

Alliance Dilemma: Decreasing State Compliance and Increasing Useable Scenarios

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Abstract: *Since the rapid development of nuclear weapons in the 1940s, many international laws have been put in place to combat the dangerous weapons. Many treaties created by the international community seek to limit the use, stockpiling, threat of use, production, and sharing of nuclear weapons: Including the Treaty of Non-Proliferation of Nuclear Weapons (NPT) and the Treaty on the Prohibition of Nuclear Weapons (TPNW). State compliance is crucial for international security regarding the success of nuclear treaties. Some assumed that because of the destructive nature of nuclear weapons, states are interested in ratifying and complying with treaties that work to eliminate these weapons. However, as time has progressed, states have been less willing to be a party to nuclear treaties as seen with the lack of state support for TPNW. Similarly, members of the international community fear that state compliance could decrease and lead to the possible use of nuclear weapons. This project asks, what is preventing progress on eliminating nuclear weapons? This research argues that the existence of an alliance dilemma interferes with state compliance related to nuclear treaties. Despite the fact that these treaties and alliances are established to increase state security, alliances actually increase the possible chances of nuclear warfare. This result occurs because nuclear alliances bring nuclear states and non-nuclear states together under one umbrella, meaning that these weapons could be engaged as a result of conflict between states that do not possess nuclear infrastructure themselves. This argument creates a new way of examining the success of nuclear treaties beyond simply looking at compliance by nuclear states.*

Keywords: *Nuclear Weapons, Proliferation, Alliances, State Compliance*

Introduction

Since the rapid development of weapons of mass destruction (WMDs), including chemical, biological, and nuclear weapons, in the 1940s, many international laws have been put in place to combat the dangerous weapons. The various treaties created by the international community seek to limit the use, stockpiling, threat of use, production, and sharing of weapons of mass destruction (WMD), including the Treaty of Non-Proliferation of Nuclear Weapons (NPT) and the Treaty on the Prohibition of Nuclear Weapons (TPNW). However, despite these treaties we have seen a growing threat of nuclear warfare both by the number of nuclear weapons and the number of states that have nuclear arsenals. For example, the NPT recognized only five

nuclear weapons states, but that number has since grown to nine. Furthermore, nuclear technology has only become more destructive.

State compliance is crucial for international security regarding weapons of mass destruction. It might be assumed that because of the destructive nature of WMDs, it would be of interest to states to ratify and comply with treaties that work to eliminate them. However, as time has gone on, states have been less willing to be a party to WMD treaties as seen with the lack of state support for TPNW. Similarly, there are fears that state compliance could decrease and lead to the possible use of nuclear weapons. So, what is preventing progress on eliminating WMDs? And why are states not as eager to comply with already established WMD treaties? I argue that there is an alliance dilemma that interferes with state compliance with WMD treaties. Alliances that are created to increase a state's security are actually increasing the usable scenarios of nuclear warfare. A realistic scenario of the use of nuclear weapons is spread with the formation of alliances between nuclear and non-nuclear states, which could lead to the threat of nuclear use between states that do not have nuclear weapons of their own. This argument creates a new way of examining the success of WMD treaties beyond just looking at nuclear states. Instead, it examines how international politics have led to the spread of desired nuclear security in a time of rising international tensions, without states needing to create new nuclear programs.

This paper seeks to explain the alliance dilemma examining current literature. Then the paper will describe both the uniqueness of nuclear politics and alliances to explain the development of the alliance dilemma to further explain how useable scenarios are increasing and preventing progress of established nuclear treaties. Finally, the paper will explain the desire of the current nuclear states to want to maintain their arsenals as it connects to the alliance dilemma.

Literature Review

Many scholars have attempted to understand the desire for nuclear security to explain the direct proliferation of states acquiring nuclear weapons. However, few scholars examine indirect proliferation, or the spread of nuclear capabilities through collective security alliances. This paper will attempt to understand the connection between indirect proliferation and increased useable scenarios of nuclear weapons by first examining the gaps and expanding the understanding of existing literature.

Mutually assured destruction (MAD) comes from the realist theory that “the outcome [of the use of nuclear weapons] would be so dreadful that both sides would be deterred from starting a nuclear war or even taking action that might lead to it”.¹ Theorists then expand on MAD to claim that the more states that acquire nuclear weapons, the less likely states would be to use nuclear weapons because if one state were to use nuclear weapons, a nuclear response by other states would be almost certain, resulting in mass devastation to all. One major issue with MAD theory is that it relies on states being rational actors to consider that nuclear weapons come with great consequences to their own nation and in turn they reduce tensions and number of arms.² MAD theory also only considers the thoughts and actions of nuclear powers like the United States and Russia but fails to consider if nuclear weapons were to be used against non-nuclear states and how their nuclear alliances would respond.

Sagan and Waltz are two prominent scholars in the realm of international theory and nuclear weapons. Waltz is a prominent realist and believes that rational actors use nuclear

¹ Robert Jervis, “Mutual Assured Destruction,” *Foreign Policy*, no. 133 (2002), <https://doi.org/10.2307/3183553>.

² Glenn Buchan, “The Anti-MAD mythology,” *Bulletin of the Atomic Scientists*, (1981), <https://eds-p-eb.scohost-com.proxy-tu.researchport.umd.edu/eds/detail/detail?vid=2&sid=c38141d3-0561-4043-b04b-86c49489b8a0%40redis&bdata=JnNpdGU9ZWRzLWxpdmUmc2NvcGU9c2l0ZQ%3d%3d#AN=24227145&db=asn>.

arsenals to refrain from escalating conflict.³ Much like MAD theory, this argument does not account for non-nuclear states with deterrence agreements and their role in the decision to use nuclear weapons, which this paper argues is crucial to understand in a world with rising tensions. Sagan on the other hand more accurately debates that proliferation of nuclear weapons as a source for increasing the likelihood of nuclear warfare because the more weapons there are, the more likely there is to be either intentional or accidental use.⁴ Sagan's argument is more persuasive but overlooks the dangers indirect proliferation.

