sort of the explanation of what happened between the United States and South Korea during the 1970's. The decrease of war and increase in alliances allowed theorists to question if states cooperation is truly temporary.

South Korea's leadership fought for the same values under neorealism. Neorealists are similar to realists but have several distinctions in values between them. For instance,

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⁷⁴ Ibid.

⁷⁶ Ernest R. May, Richard Rosecrance, and Zara Steiner, *History and Neorealism* (Cambridge: Cambridge University Press, 2010), i.

⁷⁷ Ruchi Anand, Self Defense in International Relations (New York: Palgrave Macmilian, 2009), 17.

neorealists are more concerned with security and survival than power.⁷⁸ This was the same for South Korea: President Park was concerned for South Korea's survival after the United States withdrew their troops. The telegram documentation that came from the discussion at the U.S. Embassy Seoul suggests South Korea was legitimately concerned for the safety against the North Korean nuclear threat. Although South Korea was also competing against other nations that possessed nuclear capability, they wanted security either through a strong nuclear capability or from the United States.

Power is conceptually different from both realists and non-realists. Power to neorealists means security and realists believe it is an end to itself. ⁷⁹ Power also explains why the United States became hesitant to allow South Korea with a nuclear capability. Once a state achieves a certain threshold of power, it is human nature to desire more power. One of the chief concerns for the United States also included South Korea's lust for more security than the United States protection. Forcing South Korea to ratify the NPT meant they would stay controlled by the United States and not request additional security through nuclear means, which could possibly risk bilateral security in the Asia Pacific region. The negotiations between American, South Korean, and Canadian leadership contributed to the neorealism concept. Negotiations highlight the "power politics that are institutionalized in organizations reflecting the security needs of the big powers." Canada and the United States used negotiations to calm the involved politics

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⁷⁸ Anand, Self-Defense, 17.

⁷⁹ Ibid.

⁸⁰ Ibid, 20.

of South Korea's security issues. The negotiations showed "who's who" with respect to big powers and truly dissecting the utility of a strong South Korean nuclear program.

Neorealism argues that cooperation is not possible because states must choose 'relative gains' (self-help) over 'absolute gains' (international cooperative). 81 President Park attempted to choose relative gains and did not necessarily rely on cooperation.

Additionally, the United States did not cooperate with South Korea's wishes. South Korea did not cooperate with the United States when their leadership ratified the NPT. Instead, the United States pressured and forced them to sign. In fact, neorealists argue cooperation is more likely to be executed in economic policies rather than military mobilization. To the neorealists, the power concept is simply a tool to balance how much control one nation has over another.

Neorealism has a tendency to focus on conflict instead of cooperation due to its emphasis on the significance of "non-structural factors" that control states' policies. ⁸² The conflict between the South Korean and American stance on nuclear proliferation caused the changes to ratify the NPT, not the desire to create a stronger alliance. A cooperation between the United States and South Korea without nuclear weapons would be irrelevant since neo-realism references conflict, not cooperation. This supports the notion that neorealism is the reason for the non-existence of the South Korean nuclear program.

Second Chapter: Conclusion

⁸¹ John M. Hobson, *The State and International Relations (Cambridge: Cambridge University Press, 2000),*

⁸² Benjamin Frankel, Realism: Restatements and Renewal (London: Frank Cass and Company, 1996), 386.

The lack of a nuclear program in South Korea will continue to bring balance and stability in an unpredictable "hot spot" within the world since the United States has a dominant presence in the Korean peninsula. A realist would argue that a South Korean nuclear program would not bring balance and stability to the Korean peninsula because human nature dictates that we are in a constant quest for power. The United States-South Korean relationship is a vital security pact that will continue to provide protection against the North Korean regime. Neorealism explains the absence of South Korea's nuclear program to define that security through power is what a state truly needs in order to thrive.

Third Chapter Introduction

In the recent past, China has been expanding and modernizing its military capabilities. Notably, the country has been increasing its nuclear arsenal. The goal of the nuclear weapon and the delivery systems expansion is seen as an effort to ensure that China maintains an effective nuclear second-strike capability concerning the U.S. 83 Realism is used as one of the explanations for the steady rise in nuclear weaponry attributing the expansion to China's perception of the existing threats. The defense system of the U.S. and its advancement is seen as a threat to China's second-strike capability necessitating the development of its arsenal as an effective political leverage. 84 The nuclear program was initiated in the mid-1950s and proceeded to carry out the first

⁸³ Thranert, Oliver. "China's nuclear arms build-up: Background and Consequences." Centre for Security Studies, 2013, no. 140, pp 1-4.

⁸⁴ Zhang Hui. "China's Nuclear Weapons Modernization: Intentions, Drivers, and Trends." Harvard University, pp 1-10.

test in 1964 after which a total of 45 other tests have been undertaken. ⁸⁵ The country has tested the full range of nuclear weapons including uranium bombs, neutron arms, and thermonuclear warheads. Initially, China committed never to be the first to use a nuclear weapon or threaten their use but to use them for deterrence and for the capability to retaliate. The stance changed with the publication in 2013 of China's "nuclear self-defense strategy" which does not explicitly rule out the possibility of first use. ⁸⁶ While its nuclear arsenal is small compared to that of the U.S., it is estimated that between 2002 and 2010 its nuclear warheads increased from 20 to 30-35 representing almost 50-75 percent growth in under a decade. ⁸⁷ Realists hold that power is the currency of international politics. The great powers will thus keep track of their economic and military powers and how these capabilities compare with those of competitors. It is in their interest to accumulate power but and also to ensure that no other country significantly shifts the existing balance of power. ⁸⁸

The study will seek to evaluate the effectiveness of the concept of realism in explaining the growth of China's nuclear weaponry. The aim is to determine whether realism satisfactorily accounts for the rise in nuclear power or alternative explanations need to be explored. The method that will be employed is through a critical review of the literature on the subject. Past studies that will be evaluated are the realism theoretical underpinnings and the realities of past, present and potential conflicts. The hypothesis of

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⁸⁵ Ibid, pg 1.

