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Treaty Law to Signal to Outsiders: The Case of the Treaty on the Prohibition of Nuclear Weapons

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Cover Page Footnote

Tobias Vestner is Head of the Research and Policy Advice Department at the Geneva Centre for Security Policy (GCSP), Honorary Senior Research Fellow at the University of Exeter, Non-Resident Fellow at the United Nations Institute for Disarmament Research (UNIDIR), and Fellow at Supreme Headquarters Allied Powers Europe (SHAPE). This article is based on a contribution to the Conference “Left of Launch: Communications and Threat Escalation in a Nuclear Age,” organized by the Center for Ethics and the Rule of Law (CERL) at the University of Pennsylvania in April 2021 and was presented at the British International Studies Association (BISA) Global Nuclear Order Working Group Annual Conference on “Reassessing Key Debates in the Nuclear Field” at King’s College, London in December 2021. The author thanks Christopher A. Ford, David A. Koplow, Keith Krause, Jeffrey W. Taliaferro, Stuart Casey-Maslen, and Marc Finaud for their comments on a previous draft as well as Juliette François-Blouin for research assistance and the Washington International Law Journal editors for their support.

TREATY LAW TO SIGNAL TO OUTSIDERS: THE CASE OF THE TREATY ON THE PROHIBITION OF NUCLEAR WEAPONS

Tobias Vestner*

Abstract: The Treaty on the Prohibition of Nuclear Weapons (TPNW) comprehensively and unequivocally prohibits nuclear weapons. The treaty was created to foster and diffuse norms against nuclear weapons, thereby stigmatizing and delegitimizing nuclear weapons and deterrence. The TPNW’s nature as formal treaty under international law suggests, however, that the TPNW primarily serves signaling to states which have not adhered to the treaty, in particular nuclear weapon states. This article develops how treaty law enables signaling to outsiders. Treaty law notably offers visibility, screens between “insiders” and “outsiders,” communicates substance, and provides credibility to the signal. In line with treaty law’s finality to establish and maintain international cooperation, this tempers political confrontation and, by sending information and reducing uncertainty, creates a basis for extra-regime cooperation. The article then demonstrates how and what the TPNW signals, namely that nuclear weapons are illegal, immoral, and dangerous and that nuclear disarmament should advance. The article contends that the TPNW most effectively signals that its States parties want nothing to do with nuclear weapons. Thereby, the TPNW resembles treaties establishing nuclear weapons free zones (NWFZ) and provides a basis for negative security assurances (NSA), which would represent a form of contracting between TPNW States parties and nuclear weapon states. The article concludes that assessments of political effects of international treaties need to consider their formality and legal consequences to a greater extent.

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INTRODUCTION

The international legal landscape regarding the legality of nuclear weapons has significantly changed since the entry into force of the Treaty on the Prohibition of Nuclear Weapons (TPNW)¹ on January 22, 2021. The TPNW prohibits several activities related to nuclear weapons, including their possession, threats of use, and actual use. The TPNW originated out of a frustration that nuclear weapon states (NWS)—China, France, Russia, the United Kingdom, and the United States—as well as other states possessing nuclear weapons did not engage in negotiations on nuclear disarmament according to Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT).² Its creation primarily aims to foster existing norms against nuclear weapons, commonly referred to as the “nuclear taboo,”³ which arise from the ethical wrong of killing and injuring thousands, if not millions, of

¹ Treaty on the Prohibition of Nuclear Weapons, July 7, 2017, 729 U.N.T.S. 161 [hereinafter TPNW]. As of May 1, 2022, sixty States have ratified or accessed to the treaty, and twenty-nine additional States are signatories. *Treaty on the Prohibition of Nuclear Weapons*, UNITED NATIONS OFF. FOR DISARMAMENT AFFS., <https://treaties.unoda.org/t/tpnw> (last visited May 23, 2022) [hereinafter TPNW Status].

² Shannon N. Kile, *Treaty on the Prohibition of Nuclear Weapons*, in STOCKHOLM INT’L PEACE RSCH. INST., SIPRI YEARBOOK 2018: ARMAMENTS, DISARMAMENT AND INTERNATIONAL SECURITY 307, 307–318 (2018); Treaty on the Non-Proliferation of Nuclear Weapons, July 1, 1968, 21 U.S.T. 483, 729 U.N.T.S. 161 [hereinafter NPT].

³ The “nuclear taboo” describes the social norms that prevent political decisionmakers from even considering using nuclear weapons because this would not be appropriate. Daryl G. Press, Scott D. Sagan & Benjamin A. Valentino, *Atomic Aversion: Experimental Evidence on Taboos, Traditions, and the Non-Use of Nuclear Weapons*, 107 AM. POL. SCI. REV. 188, 188–206 (2013); Nina Tannenwald, *Nuclear Taboo: The United States and Normative Basis of Nuclear Non-Use*, 29 INT’L ORG. 433, 433–468 (1999).

civilians by a nuclear strike. As such, the TPNW is the most recent creation of the humanitarian disarmament paradigm.⁴

While the TPNW has been widely debated and analyzed, the role of international law on the TPNW's political effects remains largely unexplored and underdeveloped. This article argues that, based on treaty law's formalism and legal effects, the TPNW first and foremost serves as signaling device for States parties to send information to outsiders, namely States that have not joined the treaty. In Part I, this article assesses the debate on the TPNW and its political effects and indicates weaknesses of existing analyses to locate the theoretical proposition and its application to the TPNW. In Part II, this article develops how treaty law enables signaling to outsiders. In particular, treaty law offers visibility, screens between "insiders" and "outsiders," communicates substance, and provides credibility to the treaty's signal. In line with treaty law's finality to establish and maintain international cooperation, the signaling by treaty tempers political confrontation and, by sending information and reducing uncertainty, creates a basis for extra-regime cooperation.