Many scholars tend to mitigate the risk of indirect proliferation as it relates to alliances forming for increased deterrence efforts. Deterrence comes with two parts: Urging adversaries to refrain from force, and also creating a means of retaliation to threat adversaries if they do not comply.⁵ In the case of nuclear weapons, agreements were utilized by states to optimize the possible punishment for adversaries, therefore strengthening deterrence.⁶ Scholars will make the argument that nuclear deterrence works because nuclear weapons have not been used since World War II and intrastate wars have been significantly reduced.⁷ However, the threat of nuclear warfare continues to rise even with the creation of deterrence agreements therefore it cannot be assumed that these agreements completely eliminate the use of nuclear weapons.

Authors also claim that nuclear weapons "equalize the power of states" because nuclear power states have the capability of providing equal amounts of assured destruction towards each other no matter the size of their arsenals. They fail to mention the power given to non-nuclear

³ Scott Sagan and Kenneth Waltz, *The Spread of Nuclear Weapons: A Debate*. 1st ed. W.W. Norton, 1995.

⁴ Ibid.

⁵ James Wood Forsyth Jr. et al, "Remembrance of Things Past: The Enduring Value of Nuclear Weapons," *Strategic Studies Quarterly* 10, no. 5 (2016) <https://www.jstor.org/stable/26271624>.

⁶ Ibid.

⁷ Ibid.

states that have access to nuclear deterrence through collective security agreements.⁸ The authors heavily rely on the use of adversaries like the U.S and Russia to explain their ideas of deterrence and countering strategies but pay little attention to the influence that alliances have on these deterrence strategies. For example, NATO allows for the US to further spread into nuclear arsenals to states in Europe like Turkey, which provides strategic counterthreats to the Russian homeland more so than what the US could do alone. The Russian government has even made claims that it greatly threatened by the US being able to strategically maneuver its nuclear weapons deeper into Eastern European states with the expansions of its alliance agreements. The authors then conclude that having nuclear weapons is a great political tool for states therefore they will continue to spread, and some states will actively seek nuclear weapons and others will not.⁹ But to fill in the gap, it should not be assumed that states that do not actively seek nuclear weapons are not gaining the benefit of deterrence through other means like nuclear alliance agreements.

Quantitative research is also an approach used to understand the question “Do Alliances Really Deter?” Kenwick, Vasquez and Power’s study finds that when comparing the pre and post nuclear world, there is no evidence to suggest that the formation of deterrence alliances reduces the likelihood of going to war with one’s adversaries.¹⁰ Therefore, this research can then be understood in the context of nuclear deterrence to suggest that nuclear deterrence agreements between states are not preventing the use of nuclear weapons and can be expanded to also argue that it is even increasing the useable scenarios of nuclear weapons.

⁸ Ibid.

⁹ Ibid.

¹⁰ Michael R. Kenwick et al. “Do Alliances Really Deter?” *The Journal of Politics* 77, (2015), <https://eds-s-ebscohost-com.proxy-tu.researchport.umd.edu/eds/detail/detail?vid=24&sid=2970277d-2ae9-4989-b776-4b7ad20b05f4%40redis&bdata=JnNpdGU9ZWRzLWxpdmUmc2NvcGU9c2l0ZQ%3d%3d#AN=edsjsr.10.1086.681958&db=edsjsr>.

Scholars like Neil Narang and Rupal Mehta find in their research that states under nuclear umbrellas are more likely to initiate crises with other states because they are emboldened by their alliance agreement. However, the authors claim that this more ideal than more states acquiring nuclear weapons, but they fail to mention the negative effects that these agreements can have on the security of the international community. Because their research shows that states under nuclear umbrellas tend to be more aggressive, this increases the chances of nuclear warfare, especially if they start a crisis with a nuclear or another non-nuclear state with a separate deterrence agreement.¹¹ Many other authors will suggest extending and strengthening deterrence is the best way to go for protecting the nuclear state's security, like in the United States.¹² But this paper continues to stress that the indirect proliferation through deterrence agreements and nuclear sharing will only signal further signs of aggression towards adversaries and have more likelihood of sparking the use of nuclear weapons, leading to further non-compliance of nuclear treaties.

Another element of this research is the term coined the "alliance dilemma" which is an expansion of the heavily researched concept of the "security dilemma." The security dilemma has two different approaches seen in both alliance and adversary politics. Through adversary politics approach states seek security by competing to match the military capacity of its adversaries and often leads to arms races, as seen during the Cold War. Alliance politics approach is when states seek or abstain from alliances in order to reach their desire of security. Snyder accurately portrays alliance security dilemma as having more severe consequences on

¹¹ Neil Narang and Rupal Mehta, "The Unforeseen Consequences of Extended Deterrence: Moral Hazard in a Nuclear Client State," *The Journal of Conflict Resolution*, (2019), <https://www.jstor.org/stable/48596926>.