⁸⁶ Gilboy, George, J, and Heginbotham, E. "Double Trouble: A realist view of Chinese and Indian power." *The Washington Quarterly*, 2013, 36, no. 3, pp 125-142.

⁸⁷ Ibid, pg 1

⁸⁸ Mearsheimer, John, J. *International Relations Theories: Structural Realism,* Oxford: Oxford University Press, 2013.

the paper is that realism is an appropriate means of explaining the growth in China's nuclear capabilities.

Third Chapter Literature Review

One of the main assumptions of the classical view is that states constitute unitary actors seeking to maximize power and guarantee their survival in the international system. ⁸⁹ Classical realists emphasize the external pressures to safeguard their interests. However, opponents of this view fault it on the basis that it oversimplifies nuclear decision making. Kenneth Waltz explains the spread of nuclear weapons through rational deterrence in what became the beginning of neo-realism in which he observes that the acquisition of second strike capability reduces the likelihood of war between nuclear states. ⁹⁰ Thus, Waltz argues that the spread of nuclear weapons is better and is likely to increase stability through restraint and caution; a view that contradicts with the classical conclusion. However, in practice, the view of nuclear weapons changed from the 1960s, and they became to be feared rather than being seen as means of enhancing stability. Waltz's neorealism differs with the classical views as he observes that military leaders do not like uncertainty, and thus even autocratic regimes are unlikely to develop nuclear weapons. ⁹¹ The implication of Waltz's work is that the nuclear decisions come down to

⁸⁹ Ogilvie-White, Tanya. "Is There a Theory of Nuclear Proliferation? An Analysis of the Contemporary Debate." *The Nonproliferation Review*, 1996, pp 43-60.

⁹⁰ Waltz, Kenneth, N. "Structural Realism after the Cold War." *International Security*, 2000, 25, no. 1, pp 5-41.

⁹¹ Ibid, pg. 7

the individual or organizational level rather than the assumption of a unitary state actor in the classical view. 92 He argues that a vertical proliferation would exhaust state resources without guaranteeing a security enhancement and therefore would be counterproductive.

Davis argues that classical realism provides a complete explanation to proliferation where countries undertake nuclear programs if they improve their national security. 93 However, the view fails to account for instances where some states acquire nuclear weapons while such acquisition undermines their security. Drawing from the anarchic international structure, Betts argues that a nation that is more isolated, seeking international prestige or is facing threats from a neighboring adversary is more likely to pursue a buildup of its nuclear weaponry. 94

Neorealists argue that the structure of the international system and whether it is characterized as being unipolar, bipolar or multipolar has an effect on both international politics and outcomes. Nuclear weapons would be an effective way by weaker states of balancing stronger ones is such international structure. Not everyone subscribes to the realism perspective. Proponents of the neoliberal institutionalism argue for having international institutions that would alleviate the security dilemma and ensure long-term cooperation among states. They observe that the NPT has been mandated to regulate the relations between nuclear states on one side and non-nuclear weapon states on the other

⁹² Waltz, Kenneth, N. "Policy Paper 15: Peace, Stability and Nuclear Weapons." Institute of Global Conflict and Cooperation, University of California, 1995, pp1-19.

⁹³ Davis Zachary, S. "The realist nuclear regime," Security Studies, 1993, 2, pp79.

⁹⁴ Betts Richard, K. "Paranoids, pygmies, pariahs and non-proliferation revisited." Security Studies, 1993.

⁹⁵ Waltz, Kenneth, N. "Policy Paper 15: Peace, Stability and Nuclear Weapons." Institute of Global Conflict and Cooperation, University of California, 1995, pp1-19.

⁹⁶ Hymans, Jacques, E.C. "Theories of Nuclear Proliferation: The State of the Field." pp 456-465.

and has been credited for by some for the low proliferation. However, its operations have been plagued with allegations of bias and discrimination and offer weak security guarantees for its non-nuclear members. With such skepticism, it is likely that non-nuclear members and weak states would advance programs to build their nuclear arsenals to counter threats posed by strong members. Nevertheless, the arms race predicted by this view has not been witnessed in reality. Neoliberal institutionalists hold that domestic characteristics play a significant role in shaping attitudes towards nuclear proliferation. These views reduce the dichotomy placed on domestic and foreign policies and instead show their interconnectedness and how they reinforce each other.

The "myth of nuclear proliferation" argument is to the effect that the discussion is a result of a narrative that paints a gloomy global security status. ⁹⁸ Further, this is seen as a mischaracterization that depicts the system as unstable. As long as it persists, proponents argue that it will continue to justify wasteful military spending.

Unfortunately, it largely damages the national security rather than enhancing it. ⁹⁹

Concerning the question of how much power is enough; defensive realists hold that it is foolhardy to make an attempt at maximizing a state's share of world power. They hold that the international system will punish such attempts especially hegemony by bringing together adversaries for form an alliance against the aggressor. ¹⁰⁰ The view

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⁹⁷ Sondenaa, Erik. "The Nuclear Non-Proliferation Treaty and Regime Theories, University of Tromso, 2008, pp 1-89.

⁹⁸ Bluth, Christoph. "POLIS Working Papers: The Myth of Nuclear Proliferation." University of Leeds, 2011, no.4, pp1-18.

⁹⁹ Bluth, Christoph. "POLIS Working Papers: The Myth of Nuclear Proliferation." University of Leeds, 2011, no.4, pp1-18.

