Compliance and Consequence: The Coexistence of Neoliberal Institutionalism and Realist States in a Nuclear World

Caitlin J. McLain

University of Illinois at Urbana-Champaign

Abstract

The Preparatory Commission for the Comprehensive Test Ban Treaty Organization (CTBTO) was established to stop the use of nuclear testing as outlined in the Comprehensive Test Ban Treaty (CTBT). At present, the CTBT has 166 state signatories, however, without the addition of the eight Annex II states (states that must ratify the CTBT for it to enter into force: United States of America (USA), China, India, Pakistan, Israel, Democratic People's Republic of Korea (DPRK), Iran, and Egypt), the CTBT cannot be fulfilled. The CTBTO is a liberal institution amid a realist-dominated world and without a proper understanding of the dynamics of this relationship, the CTBT will fail to be a successful and monumental document for the non-proliferation of nuclear weapons. The goal of the CTBTO is to end the 20+ year delay the CTBT has seen since its original adoption in 1996. Special attention ought to be placed on compliance with international treaties and why these consequences are not realistic. This paper looks at the existence of liberal institutionalism in a realist world. Liberal institutions succeed when clearly defined verification is instituted. Additionally, there is an exploration of the relationship between liberal institutions and realist states. The liberal institutional perspective is that international institutions are created out of the self-interest of states (Stein, 1999). The realist perspective in this paper will be offensive realism. Proponents of offensive realism believe that states act to gain as much power as they can in order to maintain security (Mearsheimer, 2013).

Introduction

Governments must recognize the mutual benefits that exist from non-proliferation. In August of 1942, the Manhattan Project was established in the United States, which would produce the world's first nuclear weapons, that were dropped on Hiroshima and Nagasaki in August 1945. In August of 1949, the Soviet Union tested its first nuclear weapon, giving both Cold War powers nuclear weapons (ICAN, 2017). In October of 1952, the United Kingdom tested a nuclear weapon, becoming the third nuclear-armed state. In 1960, France joined the nuclear powers with China following four years later in 1964. By July 1968, the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) opened for signatures. Under Articles I and II of the NPT, the nuclear-armed states agree not to aid non-nuclear-armed states in the development of nuclear weapons and non-nuclear weapons states agree not to establish nuclear weapons programs (*The Nuclear Nonproliferation Treaty,* 2012). However, in May of 1974, as a non-signatory to the NPT, India conducted its first nuclear test. Twelve years later in September of 1986, it was discovered that Israel had a nuclear weapons program as well, although Israel has not confirmed the existence of its program. By July 1996, the debate on the use of nuclear weapons was brought to the International Court of Justice, later that year on September 24, the CTBT opened for signatures (ICAN, 2017).

On November 19, 1996, twenty-five days after the CTBT opened for signatures, the CTBTO was adopted (CTBTO Preparatory Commission, 2011) to make preparations for the entry into force of the CTBT and ensure once in force the CTBT would be operational. Almost 21 years later in 2017, the CTBT has still not been employed ("Status of Signature and Ratification"). While the organization has seen an increase in state signatories, the failure of certain Annex II states, all of which are required by law to legitimize the CTBT, to sign and/or ratify the treaty has prevented the CTBT from entering into force. Despite this, the CTBTO is still serving its purpose, albeit not its full purpose, which can only be achieved through complete ratification.

Literature Review

Daniel Verdier, a Political Science professor at the Ohio State University, wrote an article titled "Multilateralism, Bilateralism, and Exclusion in the Nuclear Proliferation Regime" that delves into the struggles of compliance on the international stage. Verdier outlines the importance of having clear methods to gain the compliance of realist states for a liberal institution. He accomplishes this through his analysis of the different mechanisms – multilateral, bilateral, or exclusion – used for the adherence of states to the NPT. Multilateral methods include creating treaties between multiple states. Bilateral methods include creating additional treaties between two specific states in addition to the main treaty. Exclusion methods include avoiding the acquisition of a state's signature because it would be detrimental to the organization. The concepts outlined in Verdier's article on the NPT can be transferred to the CTBT because Verdier's concepts have the potential for freeing the CTBT of the twenty one-year roadblock it has been facing. By understanding the different mechanisms at play and the correlation that

exists between what governments see as beneficial and their ability to effectively comply with a liberal institution, the CTBTO can become one step closer to becoming effective.