¹² Stephen Frühling and Andrew O'Neil, "Alliances and Nuclear Risk: Strengthening Extended Deterrence," *Survival*, (2022), <https://eds.p.ebscohost.com/eds/detail/detail?vid=1&sid=43bfcc9f-15f1-4bbb-ba09-5708be8d7992%40redis&bdata=JnNpdGU9ZWRzLWxpdmUmc2NvcGU9c2l0ZQ%3d%3d#AN=155642774&db=mth>.

states ability to counteract its adversaries because of the concern ally states will not follow through with its commitments, including if states would actually use their nuclear weapons to defend their allies.¹³ In this paper, it expands on these two approaches of security dilemma to create the “alliance dilemma” to explain specifically how states are competing to expand nuclear deterrence alliances in order to compete with their adversaries, which in turn becomes a form of indirect proliferation that increases the useable scenarios of nuclear weapons and limits the ability for states to comply with nuclear treaties.

Nuclear Treaties

Treaty on the Non-Proliferation of Nuclear Weapons (NPT)

The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) is one of the first influential treaties seeking to promote international security by preventing the spread of nuclear weapons. This multilateral treaty was open for signatures on 1 July 1968 during a time of great concern for the devastating effects of nuclear weapons in the mists of an arms race. NPT was then entered into force on 5 March 1970 with an indefinite duration. NPT has three main objectives: To prevent the proliferation of nuclear weapons by other states and non-state actors, promoting disarmament of current nuclear holding states, and allowing all states to have access to peaceful nuclear technology with regulated safeguards.¹⁴ There are currently 190 state signatories to NPT, including nuclear holding states like the United States, Russia, France, and the United Kingdom. However, there are four states that are not signatories, North Korea, India, Pakistan, and South Sudan, three of which have nuclear weapons but are not labeled as nuclear weapons states under NPT due to the late creation of their nuclear programs. A provision in NPT

¹³ Glenn Snyder, “The Security Dilemma in Alliance Politics,” *World Politics*, (1984) <https://www.jstor.org/stable/2010183>.

¹⁴ Nuclear Threat Initiative, “NPT,” *Nuclear Threat Initiative*, (2021), <https://www.nti.org/education-center/treaties-and-regimes/treaty-on-the-non-proliferation-of-nuclear-weapons/>.

defines a nuclear weapon state as a state that made and tested a nuclear weapon before 1 January 1967.¹⁵

One major limitation of NPT to note is that there is no verification process for the commitment of nuclear weapons states to disarm under NPT, which is a major goal of NPT.¹⁶ This means that nuclear states have not been held accountable for compliance regarding working towards complete disarmament and they have been able to continue to maintain their arsenals without repercussions. NPT also does not have provisions addressing indirect proliferation (or the spread of nuclear weapons protection in deterrence agreements), which means nuclear sharing continues to progress without international supervision.

Treaty on the Prohibition of Nuclear Weapons (TPNW)

The Treaty on the Prohibition of Nuclear Weapons was open for signature on 20 September 2017 and was entered into force on 22 January 2021 for an indefinite duration. Currently only 56 states have ratified TPNW and 33 have signed but have not ratified the treaty. 101 states have neither signed nor ratified TPNW, including all nuclear states, such as the United States, Russia, and many of their allies that continue to benefit from nuclear security through deterrence agreements. One of the main reasons for the lack of state participation of TPNW is the strict international laws that it puts in place, which many states argue goes against state sovereignty. The main goal of TPNW is to completely outlaw the possession, testing, use, and transfer of nuclear weapons and creating a binding international law. Another aspect of TPNW is that it outlaws threatening the use of nuclear weapons as well.¹⁷ With these provisions in place,

¹⁵ Ibid.

¹⁶ Ibid.

¹⁷ Nuclear Threat Initiative, "Treaty on the Prohibition of Nuclear Weapons." *Nuclear Threat Initiative*, (2021), <https://www.nti.org/education-center/treaties-and-regimes/treaty-on-the-prohibition-of-nuclear-weapons/>.

the adoption of TPNW would rid of any power of both nuclear and non-nuclear states in deterrence agreements and reduce collective security measures all together. Although this seems reasonable in order to eliminate nuclear weapons, states are not signing on and are actually expanding their collective security agreements.

Nuclear Politics

These treaties are the best way to demonstrate the uniqueness of nuclear politics. The stakes for state compliance on nuclear treaties are extremely high because of the devastating effects that nuclear warfare causes, as seen after the bombings of Hiroshima and Nagasaki by the United States military to end World War II. Although this is the only example of the use of nuclear weapons during conflict, nuclear technology has continued to develop, becoming more powerful and spreading in both the number of nuclear states and number of weapons within a state's arsenal. A single act of non-compliance to a nuclear treaty could lead to an all-out nuclear war, therefore the international community relies on the legitimacy of these various treaties to provide security.

The international system of global governance is set up in such a way that it can create institutions to establish laws and monitor compliance, while also respecting individual state sovereignty. In theory, states each make their own decisions to sign and comply with treaties based on their own self-interests, although these interests can change if the security of a state is threatened. In the case of nuclear treaties, the security of a state is at risk if it fails to ratify or comply with the provisions. Ratifying nuclear treaties, like any international laws, is thought to be successfully implemented when states incorporate the treaty's provisions into their domestic legal system. This legal grounding holds both the government and the people within the state accountable for upholding international legal standards related to nuclear weapons.

Another important aspect of state compliance with nuclear treaties is that states are often obligated to report progress in implementing different aspects of the treaties, including nuclear states reporting the number of weapons in their arsenals or any possible nuclear meltdowns. Compliance is often ensured through mandated reporting of important events like disarmament, weapons testing, and other aspects that might go against a treaty's obligations.¹⁸ However, the international community must trust that states are being fully transparent with the reports they are given. It has become harder for states to hide the creation of new nuclear weapons programs with improved technology, like satellite imaging but it is not impossible; a state could claim that it does not intend to have a nuclear program but be in secret communications to acquire the materials needed to begin the process.

