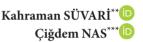
ARASTIRMA MAKALESİ / RESEARCH ARTICLE

THE FORMATION OF THE NUCLEAR NON-PROLIFERATION TREATY: AN ANALYSIS BASED ON INTERNATIONAL REGIME THEORIES*

NÜKLEER SİLAHLARIN YAYILMASINI ÖNLEME ANTLAŞMASI'NIN OLUŞUMU: ULUSLARARASI REJİM TEORİLERİ ÜZERİNDEN BİR ANALİZ



Abstract

This study examines the factors affecting the emergence of the Nuclear Non-Proliferation Treaty (NPT), which is the main mechanism of the international regime formed to prevent the spread of nuclear weapons, through the basic assumptions of the regime theories. This study addresses the following question: What factors were at play when the NPT was formed? This study's research method is testing theoretical assumptions with a case study. Within this framework, the regime theories used in this study concern especially why states cooperate over a specific issue. Factors affecting the formation and persistence of regimes are examined through three different approaches in the regime theories: power-based, cognitive-based, and interest-based approaches. The NPT seems to have a two-tier structure. Still, all actors that become a party to the treaty benefit from this cooperation. In this context, this study argues that the assumptions of interest-based approaches about the emergence of the NPT are more explanatory than others.

Keywords: Nuclear Non-Proliferation Treaty, international regimes, cooperation, nuclear disarmament

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Öz

Bu çalışma, nükleer silahların yayılmasını engellemek için oluşturulan uluslararası rejimin temel mekanizması olan Nükleer Silahların Yayılmasını Önleme (NSYÖ) Antlaşması'nın ortaya çıkışını etkileyen faktörleri, rejim teorilerinin temel varsayımları üzerinden incelemektedir. Çalışmada, NSYÖ Antlaşması'nın oluşturulmasında hangi faktörler rol oynamıştır sorusuna yanıt aranacaktır. Bu çalışmanın araştırma yöntemi, teorik varsayımların vaka çalışması ile test edilmesidir. Bu çerçevede, çalışmada kulanılacak olan rejim teorileri, özellikle devletlerin uluslararası sistemde belirli alanlarda neden işbirliği yaptıkları ile ilgilenir. Bu teorilerde rejimlerin oluşumuna etki eden faktörlere göre üç farklı yaklaşımdan söz edilmektedir: güç-odaklı, bilişselodaklı ve çıkar-odaklı yaklaşımlar. NSYÖ Antlaşması iki katmanlı bir yapıya sahip gibi görünse de, antlaşmaya taraf olan tüm aktörler bu işbirliğinden fayda sağlamaktadır. Bu bağlamda, çalışmada NSYÖ Antlaşması'nın ortaya çıkması konusunda çıkar odaklı yaklaşımların varsayımlarının diğerlerine göre daha açıklayıcı oldukları iddia edilmektedir.

Anahtar Kelimeler: Nükleer Silahların Yayılmasını Önleme Antlaşması, uluslararası rejimler, işbirliği, nükleer silahsızlanma

1. Introduction

Nuclear weapons, which played a crucial role in ending World War II due to their unprecedented destructive capabilities, are among the most important threats to international peace and security. Considering that the proliferation of nuclear weapons would increase their usability risk, the international community has developed some arrangements to prevent the spread of these weapons. The Nuclear Non-Proliferation Treaty (NPT) is the central mechanism among these regulations formed to curb the spread of nuclear weapons. With the entry into force of the NPT in 1970, these arrangements gradually evolved into an international security regime, called the nuclear non-proliferation regime.

This study examines the factors involved in the NPT's emergence, which is the foundation of the most comprehensive security regime worldwide to prevent the proliferation of nuclear weapons. The NPT included in the international system as a product of the Cold War and continues to exist. With the international safeguard system supported by the IAEA to prevent the non-peaceful use of nuclear technology, the NPT can be considered one of the most important treaties that contribute to international security. Some studies (Reiss, 1988, p. 262; Solingen, 2007, pp. 262–269) focusing on spesific nuclear proliferation cases argue that the NPT has no decisive role in slowing the proliferation of nuclear weapons. However, the predominant consideration in the literature is that the NPT prevents the spread of nuclear weapons in the international system. For instance, Maria R. Rublee (Rublee, 2008, p. 430) noted that the NPT matters because it makes it challenging to acquire nuclear weapons for non-nuclear actors by creating initiatives to leave their nuclear weapon option. Further, Harrad Müller (Müller, 2017, p. 13) asserted that without the NPT, there would likely be more nuclear weapon states in the world. Regardless of whether the NPT directly affects states' nuclear armament choices, it significantly contributes to maintaining international security since its

content aims to avert the manufacturing and obtaining of nuclear weapons by non-nuclear weapon states.

Regarding the formation of the NPT, studies in the literature generally address the issue from a historical perspective (Bunn, 2003; Burns, 1969; Davenport, 2019; Tacar, 1970). Conversely, there are also studies explaining the factors effective in the formation of the NPT theoretically. For example, T.V. Paul (Paul, 2003) demonstrated that systemic factors and interest-oriented approaches best explain the creation and continuity of the NPT. However, he did not clarify the shortcomings of a cognitive-based understanding of the formation of the NPT. Similarly, without bringing up the non-material factors, Zachary S. Davis (Davis, 1993) asserted that classical realism offers an adequate explanation for the nuclear non-proliferation regime. On the other hand, Patrick M. Cottrell (Cottrell, 2016, pp. 133–178) revealed the importance of the ideas in the emergence of the NPT. Roger K. Smith (Smith, 1987) examined the creation of the NPT-based nuclear non-proliferation regime concerning Krasner's "international regime" definition. Smith asserted that knowledged or learning-based approaches have a better explanation for the formation of the nuclear non-proliferation regime. However, Smith arguably did not adequately discuss the actors' perceptions that led them to establish institutional mechanisms. The formation of NPT is analyzed in this study through the lens of all three approaches of the regime theories to give a comprehensive theoretical explanation.