Additionally, many scholars have provided insight into international theories. The application of different theories can bring about different results for the same research, but here the application of John Mearsheimer's offensive realist theory will be applied. The definition of offensive realism in Mearsheimer's article "Structural Realism" and Robert Jervis's article "Realism, Neoliberalism, and Cooperation: Understanding the Debate" is used. According to Robert Jervis: "…offensive realists think that the conflict we observe in international politics represents real incompatibility between desired states of the world," (50). Proponents of offensive realism believe that states act to gain as much power as they can in order to maintain security (Mearsheimer, 2013).

The definition of neoliberal institutionalism being used in this paper stems from the work of Arthur A. Stein in *The Oxford Handbook on International Relations*. In describing the benefits of liberalism in international politics, Stein states, "the heart of neoliberal institutionalism is a view of international institutions as the self-interested creations of states," (208). Stein's definition is cited as an attempt to create a balance between liberal institutionalism and realist states.

A Neoliberal Institution in a Realist World

The CTBTO is based on the neoliberal institutionalist theory that a state's best interest is to disarm (Verdier, 2008). However, the organization faces opposition from realists, who correlate weapon acquisition with power. Governments that associate nuclear weapons acquisition with power follow realist policies. This can be seen in all the Annex II states that have yet to ratify the CTBT. All these states either have nuclear weapons programs or have previously had them.

The role of the CTBTO is to persuade states to recognize the gains they would receive from ratifying the treaty and putting into effect the CTBT. Entry into force is accomplished by changing what governments see as beneficial. How these gains and losses can be presented to state actors is outlined by Verdier, where he presents the NPT as both a bilateral and a multilateral treaty. Verdier shows how changing a state's perspective is complex. Whether states negotiate bilateral attachments to a treaty is dependent upon whether the benefits of having a state be a signatory to the treaty outweigh the costs. Some states have resisted signing and/or ratifying the CTBT since the treaty opened for signatures. It may be in the best interest of the CTBTO to consider ways to persuade these holdout states with the attachment of bilateral treaties. Devising ways to obtain ratifications may help further the process of placing the CTBT into law. A method used by the CTBTO to attain ratification could be the addition of bilateral treaties to the CTBT. Bilateral treaties could be attached to the CTBT for those states who have not signed. The CTBT could benefit from bilateral treaties between India and Pakistan as well as Israel and Iran. These states have a deep distrust in one another, and the addition of bilateral treaties between these states may persuade them to sign the CTBT.

Annex II Signatories Needed	Nuclear Weapons States
USA	USA
China	China
India	India
Pakistan	Pakistan
Israel	Israel
DPRK	DPRK
Iran	Russia
Egypt	UK
("Status of Signature and Ratification")	France

Table 1. Compares states with nuclear weapons to those needing to sign the CTBT (*Nuclear Weapons*, 2017).

Additionally, the Annex II states that have failed to sign the CTBT are mainly those currently possessing nuclear capabilities with the exception of Iran and Egypt (see Table 1). This again aligns with an offensive realist perspective where an emphasis is placed on a state's power (Mearsheimer, 2013). It is the realist perspective of Annex II states that is preventing the CTBT from reaching universal implementation.

A realist perspective shows challenges to the CTBTO while a neoliberal institutionalist perspective shows how the organization operates. The CTBTO focuses on the reduction of uncertainty in a world with nuclear weapons and solving collective-action problems. By creating a forum in which governments discuss disarmament, the CTBTO is striving to create more certainty. Without nuclear weapons testing present or allowed, the organization will effectively put an end to the symbolic power that comes with it.