Reporting compliance on WMD treaties can build trust amongst states and encourage other states to comply as well, but mistrust emerges when one state finds that other states are actually not complying with the treaty like they said they were, especially for WMD treaties because they already center around high-tension topics.¹⁹ For example, Russia could report that it is reducing its nuclear arsenal, but other states like France or the United States might not trust Russia because of its reputation as a non-compliant authoritarian state but still believe that Russia is a committed party to the treaty. If a state does not comply by giving false reports, others can often discover these falsehoods through intelligence like satellite detection or other safeguard systems like inspections of sites that report the use of certain weapons. For example, if a state tests a nuclear weapon even in an underground test site, this action can be picked up by

¹⁸ Treasa Dunworth, "Compliance and Enforcement in WMD-Related Treaties," *United Nations Institute for Disarmament Research*, 1-21, <https://unidir.org/sites/default/files/2020-02/compliance-wmd-treaties.pdf>.

¹⁹ *Ibid.*

the international monitoring system sites, established in the Comprehensive Test Ban Treaty, and reported to the international community.²⁰

Another way to ensure compliance with WMD treaties, especially nuclear treaties, is when states provide assistance and support to help other states comply with the treaty's obligations. This assistance can come in the form of training officials to monitor for WMDs, helping to eliminate existing stockpiles, response training for possible WMD attacks, or even helping to draft domestic laws. These changes are beneficial not only for developing states that might not have the resources to implement treaties on their own, but for developed states that want to ensure proper implementation of treaties.²¹ Providing assistance to ensure that a treaty's obligations are met is not a requirement of any international treaty, including NPT. States can request assistance but even with assistance a state is still not guaranteeing that they will comply when signing most international laws.²²

Compliance is like a ripple effect. If one state sees that another state is not complying with a certain nuclear treaty, then it might stop complying as well because it might feel threatened if it sees another state building up its nuclear arsenal. Other treaties prevent the spread of weapons of nuclear weapon technology and if a state were to not comply, then nuclear weapons could fall into the hands of rogue non-state actors. The issues with states not complying with nuclear treaties is endless because of the large number of casualties, environmental damage, and overall security threats that arise with the use of nuclear weapons. Therefore, it is important to examine why nuclear weapon states continue to want to maintain their arsenals.

²⁰ Ibid.

²¹ Ibid.

²² Ibid.

Alliances

Nuclear states create and maintain nuclear arsenals for increased national security and to be able to better challenge its adversaries. These factors are also what lead states to form alliances. States have been forming alliances for thousands of years in order to mutually benefit from a formal agreement of support in times of peace and war. As time has gone on power balances change and alliances fall apart or shift, but one thing remains the same, alliances remain a key factor in international relations. Alliances come in many different forms, bilateral, such as agreements between two states like France and Germany, and also multilateral, which includes mutual support agreements between multiple states regionally or internationally, such as the North Atlantic Treaty Organization (NATO). The type of support offered by an alliance treaty can also differ depending on the type of alliance or agreement including trade, human rights, and war. Alliances are particularly important during wartime as they benefit national defense with support from other states.²³ However, some argue that alliances are the cause for war in the first place. The formation of alliances leads then to the formation of counter alliances, creating greater international tensions that if provoked could start the outbreak of international wars. For example, the entangling alliances in World War I was one of the major causes to the spread of the Great War after countries continued to join the conflict to support their alliances.²⁴ The Great War was not the first time that alliances led to war and nor was it the last, as it was followed by a Second World War.

Leading world powers are often dragged into conflict as domestic public opinion influences the state to support its allies in times of conflict. Alliances then continue to expand the

²³ Claudette Roulo, "Alliance vs. Partnerships," United States Department of Defense, March 22, 2019, <https://www.defense.gov/News/Feature-Stories/story/Article/1684641/alliances-vs-partnerships/>.

²⁴ Norwich University Online, "Six Causes of World War I," Norwich University Online, August 1st, 2017, <https://online.norwich.edu/academic-programs/resources/six-causes-of-world-war-i>.

overall scope of war by increasing the number of states participating, expanding the geographical positioning, and increasing the likelihood of conflict escalation.²⁵ International tensions revolving around alliances continue to be at the forefront of news and media with multilateral deterrence alliances such as NATO. There are two very important types of military alliances that need to be considered. First, permanent alliances have been created between states in times of war and peace like alliances between France and Germany, which have had a long-term military alliance but also diplomatic and economic. NATO is a permanent military alliance, which includes nuclear weapons holding states. The second type of military alliance is an ad-hoc alliance, which is formed to work against a specific aggressor state.²⁶ If the US was willing to back Ukraine with troops (beyond supplying weapons), then that would be an ad-hoc military alliance with nuclear capability. Permanent alliances have become more common over the past century, whereas before alliances were more ad hoc, forming because of war. Roughly 80 percent of alliances involving great power states formed following wars involving powerful states, meaning that states form alliances for defensive purposes due to fear of war.²⁷

Nuclear Alliances

Nuclear Deterrence Agreements

Nuclear deterrence has continued to spread within alliances since the Second World War, which ended with the devastating usage of nuclear weapons. Nuclear deterrence is created around alliances, where more powerful, nuclear holding states, provide protection to their allies through means of military defense in the form of nuclear retaliation. For example, the United States is estimated to have around 30 ally states under its nuclear umbrella, mainly in the regions

²⁵ Jack S. Levy, "Alliance Formation and War Behavior: An Analysis of the Great Powers, 1495-1975," *The Journal of Conflict Resolution* 25, no. 4 (1981): 581-613, <https://www.jstor.org/stable/173911>.

²⁶ Ibid.