In this context, this study's main research question regards the factors at play when the NPT was formed. Regime theories provide the explanatory tools to find answers to this question. Within this framework, theoretical assumptions are tested methodologically through a case study.

The study consists of three main parts. In the first part, the basic assumptions of the regime theories are discussed. International regime theories are particularly concerned with the main factors motivating the states to cooperate and form institutions within the international system. In these theories, the factors that affect the formation of these arrangements are analyzed through three main approaches: power-based, cognitive-based, and interest-based approaches. The material capabilities of states comes to the fore in the formation of regimes in power-oriented approaches. For cognitive-oriented approaches, non-material elements are more determinant in the emergence of these institutions. According to interest-based approaches, international institutions are formed depending on the actors gaining from the cooperation that they make with each other.

The second part of the study initially explains the historical background of the NPT. The treaty entered into force in 1970. It has emerged as a product of the unilateral and multilateral efforts to stop the proliferation of nuclear weapons since their first use. The content of the NPT is also examined in this part of the study. Accordingly, the NPT divides states into two different categories: nuclear weapon states and non-nuclear weapon states. States that become party to the treaty accept this two-tier approach of the treaty. In this context, the NPT is the cornerstone of the nuclear non-proliferation regime, since it regulates the behavior of actors concerning their use of nuclear technology. The main aim of this status distinction is to limit the use of nuclear technology for military purposes.

In the third part, affecting factors in the emergence of the treaty are analyzed through the main approaches of the regime theories. From the perspective of power-oriented approaches, although power is an important factor in the emergence of the NPT, it is controversial why some states accept to give up their nuclear weapon option with this treaty. When evaluated regarding cognitive factors, it is seen that the NPT was formed based on a common understanding that nuclear weapons are an extremely important threat to the international security. However, it cannot be said that the states parties to the NPT have a common perception of nuclear weapons. Interest-oriented approaches assume that states act according to their expectations of utility. The NPT seems to have a stratified structure. Still, all actors that become a party to the treaty benefit from this cooperation. In this context, this study argues that the assumptions of interest-based approaches are more explanatory than the others regarding the NPT's emergence.

2. Theoretical Understanding of International Regimes

In the international system, states have established international regimes in various areas such as the environment, economy and security. Stephen Krasner (Krasner, 1982, p. 185) defines international regimes as "implicit or explicit principles, norms, rules and decision-making procedures around which actors' expectations converge in a given issue area." As can be understood from this definition, states form international arrangements to regulate their attitudes in a specific issue area. Concerning nuclear non-proliferation issues, states agree to limit their nuclear related activities in accordance with the content of the NPT.

So, why do states need to restrict their actions by forming these arrangements in the international system where there is no high authority? The answer to this question in the regime theories comes from three different approaches.

2.1. The Formation of International Regimes

The formation of international regimes is examined through power-based, interest-based, and cognitive-based approaches in the regime theories. ¹

The grouping of these approaches in this way belongs to Hasenclever, Mayer and Rittberger (Hasenclever, Mayer, & Rittberger, 1997). And, this type of grouping is used for this study. However, there are other studies that classify the studies on the formation and maintenance of regimes in different ways. For example, Haggard and Simmons have grouped theoretical views on regimes as structural, game-theoretic, functional, and cognitive (Haggard & Simmons, 1987). Keohane has differentiated these approaches as rationalist and reflectivist approaches (Keohane, 1988). In addition to realist approach, Mearsheimer has categorized other views on the international institutions as liberal institutionalism, collective security and critical theory(Mearsheimer, 1994).

2.1.1. Power-Based Approaches

The basic assumptions of power-oriented approaches come from the realist school of thought in international relations theories. For realist theories, power is the core element for states to protect their security in the anarchical world order.

States must cooperate over a specific issue area to form international institutions. However, how do they cooperate in an international system dominated by a power struggle? First, realist scholars occur with the argument that states cooperate in the anarchic world system. For instance, Robert Jervis argued that "Realist understanding claims that the international cooperation between states is not possible under anarchy." is not a correct assertion. Instead, it would be more accurate to say that the international system has a confrontational atmosphere rather than an encouragement for cooperation from the realist perspective (Jervis, 1999,44).

However, for these scholars, even if the states struggling in the anarchic international order may cooperate, they first consider their own gains relatively. Related to relative gain, Waltz (Waltz, 1979, p. 105) argued that although states seek to gain more when they cooperate, they focus on the question of "Who will gain more from us?" instead of "Will we gain together?" The reason that drives states to act like this is the anarchic nature of the international system. In other words, even if the states cooperate, they can harm each other at any time since there is no higher authority over them. Despite all the limitations, states cooperate in certain areas and even form international regimes. Mearsheimer (Mearsheimer, 1994, p. 13) asserted that states might interact with each other through international institutions or international regimes. But, how do these scholars explain the meaning of the regime?