Likewise, the CTBTO is attempting to solve a collective-action problem by being an organization in which state parties agree to the benefits that will arise in a nuclear-test-free world. Even a small nuclear explosion impacts a wide range of people through wind currents, which carry radioactive particles throughout the entire world. This results in detrimental health effects among those who live in the fallout zone, the area where high levels of radiation from a nuclear explosion reach. This can be seen from the victims of Hiroshima and Nagasaki. The enforced CTBT, which would rely heavily on scientific data through International Monitoring Systems (IMS), makes it more difficult for countries to test nuclear weapons undetected.

There are four types of IMS systems the CTBTO is in the process of implementing: radionuclide stations, hydroacoustic stations, infrasound stations, and seismic stations. Radionuclide stations detect radioactive particles in the air. The composition of the air samples taken by these stations help determine whether a nuclear explosion has occurred ("Radionuclide Monitoring", 2010). In addition, hydroacoustic stations check for underwater nuclear explosions. Hydroacoustic technology is "used to measure water pressure changes caused by sound waves," ("Hydroacoustic Monitoring", 2010). Furthermore, infrasound stations watch for atmospheric

nuclear explosions by analyzing low-frequency acoustic waves. The use of these stations help the CTBTO locate where the explosion occurred ("Infrasound Monitoring", 2010). Rounding out the detection apparatus, seismic stations check for underground nuclear explosions using a seismometer. Through analysis of the data received via the seismometer, it can be determined whether the activity was caused by a naturally-occurring event or man-made activity, such as a mine explosion ("Seismic Monitoring", 2010).

Realism and neoliberal institutionalism both exist within the CTBTO as it attempts to try to gain ratification of the CTBT. The CTBTO exists within the realm of neoliberal institutionalism; however, in trying to gain full ratification of the treaty, the organization must work to change the perspective of states. The CTBTO needs to convince governments that the CTBT, once in effect, would be of great benefit. Finding the balance between realism and neoliberal institutionalism is what will best aid the CTBTO in moving forward to gain complete ratification.

Findings

In an interview with Jenny Nielsen, an affiliated researcher at the CTBTO, she was asked questions concerning specific governments' evasion of ratification, reasons for evasion, and paths taken to curb state resistance to signing. Studying the current conduct of the organization helps determine what needs to be done to ensure that the CTBT is effective.

In addition to the interview, relevant statistical data provided a broader image as to what is occurring within the organization. Information regarding the completion of the IMS and the number/location of IMS stations were received. All of this data was found in the CTBT and was provided by the CTBTO Preparatory Commission.

The verification of the CTBT first presents itself under Article IV Verification (CTBTO Preparatory Commission, 2011). This section of the treaty extensively details topics such as the establishment of the IMS, funding verification, and on-site inspection procedures with the cooperation of states. In addition to verification listed within the treaty text, the CTBT provides "Protocol to the Comprehensive Nuclear-Test-Ban Treaty" (CTBTO Preparatory Commission, 2011), which outlines protocol that is to be followed in the establishment and conduct of the IMS (CTBTO Preparatory Commission, 2011).

According to the May 10th talk held by the Vienna Centre for Disarmament and Non-proliferation on the entry into force of the CTBT, 90% of all IMS stations have been established. There are several states, including Iran, that have yet to establish IMS stations. The states that have established IMS but have not signed the CTBT include: USA, Israel, Egypt, Pakistan, and China. The potential power of the CTBT and its verification regime is illustrated by the fact that countries that have not fully agreed to the terms of the CTBT often build IMS stations, as outlined within the treaty. However, full verification, which includes on-site inspections cannot be implemented without the entry into force of the CTBT (VCDNP, 2017).

The primary focus of the interview with Nielsen was on verification. Nielsen described the CTBTO as heavily reliant on technologies such as seismological, hydroacoustic, infrasound,

and radionuclide stations (CTBTO Preparatory Commission, 2011). Nielsen further claimed that the CTBTO advertises itself as a technical organization and not a political one, because the technology is non-discriminatory. The CTBTO is a transparent organization through the use of its verification (Nielsen, 2017). The International Data Centre is constantly receiving input from the IMS, and when information is detected by the system, all raw data is sent out to the respective state governments (Nielsen, 2017).