²⁷ Ibid.

of Europe and the Asian-Pacific.²⁸ The United States handles its various nuclear deterrence agreements differently. In Europe nuclear deterrence is covered under NATO, a multilateral agreement between the various participating states, whereas in the Asian-Pacific the United States has bilateral agreements with individual states, such as Australia and Japan.²⁹

In many cases nuclear deterrence benefits the nuclear holding state rather than the states seeking protection. This result occurs because nuclear deterrence gives nuclear states, rather than non-nuclear states, control over potentially dangerous international relations situations, like war outcomes, and creates a power identity for nuclear states that affects other aspects of international relations. Nuclear deterrence might benefit nuclear states more, however the promise for military alliance is enough for states to continue to make nuclear deals with states, like the United States, that might even go against their own domestic opinions of nuclear weapons. For example, Germany and Japan are both emergent international actors over the past several decades with power in the international community. However, both states domestically do not support nuclear weapons and are outspoken about non-proliferation efforts,³⁰ yet they both have nuclear deterrence agreements with the United States, proving the seriousness of nuclear threats and the importance of alliances.³¹ Additionally, nuclear alliances often lead to the creation of counter alliances, which expands nuclear deterrence agreements. For example, during the Cold War the Soviet Union formed the Warsaw Pact with seven of its satellite states as a

²⁸ Michael Rühle, "Non-Nuclear Allies and Declaratory Policy: The NATO Experience," *Alliances, Nuclear Weapons and Escalation: Managing Deterrence in the 21st Century 1*, (2021), 163-176, <https://www.jstor.org/stable/j.ctv25m8dp0>.

²⁹ Ibid.

³⁰ Nuclear Threat Initiative, "Japan Nuclear Overview," *Nuclear Threat Initiative*, (2018), <https://www.nti.org/analysis/articles/japan-nuclear/>.

³¹ Brad Roberts, "Germany and NATO's Nuclear Deterrent," *Federal Academy for Security Policy*, (2021), <https://www.baks.bund.de/en/working-papers/2021/germany-and-natos-nuclear-deterrent>.

response to the creation of NATO, which increased the threat of nuclear attacks because the Soviets were protecting additional states under their nuclear umbrella.

The North Atlantic Treaty Organization

The North Atlantic Treaty Organization (NATO) is a multilateral, permanent military and political alliance formed in 1949 following the end of the Cold War. NATO is currently made up of thirty states, including the United States and other European states. Many of the current member states joined the military alliance following the end of the Cold War. Most recently states like Sweden and Finland, who are seeking international protection due to heightened tensions in the region, have actively sought NATO membership. On 4 April 2023, Finland was granted permission to become a NATO ally adding another state on the list of nuclear endorsers and taking part in indirect proliferation.³² The cornerstone of NATO activities falls under Article 5 of its treaty, the idea of a collective defense that has the ability to perform military operations and prepare mutual defensive efforts to combat threats, including potential nuclear attacks.³³ NATO's nuclear strategy developed as a joint defense against the Soviet Union in order to protect democratic states in Europe and has continued into today.³⁴ NATO is made up of three nuclear states, the United States, France, and the United Kingdom, which equips them with nuclear weapon capability in the case of significant threats to any of its member states. In other words, a non-nuclear state like Spain falls under the protective nuclear umbrella of its fellow NATO member states, which could be used in a scenario where Spain is threatened or attacked.

³² North Atlantic Treaty Organization, "Finland Joins NATO as 31st Ally," *North Atlantic Treaty Organization*, https://www.nato.int/cps/en/natohq/news_213448.htm#:~:text=Finland%20became%20NATO%27s%20newest%20member,at%20NATO%20Headquarters%20in%20Brussels.

³³ North Atlantic Treaty Organization, "What is NATO?" *North Atlantic Treaty Organization*, <https://www.nato.int/nato-welcome/index.html>.

³⁴ Beatrice Heuser, "The Development of NATO's Nuclear Strategy," *Contemporary European History* 4, no. 1, (1995):37-66, <https://www.jstor.org/stable/20081541> .

Collective Security Treaty Organization

The Collective Security Treaty Organization (CSTO) is another example of a multilateral, permanent military alliance formed in 1992 after the collapse of the Soviet Union and the Warsaw Pact. This military alliance is led by Russia and includes five post-Soviet states, Belarus, Armenia, Kazakhstan, Kyrgyzstan, and Tajikistan. CSTO addresses various international issues with collective defense efforts, including drug trafficking, terrorism, cyber-attacks, humanitarian emergencies, and international militaristic threats.³⁵ Collective defense by the CSTO is similar to NATO with combined military training exercises and shared weapon immobilization, which is mainly supported by Russian resources. The CSTO states are supported in their alliance with the promise of a joint military mobilization in the case a war breaks out. The CSTO's military efforts emphasize the potential of conflict with NATO, including the possible use of nuclear weapons, which are the center of both organizations mutual defense initiatives. The legitimacy of CSTO is contested by its Western counter alliance, NATO. However, CSTO has been recognized by the United Nations and has signed various agreements.³⁶ Information is limited on the extent to which CSTO would use nuclear weapons in defense efforts because the organization does not explicitly state that nuclear deterrence is a part of the agreement, but it is suggested based on current examples of nuclear sharing. It is also important to note that all CSTO states are members to the Treaty on the Non-Proliferation of Nuclear Weapons and claim to be fully compliant. However, just recently President Vladimir Putin announced a new policy to deploy Russian nuclear weapons to Belarus, which could lead

³⁵ Richard Weitz, "Assessing the Collective Security Treaty Organization: Capabilities and Vulnerabilities," *Strategic Studies Institute*, (2018), <https://www.jstor.org/stable/resrep20082>.