For the power-based approaches, international institutions are regulations established instrumentally to maintain the distribution of capabilities in world politics (Nayar, 1995, p. 141). In this context, powerful actors play a critical role in establishing these arrangements. For instance, Jervis argued that the intention of great powers to preserve the status quo by establishing a regime is one of the first conditions for the forming the security regime (Jervis, 1982, pp. 358–360). Regarding the formation of the NPT, it can be said from this perspective that the NPT is a Cold War product based on a superpower consensus on the control of the spread of nuclear weapons. For example, T.V. Paul (Paul, 2003, p. 140) claimed that superpowers agreed to form the NPT to preserve the distribution of power in the future. Regime theorists who emphasize the concept of power in the establishment of regimes also benefit from the assumptions of the hegemonic stability theory to clarify the relationship between power and regimes. The hegemonic stability theory developed in the international political economy suggests that a great power or hegemon can only sustain political stability in the international system. Charles Kindleberger argued that "For the world economy to be stabilized there has to be a stabilizer, one stabilizer." (Hasenclever, Mayer, & Rittberger, 1997, p. 88). The hegemon ensures public goods for other states to maintain stability. For these scholars,

international regimes can be seen as a public good provided by this hegemonic power to consolidate its status.

To summarize, power-based approaches draw attention to the power factor in the formation of regimes. Great powers play a leading role in creating regimes to preserve the status quo or improve their position within the international system. Therefore, these multilateral arrangements are mere reflections of power status among the actors.

2.1.2. Cognitive-Based Approaches

According to cognitive-based approaches, the factors that affect the formation of regimes are not limited to material factors such as power and interests. Instead, cognitive elements such as knowledge or ideas also enable states to establish such institutional arrangements by cooperating.

For instance, states that cannot develop an effective solution to a specific problem alone may form an international regime by cooperating. However, these states ought to first define the problem they encounter with a common understanding. Knowledge plays a critical role in this stage. The states that aim to form a regime reach this common understanding with their knowledge. Regarding this, Ernst Haas (Haas, 1990, p. 7) asserted that "Knowledge actors carry in their heads and project in their international encounters significantly shapes their behavior and expectations." In other words, knowledge defines the attitudes of states in the system. However, the knowledge mentioned here is not scientific. Haas terms this knowledge as consensual knowledge. For him, consensual knowledge can be defined as "The sum both of technical information and of theories about it that sufficient command agreement among interested actors at a given time to serve as a guide to public policy." (Haas, 1990, p. 74). Consensual knowledge is the knowledge necessary for the establishment of regimes. With this consensual knowledge, states collectively identify a problem and seek common solutions. Otherwise, taking a joint action to solve the problem would be challenging for the states. In Krasner's words (Krasner, 1982, pp. 203–204), "Without consensus, knowledge can have little impact on the regime development in a world of sovereign states."

Moral factors also play a crucial role in the emergence of institutions. For instance, it can be said that one of the main factors that motivate the states to cooperate over the non-proliferation of nuclear weapons is that using nuclear weapons is immoral because of their mass killing effects. Ethan A. Nadelmann (Nadelmann, 1990, p. 480) argued that besides the interests of the states; emotional elements, prejudices, fears and beliefs are further determinant factors in the formation of regimes. Nadelmann mentioned the formation of the anti-slavery regime as an example of a moral factors. When slavery was heavily practiced, the British Empire, the great power of that time, abolished slavery for various reasons and made various attempts to spread this implementation. However, according to Nadelmann, this British initiative to end slavery cannot be viewed as the only reason for abolishing slavery in the world. It is fair to argue that the anti-slavery ideas that emerged and expanded at that time also played a critical role in forming the anti-slavery regime (Nadelmann, 1990, pp. 491–498).

Related to the NPT, "the idea of nuclear disarmament" which emanated from the invention of the nuclear weapon has had a decisive role in shaping the nuclear era (Cottrell, 2016, p.145).

Other important cognitive elements that contribute to the formation of institutions are trust and metaphors (Jönsson, 1995, pp. 206–209). For Aaron M. Hoffman (Hoffman, 2002, p. 376), trust is one motivating factors that drives states to cooperate over a specific issue. For actors to cooperate, mutual trust is a must(Gehring, 1994). On the other hand, metaphors are important for forming a common perception towards the problem in which states consider developing regimes to deal with it. For instance, states often construct their agreements on a formula that occasionally has metaphorical content. Thanks to this formula, a common perception is developed between the states concerning defining the problem. After a period, this formula turns into one of the founding principles of the regime to be formed (Jönsson, 1995, pp. 210–211).

In short, these approaches add non-material elements to the formation of international institutions. Actors that have a cooperative relationship based on mutual trust with each other establish these arrangements around a common expectation based on shared understanding.

2.1.3. Interest-Based Approaches

For interest-based approaches, fed by liberal institutionalist theories, the main reason for states to create international institutions is to gain from cooperation. At this juncture, the definition of cooperation through the lenses of these approaches needs to be explained first. Helen Milner asserted that two factors are crucial in forming cooperation: goal-oriented actors and the expectation of benefits from cooperation. To explain this in detail, the cooperation between states over a specific issue emerges first because states are rational actors acting towards their goals, even if they have different goals. Second, cooperation brings some gains to states (Milner, 1992, p. 468).