¹⁰⁰ Ibid, 27.

contradicts that of offensive realists who observe a strategic sense for nations to accumulate as much power as possible, even hegemony under the right circumstances. ¹⁰¹ The argument relies on the assumption that overwhelming power is the sure way of guaranteeing survival, the ultimate goal of power.

Benjamin Frankel argued for a logical deductive approach. With the advantage of hindsight now, it is evident that international norms regarding the use of force have greatly changed. Force is only justifiable in self-defense and in enforcing international law sanctioned by the UN Security Council. Stringent conditions have been placed on the use of force and emphasis put on the protection of civilians. Thus, it is inconceivable that the application of nuclear weapons would be sanctioned in the current regime. While adherence is not guaranteed, states have demonstrated restraint in the use of force. Thus, nuclear nonproliferation has gained momentum in the recent years reflecting a new outlook in the global structure. 104

The approach allows for the functional differentiation of nations and is based on the fact that the operating environment is dynamic and states do not merely imitate each other. As such, it is not easy to predict proliferation as traditional neo-realists had attempted to do. The theory thus seeks to provide insight to domestic and foreign policy

¹⁰¹ Douglas, James. "Defensive Realism and Chinese Maritime Strategy." Victoria University of Wellington, pp1-90.

New York, Columbia University Press, 1993, pp102-114.

¹⁰² Frankel Benjamin. "The Brooding Shadow: Systemic Incentives and Nuclear Weapons Proliferation, *Security Studies* 2, 1993, p. 37.

¹⁰³ Mearsheimer, John, J. *International Relations Theories: Structural Realism,* Oxford: Oxford University Press. 2013.

¹⁰⁴ Ibid. pg. 13.

¹⁰⁵ Buzan Barry, Jones Charles, and Little Richard. *The Logic of Anarchy: Neo-Realism to Structural Realism*.

decision-making as opposed to prescribing or accurately predicting future behavior of states. The structural realism model (vice the classic realist model) is more realistic as it takes into consideration more influences considering the dilemma between survival in the global structure and internal stability of a state. It comes closer to simulating a real scenario that faces a nation that is to decide whether to adopt or expand its nuclear arsenal. Such country has to take into account factors such as the presence of adversaries, presence, and reliability of allies, the existing distribution of power among international players as well as domestic concerns such as technological capability, political stability, and economic strength. 106

Reiss' views are that nuclear restraints have been underestimated. These include domestic ones including cost, environmental risks, political opposition and external influences such as bilateral disincentives and the power of "world public opinion" that removes the interest of nations developing nuclear arsenal. 107 These disincentives have had the effect of convincing policy makers that the benefits of nuclear weapons would be lower than anticipated thus slowing the adoption of a nuclear arsenal. Also, like other structural realists, Reiss argue that the motivation for nuclear proliferation vary across nations.

Third Chapter Theory

¹⁰⁶ Ibid. pg. 22.

¹⁰⁷ Reiss, Mitchell. Without The Bomb: The Politics of Nuclear Non-Proliferation, New York: Columbia University Press, 1988.

Classical theorists argue that everyone is born with a will to power and the aspirations of the great powers represent a sum of the individual desires of its rulers. On the other hand, structural realists argue that it is the structure of the international system that pushes nations to pursue power. The fact that the great powers have no authority above them implies that there exists no guarantee that another competitor will not attack the victim state. Thus, it becomes sensible that every nation builds the capability to defend itself if it becomes a subject of an assault. As such, the great powers have become trapped in a race to compete for survival particularly through enhancing their military capacities.

Power is interpreted as being a function of a state's military assets including nuclear weapons. Besides, the socioeconomic ingredients that enable such accumulation of property constitute latent power. These include a state's wealth, the population size, and technology. A country can only enhance its ability to thrive on the capacity to protect this pool of assets from aggression. It is thus evident that as economies grow so does their military budgets and arsenal. These efforts aim at keeping at bay any attempts to curtail the economy's growth particularly by its competitors who may be keen to maintain the status quo.

¹⁰⁸ Mearsheimer, John, J. *International Relations Theories: Structural Realism,* Oxford: Oxford University Press, 2013.

¹⁰⁹ Buzan Barry, Jones Charles and Little Richard. *The Logic of Anarchy: Neo-Realism to Structural Realism*. New York, Columbia University Press, 1993, pp102-114.

¹¹⁰ Van Muster, Rens and Sylvest, Casper. "Beyond Deterrence: Nuclear Realism, the H-Bomb, and Globality." ISA Annual Convention, 2013, pp 1-31.

¹¹¹ Charles, Glaser. "Will China's Rise Lead to War?" Foreign Affairs, 2011, 90, no. 2, pp80-91.

Structural realism has identified five fundamental assumptions on which the theory of international structure is based. First, structural realism assumes that great powers are the key players in global politics and they operate in an anarchic system in the sense that there lacks a centralized authority and thus no arbiter above the nations. 112 The implication of this assumption is that each great power must depend on itself for survival. Secondly, it is assumed that all nations have some extent of military capability, which varies among states and within a state over time. The second assumption leads to a dichotomy of countries by those that are content with the existing status quo and those that pursue to revise the current balance of power. Thirdly, it is assumed that nations cannot be certain regarding the intentions of other states to use force to alter the balance of authority or whether they are satisfied with the current structure. 113 The reason is that intentions are difficult to discern and speeches and policy documents can be used deceptively to conceal the real intentions.¹¹⁴ Also, even when intentions are discernable, they are not static (as indicated in the second assumption) and change depending on the regime in power. Fourthly, the primary goal of nations is survival concerning the ability to retaining the autonomy in the domestic political order and territorial integrity. All other aims are secondary as they presume the survival of the state. The last assumption states that nations are rational actors with the ability to develop strategies that maximize the survival prospects. However, this does not prevent miscalculation among actors owing to

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Sondenaa, Erik. "The Nuclear Non-Proliferation Treaty and Regime Theories, University of Tromso, 2008, pp 1-89.