In Part III, this article demonstrates how and what the TPNW signals, namely that nuclear weapons are illegal, immoral, and dangerous, and that nuclear disarmament should advance. The article finds that while the TPNW's principal message is that "the states parties want nothing to do with nuclear weapons, nor should the outsiders have anything to do with nuclear weapons," as per treaty law's functioning, the TPNW more effectively signals "the states parties want nothing to do with nuclear weapons." The TPNW thus does more than provide "emptily divisive virtue-signaling," as argued by Christopher Ashley Ford at the Wilton Park conference in 2018, then Assistant Secretary at the Bureau of International Security and Nonproliferation of the United States.⁵ An implication of the TPNW's signaling is that the TPNW resembles treaties establishing nuclear weapons free zones (NWFZ). Thereby, the treaty provides a basis for negative security assurances (NSA),⁶ which would represent a form of contracting between TPNW States parties and NWS. This article concludes that assessments of political effects of international

⁴ See generally MARC FINAUD, "HUMANITARIAN DISARMAMENT": POWERFUL NEW PARADIGM OR NAIVE UTOPIA? (2017); Denise Garcia, *Humanitarian Security Regimes*, 91 INT'L AFFS. 55 (2015); UNITED NATIONS INST. FOR DISARMAMENT RSCH., VIEWING NUCLEAR WEAPONS THROUGH A HUMANITARIAN LENS (Jon Borrie & Tim Caughley eds., 2013).

⁵ Christopher A. Ford, *The P5 Process and Approaches to Nuclear Disarmament: A New Structured Dialogue*, NEW PARADIGMS FORUM (Dec. 10, 2018), <https://www.newparadigmsforum.com/p2312>.

⁶ NSA are declarations, policies, or agreements by which NWS assure to not use or threaten the use of nuclear weapons against non-nuclear-weapon States.

agreements needs to consider treaties' formality and legal effects to a greater extent.

I. CURRENT DEBATE AND EXPLANATIONS

A. *Strengthening Social Norms*

Both diplomatic discourse and academic writing describes the TPNW's effect on international politics as fostering and shifting existing social norms against the possession and use of nuclear weapons. While the TPNW has been described by proponents and observers as "an interim step, a means to an end" to achieve complete abolition of nuclear weapons,⁷ Beatrice Fihn, Executive Director of the International Campaign to Abolish Nuclear Weapons (ICAN), proclaimed that the TPNW would contribute to strengthening the view that nuclear weapons are "unacceptable" and "illegal," both in national contexts and within the international community.⁸

With an increased concern regarding the use of nuclear weapons and the adherence to the idea of a ban, countries that are not parties to the TPNW may feel that "the stigma against their use (and even their deployment) is so strong that behavior is changed"⁹ The TPNW could "lessen [nuclear weapons'] attractiveness and change the incentive structures for states that possess them and others that rely on extended nuclear deterrence."¹⁰ The TPNW could further stigmatize the possession and possible use of nuclear weapons by making them "incompatible with the principles of human rights and humanitarian law, becoming increasingly unattractive to governments that wish to be viewed in good standing in the international community."¹¹ As such, the TPNW would be central to the moral delegitimization of the weapon of mass destruction (WMD).¹² Ultimately, a new norm whereby not

⁷ Rebecca Davis Gibbons, *The Humanitarian Turn in Nuclear Disarmament and the Treaty on the Prohibition of Nuclear Weapons*, 25 *NONPROLIFERATION REV.* 11, 35 (2018).

⁸ Marjolijn Van Deelen, et al., Remarks at the Carnegie International Nuclear Policy Conference 22 (Mar. 21, 2017) (transcript on file with the Carnegie Endowment for International Peace).

⁹ PAX CHRISTI INTERNATIONAL, *THE HUMANITARIAN CONSEQUENCES OF NUCLEAR WEAPONS* 9–10 (2013).

¹⁰ Ramesh Thakur, *The Nuclear Ban Treaty: Recasting a Normative Framework for Disarmament*, 40 *WASH. Q.* 71, 71–95 (2017).

¹¹ RAY ACHESON & BEATRICE FIHN, *PREVENTING COLLAPSE: THE NPT AND A BAN ON NUCLEAR WEAPONS* 3 (2013).