Interest-oriented approaches particularly use a game theory as a tool of analysis to explain how states cooperate in an issue area. In the game theory, it is assumed that the actors act rationally, which means that players in the games behave through their cost-benefit analysis. Based on this calculation, players choose the option from which they will get the most profit. ²

On the other hand, unlike the power-based accounts, interest-based approaches scholars do not consider the initiative of great powers as necessary for the institutional arrangements to be formed. For instance, Oran Young asserts that the leadership of hegemonic power is not always necessary for the formation of international regimes. Young further argues that regimes created by the great powers are unusual examples. He gives the international regime that formed for the pollution control of the Mediterranean Basin as an example for a regime not formed by a hegemon (Young, 1989, pp. 352–354).

² Interest-based scholars mostly use the Prisoner's Dilemma as a game-theoretical model to understand the cooperation among states, For instance, (Stein, 1982).

Additionally, states establish these arrangements because they want to maximize their gains in the international order. Regarding this, Keohane (Keohane, 1984, p. 80) stresses that, "Institutions exist because they could have reasonably been expected to increase the welfare of their creators." How do international regimes increase their gains? As mentioned before, states cooperate more easily through these arrangements.

The verification mechanisms of the regimes make state relations more transparent. These institutional mechanisms also decrease the transaction cost for the states to cooperate. Regarding this, Keohane (Keohane, 1984, p. 90) asserted that, "once a regime has been established, the marginal cost of dealing with each additional issue will be lower than it would be without a regime." Moreover, they provide information to the states in cooperation. Keohane (Keohane, 1984, pp. 82–83) claimed that international regimes are also important for solving the "market failure" problem.

In short, within the international system, interest-based approaches claim that states form the international institutions because they make the states gain more by facilitating cooperation. Regarding the cooperation of states on the nuclear non-proliferation issue, it can be argued that states (regardless of their nuclear capabilities) formed and then participated in the NPT to maximize their interest from the perspective of interest-oriented approaches. For instance, with their participation in the NPT, states that have limited access to nuclear technology could benefit from nuclear energy for peaceful purposes.

As seen in regime theories, power, interest and cognitive factors are effective determinants in establishing institutions by states. Based on these theoretical assumptions, the study scrutinizes the creation of the NPT as a case. Before evaluating the factors that affect the treaty's formation theoretically, it is best to explore the historical evolution and content of the treaty.

3. The Nuclear Non-proliferation Treaty

The international nuclear non-proliferation regime, like other international regimes, consists of various international organizations, treaties, and arrangements. The most important of these instruments are the NPT, the IAEA, security assurances, Nuclear Weapons Free Zone Agreements, the Nuclear Supply Group, and nuclear test ban treaties. Among these mechanisms, the NPT, which includes the basic norms of the regime, is considered as the cornerstone of the regime since "it sets the rules of the nuclear non-proliferation regime and specify states' expected form of a behavior." (Udum, 2017, p. 64). States that believe the spread of nuclear weapons will lead the world into a nuclear disaster have declared they are parties to the NPT. Today, only India, Israel, Pakistan and South Sudan have not signed the treaty, while North Korea withdrew in 2003. In this section, the NPT's historical development will first be discussed briefly. Then, the content of the treaty will be examined.

3.1. Historical Background of the NPT

With the atomic bombing of the cities of Hiroshima and Nagasaki by the US in World War II, the world witnessed the horrifying effects of the atomic bomb. The international community responded to this devastating effect of the atomic bomb in the first General Assembly Resolution, dated January 24, 1946, by the United Nations Organization, which was newly formed to preserve world peace and international security. The Resolution urged the member states to establish a commission for the peaceful use of atomic energy ("Establishment of A Commission to Deal With The Problem Raised By The Discovery of Atomic Energy," 1946). Thus, the Atomic Energy Commission was established under the UN. At the first meeting held in the same year, the US presented a proposal known as the Baruch Plan to the commission. The plan included the establishment of an international authority for the controlled use of atomic energy. It also included prohibition of the use of nuclear weapons, cessation of production, and elimination of existing nuclear weapons (Athanasopulos, 2000, p. 11). However, the plan submitted to the commission on June 14, 1946, was rejected by the Soviet Union. Five days after the Baruch Plan's submission, the Soviets proposed their draft, called the Gromyko Plan (Powaski, 1989, pp. 42-45). For this proposal by the Soviets, unlike the Baruch Plan, atomic weapons would be destroyed first and then the international authority would become active (Athanasopulos, 2000, p. 12). This time the US delegation rejected the Soviet plan. Consequently, it had been seen that the efforts to keep nuclear technology under international control failed.

At that time, the US was the only country with atomic weapons wanting this technology to remain in complete secrecy. ³ However, in September 1949, the Soviet Union conducted its first nuclear weapon test (A. Lynch, 1991, p. 107). This incident ended the monopoly of the US on nuclear weapons. Thus, it was seen that the proliferation of nuclear weapons could not be prevented despite the secrecy policy of the US. In 1952, Britain joined the nuclear club with its first atomic weapon test (Goldberg, 1964, p. 425).

In the light of these developments, the US has left its policy of secrecy in atomic technology pursuing since 1946. Related to this changing nuclear policy, US President Eisenhower made his speech titled "Atom for Peace" at the UN General Assembly on December 8, 1953. Eisenhower signaled that the US was ready to share its knowledge on atomic technology with other countries for peaceful purposes during his speech. ⁴ President Eisenhower further suggested that the establishment of an international institution encourage the use of this technology to benefit humanity ("60 Years of 'Atoms for Peace," 2013).

³ The Atomic Energy Law, known as the McMahon law, was passed in 1946, introducing regulation regarding the use of atomic energy. This law restricted the spread of information about atomic energy to prevent its use for military purposes. (Rossin, 2001, p. 2)

⁴ Although the US stated that it will share its atomic technology with other countries, it did not share certain technologies such as enrichment of uranium used for nuclear weapons production. The Soviet Union also supported the peaceful use of nuclear energy but refrained from sharing the technology used in weapons production (Krass, Boskma, Elzen, & Smit, 1983, p. 196).