¹¹³ Mearsheimer, John, J. *International Relations Theories: Structural Realism,* Oxford: Oxford University Press, 2013.

¹¹⁴ Van Muster, Rens and Sylvest, Casper. "Beyond Deterrence: Nuclear Realism, the H-Bomb, and Globality." ISA Annual Convention, 2013, pp 1-31.

the imperfect information that characterizes their operational environment. At times the miscalculation leads to severe mishaps and costly decisions. The combination of these assumptions creates an incentive for states to acquire power at the detriment of their competitors. ¹¹⁵

The theory of structural realism states that great powers fear each other and mistrust characterizes their relationship. There is concern regarding the intentions of other actors and particularly on the capability and motive to launch attacks against them. The situation creates a scenario where there is a lingering possibility of war and state destruction. In their operations, great powers understand that their operational environment is a self-help world. They can only depend on themselves for survival as other nations pose potential threats and there lacks a higher authority to rely on in case of an attack. Thus, there is a motivation to be powerful compared to rivals so as to reduce the likelihood of being attacked. While it is true nations form alliances to deal with adversaries, it is clear that even in such arrangements national interests supersede those of the international community. Because no state would like a situation where another gains power at its expense, it ensures that even those that are satisfied with the status quo will operate like revisionist states when there is this threat.

Harrington, Anne. I. "Power, Violence, and Nuclear Weapons." *Critical Studies on Security*, 2016, 4, n0. 1, pp 91-112.

¹¹⁶ Ibid, pg.34.

¹¹⁷ Zhang Hui. "China's Nuclear Weapons Modernization: Intentions, Drivers, and Trends." Harvard University, pp 1-10.

¹¹⁸ Mearsheimer, John, J. *International Relations Theories: Structural Realism,* Oxford: Oxford University Press, 2013.

The nature of the international system and its anarchic organization implies that every state that is seeking to survive must assume the worst case regarding the intentions of its competitors' appetite to compete for power. Thus, it is impossible to conceive a situation where there are peace and contentment among the great powers and where every one of them is satisfied with the status quo. ¹¹⁹ The structural implications lead to a security dilemma as the steps taken to enhance the security of one state decreases the relative power of its competitors. The resultant effect is a zero-sum world in which improving the survival prospects of one nation can only be realized by threatening the ability of other states to thrive. In turn, the affected ones will be motivated to adopt measures that guarantee survival leading to constant competition for power.

While offensive realists argue that states should seize every moment to increase power, defensive theorists hold that it is not strategic to pursue hegemony. They advocate for what they term as an "appropriate amount of power." The view is informed by an argument that if any state were to become too powerful, then balancing would take place by a process whereby the other great powers enhance their military capabilities or form a coalition that either makes the aspiring hegemony less secure or destroys it. Another argument by defensive realists is that there exists an offence-defense balance which indicates the ease with which a territory can be defeated. The balance is found to

¹¹⁹ Buzan Barry, Jones Charles and Little Richard. *The Logic of Anarchy: Neo-Realism to Structural Realism*. New York, Columbia University Press, 1993, pp102-114.

¹²⁰ Frankel Benjamin. "The Brooding Shadow: Systemic Incentives and Nuclear Weapons Proliferation, *Security*

Studies 2, 1993, p. 37.

¹²¹ Mearsheimer, John, J. *International Relations Theories: Structural Realism,* Oxford: Oxford University Press, 2013.

be heavily weighed for the defender implying that any nation keen on increasing power through offense is likely to engage in a series of losing wars. Because of the futility of the exercise, states will be keen on maintaining their position in the balance of power as opposed to creating hegemony. Further, it is argued that even where conquest was possible, its costs outweigh the benefits. Nationalism ensures that the conqueror is unable to subdue the conquered as the likelihood of occupied populations rising against the occupier are high. These factors limit the appetite for power among great powers.

Because they are rational actors, they will be less inclined to amass much relative power as this would threaten their survival in the long run.

Offensive realists contest these views. They observe that the balancing carried out by threatened nations is often inefficient, a situation which makes it possible for an aggressor to take advantage of its foes. Buck- passing by some states is common among great powers where they choose to stay on the sidelines instead of joining a balancing coalition increasing the likelihood of aggression. Besides, offensive realists point out that historical record does not support the assertion that the defender has a significant advantage over the aggressor. There is an extensive account of wars where the aggressor has ended up defeating the targeted nation.

Both offensive and defensive realists concur that there is little utility in the use of nuclear weapons offensively where both parties have access to them. The reasoning is that where both parties have a survivable retaliatory capability, none of the parties gain

¹²² Betts Richard, K. "Paranoids, pygmies, pariahs and non-proliferation revisited." Security Studies, 1993.

¹²³ Mearsheimer, John, J. *International Relations Theories: Structural Realism,* Oxford: Oxford University Press, 2013.

from striking first. ¹²⁴ As a consequence, there is a consensus among these different groups of theorists that war between nuclear-armed nations is possible but unlikely given the possibility of it escalating to the nuclear level. Therefore, the ultimate reason for building and increasing nuclear power is ensuring that there is a clear communication of the retaliatory ability and thus effective deterrence as opposed to provocation. ¹²⁵

Third Chapter Hypothesis

The study's hypothesis is that China's nuclear program is a rational decision meant to enhance its survivability through deterrence. Consequently, realism would be an appropriate method to explain China's program to account for this objective and for any nuclear program. There is little attention that is given to the recent developments where China has adopted a more open economy increasing its reliance on the global system of nations. Thus, the economic progress of China would raise the cost of it engaging in a nuclear war and thus would be naturally unwelcome. It is important to update the current literature to reflect the realities that China faces in the current international system. These experiences will be evaluated against the characteristics of realism to establish consistencies and inconsistencies with the theory.