¹² Michael Hamel-Green, *The Nuclear Ban Treaty and 2018 Disarmament Forums: An Initial Impact Assessment*, 1 *J. PEACE & NUCLEAR DISARMAMENT* 2, 440 (2018) [hereinafter Hamel-Green, *Nuclear Ban Treaty*]; Nick Ritchie & Kjølsv Egeland, *The Diplomacy of Resistance: Power, Hegemony and Nuclear Disarmament*, 30 *J. GLOB. CHANGE, PEACE & SEC.* 121, 121–42 (2018); Nick Ritchie, *Legitimizing and*

possessing nuclear weapons is “normal” could stigmatize NWS to reduce, and eventually eliminate, their arsenal.¹³

Most proponents of this strategy acknowledge that such stigmatization is a lengthy process,¹⁴ and others doubt its achievement. Some noted that NWS could react to stigmatization in a refractory, negative way.¹⁵ Others contend that stigmatization and “normative pressure” is impracticable because public opinion would not be universally opposed to nuclear weapons, and the domestic political structures of certain countries would not be equally receptive to public pressure.¹⁶ Similarly, others critique that the TPNW’s norm lifecycle would get stuck in the norm’s emergence phase, failing to reach subsequent norm cascade and internalization. Moreover, even if the TPNW could lead to some level of stigmatization and delegitimization of nuclear weapons, it would not lead to their elimination.¹⁷ Others argue that the TPNW would fracture the existing nuclear non-proliferation system, including removing resources and attention.¹⁸

Hence, most analyses of the TPNW explain its creation and function based on its ability to foster and diffuse norms,¹⁹ mostly in line with norm

Delegitimizing Nuclear Weapons, in VIEWING NUCLEAR WEAPONS THROUGH A HUMANITARIAN LENS 44, 44–75 (Jon Borrie & Tim Caugley eds., 2013).

¹³ Tom Sauer & Mathias Revaert, *The Potential Stigmatizing Effect of the Treaty on the Prohibition of Nuclear Weapons*, 25 THE NONPROLIFERATION REV. 437, 437–55, 448–47 (2018). For further discussion on stigmatization, see JONATHAN L. BLACK-BRANCH, THE TREATY ON THE PROHIBITION OF NUCLEAR WEAPONS: LEGAL CHALLENGES FOR MILITARY DOCTRINES AND DETERRENCE POLICIES 284–305 (2021).

¹⁴ Sauer & Revaert, *supra* note 12, at 450; see also Marianne Hanson, *Normalizing Zero Nuclear Weapons: The Humanitarian Road to the Prohibition Treaty*, 39 CONTEMP. SEC. POL’Y 464, 477 (2018).

¹⁵ Sauer & Revaert, *supra* note 12, at 444.

¹⁶ Michael Onderco, *Why Nuclear Weapon Ban Treaty is Unlikely to Fulfil Its Promise*, 3 GLOB. AFFS. 391, 397 (2017).

¹⁷ See Jean-Baptiste Jeangene Vilmer, *The Forever-Emerging Norm of Banning Nuclear Weapons*, J. STRATEGIC STUD. 1, 1–27 (2020).

¹⁸ Hamel-Green, *Nuclear Ban Treaty*, *supra* note 1212, at 449; Kjølv Egeland et al., *The Nuclear Weapons Ban Treaty and the Non-Proliferation Regime*, 34 MEDICINE, CONFLICT & SURVIVAL 74, 84 (2018); Statement by H.E. Ambassador Michael Biontino, Permanent Representative of Germany, to the Conference on Disarmament, Open Ended Working Group on Nuclear Disarmament (Feb. 24, 2016).

¹⁹ See also Moritz Kütt & Jens Steffek, *Comprehensive Prohibition of Nuclear Weapons: An Emerging International Norm*, 22 NONPROLIFERATION REV. 401, 401–420 (2015). In the reverse, for a discussion of how norm emergence theories fit, do not fit, and should adapt to reflect the process of the TPNW see John Borrie et al., *Obstacles to Understanding the Emergence and Significance of the Treaty on the Prohibition of Nuclear Weapons*, 30 GLOB. CHANGE, PEACE & SEC. 95, 95–119 (2018); John Borrie, *Humanitarian Reframing of Nuclear Weapons and the Logic of a Ban*, INT’L AFFS 625, 625–646 (2014).

evolution theory,²⁰ which has been used to explain the creation of other weapons ban treaties.²¹

B. *The Political Discourse*

The politics surrounding the TPNW resemble a battle of discourse and norms between TPNW proponents and opponents.²² A global campaign of non-governmental organizations, the International Committee of the Red Cross (ICRC), non-nuclear-weapon states (NNWS), and individuals actively promotes the TPNW and shapes the relevant discourse, mobilizing international and domestic actors.²³ Among NNWS, Austria, Brazil, Ireland, Mexico, New Zealand, Nigeria, and the Philippines are particularly vocal.

NWS vehemently counter the benefits of the TPNW. They claim that the TPNW divides and polarizes the international community, ultimately impeding collaboration towards nuclear disarmament. The United States, the United Kingdom, and France challenge the TPNW, declaring it is “incompatible with the policy of nuclear deterrence, which has been essential

²⁰ Norm evolution theory describes the conditions and tendencies regarding the creation, diffusion, internalization, and effects of social norms of behavior. See Judith Kelley, *Assessing the Complex Evolution of Norms: The Rise of International Election Monitoring*, 62 INT’L ORG. 221, 221–255 (2008); Martha Finnemore & Kathryn Sikkink, *International Norm Dynamics and Political Change*, 52 INT’L ORG. 887, 887–917 (1998); MARGARET E. KECK & KATHRYN SIKKINK, *ACTIVISTS BEYOND BORDERS: ADVOCACY NETWORKS IN INTERNATIONAL POLITICS* (1998).