Notably, the most important challenge for an actor who wants to develop an atomic bomb is the acquisition of fission material. The main materials used in the producing nuclear weapons are highly enriched uranium (U-235) and plutonium (P-239). For example, since U-235 is extremely rare in nature (about 0.07%), it is produced by enriching uranium U-238, more commonly found in nature. Plutonium, an artificial substance, is also acquired by reprocessing uranium (Cirincione, 2007, pp. 7–9). These materials can be used to make a bomb and/or conduct peaceful activities such as energy production or medical treatment. In addition, another development that worries the international community about the proliferation of nuclear weapons is the introduction of gas centrifuge technology, which makes producing these substances required for nuclear weapons production easier and less costly (Davenport, 2019, p. 17). In this context, with the United States initiative, the International Atomic Energy Agency (IAEA) was established in 1957 to verify that these substances are not used for bomb production.

In 1962, the UN General Assembly unanimously adopted the resolution 1665 proposed by Ireland. The Resolution stated that the spread of nuclear-armed states would expand and deepen the nuclear arms race, and threaten international peace. It was also noted that an international agreement should be made to prevent non-nuclear states from possessing such weapons ("Prevention of the Wider Dissemination of Nuclear Weapons (A/RES/1665(XVI))," 1962). Thus, the foundations of the NPT agreement were laid with this Resolution.

Additionally, a series of crucial developments in the 1960s were effective in the convergence of the perspectives of the two superpowers on the nuclear non-proliferation issue. France detonated its first nuclear bomb on February 13, 1960, becoming the fourth country to join the nuclear club (Bunn, 2003). In 1962, the two superpowers of the Cold War (the US and the Soviet Union) came to the brink of nuclear war in Cuba. Nuclear disarmament expert Roland Timerbaev asserted that the Cuban Missile Crisis changed the leaders' perception in the Soviet Union and the US about the necessity of nuclear weapons control, including the issue of non-proliferation (Khlopkov, 2017). Another crucial incident in the first half of the 1960s was that China became a nuclear-weapon state. ⁵ China's acquisition of nuclear weapons worried both Washington and the Moscow.

In the light of these developments, the US and Soviet Union submitted the draft agreement prepared jointly to the The Eighteen Nation Committee and the UN General Assembly on March 11, 1968. As a result of the negotiations in the General Assembly, the draft agreement was accepted on June 12, 1968 with 95 nations voting for, 4 nations voting against and 21 nations abstaining (Shaker, 1980, p. 117). The US, the Soviet Union and the United Kingdom became the Depositary States, and the treaty with these states was opened for signature. The NPT came into force on March 5, 1970, after 40 states and three depository states ratified the treaty. Thus, The NPT has become the cornerstone of the nuclear non-proliferation regime.

⁵ The yield of the bomb was nearly 22 kilotons ("China's First Nuclear Test 1964 – - 50th Anniversary," 2014)

3.1. The Content of the NPT

Many states have become parties to the NPT, believing that "the proliferation of nuclear weapons will drag the world into a nuclear war disaster." The treaty is built on three main principles: nuclear nonproliferation, nuclear disarmament and peaceful use of nuclear energy.

Concerning the non-proliferation of nuclear weapons, the treaty divides the states into two different statuses: nuclear weapon states and non-nuclear weapon states. The third paragraph of Article IX of the Treaty states "For the purposes of this Treaty, a nuclear-weapon State is one which has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January 1967." Accordingly, the US, the Soviet Union, the United Kingdom, France and the People's Republic of China were officially recognized as nuclear weapon states. Article I of the treaty explains the obligations of nuclear-armed states. According to this article, the nuclear states parties to the treaty undertake to not transfer the control of nuclear weapons, directly or indirectly, to the non-nuclear weapon states. Article II of the treaty is related to the non-nuclear weapon states. This article states that non-nuclear weapon states are committed to not manufacture or obtain nuclear weapons in any way or not to take over the control of nuclear weapons directly or indirectly.

The third and fourth articles ensure that, non-nuclear states can use nuclear energy peacefully. For the states that do not have nuclear weapons participating in the treaty, the most important gain arising from this treaty is included in the Article IV. This article emphasizes that the right to use nuclear energy for civil purposes is an "inalienable right." However, as nuclear technology is categorized as a dual-use technology, the NPT has also established a safeguard system to "verify that nuclear facilities are not misused and nuclear material not diverted from peaceful uses." ("Basics of IAEA Safeguards"). Article III of the treaty enables the IAEA to carry out these verification duties.

Before the NPT, inspections performed by IAEA under INFCIRC/66 type of safeguard agreement had applied only to specified nuclear-related items, and the states could keep any other nuclear materials out of the verification system. However, with the conclusion of the NPT, the verification system was strengthened by the IAEA. The item-specific agreement was replaced by comprehensive safeguard agreements known as INFCIRC/153. These new types of agreements were named "comprehensive" because their scope on nuclear items was expanded. Therefore, all the nuclear materials that a state had would be placed under the safeguards (Carlson, Kuchinov, & Shea, 2020, pp. 14–15). The role of IAEA in the safeguard system has increased over time in the NPT's history. After the 1990s, especially the revelation of Iraq's undeclared nuclear activities in the First Gulf War led the member states to strengthen the safeguard system in the regime. The Additional Protocol, which emerged in this direction, was implemented in 1997 and gives more authority to the IAEA to carry out inspections in a detailed way (Hirsch, 2004; Fischer, 1998, pp. 25–26).