Third Chapter Method

¹²⁴ Zhang Hui. "China's Nuclear Weapons Modernization: Intentions, Drivers, and Trends." Harvard University, pp 1-10.

¹²⁵ Diamond, Harrison, S. "Reinterpreting Nuclear Consequences: Realism, Constructivism, and The Iranian Crisis." University of Puget Sound, 2012, pp 1-28.

A qualitative analytical method similar to the one used in Himm will be utilized to consider China's nuclear program's role in implementing the policy of deterrence. ¹²⁶ A critical analysis of the historical evolution and modernization of China's nuclear arsenal will be made based on the experience concerning the assumptions made under realism to bring out points of concurrence or contradictions. Government policy over time will be analyzed to bring out trends as well as rhetoric and credibility of such assertions. The development of the Chinese nuclear program will be assessed not in isolation but with a particular focus on the events in the South and East China seas, the U.S, and the latter's allies in the region. The global size of nuclear weaponry will be considered as well as where China appears in the hierarchy. The size of the China's nuclear weapon will be considered as well as how it has changed over time and its prospects. 127 The analysis will seek to establish the assertions of China on one side and those of its potential adversaries on the other. Open sources will be used to determine the veracity of the claims and qualitative evidence on the issue. The method will also consider the operational environment of China considering particularly its economic growth and its strategic interests. Such methodology is informed by the need to understand the nuclear program within the broad context of the survivability of the state, a key assumption of the realism.

Third Chapter Data

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¹²⁶ Hiim Henrik, S. "China's nuclear force structure." *IFS Insights*, 2011, 2, pp 1-15.

¹²⁷ Zhang Hui. "China's Nuclear Weapons Modernization: Intentions, Drivers, and Trends." Harvard University, pp 1-10.

China's "underground great wall" consists of 3000 miles of long tunnels with the capacity to hold approximately 3000 nuclear weapons. ¹²⁸ The tunnel system has decoy portals intended to prevent adversaries from carrying out successful first strikes. It has been estimated that China would consider ten warheads that can be detonated in 10 enemy major cities sufficient for its deterrence objectives. The estimated fatalities per nuclear missile are estimated at 800,000, and if it is detonated as an airburst, the figure goes up to 2 million. Even in the instance of a counterattack involving 20 DF-31A intercontinental ballistic missiles (ICBMs) with lower-yield warhead compared to a DF-5A, casualties are estimated at 12 million with up to 6 million fatalities. ¹²⁹ Some authors estimate China's inventory at 170 nuclear warheads with about 110 operational deployable missiles, 35 of which could reach intercontinental U.S. and about 60 are for the submarine-launched ballistic missiles and bombers. ¹³⁰

The country has about 1.8 tons of plutonium and 16 tons of weapon-grade HEU for making nuclear weapons. It is notable that the country halted the production of enriched uranium in 1987 and of plutonium in 1990.¹³¹ The facilities used for these productions have been closed, are being decommissioned or have been converted to other purposes. Existing stockpiles of fissile materials cannot support more than 1000 warheads. As standard practice, some of this material has to be set aside for future needs.

Studies, 2013, no. 140, pp 1-4.

¹²⁸ Zhang Hui. "China's nuclear weapons modernization: Intentions, drivers, and trends." Harvard University, pp 1-10

¹²⁹ Ibid, pg. 47.

¹³⁰ Ibid, pg. 11.

¹³¹ Thranert, Oliver. "China's Nuclear Arms Build-Up: Background and Consequences." *Centre for Security*

Adherence to this practice would put the upper limit of the nuclear arsenal at 500 warheads. The modernization of the nuclear arsenal was done at a moderate rate between 1980 and 1985 at a time when nuclear threat was low. However, from the mid-1990s with the onset of the Taiwan crisis, the program has been upscaled.

On April 2016, China tested DF-41, its newest ICBM which has MIRV capabilities indicating an intention to replace the DF-31 which can only hold one warhead and uses liquid fuel propellant. The country has comparatively fewer nuclear tests pointing to the fact that the existing designs are satisfactory. The increasing striking range and promptness of launch associated with the switch from liquid to solid fuel point to improvements in deliverability of the new missiles. The switch from liquid to solid fuel has been undertaken in a span of 30 years.

Though China abandoned production of military grade plutonium, it could resume with ease given that it has increased the number of reprocessing and fast breeder reactors. Some authors have argued that the sole purpose of the new H-6K strategic bomber is to target American carrier groups and targets in East Asia. However, this long-range bomber lacks the requisite range to target the U.S. mainland. A clear disparity between China and other nuclear nations is that its warheads and launch vehicles are held separately and are only mated when ready for launch.

¹³² Strojnik, Tomaz. "Fact Sheet: Chinese Nuclear Modernization." American Security Project, pp 1-9.

¹³³ Zhang Hui. "China's nuclear weapons modernization: Intentions, drivers, and trends." Harvard University, pp 1-10.

¹³⁴ Ibid, pg. 6.

The secrecy of China's nuclear weapon program has been described as deceptive and is intended to enhance the survivability of its arsenal for retaliatory purposes. Public access of the

information would undermine the arsenal's role in deterrence. The comparatively fewer weapons and low alert status create strategic vulnerabilities to an aggressor keen of destroying China's capability to respond. The country has made efforts to modernize the command control communication and intelligence (C3I) capabilities. These developments enhance the ability to command and control several units, give access to battlefield information, sustained communication connections and capacity to issue orders via voice commands to various subordinates.