²¹ Garcia, *supra* note 4, at 55–75; see generally Charli R. Carpenter, *Vetting the Advocacy Agenda: Network Centrality and the Paradox of Weapons Norms*, 65 INT’L ORG. 69 (2011); RICHARD PRICE, *THE CHEMICAL WEAPONS TABOO* (1997).

²² For an in-depth analysis of the different states’ views, see ALICIA SANDERS-ZAKRE, *BREAKTHROUGH OR BREAKPOINT? EUROPEAN LEADERSHIP NETWORK, GLOBAL PERSPECTIVES ON THE NUCLEAR BAN TREATY* (Shatabisha Shetty & Denitsa Raynova eds., 2017).

²³ Beatrice Fihn, Executive Director, Int’l Campaign to Abolish Nuclear Weapons, Address to UN High-Level Ceremony on TPNW’s Entry into Force (Jan. 22, 2021) [hereinafter Fihn Speech]; *The International Red Cross and Red Crescent Movement Celebrates the Entry into Force of the Treaty on the Prohibition of Nuclear Weapons*, INT’L COMM. OF THE RED CROSS (Jan. 21, 2021), <https://www.icrc.org/en/document/international-red-cross-and-red-crescent-movement-entry-force-treaty-prohibition-nuclear-weapons>; *Former Leaders and Ministers of US Allies Urge States to Join the Nuclear Weapon Ban Treaty*, INT’L CAMPAIGN TO ABOLISH NUCLEAR WEAPONS (Sept. 21, 2020), https://www.icanw.org/56_former_leaders; *Joint Interfaith on the Entry into Force of the Treaty on the Prohibition of Nuclear Weapons*, SOKKA GAKKAI INT’L OFF. FOR UNITED NATIONS AFFS. (Jan. 22, 2021), <https://sgi-ouna.org/wp-content/uploads/2021/01/Interfaith-Statement-on-the-TPNW-EIF.pdf>; *NATO HQ Steps Up Misinformation Campaign Against TPNW*, INT’L CAMPAIGN TO ABOLISH NUCLEAR WEAPONS (Dec. 17, 2020), https://www.icanw.org/nato_hq_steps_up_misinformation_campaign_against_tpnw; Alicia Sanders-Zakre, *Nuclear Weapons Ban Treaty to Enter Into Force: What’s Next?*, ARMS CONTROL TODAY (Nov. 2020), <https://www.armscontrol.org/act/2020-11/features/nuclear-weapons-ban-treaty-enter-into-force-whats-next#:~:text=24%2C%2084%20nations%20had%20signed,force%20on%20January%2022%2C%202021>.

to keeping the peace in Europe and North Asia for over 70 years.”²⁴ Russia also stated that the “repercussions [of a ban] for the viability and the comprehensive nature of the NPT would be catastrophic”²⁵ and that the intentions of TPNW advocates would be “dangerous and delusionary.”²⁶ A joint statement by the five permanent members (P5) of the United Nations Security Council also called the TPNW inappropriate.²⁷ In addition, an informal group of forty-two States and the North Atlantic Treaty Organization (NATO) have argued against the TPNW.²⁸

The change in Administration in the United States in 2021 has not fundamentally altered the position of the United States. The Biden Administration does not openly counter the TPNW, yet it has also not officially revoked or nuanced the United States’ position towards the TPNW, thereby indicating that the United States continues to not support the TPNW. Other States, notably France, avoid implicit endorsement of the TPNW by stressing their opposition to the TPNW, thereby aiming to prevent the emergence of related customary international law.

C. *Legal Implications and Effects*

The TPNW’s legal implications have received a fair amount of attention in both public discourse and academic writing. Proponents of the TPNW repeatedly argued that the treaty “fills a legal gap,” making nuclear

²⁴ Press Release, Joint Press Statement from the Permanent Representatives to the United Nations of the United States, United Kingdom, and France Following the Adoption of a Treaty Banning Nuclear Weapons, U.S. Mission to the United Nations (July 7, 2017) [hereinafter Joint Statement]; Christopher Ford, Senior Director, U.S. Nat’l Sec. Council, Briefing on Nuclear Ban Treaty at the Carnegie Endowment for International Peace (Aug. 22, 2017).

²⁵ Egeland et al., *supra* note 18, at 80, 89; U.N. GAOR, 71st Sess., 22nd mtg at 3, 21, 60, U.N. Doc. A/C.1/71/PV.22 (Oct. 27, 2016).

²⁶ *Russia Not to Join Nuclear Weapon Ban Treaty, Says Lavrov*, TASS (Nov. 8, 2019), <https://tass.com/politics/1087735>.