Through having a verification system which employs highly technical methods, it is nearly impossible to circumvent the rules outlined within the CTBT. Since the initial opening for ratification for the CTBT, the DPRK has been the only country to conduct nuclear tests. According to Nielsen, every test that the DPRK conducted since the establishment of the IMS has been detected via various IMS stations in the vicinity of the DPRK. This data has been used to determine the exact time and location of the tests and the magnitude of nuclear weapons tested by the DPRK (Nielsen, 2017). This shows that the verification regime established by the CTBT has the ability to effectively monitor state compliance.

What was not found among the research conducted was specific consequences that would occur for failure to comply with the treaty. Nielsen believed that there was "a strong international norm" against nuclear weapons use that would dissuade any state from conducting tests and if a state did, the consequence would be strong international backlash. Additionally, Nielsen stated that like any other treaty, if a state was not complying with the CTBT, the United Nations Security Council could take measures to ensure compliance; this would most likely take the form of sanctions.

While these both outline theoretical consequences for lack of compliance, a lack of specificity is cause for concern. Without any consequences specifically outlined, a state will be less likely to comply if it will not be reprimanded for its actions. The existence of strong international standards against a given action with potential backlash by international community for breaking that norm does not count as a consequence.

The existence of a clearly outlined verification regime within the CTBT text supports the hypothesis that liberal institutions succeed when clearly defined verification is instituted. Since the CTBT opened for ratification in 1996, the only state to have conducted nuclear tests is the DPRK, which many scholars and policy makers consider an outlier. This hypothesis is only partially confirmed because the CTBT has yet to be implemented. Therefore, this hypothesis could be adjusted to state that neoliberal institutions succeed when clearly defined verification is instituted and when there is a strong international norms aligning with the organization's mission.

Compliance and Consequences

Through analysis of the work presented, it is apparent that there is a tension between the coexistence of realist actors and neoliberal institutions. Many non-proliferation treaties fail because they lack a solid enforcing body. For a treaty to become an effective force on the international stage, state governments need to voluntarily give up some of their power. If a state

government does not see this as being in their best interest, there is little that can be done to force them to reconsider. Overall, strategies should exist to ensure the compliance of a treaty for it to be effective. There are several methods by which this could be accomplished, such as specifically explaining how states are expected to comply and what specific measures can be taken to ensure state compliance ("Status of Signature and Ratification," 2010).

Verdier further emphasizes the importance of compliance. Compliance may be gained through the addition of bilateral treaties to a multilateral treaty. By adding bilateral treaties between enduring rivalries, these states would be more likely to comply after reaching a mutual agreement and thus build a new level of confidence between them. Bilateral treaties could be beneficial between India and Pakistan as well as between Israel and Iran.

Another issue preventing the creation of an effective balance between neoliberal institutionalism and realist states is the ability to layout and enforce consequences for not complying. The lack of consequences leads states to question the legitimacy of the organization or treaty to which they are a member. This ultimately creates an imbalance between neoliberal institutions and realist states, which is seen through yet another nuclear missile launch by the DPRK on September 3, 2017 (Lee, 2017). This goes against an International Court of Justice Advisory Opinion from July 8, 1996, which stated the "threat or use of nuclear weapons was contrary to international law," (Koplow 174, 2014).

The inability for treaties to have consequences makes international treaties only effective when states willingly comply. Because consequences cannot be realistically tied to international treaties, once the CTBT is in force, it is at risk of failing. The only way for the CTBTO to prevent the failure of this treaty is to continue ensuring states that it is in their best interest to comply with the principles outlined in the CTBT. This compliance can be achieved by showing states that the IMS has the ability to accurately detect any nuclear activity. By recognizing the inability to circumvent the IMS, states should voluntarily comply to the CTBT. Voluntary compliance is the only mechanism that can prevent the failure of the CTBT and voluntary compliance is not guaranteed.

Conclusion

The coexistence of neoliberal institutionalism and realist states can be successful if there are clear standards to adhere to. Vague language and the inability to follow through on enforcement will lead to the collapse of neoliberal institutions. By focusing on and minimizing ways to circumvent compliance, a neoliberal institution can increase its chances of remaining an effective and relevant tool on the international stage. This will prevent the institution from become useless and unimportant.