China's stockpiles of nuclear warheads have not changed significantly in the recent years. ¹³⁶ Compared to other nuclear nations, China's nuclear force is smaller and technologically unsophisticated. Its missiles are kept un-fueled, off-alert, and their warheads are stored separately increasing their preparation time. ¹³⁷ Moreover, there is a heavy reliance on land-based systems with its sea- and air-based components remaining relatively underdeveloped. The SSBN has been plagued with recurrent technical hitches and so has been the case with the Xia-class submarine which has been said never to have left port or conducted any deterrent patrol. ¹³⁸ Some analysts intimate that China has only strategic nuclear weapons and no tactical ones. The country seems to have elected not to

¹³⁵ Strojnik, Tomaz. "Fact Sheet: Chinese Nuclear Modernization." American Security Project, pp 1-9

¹³⁶ Hiim Henrik, S. "China's nuclear force structure." *IFS Insights*, 2011, 2, pp 1-15.

¹³⁷ Ibid, pg. 55.

¹³⁸ Ibid, pg. 56.

pursue the multiple independently targetable re-entry vehicles (MIRVs) that would have seen every missile fitted with several warheads.

Although the country modernized the delivery vehicles, no evidence exists of developing new warheads. It signed the Comprehensive Test Ban Treaty and since 1996 has not tested nuclear weapons. The country has the least relative number of test data, and a precursor of resuming development of nuclear weapons would be testing. There lacks hard evidence of a move towards a bias for more testing.

Its chief adversary, the U.S., has numerous allies in the region posing an increased threat. The uncertainty about Tibet and differing opinions between China and the U.S demands that it acts in a manner to safeguard its territorial interests. ¹⁴⁰ This uncertainty means that China does not have the capacity to "sprint" to the level of nuclear arsenal controlled by the U.S. or Russia. China lacks an effective alternative way to deter an attack by any great powers specifically the U.S. besides its capacity of retaliating to aggression. This is China's best solution of maintaining the capability to compete with other country's such as the United States.

China is alive to the debate where a sensational media and politicians can whip up emotions through alarmist formulations often resulting in a biased view. Luckily the nuclear program has widely been conducted secretly, and the country has been able to underplay international attention. However, the lack of transparency has created a view

¹⁴⁰ Gilboy, George, J, and Heginbotham, E. "Double Trouble: A realist view of Chinese and Indian power." *The Washington Quarterly*, 2013, 36, no. 3, pp 125-142.

¹³⁹ Zhang Hui. "China's nuclear weapons modernization: Intentions, drivers, and trends." Harvard University, pp 1-10.

that China would want to attain hegemony in the region. The country lays claims on its rights to deny foreigners access to its exclusive economic zone (EEZ) for surveillance or scientific research. The lack of openness creates suspicion and mistrust. The country values secrecy and believes that transparency would erode the survivability of its nuclear arsenal. However, this secrecy is not without merit. The country through defense scientists has indicated its concerns about technological advancements by its adversaries, especially in space and missile defense fields. It fears that enhanced satellite reconnaissance may give away the location of its weapons as well as the command and control facilities. Further, such capabilities would give an aggressor the ability to track and target mobile arms or open the country to a "nuclear blackmail" effectively eroding the deterrence aim. 142

The U.S. has accused China of contributing to the proliferation of Weapons of Mass Destruction (WMD) through the supply of nuclear and missile-related technology to Iran and Pakistan. As a consequence, various private and government-controlled entities in China have been subjected to sanctions for contributing to the proliferation of WMD. However, it is committed to the proposal of a worldwide disarmament arguing that such an undertaking must start with a commitment from all actors on a no-first-use policy. Its argument is that without the risk of aggression from any country, the need to maintain nuclear weapons would dissipate. Some authors have questioned the sincerity or

¹⁴¹ Thranert, Oliver. "China's nuclear arms build-up: Background and Consequences." *Centre for Security Studies*, 2013, no. 140, pp 1-4.

¹⁴² Kulacki, Gregory. "China's nuclear arsenal: status and evolution." Union of Concerned Scientists, 2011, pp 1-6.

¹⁴³ Kan, Shirley, A. "China and Proliferation of weapons of mass destruction and missiles: Policy issues." *Congressional Research Services*, 2015, pp 1-70.

otherwise of this commitment. A look at the size, force posture, practice and readiness of China's nuclear program compared to other great powers tells that the commitment could be sincere.

Moreover, the country conducts Second Artillery training and planning on the assumption that China will be in a position to absorb a first nuclear strike and use its stock in retaliation. He is important to note that the size of the nuclear force has largely been determined by China's strategy rather than technological or financial constraints. If the country had determined that it was in its interest to expand the stockpiles aggressively, then it could have done that since the 1980s. He country has committed to implement a lean and effective nuclear force that aims at enhancing survivability, safety, reliability and penetrating ability. The size of the stockpiles matches that of retaliatory purposes rather than a counterforce as in the case of the U.S. The effectiveness aspect of the comparably smaller arsenal has necessitated modernization focusing on quality as opposed to quantity. Also, it has made it necessary to replace older liquid-fueled missiles with solid-fueled mobile ballistic ones. Besides, it has been essential to construct deep underground tunnels which form the missile bases.

Third Chapter Discussion

¹⁴⁴ Zhang Hui. "China's nuclear weapons modernization: Intentions, drivers, and trends." Harvard University, pp 1-10.

¹⁴⁵ Zhang Hui. "China's nuclear weapons modernization: Intentions, drivers, and trends." Harvard University, pp 1-10.