³⁶ *Ibid.*

to the expansion of nuclear sharing within CSTO and increasing tensions with neighboring NATO.³⁷

Nuclear Sharing

Nuclear sharing is another form of military alliances which allows states to station their nuclear weapons on another states' territory through an arranged agreement. This type of nuclear alliance often comes with a nuclear deterrence of its own, meaning that if a state allows another state to put nuclear weapons on its territory, in exchange the host state will also receive additional security measures and protection in case of conflict. NATO is the only military alliance that maintains a nuclear sharing program. Although NATO comprises three nuclear weapons states, the United States is the only country to place its nuclear weapons holdings throughout Europe. Currently, five states host US nuclear weapons, including Turkey, Germany, Belgium, Netherlands, and Italy, each estimated to have 10-50 warheads.³⁸ There are no international nuclear treaties that prevent the spread of nuclear sharing programs, meaning that there is a potential for other nuclear states, like Russia, to station their arsenals in various regions of the world, as a means of intimidation or a strategic military positioning for an offensive attack.

Alliance Dilemma and Increased Useable Scenarios

Non-nuclear states, a part of nuclear alliances, through nuclear sharing and deterrence agreements have become known as nuclear endorsers. There are approximately 35 nuclear endorsing states including NATO states, CSTO states, and states that take part in bilateral agreements, Australia, South Korea, and Japan. These nuclear endorsers support the continued

³⁷ Nikolai N. Sokov, "Russia is Deploying Nuclear Weapons in Belarus. NATO Shouldn't take the Bait," Bulletin of the Atomic Scientists, <https://thebulletin.org/2023/04/russia-is-deploying-nuclear-weapons-in-belarus-nato-shouldnt-take-the-bait/>.

³⁸ The International Campaign to Abolish Nuclear Weapons, "The World's Nuclear Weapons," The International Campaign to Abolish Nuclear Weapons, 2021, https://www.icanw.org/nuclear_arsenals.

possession of nuclear weapons because they are promised protection in the form of nuclear weapons used on their behalf.³⁹ This endorsement goes as far as not taking part in various international nuclear treaties like TPNW, which would completely prohibit the possession of nuclear weapons. Nuclear endorsing states, even though they do not have their own nuclear arsenals, are preventing the progress of these nuclear treaties because they want to maintain the security they gain from their various alliances.

Strategic military alliances like that of nuclear deterrence and nuclear sharing, although created for increased security, are negatively affecting non-proliferation efforts by increasing the useable scenario of nuclear weapons. A useable scenario of nuclear weapons is spread with the formation of alliances between nuclear and non-nuclear states. These alliances create a means of nuclear intimidation between states that do not have their own nuclear weapons but instead are under a nuclear umbrella. For example, Germany is a non-nuclear state who is allies with the United States, a nuclear power, and Belarus is allies with Russia. If Germany and Belarus (two non-nuclear states) were to go to war a usable scenario of nuclear weapons is created. Although, nuclear warfare would not likely be the first line of defense for either state, both states have strong alliances with powerful nuclear countries who have agreed to offer security. Additionally, both Russia and the US do not have no-first-use policies, meaning that they would potentially use nuclear attacks in response to any credible threat to their ally. However, if Niger and Chad were to go to war, a useable scenario is highly unlikely because they do not have nuclear backings through any alliance agreement.

An alliance dilemma is a unique way of examining nuclear politics because the international community has an increased threat of usable scenarios of nuclear weapons, not only

³⁹ Ibid.

by conflicts between nuclear states but now non-nuclear states as well. This is a new way of looking at the success of NPT, which would traditionally be seen as successful because it has played a major role in managing nuclear proliferation with only nine out of nearly 200 countries having nuclear weapons. Many scholars also acknowledge the success of NPT to address the diversity in states who have and are seeking nuclear weapons programs yet do not acknowledge non-nuclear states that have nuclear deterrence agreements.⁴⁰ When NPT is examined while also considering an alliance dilemma it demonstrates that proliferation is continuing not by number of nuclear states but by increasing usable scenarios. The NPT in a sense fails to recognize the indirect threat of proliferation through nuclear deterrence agreements and instead only focuses on direct proliferation of states through sharing of nuclear technology and monitoring compliance with IAEA safeguards.⁴¹

Alternatively, realism theorists will argue for further proliferation through mutually assured destruction because of the idea that nuclear deterrence creates a more secure international community through the idea of mutually assured destruction. Realists suggest the spread of nuclear weapons programs, which goes against the goals of nuclear treaties like NPT and TPNW, claiming that a state would be more hesitant to use their nuclear weapons if it were almost guaranteed they would be attacked in return, which increases with more states who have their own nuclear weapon programs. This theory gained popularity during the Cold War even though it goes against common logic, claiming that the more destructive weapons in the world the safer the international community would be because states are balancing each other's military capabilities. Nuclear deterrence theory also relies on states having similar self-interests, which is

⁴⁰ Spurgeon M Keeny Jr., "The NPT: A Global Success Story," *Arms Control Today* 25, no. 2, (1995):3-7, <https://www.jstor.org/stable/23625647>

⁴¹ Ibid.

not the case for most of the states that maintain nuclear arsenals and does not account for rogue state actors who threaten nuclear responses as offensive tactics.⁴² Nuclear deterrence theory is seen on a small scale between India and Pakistan, who both acquire nuclear weapons for the sole purpose of ensuring their security from one another. However, nuclear deterrence theory is limited in addressing alternative methods of deterrence for states that do not have nuclear weapons but gain protections through alliances.⁴³ When acknowledging the alliance dilemma, the idea of mutually assured destruction is expanded to include the possibility of usable scenarios occurring even without a state having its own nuclear program.