²⁷ The P5 are China, France, Russia, the United Kingdom, and the United States of America. *P5 Joint Statement on the Treaty on the Non-Proliferation of Nuclear Weapons*, GOV.UK (Oct. 24, 2018), <https://www.gov.uk/government/news/p5-joint-statement-on-the-treaty-on-the-non-proliferation-of-nuclear-weapons> [hereinafter *P5 Joint Statement*].

²⁸ *The Status of the TPNW*, NUCLEAR WEAPONS BAN MONITOR, www.banmonitor.org/tpnw-status (last visited Apr. 15, 2021); *North Atlantic Council Statement on the Treaty on the Prohibition of Nuclear Weapons*, NORTH ATLANTIC TREATY ORG. (Sep. 20, 2017), https://www.nato.int/cps/en/natohq/news_146954.htm; see also Steven Hill, *NATO and the Treaty on the Prohibition of Nuclear Weapons*, CHATHAM HOUSE (Jan. 29, 2021), <https://www.chathamhouse.org/2021/01/nato-and-treaty-prohibition-nuclear-weapons>; Paul Meyer, *Between a Rock and a Hard Place: NATO’s Non-Nuclear Weapon States, the NPT and the TPNW*, TODA PEACE INST. (Nov. 26, 2020), <https://toda.org/global-outlook/between-a-rock-and-a-hard-place-natos-non-nuclear-weapon-states-the-npt-and-the-tpnw.html>; BLACK-BRANCH, *supra* note 13, at 115.

weapons illegal under international law.²⁹ Such illegality would strengthen the view that nuclear weapons are illegitimate and not acceptable. On the other hand, the P5 declared that the “TPNW will not be binding on our countries, and we do not accept any claim that it contributes to the development of customary international law.”³⁰ The United States, the United Kingdom, and France also insist that “there will be no change in the legal obligations on our countries with respect to nuclear weapons.”³¹ Several studies analyze the entire treaty or its provisions from a legal perspective.³² A particular focus is on how the treaty fits into the existing legal framework, notably its relationship with the NPT and customary international law.³³

Yet the role of international law in the political enterprise to foster and diffuse norms that stigmatize and delegitimize nuclear weapons remains

²⁹ Already at the Vienna Conference on Humanitarian Impacts of Nuclear Weapons in 2014, Austria pledged to work with other states to “fill the legal gap.” See *Humanitarian Pledge*, INT’L CAMPAIGN TO ABOLISH NUCLEAR WEAPONS, <https://web.archive.org/web/20190623105035/http://www.icanw.org/pledge> (last visited Apr. 15, 2021); *Here Are Five Examples of the Type of Activities that Will Be Illegal Under International Law on 22 January 2021*, INT’L CAMPAIGN ABOLISH NUCLEAR WEAPONS (Dec. 29, 2020), https://www.icanw.org/here_are_five_examples_of_the_type_of_activities_that_will_be_illegal_under_international_law_on_22_january_2021; Robert Mardini, *Op. Ed: Nuclear Weapons Are Finally Outlawed: Next Step is Disarmament*, INT’L COMM. RED CROSS (Jan. 22, 2021), <https://www.icrc.org/en/document/nuclear-weapons-are-finally-outlawed-next-step-disarmament>; Ramesh Thakur, *Always Immoral, Now Illegal: The Nuclear Ban Treaty Becomes Law*, AUSTRALIAN INST. INT’L AFFS. (Jan. 22, 2021), <https://www.internationalaffairs.org.au/australianoutlook/always-immoral-now-illegal-the-nuclear-ban-treaty-becomes-law/>; *Nuclear Weapons Are Illegal At Last*, GREENPEACE (Jan. 22, 2021), [https://www.greenpeace.org/international/story/46233/nuclear-weapons-illegal-treaty/#:~:text=In%202010%2C%20ICAN%20started%20working,\(122\)%20adopted%20the%20TPNW.&text=So%20today%2C%2022%20January%202021%2C%20nuclear%20weapons%20become%20illegal!](https://www.greenpeace.org/international/story/46233/nuclear-weapons-illegal-treaty/#:~:text=In%202010%2C%20ICAN%20started%20working,(122)%20adopted%20the%20TPNW.&text=So%20today%2C%2022%20January%202021%2C%20nuclear%20weapons%20become%20illegal!); Gro Nystuen & Kjølv Egeland, *A ‘Legal Gap’? Nuclear Weapons Under International Law*, ARMS CONTROL TODAY (Mar. 2016), https://www.armscontrol.org/ACT/2016_03/Features/A-Legal-Gap-Nuclear-Weapons-Under-International-Law.

³⁰ *P5 Joint Statement*, *supra* note 27.

³¹ Joint Statement, *supra* note 24.