¹⁴⁶ Ibid, pg. 64.

The main theme in the buildup of nuclear weapons is to serve as a tool for deterrence. The aim is to make the costs greater than the benefits for the aggressor. For it to be effective, realism assumes that the state that uses it can get into the mind or at least the intentions of the aggressor and the ability to hold at risk the things that they value. However, according to the assumptions of realism, intentions are difficult to discern and are often easy to conceal. Secondly, great powers have the awareness that they are being watched and will thus not lay bare their motivations or what they value in a bid to either mislead their competitors against building sufficient retaliatory capability. On this account, the secrecy of China's nuclear program fits into the realism debate but is dependent on the fact that a potential aggressor would decode the stance accurately.

The conduct of international relations puts to doubt whether some actors can be relied upon to take due care of their nuclear arms. It appears the opposition to China's program is two-faced. On the one hand is the belief by other great powers that China has been modernizing its arsenal and on the other is the sale to as unstable states. The first argument is aligned with the arguments under realism's goal of deterrence. Foreign and domestic policy decision-making is difficult to discern or to model.

With the complicated nature of policy, the deceit involved and lack of transparency regarding the capabilities and size of military arsenal there is a possibility that mistakes in assessment may be made. These could lead to an affinity for a confrontation that could escalate to a nuclear level. ¹⁴⁸ In the case of China, its choice of a

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¹⁴⁷ Charles, Glaser. "Will China's Rise Lead to War?" Foreign Affairs, 2011, 90, no. 2, pp 80-91.

¹⁴⁸ Diamond, Harrison, S. "Reinterpreting Nuclear Consequences: Realism, Constructivism, and The Iranian Crisis." University of Puget Sound, 2012, pp 1-28.

non transparent approach has been exploited to create alarmist narratives regarding the size and threat of its nuclear arsenal. There is no empirical evidence to substantiate this alleged threat. Unfortunately, at home, these may be interpreted to mean that the world system presents a threat to the survivability of the state and may, in fact, justify efforts to enhance retaliatory capabilities as explained in realism.

Realists seem not to factor in the degree of risk and uncertainty of miscalculating threats, accidents, misreading of errant information or the intentional use by irrational actors. Waltz argued for the increased capability of second strike to promote deterrence measures. Deterrence is based on the assumption that competitors will decode the actions of a state accurately. 149 The possibility of human error or computer failure could trigger and escalate to a nuclear war. Realism does not explore this fact. In such a situation, the assumption that great powers are rational would not hold as the aggrieved nation could be under pressure to retaliate sparking a situation where everyone loses. Such mishaps have been witnessed in the U.S. in 1980 where a failure in the computer chip of the NORAD Control System resulted in false missile warning displayed random numbers of attacking missiles. 150 Luckily, the mishap was noticed before any retaliation could be mounted. The luck in the past provides no guarantee that such luck will be enjoyed in the future. Similar system malfunctions were reported in the Soviet Union in 1983 and 1995, but no action was triggered. What remains intact is that the events do not take away are the retaliatory capability of states.

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¹⁴⁹ Pifer, Steven. *The war that must be fought: A realist's rationale for a world without nuclear weapons.* California: CA, Hoover Press, 2009.

¹⁵⁰ Ibid, pg. 85.

Chinese retaliation from an offensive nuclear strike from another country would lead to a retaliation directly targeting Chinese homeland. In fact, such a situation contradicts with the assumption that national goals supersede international ones. The pessimism with which realists justify growth in military capabilities while consistent with the fact that nations have to assume the worst case regarding their adversaries may not be practical in a world system where war is no longer a strategic tool (I.e., nuclear war). ¹⁵¹

Third Chapter Conclusion

The study has explored the hypothesis that China's nuclear program is a rational decision by a state actor aimed at survivability of the nation and which can be explained through realism. The findings are that the country's commitment to the NFU of nuclear weapons, government policy, size and posture of its arsenal all point to the acceptance of this hypothesis as they advance the goal of deterrence by enhancing survivability and capability to retaliate any nuclear aggression, to include a rapid buildup of Chinese missiles. Also, the realities in the East and the South China Sea have been used to justify the nuclear modernization program. Therefore, realism has also shown that it is likely that China will be pursuing hegemony in the region.

Thesis Conclusion

For the United States to determine real policies to counteract the North Korean and Chinese nuclear threat, emphasis must be placed on understanding the political

¹⁵¹ Charles, Glaser. "Will China's Rise Lead to War?" Foreign Affairs, 2011, 90, no. 2, pp 80-91.

nature of both countries. Also, encouraging and strengthening our allies to proceed with capability upgrades is a vital mission America must undertake. North Korea has remained a threat to the international community by consistently testing their nuclear program, ballistic missiles, and threats to neighboring countries such as Japan. Realism explains the origins and desire to constantly upgrade the North Korean nuclear program. The realism theory underscores that nations are inherently right to serve as ambassadors of self-defense. Military and nuclear capability is a primary ingredient to self-defense according to North Korean ideology. North Korea desires to maintain their security independence and they deeply desire to advanced their nuclear agenda in order to increase their security. The DPRK relies on its own perception of power and its relevance to upgrading their nuclear power. Realism is connected to the pursuit of power and the DPRK uses this reason as to why they are consistently upgrading their nuclear power. Thus, realism explains the growth and origins of the North Korean nuclear program.