Recognized Nuclear Weapon States

Recognized nuclear weapon states are key factors in the alliance dilemma as they are the actors that spread deterrence to non-nuclear states. This is especially significant for nuclear states that are recognized by NPT because although they internationally recognize the significance at preventing the increased number of nuclear weapon states, they are then taking part in the indirect spread of these weapons. The United States for example began its nuclear weapons program in order to give the US a military advantage over its enemies brought on by the security dilemma.⁴⁴ The dilemma then escalated with Russia during the height of the Cold War when the US was estimated to have around 31,000 nuclear warheads.⁴⁵ Since the end of the Cold War the United States has greatly reduced its nuclear arsenal to roughly 5,550 warheads making it still

⁴² Alexander George and Richard Smoke, "Deterrence Theory Revised. By Robert Jervis," *Deterrence in American Foreign Policy: Theory and Practice*, Robert Jervis. *World Politics* 31, no. 2 (1979): 289-324, <https://www.jstor.org/stable/2009945> .

⁴³ Ibid.

⁴⁴ Atomic Heritage Foundation, "The Manhattan Project," Atomic Heritage Foundation, May 12, 2017, <https://www.atomicheritage.org/history/manhattan-project>.

⁴⁵ Comprehensive Nuclear-Test-Ban Treaty Organization, "Nuclear Testing 1945-Today," Comprehensive Nuclear-Test-Ban Treaty Organization, <https://www.ctbto.org/nuclear-testing/history-of-nuclear-testing/nuclear-testing-1945-today/>.

the second largest in the world.⁴⁶ Nowadays the United States justifies its remaining nuclear arsenal by claiming it offers nuclear and non-nuclear deterrence purposes, both for its own state and its allies in Europe and the Indo-Pacific. It also claims that its nuclear capabilities help to maintain its alliances, meet US objectives in the failure of deterrence efforts, and provide protection from an unforeseen future in the international realm.⁴⁷ It is also important to note that the United States takes a part in nuclear sharing, although the weapons remain fully under US control. The scope of the United States deterrence agreements has become a major foreign policy objective as they work towards expanding and redefining the agreements. This means it is very unlikely to see the US and its nuclear alliances consider being members of TPNW anytime soon as it continues to reinforce the alliance dilemma.

The United Kingdom is another NATO member and takes pride in its independent nuclear deterrent program and the protection it provides to its own territories and its NATO allies. The UK government claims that it was taken many steps towards nuclear disarmament, however not all states have, therefore it must maintain its nuclear arsenal to prevent potential aggression. The UK specifically calls out Russia and China increasing their nuclear arsenals to compete with the UK and its NATO allies.⁴⁸ The UK has found itself in both a security and alliance dilemma, which keeps it from fully disarming and also becoming a member of TPNW.

France shares similar dilemma concerns as it is also an active member in the NATO nuclear alliance. It is important to note that France operates a “final warning” policy in regard to

⁴⁶ The International Campaign to Abolish Nuclear Weapons, “The World’s Nuclear Weapons.” .

⁴⁷ Heritage, “U.S. Nuclear Weapons Capability,” Heritage, October 18, 2022, <https://www.heritage.org/military-strength/assessment-us-military-power/us-nuclear-weapons-capability>.

⁴⁸ Ministry of Defence, “The UK’s Nuclear Deterrent: What You Need to Know,” Ministry of Defence, March 16, 2023, <https://www.gov.uk/government/publications/uk-nuclear-deterrence-factsheet/uk-nuclear-deterrence-what-you-need-to-know>.

its nuclear weapons meaning that it will use a nuclear attack first to protect its interests.⁴⁹ France is also currently the only nuclear weapons state a part of the European Union, since the UKs withdraw in 2020, therefore France is working to have discussions on the role of France's nuclear umbrella over its European partners.⁵⁰ This move by France is particularly concerning in the fact that it will further expand its nuclear deterrence threatening the legitimacy of NPT and further prevent the efforts of TPNW.

Russia has also been involved in the security dilemma regarding its nuclear weapons, mainly with the United States and its NATO allies. Russia also reinforces the alliance dilemma as demonstrated once the Cold War had ended and the Soviet Union was dismantled, all Soviet nuclear weapons were removed from Soviet satellite states and given to the Russian procession in exchange for nuclear protection and transitioning to an alliance dilemma scenario against Western powers. Today, Russia holds the largest stockpile of nuclear weapons with roughly 6,255 nuclear warheads in its arsenal.⁵¹

China is another state that maintains its nuclear weapons arsenal in order to compete with its Western adversaries. It has become clear in recent years that China is working to quickly expand its nuclear arsenal. The US State Department estimates that China is developing nuclear weapons at a rate that would lead to 700 nuclear weapons by 2027 and 1000 nuclear weapons by 2030.⁵² China is greatly motivated to expand and maintain its nuclear arsenal, which could

⁴⁹ Center for Arms Control and Non-Proliferation, "Fact Sheet: France's Nuclear Inventory," Center for Arms Control and Non-Proliferation, March 27, 2020, <https://armscontrolcenter.org/fact-sheet-frances-nuclear-arsenal/>.

⁵⁰ Ibid.

⁵¹ The International Campaign to Abolish Nuclear Weapons, "The World's Nuclear Weapons."

⁵² Shannon Bugos, "Pentagon Sees Faster Chinese Nuclear Expansion," Arms Control Association, December 2021, <https://www.armscontrol.org/act/2021-12/news/pentagon-sees-faster-chinese-nuclear-expansion>.

potentially lead to the creation of its own nuclear deterrence agreements in order to compete with United States military dominance in the Pacific and continue the alliance dilemma.