⁶ For all the articles of the treaty mentioned in this study, please see, ("Treaty on the Non-Proliferation of Nuclear Weapons," 2016)

In this context, under the NPT, every member state with a non-nuclear weapon state status is required to submit all their nuclear materials to the IAEA. Depending on whether the member states comply with their commitments in the treaty, the agency has also the authority to report non-complied states to the UN Security Council which can take coercive measures against these states. For example, North Korea was reported to the UN Security Council by the IAEA many times. In response, the UN Security Council imposed various sanctions on North Korea for its non-compliance behavior ("Fact Sheet on DPRK Nuclear Safeguards," 2014). Overall, the IAEA safeguard system is designed to detect all the nuclear activities of member states and ensure that non-nuclear weapon states use nuclear technology for only peaceful purposes.

Article VI of the treaty regulates the nuclear disarmament issue which is another main pillar of the NPT. Although a definitive provision has not been written on this subject, under Article VI, nuclear-weapon states agree to undertake the necessary measures to achieve complete nuclear disarmament.

With the NPT, member states also accept to hold review conferences every five years regarding the course of the treaty. The key discussion topics of the conferences are nuclear disarmament, non-proliferation concerns and the peaceful use of nuclear energy. ⁷

It is fair to argue that even though the international efforts to prevent the spread of nuclear weapons has began before the treaty, the NPT gave framework these efforts by strengthing other arrangements and norms of the nuclear non-proliferation regime. The next part of the study will evaluate the creation of the NPT through regime theories.

4. Theoretical Assessment

Because of the inhumane nature of nuclear weapons, the proliferation of these armaments is viewed by the international community as an issue area involving various problems that concern all actors. Considering the historical development and content of the NPT, the treaty supported by the IAEA's inspection system, includes its principles, norms, rules and decision-making procedures as stated in Krasner's definition. The guiding principle on which the treaty is based on is that nuclear weapons proliferation is a threat to international peace and security. In this context, the acceptance of nuclear weapon states to not give their nuclear weapons to other states and the commitments of non-nuclear weapon states to not acquire nuclear weapons and to use of nuclear technology peacefully are normative behaviors adopted by the actors. The articles of the treaty institutionalized this normative understanding. As an international organisation with the system of decision making, the IAEA has been assigned to monitor and verify the peaceful use of nuclear technology by non-nuclear actors.

⁷ However, it can be said that in the conferences, the talks are mainly focused on the nuclear disarmament activities of the nuclear weapon states.

In this session, the question of which factors are more determinant in the formation of the NPT-based nuclear non-proliferation regime which includes other international organizations and arrangements such as the IAEA and its safeguard system will be examined.

4.1. Power Factor

For the power-based approaches; an international institution in the system must be demanded and supported by the hegemon or a group of great powers for its establishment. Unequivocally, the US and Soviet Russia, which saw the proliferation of nuclear weapons as a threat, played a major role in the formation process of the regime leading to the NPT. As Ian Bellany (Bellany, 1977, p. 594) states "The initiative for bringing the treaty into existence was largely that of the super-powers-the United States and the Soviet Union." Particularly, the coming of two superpowers to the brink of nuclear war during the Cuban Missile Crisis and the joining of China to the nuclear club with its first nuclear weapon test in 1964 increased the concerns of Washington and Moscow about the proliferation of nuclear weapons.

Through the lenses of power-oriented approaches, the great powers form or support these arrangements first to protect their own security. The spread of nuclear weapons has been a source of concern for these nuclear powers because the increasing number of actors with these deathful devices would make the world close to a nuclear war and endanger their national security especially. For instance, following China's nuclear test, President Johnson of the US formed a commission to review the United States' policy on nuclear weapons. In the report prepared by this commission in 1965, it was stated that the proliferation of nuclear weapons poses a great threat to the US's national security. Besides, the commission suggested that the US pursue a more active policy for nuclear disarmament (Miller, 2014, p. 34). The leader of the Soviet Union, Brezhnev, stated in his speech in 1965 that having more nuclear weapons threatens the security of the Soviets (Radchenko, 1968). The report of another nuclear state, the UK, supporting the existence of an agreement to stop the proliferation of nuclear weapons, states that the proliferation of nuclear weapons does not comply with the interests of the UK (Declassified Paper of The Defence and Oversea Policy (Official) Committee, 1965).

Moreover, for power-oriented approaches, international institutions serve to maintain the status quo in the world order. John Mearsheimer (Mearsheimer, 1994, p. 7) states that international institutions are "basically a reflection of the distribution of power in the world." From this perspective, the NPT keeps the positions of states in the hierarchical structure whose national security is protected by nuclear weapons. ⁸ When looking at the content of the NPT, it can be argued that there is no

⁸ It can be said that a similar structural order is seen in the UN system. For example, Some of the world's largest arms exporters are the permanent members of the Security Council which is the main body tasked with maintaining international peace and security.

definite article that immediately forces states that use nuclear weapons as a deterrent to protect their national security to leave their nuclear arsenal. ⁹

At the top of the hierarchical structure in the regime, as depicted in Figure 1, there are five officially recognized nuclear weapon states. Only these states have the right to use nuclear weapons as a deterrent force to protect their national security. As permanent members of the UN Security Council, these nuclear elites are also at the top of the treaty's enforcement mechanisms, which the IAEA performs. In other words, this layer is the top of the nuclear caste system. ¹⁰