South Korea not possessing a nuclear program brings order and balance to an unstable region in the Asia Pacific. South Korea not possessing a nuclear program is a strength, not a weakness. There lies too much unpredictability to the Asia Pacific region if South Korea pursued a nuclear program. In South Korea's situation, power and security are core values that are consistently sought after in the quest to counteract North Korea's nuclear program. Not only is power defined differently between realists and neorealist, power is also the fundamental reason why the United States does not allow South Korea to possess a nuclear program. Additionally, cooperation is not well defined under neorealism due to selfishness of states. Neorealists are quick to identify that cooperation is more likely to work under economic terms vice military situations. Nonstructural

factors such as security enhancements and power pursuits are more likely to define the American-South Korean relationship, as well as the origins of the South Korean nuclear program.

South Korean's leadership, presently and historically, are much more concerned with regional security than mere power projection (which is what realists refer to as "power"). This ideology is the foundation of neorealism. Enhancing a nuclear state would mean less security and more demands to project power in order to dissuade other countries from testing the South Korea's nuclear agenda. Therefore, neorealism explains the origins and lack of a nuclear program in South Korea.

China's nuclear program and connection to realism is similar to the theory of structural realism in that great powers fear and mistrust each other's actions in an anarchic international structure. It no secret that China fears the growth of the United States' economic, military, and political power. Yet, China fully understands that its responsible for growing its nuclear power in order to project their power against the United States. China does not rely on its alliances with its allies for power pursuit and projection, which supports the realist political theory. Just like realism explains, China's ability to hide its intentions and conceal their nuclear buildup reasoning underlines the definition of realism (and the deceptive piece that is part of the definition). This is typical, since China has zero desire to inform anyone in the international community as to why its building up and continually testing its nuclear agenda. Realism recognizes the goal of nuclear deterrence under the Chinese nuclear agenda. Nonetheless, Chinese strategic nuclear agenda helps define the concepts covered under realism, particularly the pursuit of power ideology.

Future recommendations will include further study from America to correctly identify the reasoning behind the continual development of the North Korean and Chinese nuclear programs. It will not be enough to upgrade South Korea's defensive systems or place anti-ballistic systems there. The United States must first continue to try to understand the foundation of the North Korean and Chinese programs. With that knowledge, using realism and neorealism to predict the future behavior of both North Korea and China is critical to future American military success against these regimes. If America is only aware of the military capabilities of both North Korea and China, that is a serious handicap.

Future areas that are recommended for further research would include other political theories to test their relevance to the current situations with regard to nuclear buildup in North Korea and China. While realism and neorealism are the best theories to explain the nuclear situations in North Korea, South Korea, and China, other schools of thought under the international relations theory banner could prove beneficial to complete a holistic understanding of the relevant regimes. In other words, it is insufficient to know the capabilities and limitations of the North Korean and Chinese nuclear programs. The fundamental understanding of why each program exists and why they intend to grow under political theories is essential to fully understand each nuclear agenda. Other political theories under the International relations theme include liberalism, constructivism, and marxism.

America, above all else, must remain consistent against the North Korean and Chinese nuclear threat. It will take much more than relating political theories to their rivals' agendas for complete political stability in the Asia Pacific theater. Upgrading the

Aegis ships located in Japan, the terminal defense systems in South Korea, and increasing military presence along the South Korean coasts are crucial courses of actions that America needs to continue to take to show a determined force to stop the North Korean and Chinese nuclear threats. Idly sitting by or being indecisive within American leadership about the courses of action against those same threats only prolongs the inevitable confrontation with both North Korea and China. Strategic patience will still be a concept the United States uses against both of the countries. Perhaps if America developed a different system besides sanctions or strengthened sanctions against North Korea, they would eventually see a denuclearized North Korea and China. Until America makes a decision to take a different course of action, we can expect to see the same results from both countries.

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• United States Naval Academy (Bachelor of Science- English) - Graduated in May 2010

PROFESSIONAL EXPERIENCE

UNITED STATES NAVY

AEGIS Training & Readiness Center- Dahlgren, VA JAN 2015-Present

Officer Instructor

- Assigned to train and instruct future Commanding Officers, Executive Officers, Department Heads, Fire Control Officers, and Training Officers in the capabilities and limitations of Ballistic Missile Defense Operations.
- Directly responsible to assist the Department Heads in curriculum development and policy considerations. Coordinates annual and quarterly training meetings.

USS SHILOH (CG-67)- Yokosuka, Japan JUN 2013- DEC 2014

Fire Control Officer

- Supervised three divisions consisting of thirteen personnel to safely maintain and operate a multimillion dollar SPY AEGIS radar, Computer Display systems, and other vital ship's equipment.
- Calculated and assessed Naval Missions via AEGIS Mission Planner in order to strategically position ships in support of Ballistic Missile Defense.
- Spearheaded and conducted various Ballistic Missile Defense symposiums to illustrate training requirements and qualifications to optimize crew readiness.

- Administered several conferences to peers and fellow Junior Officers in the relevance of Ballistic Missile Defense.
- Recognized as a valuable and superb watch stander. Ranked #1 out of eighteen Junior Officers onboard to include nomination as the Squadron Junior Officer of the Year.
- Qualified as the Engineering Officer of the Watch. Tasked with the safe operation of the ship's engineering plant which contains four LM2500 Gas Turbine Engines.

USS AVENGER (MCM-1)- Sasebo, Japan SEP 2010- JUN 2013

Auxiliaries/Legal Officer

- Led a team of 14 technicians specializing in Minesweeping and Auxiliary operations. Responsible for proper functionality of support systems to include refrigeration, air conditioning, and anchoring systems.
- Personally selected to lead as a Department Head (unprecedented position for a Junior Officer) for Deck Department through various inspections to include Board of Inspection and Survey (INSURV) and ship qualifications.

ATHLETICS

- USA Boxing Registered Referee
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MISCELLANEOUS

• Community: DC Central Kitchen Volunteer (2013-Present)