The CTBT is a unique document that has taken over 21 years to enter into force. The work that went into the CTBT should not be wasted and time should be spent ensuring that the document will be effective once it becomes official and binding. There needs to be a focus on any existing loopholes and the ability to ensure that no test can go undetected via IMS. By understanding the details of how states will comply and how states are to implement what is

outlined by the CTBT, then the CTBTO will be well on its way to creating a nuclear test-free world.

The CTBT has the possibility to become the treaty that effectively reduces and eliminates the testing of nuclear weapons through the successful implementation of all IMS world-wide and on-site inspections. However, steps must be taken to ensure that it will be a success. The CTBTO should focus on ways it can effectively and realistically see the coexistence of their liberal institution with realist states. This can be done by finding ways to have the remaining IMS stations built and have the remaining Annex II states sign and ratify the CTBT, so on-site inspections can begin. This can be most effectively achieved by adding bilateral treaties to the CTBT between enduring rivals.

References

CTBTO. “Hydroacoustic Monitoring.” *Hydroacoustic Monitoring: CTBTO Preparatory Commission*. CTBTO, 2010. Web. 7 Dec. 2017.

CTBTO. “Infrasound Monitoring.” *Infrasound Monitoring: CTBTO Preparatory Commission.* CTBTO, 2010. Web. 7 Dec. 2017.

CTBTO. “Radionuclide Monitoring.” *Radionuclide Monitoring: CTBTO Preparatory Commission.* CTBTO, 2010. Web. 7 Dec. 2017.

CTBTO. “Seismic Monitoring.” *Seismic Monitoring: CTBTO Preparatory Commission*. CTBTO, 2010. Web. 7 Dec. 2017.

CTBTO. "Status of Signature and Ratification." *Status of Signature and Ratification: CTBTO Preparatory Commission*. CTBTO, 2010. Web. 3 Mar. 2017.

CTBTO Preparatory Commission. *Comprehensive Nuclear-Test-Ban Treaty (CTBT).* Vienna: Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization, 2011. Print.

ICAN. "Nuclear Weapons Timeline." *ICAN*. International Campaign to Abolish Nuclear Weapons, 2017. Web. 12 Apr. 2017.

Jervis, Robert. “Realism, Neoliberalism, and Cooperation: Understanding the Debate.” *International Security* 24.1 (1999): 42-63. President and Fellows of Harvard College and the Massachusetts Institute of Technology. 1999. Web. 29 Mar. 2017.

Koplow, David A. "A Nuclear Kellogg-Briand Pact: Proposing a Treaty for the Renunciation of Nuclear War as an Instrument of National Policy." *Syracuse J. Int'l L. & Com.* 42 (2014): 123-91. *Georgetown University Law Center*. Georgetown University, 2014. Web. 14 Mar. 2017.

Lee, Michelle Ye Hee. “North Korea’s Latest Nuclear Test Was so Powerful It Reshaped the Mountain above It.” *The Washington Post,* WP Company, 14 Sept. 2017. Web. 18 Nov. 2017.

Mearsheimer, John J. “Structural Realism,” in Tim Dunne, Milja Kurkl, and Steven Smith, eds., *International Relations Theories: Discipline and Diversity*, 3rd Edition (Oxford: Oxford University Press, 2013), pp. 77-93. Web. 9 May 2017.

Nielsen, Jenny. “CTBTO Innerworkings.” Personal Interview. 19 May 2017.

Stein, Arthur A. “Neoliberal Institutionalism.” *The Oxford Handbook on International Relations,* Oxford University Press, 2008, pp. 201-221.

VCDNP. “Achieving the Entry into Force of the CTBT.” Achieving the Entry into Force of the CTBT. Permanent Mission of Japan, Vienna. 10 May 2017. Lecture.

Verdier, Daniel. "Multilateralism, Bilateralism, and Exclusion in the Nuclear Proliferation Regime." *International Organization* 62 (2008): 439-76. *Department of Political Science*. Ohio State University, 2017. Web. 28 Feb. 2017.