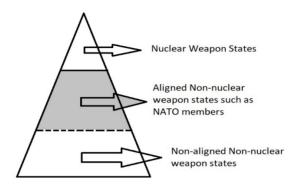


Figure 1 Hierarchical Order of the NPT

The nuclear caste system can be a correct description because while it is expected that there is a transition of actors from this layer to the other layers ¹¹, the transition from other layers to the top is strictly prohibited. Article I and Article II of the NPT draw the line that separates these layers. The second layer includes states allied with nuclear weapon states. These aligned states support the non-proliferation of nuclear weapons while protected under a nuclear umbrella. ¹² NATO members or countries such as South Korea are examples of these states. At the bottom of the layer, the states are non-aligned or those that do not have any nuclear security guarantee. The transition between these two layers is possible, albeit weak. This hierarchical structure in the regime continues today.

As mentioned before, nuclear weapon states are obligated to negotiate on a treaty on general and complete disarmament. under Article VI of the NPT.

¹⁰ The term is adopted from Colum Lynch's study (C. Lynch, 2010).

¹¹ In the nuclear non-proliferation regime, the main expectation is a nuclear-free world. That is why, under Article VI, nuclear weapon states agree that they will take the necessary measures to achieve a total nuclear disarmament.

¹² The proliferation of nuclear weapons can be categorized as vertical and horizontal. Vertical proliferation is about a qualitative and quantitative increase of nuclear weapons possessed by nuclear weapon states. Horizontal proliferation may be defined as the spread of nuclear weapons among non-nuclear weapon states (Bajia, 1997, p. 48).

However, based on power-oriented assumptions, it is unclear why the states that have positions at the lowest layer in the hierarchy and do not benefit from the deterrent protection provided by the world's most powerful weapons agree to be in this regime.

On the other hand, it would be an incorrect assessment to say that the freedom of action of nuclear elites is unlimited in the regime. For instance, it can be asserted that at the review conferences held every five years, the disarmament policies of nuclear-armed states are often questioned by non-nuclear weapon states. Regarding this, Tariq Rauf (Rauf, 2017, p. 9) argues that "The NPT is the only international treaty under which the five nuclear weapon states feel restricted themselves to explain their nuclear policies."

4.2. Cognitive Factors

As mentioned earlier, these approaches claim that material factors are effective in forming institutions. However, non-material factors are also determinants in creating these arrangements.

There should be a common understanding that motivates states to cooperate in the international system to form an international institution. Related to the nuclear non-proliferation issue, the shared understanding of bringing states together to create the NPT is that using atomic energy for military purposes should not be allowed and the spread of nuclear weapons should be prevented to avoid any nuclear war. These considerations have been felt in all the formation process of the treaty. For instance, during the negotiations of the first Resolution of UN General Assembly on January 24, 1946, related to peaceful use of atomic energy the Polish delegate states that

The use of atomic energy and the other conquests of science for the good of humanity, and not, for its destruction, is, indeed, the fundamental problem at issue, not only for our Organization but for every country and every individual (*UN General Assembly Meeting Records A/PV.17*, 1946).

It is also possible to observe similar statements in the text of the NPT. The preface of the treaty declares that a nuclear war would destroy all humanity. Further, the spread of nuclear weapons would severely enhance the risk of nuclear war ("Treaty on the Non-Proliferation of Nuclear Weapons," 2016).

Another important non-material element that allows states to cooperate on the nuclear issue and create the NPT is trust. Trust among the states concerning nuclear armament is effective in their being a party to the NPT. Jan Ruzicka and Nicholas J. Wheeler (Ruzicka & Wheeler, 2010, p. 70) argued that "Trust, as in much of social life in general, has been a key element in the creation and existence of the NPT."

It is also possible to see the symbolic and historical metaphors that contributed to the formation of institutions in the NPT. For example, the naming of nuclear weapons as a "doomsday machine" forces the actors to perceive how dangerous such weapons are. The Cuban Missile Crisis, which brought superpowers to the edge of a nuclear war that could have caused human extinction, can

be cited as an example of a historical metaphor for establishing this nuclear non-proliferation arrangement (Jönsson, 1995, p. 212).

However, although there is a common understanding of nuclear non-proliferation at the core of the NPT, it cannot be said that the perceptions of the states parties to the NPT on nuclear weapons are common, as cognitively-based approaches suggest. To put it differently, states with different statuses in the regime have different perceptions about nuclear weapons from each other. For instance, while nuclear weapons are viewed as a deterrent for nuclear weapon states (and also aligned non-nuclear weapon states), they are perceived as inhumane devices for non-aligned nuclear weapon states.

In short, the NPT was revealed as a multilateral arrangement based on a common understanding of preventing the spread of nuclear weapons.

4.3. Interest Factor

For interest-oriented approaches, states cooperate over a specific issue because they gain from this cooperation. Regarding the nuclear non-proliferation issue, states cooperate in curbing nuclear proliferation, and the NPT has institutionalized their cooperation efforts. The NPT was formed on the basis of bargaining between nuclear weapon states and non-nuclear weapon states. ¹³ According to this, non-nuclear weapon states agree not to acquire nuclear weapons. In return, they have the right to use nuclear technology for peaceful purposes and nuclear weapon states pledged to leave their nuclear weapons entirely. Moreover, even it is not mentioned in the NPT, related to the security concerns of non-nuclear weapon states, nuclear weapon states have given some security assurances to these states to feel secure in the system. Security assurances can be defined as "any attempt by a state or group of states to convince another state or group of states that their security will not be harmed." (Knopf, 2012, p. 19). These security assurances can be unilateral, bilateral and multilateral related to the nuclear non-proliferation regime. For instance, UN Security Council Resolution 255 is a multilateral security assurance provided by nuclear weapon states.