³² Dieter Fleck, *The Treaty on the Prohibition of Nuclear Weapons: Challenges for International Law and Security*, in NUCLEAR NON-PROLIFERATION IN INTERNATIONAL LAW: VOLUME IV, HUMAN PERSPECTIVES ON THE DEVELOPMENT AND USE OF NUCLEAR ENERGY 395, 395–414 (Jonathan L. Black-Branch & Dieter Fleck eds., 2019); Nobuo Hayashi, *Is the Nuclear Weapons Ban Treaty Accessible to Umbrella States*, in NUCLEAR NON-PROLIFERATION IN INTERNATIONAL LAW 377, 378–394 (Jonathan L. Black-Branch & Dieter Fleck eds., 2019); Monika Subritzky, *An Analysis of the Treaty on the Prohibition of Nuclear Weapons in Light of its Form and Framework Agreement*, 9 GOETTINGEN J. INT’L L. 367, 367–384 (2019); Newell Highsmith & Mallory Stewart, *The Nuclear Ban Treaty: A Legal Analysis*, 60 SURVIVAL 129, 129–152 (2018); Daniel Rietiker, *New Hope for Nuclear Disarmament of “Much Ado About Nothing?”: Legal Assessment of the New “Treaty on the Prohibition of Nuclear Weapons” and the Joint Statement by the USA, UK, and France Following its Adoption*, 59 HARVARD INT’L L.J. 22, 22–32 (2017); see generally STUART CASEY-MASLEN, *THE TREATY ON THE PROHIBITION OF NUCLEAR WEAPONS: A COMMENTARY* (2019).

³³ For a discussion on this and the argument that the TPNW is compatible with the NPT regime, see Egeland et al., *supra* note 18, at 74–94. See also Edward M. Ifft & David A. Koplow, *Legal and Political Myths of the Treaty on the Prohibition of Nuclear Weapons*, 77 BULL. ATOMIC SCIENTISTS 134, 134–139 (2021).

largely unexplored. The predominant reasoning seems based on the assumption that the treaty would codify and diffuse norms that influence international affairs and State behavior even beyond its members.³⁴ Although such logic has been discussed,³⁵ it has not been systematically applied to the TPNW yet. Based on norm contestation as the framework of analysis, it has been argued that the existence of two legal frameworks regarding nuclear weapons, namely that of the NPT and the TPNW, would create a tension as to which framework takes precedence and is more legitimate. The discourse could shift from assessing the legitimacy of nuclear weapons to assessing the legitimacy of the TPNW itself.³⁶ Others identify that legal uncertainty could undermine existing norms.³⁷

The common analysis of the TPNW's political influence largely neglects the formality and legal effects of treaty law. Yet the treaty's impact on international politics cannot be dissociated from its formality and legal effects because States—the principal subjects of international law—continue to pay particular attention to treaties' formality. This is reflected by legal positivism, the predominant legal theory in international law, which focuses on what the law is and what it is not as opposed to what the law represents or should be.³⁸ In addition, international treaties' formalism is what distinguishes these agreements from politically binding instruments or so-called soft law.³⁹ As a formal source of international law, treaties remain the primary tool to establish and maintain institutionalized cooperation.⁴⁰

The question thus arises: how does the fact that the TPNW is a formal treaty under international law affect the politics of nuclear weapons? At the outset, the treaty establishes a legal divide between the States which have adhered to it and those which have not. Only States that have adhered to the TPNW are bound by the treaty's rules. This divide allows TPNW proponents to confront NWS. Hence, the formalism of treaty law suggests that an alternative mechanism besides norm diffusion is at play: The TPNW serves

³⁴ For such a theory, see generally ADAM BOWER, *NORMS WITHOUT THE GREAT POWERS: INTERNATIONAL LAW AND CHANGING SOCIETAL STANDARDS IN WORLD POLITICS* (2017).

³⁵ Harald Müller & Carmen Wunderlich, *Nuclear Disarmament Without the Nuclear-Weapon States: The Nuclear Weapon Ban Treaty*, 149 *DAEDALUS* 171, 171–189 (2020).

³⁶ Laura Considine, *Contests of Legitimacy and Value: The Treaty on the Prohibition of Nuclear Weapons and the Logic of Prohibition*, 95 *INT'L AFFS.* 1075, 1076 (2019).

³⁷ Egeland et al., *supra* note 18, at 81; Fleck, *supra* note 32; Hayashi, *supra* note 32; Highsmith *supra* note 32, at 129–152.

³⁸ See Jorg Kammerhofer, *International Legal Positivism*, in *OXFORD HANDBOOK OF INTERNATIONAL LAW* 408–26 (Ann Orford & Florian Hoffmann eds., 2015).

³⁹ Kenneth W. Abbott & Duncan Snidal, *Hard and Soft Law in International Governance*, 54 *INT'L ORG.* 421, 421–456 (2003).

⁴⁰ HUGH THIRLWAY, *THE SOURCES OF INTERNATIONAL LAW* 37–59 (2d ed., 2019).

States parties to signal to NWS and other States that remain outside the regime. The following section develops how treaty law enables participating States to signal to States that have not adhered to a given treaty.