Other Current Nuclear Weapon States

India, China, Israel, and North Korea are all outliers in the international community for being states that created nuclear weapons programs following the creation of NPT. Although none of these states are currently a part of nuclear alliances, many of these states gained nuclear weapons programs with technology given to them by allies or because they believed they did not have enough security from their alliances. For example, North Korea received support from the Soviet Union to help it to build a peaceful nuclear energy program and had even signed the NPT in 1985 to continue to receive Soviet aid. However, after failed agreements with the United States over nuclear concerns North Korea withdrew from NPT in 2003 and expanded its nuclear initiative to include nuclear weapons.⁵³ Another example, Pakistan, in which China was a major contributor to its nuclear knowledge as well as supplying equipment to aid them in building their nuclear program. After Pakistan established their own nuclear program, it had some part in illegally transferring nuclear technology to Iran and North Korea. Pakistan claims that its nuclear program is to have a nuclear deterrent solely against India and does not seek to expand its deterrence through any agreements.⁵⁴

India can be used as an example of how exclusionary deterrence agreements because it felt pressure to start a nuclear weapons program of its own to create a nuclear deterrence because it was not given any support by the two largest nuclear powers at the time, the US and USSR

⁵³ Council on Foreign Relations, "What to Know About Sanctions on North Korea," Council on Foreign Relations, July 27, 2022, <https://www.cfr.org/backgrounder/north-korea-sanctions-un-nuclear-weapons>.

⁵⁴ Nuclear Threat Initiative, "Pakistan Nuclear Overview," Nuclear Threat Initiative, November 5, 2019, <https://www.nti.org/analysis/articles/pakistan-nuclear/>

because their interests were focused on Europe.⁵⁵ Nowadays Continued tensions between India and its neighbors, China and Pakistan, encourages India to maintain its arsenal of around 156 nuclear weapons.⁵⁶ Finally, Israel is unique because it began its nuclear weapons program due to constant conflict with its neighboring Arab states and lack of alliances with nuclear states has led to the Israelis desire to assert its position in the Middle East as a powerful state.⁵⁷

Conclusion

Compliance with nuclear treaties is crucial to maintaining international peace and preventing the spread of nuclear weapons. International treaties have been established to work towards the elimination of these dangerous weapons. However, there is an alliance dilemma that is hindering the establishment of nuclear weapons becoming an international taboo, which could eventually lead to non-compliance with already established nuclear treaties. This alliance dilemma puts non-nuclear states under a nuclear umbrella, which increases the likelihood of useable scenarios of nuclear weapons even better states that do not have nuclear weapons of their own. As demonstrated above one of the main reasons that states are maintaining their nuclear weapons arsenals is to both compete with their adversaries and support their allies. Just like nuclear states have their own individual security reasoning for having their arsenals, this mentality has spread to their allies as well. Non-nuclear states a part of alliance agreements is benefiting from the non-elimination of nuclear weapons. Nuclear alliances continue to form or expand in order for non-nuclear states to be protected, but in reality, it is increasing the possibility of the usage of nuclear weapons. For example, since the Russian invasion of Ukraine

⁵⁵ Atomic Heritage Foundation, "Indian Nuclear Program," Atomic Heritage Foundation, August 23, 2018, <https://www.atomicheritage.org/history/indian-nuclear-program>.

⁵⁶ The International Campaign to Abolish Nuclear Weapons, "The World's Nuclear Weapons." s

⁵⁷ Nuclear Threat Initiative, "Israel Nuclear Overview," Nuclear Threat Initiative, May 14, 2014, <https://www.nti.org/analysis/articles/israel-nuclear/>.

in February 2022, Finland and Sweden have applied to be covered under NATO's nuclear umbrella, which is simultaneously increasing the number of nuclear endorser states and possible usable scenarios. Alliances allow non-nuclear states to not feel vulnerable during times of rising regional/international tensions because of the security it gains from its ally's nuclear weapons.

There are additional problems surrounding the alliance dilemma involving nuclear weapons. For example, if a state does not feel confident that its ally will defend them, it might be motivated to develop its own nuclear program, complicating compliance with established nuclear treaties like NPT and TPNW. This is demonstrated in a survey that shows 71 percent of the South Korean population supports developing their own nuclear weapons program. Although the South Korean government claims it will not develop nuclear weapons, their citizens fear the increased threat by North Korea and the lack of trust that the United States will defend them as stated in their deterrence agreement.⁵⁸

The world is currently facing many threats that lead to the question, is the usage of nuclear weapons becoming a part of reality in the near future? Whether someone is examining rogue nuclear powers like North Korea and Russia, to what extent would the United States use its nuclear weapons to defend itself or its allies, or the threat of China's rapid increase in nuclear technology? One thing is clear, alliance agreements are increasing the possibility of useable scenarios for nuclear weapons and preventing further progress by nuclear proliferation treaties. The international policies must be strengthened to not only prevent the spread of weapons by nuclear states but to also prevent proliferation through means of mutual defense initiatives for non-nuclear states. As a recommendation, the international community should reevaluate the

⁵⁸ Mitch Shin, "Nearly Three-Quarters of South Koreans Support Nuclear Weapons Disarmament," *The Diplomat*, February 22, 2022, <https://thediplomat.com/2022/02/nearly-three-quarters-of-south-koreans-support-nuclear-weapons-development/>.

success of current nuclear treaties by monitoring indirect proliferation and consider provisions that eliminate direct threats of deterrence agreements like nuclear sharing. A universal no-first-use agreement could also help to reduce the threat of nuclear warfare if states only agree to deploy weapons if they are attacked first.