At first glance, it can be argued that the nuclear weapon states gain more from this cooperative relationship as they hold their nuclear weapons for now and restrict the others from obtaining them. However, the scholars from these perspectives assert that states concentrate on only what they gain from cooperation rather than who earns more in the cooperation. In this context, it has been seen from the Grand Bargain of the NPT that the non-nuclear weapon states that are parties to the treaty have already gained a lot from this cooperation concerning both security and economy. At this juncture, the question of how the non-nuclear weapon states gain from the NPT arises.

¹³ This bargaining situation in the literature is termed "the Grand Bargaining." However, some scholars question this description. For instance, Joachim Krause (Krause, 2007, p. 489) stated that this argument does not reflect the formation process of the NPT correctly. For Krause, during the negotiations of the treaty, there was no definite distinction between nuclear weapon states and non-nuclear weapon states as all the states had their own agenda.

For instance, institutions ensure order in the international system. The NPT has a stratified nature concerning nuclear weaponization. However, states agree to join it because the order even if sometimes it is not equal for all is always better than the chaotic anarchic international environment. ¹⁴ Moreover, the NPT provides transparency between the states, making the two states feel more secure. The NPT has a safeguard system provided by the IAEA. Thus, non-nuclear weapon states ensure their national security is not in danger in the international order. For instance, today, it can be argued that other states in the region closely monitor Iran's nuclear activities and cooperation with the IAEA. Iran's decision to divert its nuclear capabilities to produce nuclear weapons may cause other states concern for their security, and they may consider taking similar action. In the conference of non-nuclear weapon states that took place in September 1968, some delegates expressed their opinions that "The NPT served the security interests of the non-nuclear countries by assuring them that other non-nuclear states would not acquire nuclear weapons." (*Nonproliferation Treaty*, 1968).

As mentioned before, the first serious initiative at the formation process of the NPT that would legalize efforts to prevent the proliferation of nuclear weapons came from the non-nuclear weapon state, Ireland. The architect of this initiative, Irish Foreign Minister Frank Aiken, responded to criticism of the discriminatory nature of the proposed agreement with the following statements:

Certainly all nations have this right (to make or acquire nuclear weapons). But any nation which voluntarily foregoes its right to such destructive power in order to get others to do likewise is likely to serve its own vital interests better than by increasing the danger of the destruction of civilization. (Aiken, 1961, p. 265).

Briefly, the fact that all actors cooperating to prevent the proliferation of nuclear weapons benefit from this cooperation has been effective in turning these shared activities into a treaty that facilitates this cooperation.

5. Conclusion

States that do not want a nuclear disaster like the atomic bomb destruction of Hiroshima or Nagasaki to happen again, have decided to cooperate to control the use of atomic technology. This cooperation became institutionalized over time and turned into an international regime per Krasner's definition of the "international regime" with the creation of the NPT, the most important mechanism created to control the spread of nuclear weapons. The NPT which was established first to prevent the proliferation of nuclear weapons and then to ensure the complete elimination of nuclear weapons entered into force in 1970. In 1995, it was agreed to extend the treaty indefinitely. Presently, all non-nuclear weapon states (except South Sudan) signed this treaty by accepting that they will not acquire or produce nuclear weapons for their national security.

¹⁴ Regarding this, Nye (Nye, 1985, p. 130) states that "most states are likely to accept some ordered inequality in weaponry because anarchic equality appears more dangerous."

This study examined which factors were effective in the emergence of the NPT, the key institution of the nuclear non-proliferation regime. According to regime theories, one of the factors affecting the formation of institutions is power. Powerful states form international arrangements to preserve the distribution of power among the states in the world order. The superpowers of the Cold War led to the emergence of the NPT. However, from the perspective of these approaches, it is unclear why nonnuclear states agree not to obtain nuclear weapons, the most powerful weapons ever invented even to protect their national security. For cognitive-based approaches, material factors are not enough to explain the formation of regimes. Elements such as common understanding or trust, are also effective in making the states form international regimes. In this context, it can be said that the actors' shared understanding that the proliferation of nuclear weapons would cause a nuclear war was effective in the emergence of the NPT. On the other hand, it is controversial how the actors who came together on the basis of the common understanding of nuclear disarmament could create the NPT, despite not having the same perception of nuclear weapons. For the interest-based approach, the interest of the states is a decisive variable in the formation of institutional mechanisms. According to this understanding, states cooperate over a specific issue and establish institutions in an anarchical nature of the international system because they make gains from this cooperative relationship. Regarding the nuclear non-proliferation issue, the NPT based on "The Grand Bargain" has benefited both nuclear armed and non-nuclear weapon states. From the point of nuclear weapon states, even though total nuclear disarmament is the main objective of the regime within the NPT framework, no clearcut binding article exist to force them leave their nuclear weapons in the treaty. On the other hand, the NPT which urges states to use nuclear technology for peaceful objectives with its verification mechanisms, has ensured non-nuclear weapon states feel that the nuclear choice is not in their best interest.

In this context, it is concluded that the expected gains of states from cooperation to prevent the spread of nuclear weapons motivated them to form the NPT.

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