II. TREATY AS DEVICE TO SIGNAL TO OUTSIDERS

In a world of uncertainty, States signal to other States to share information. Signaling theory was developed in economics to describe situations whereby two parties possess different information, and each must figure out how to communicate said information to the other, as well as how to interpret the received information.⁴¹ In other words, signaling is when an actor has information which could be relevant to another actor's decision-making and the actor chooses to signal this information,⁴² serving as an act of communication that reduces uncertainty regarding how other States might behave.⁴³ Signals provide information about their senders, such as values and their stance on a topic. Signals also help the receiver understand who the sender is and how they intend on behaving.⁴⁴ This helps the receiver make informed decisions about their own behavior.⁴⁵

Signals need a means for communication,⁴⁶ and to be credible the means must be costly.⁴⁷ Indeed, if sending a signal is cost-free, then anyone could send the signal, even without the intention to engage in the associated behavior, which makes the signal lose its meaning.⁴⁸ The most prominent types of costly signals are those based on "hand-tying" and "sunk costs."⁴⁹ Hand-tying reflects *ex post* costs that arise when a government commits to an action yet does not follow through, generally via the negative reaction of domestic political stakeholders and the electorate, also termed audience

⁴¹ Brian L. Connelly, Trevis Certo, R. Duane Ireland & Christopher R. Reutzel, *Signaling Theory: A Review Assessment*, 37 J. MGMT. 39, 39–67 (2011); see also DAVID M. KREPS, A COURSE IN MICROECONOMIC THEORY 629–50 (1990); A. MICHAEL SPENCE, MARKET SIGNALING: INFORMATION TRANSFER IN HIRING AND RELATED SCREENING PROCESSES (1974).

⁴² James D. Morrow, *The Strategic Setting of Choices: Signaling, Commitment, and Negotiation in International Politics*, in STRATEGIC CHOICE AND INTERNATIONAL RELATIONS 77, 86 (David A. Lake & Robert Powell eds., 1999).

⁴³ Brian C Rathbun, *Uncertain About Uncertainty: Understanding the Multiple Meanings of a Crucial Concept in International Relations Theory*, 51 INT'L STUD. Q. 533, 535 (2007).

⁴⁴ ERIC A. POSNER, LAW AND SOCIAL NORMS 19–22 (2000).

⁴⁵ Rathbun, *supra* note 43, at 543, 547.

⁴⁶ THOMAS C. SCHELLING, THE STRATEGY OF CONFLICT 51 (1980).

⁴⁷ James Fearon, *Signaling Foreign Policy Interests: Tying Hands Versus Sinking Costs*, 41 J. CONFLICT RES. 68, 68–90 (1997); James Fearon, *Threats to Use of Force: Costly Signals and Bargaining in International Crises* (1992) (Ph.D. dissertation, University of California).

⁴⁸ David H. Moore, *A Signaling Theory of Human Rights Compliance*, 97 NW. U. L. REV. 858, 885 (2002).

⁴⁹ Fearon, *supra* note 47.

costs.⁵⁰ Sunk costs refer to costs that arise prior to communicating the commitment, such as mobilizing troops, which generates costs from the moment they get mobilized. As signals provide information about future State behavior, they can facilitate cooperation.⁵¹

International treaties enable States to signal their intentions. The act of ratifying a treaty sends a signal to the international community that the State accepts the standard set by the treaty.⁵² In this context, States with “low-discount rates” are States which signal the intention of a certain behavior and follow through, whereas States with “high-discount rates” are States that signal but will not engage in the respective behavior.⁵³ Costly signals show, convey, and convince that the State has low-discount rates. States with low-discount rates are thus more likely to cooperate. Treaty ratification can be a form of costly signaling as the ratification process involves *ex ante* costs for treaty ratification,⁵⁴ notably when policies need to be adapted to comply with the treaty, or when ratification generates *ex post* costs by being tied by the treaty,⁵⁵ as the treaty obligates certain behavior.

States signal via treaties in the context of nuclear weapons. The NPT and NWFZ treaties screen state behavior and offer information about their States parties’ intentions.⁵⁶ Scholars have argued that adherence to the NPT would be a costly signal and would signal peaceful intentions, despite the risk of States cheating.⁵⁷ Formal defense pacts with NWS also allow nuclear

⁵⁰ Jack Snyder & Erica D. Borghard, *The Cost of Empty Threats: A Penny, Not a Pound*, 105 AM. POL. SCI. REV. 437, 437–456 (2011); Michael Tomz, *Domestic Audience Costs in International Relations: An Experimental Approach*, 61 INT’L ORG. 821, 821–840 (2007).

⁵¹ Moore finds that signals play a larger role in the diplomatic and economic fields than the military domain. Moore, *supra* note 48, at 898; Richard H. McAdams, *Signaling Discount Rates: Law, Norms, and Economic Methodology*, 110 YALE L.J. 624–25, 664–66, 674–75 (2001).

⁵² JAMES D. MORROW, ORDER WITHIN ANARCHY: THE LAW OF WAR AS AN INTERNATIONAL INSTITUTION 55 (2014).

⁵³ POSNER, *supra* note 44, at 18.

⁵⁴ Lisa L. Martin, *The President and International Commitments: Treaties as Signaling Devices*, 35 PRES. STUD. Q. 440, 449 (2005); Jana von Stein, *Do Treaties Constrain or Screen? Selection Bias and Treaty Compliance*, 99 AM. POL. SCI. REV. 611, 611–622 (2005).

⁵⁵ Beth A. Simmons, *International Law and State Behavior: Commitment and Compliance in International Monetary Affairs*, 94 AM. POL. SCI. REV. 819, 819 (2000).

⁵⁶ Matthew Fuhrmann & Yonathan Lupu, *Do Arms Control Treaties Work? Assessing the Effectiveness of the Nuclear Nonproliferation Treaty*, 60 INT’L STUD. Q. 530, 553 (2016); MATTHEW FUHRMANN & XIAOJUN LI, RETHINKING RATIFICATION: LEGALIZATION OF NUCLEAR WEAPON FREE ZONE TREATIES 12–14 (2009); Christopher Way & Karthika Sasikumar, *Leaders and Laggards: When and Why Do Countries Sign the NPT?* 32 (Research Grp. Int’l Sec. & Glob. and Nat’l Sec. State, Working Paper No. 16, 2004).

⁵⁷ Manseok Lee & Michael Nacht, *Challenges to the Nuclear Non-Proliferation Treaty*, 14 STRATEGIC STUD. Q. 95, 106 (2020); *see also* Etel Solingen, *The Political Economy of Nuclear Restraint*, 19 INT’L SEC. 126, 140 (1994).

alliances to serve as signals that enable extended nuclear deterrence.⁵⁸ Although no explanation has been offered on how the law enables such signaling, this finding is particularly relevant as alliance commitments are agreements that intend to signal to States other than to those party to the agreements.

The theoretical foundation of signaling, in conjunction with treaty law's formal functioning, leads to how multilateral treaties can serve as a means to signal political messages to outsiders, namely States that have not joined the treaty. Treaty law's nature and characteristics enable but also limit signaling. A treaty's procedural formalities offer visibility to the signal and screen between the senders of the signal and the receivers. A treaty's substance defines the specific content of the signal. A treaty's contractual nature gives credibility to the signal. The following develops these theoretical underpinnings in more detail.

A. Visibility and Screening

A political message that goes unnoticed cannot reach and impact its intended audience. Unless conducted secretly, multilateral treaties' creation processes generally procure high levels of visibility among States. Invitations to or information about multilateral negotiations, notably at the United Nations, communicate to States that a new treaty is being envisioned, eventually forcing States to take position on the issue. The formal adoption of a treaty generates strong publicity, in particular when involving press statements and official celebrations. Heads of States, ministers, parliamentarians, and populations take notice that a new signal is emerging.

Treaty formalities further screen and inform regarding which States adhere to the message and which do not. A treaty depositary's repository, in the case of the United Nations, its treaty collection database, provides permanent and updated information on which States have signed and ratified the treaty, including potential reservations (where they are permissible). State adherence can be quantitatively and qualitatively identified through a treaty's depositary repository. As such, the procedural formalities screen States that are "in" and those that are "out." While negotiations allow States a certain ambivalence towards a treaty, a treaty's requirement of ratification leaves no doubt as to whether the State adheres to the signal or not, no matter how sympathetic a state, government, officials, or population may be towards the

⁵⁸ Matthew Fuhrmann & Todd S. Sechser, *Signaling Alliance Commitments: Hand-Tying and Sunk Costs in Extended Nuclear Deterrence*, 58 AM. J. POL. SCI. 919, 920 (2014).

cause. This also avoids gradual buy-in by States, although a State's signature may already be perceived as some sort of commitment. This formal and rigid screening ultimately enables the States parties to signal information to the outsiders through treaties.

This division brought by treaty law has a particular legal implication. As much as a State that adheres to a treaty becomes bound by it, a State that does not join a treaty remains bound by other international law applicable to the issue. Treaty law does not foresee a mechanism by which it influences the law applicable to non-states parties, also known as the relative effects of treaties.⁵⁹ As such, States that do not adhere to a treaty not only do not share its signal but also prefer other legal rules. Non-adherence can thus be interpreted as communicating other perceptions, values, and intentions, particularly if the decision not to join the treaty is deliberate. In addition, States may solidify the implied legal division by actively communicating their unaltered legal position through declarations, statements by alliances, or opposing agreements.

B. *Substance*

Treaty law defines and enables clarification of a given signal's substance, which offers several advantages. Since a treaty is legally binding, States tend to be more carefully regarding treaty substance than regarding the substance of politically binding instruments.⁶⁰ Established "treaty language" further allows for precision and clarity, as well as deliberate indeterminacy. Treaty rules also tend to be relatively fixed, which ensures a certain constancy

⁵⁹ Vienna Convention on the Law of Treaties art. 34, May 23, 1969, 1155 U.N.T.S. 331 [hereinafter VCLT] ("A treaty does not create either obligations or rights for a third State without its consent."). For commentary on art. 34, see Emmanuel Klimis, *Article 34: General rule regarding third organizations*, in THE VIENNA CONVENTIONS ON THE LAW OF TREATIES: A COMMENTARY 897 (Olivier Corten & Pierre Klein eds., 2011), which cites concurring jurisprudence including *Continental Shelf (Libya v. Malta)*, Judgment, 1985 I.C.J. Rep. 13, ¶ 26 (June 3) and *Frontier Dispute (Burk. Faso v. Mali)*, Judgment, 1986 I.C.J. Rep. 554, ¶¶ 44–50 (Dec. 22). For discussion on consent to be bound see Oliver Dörr, *Article 11: Means of Expressing Consent to be Bound by a Treaty*, in VIENNA CONVENTION ON THE LAW OF TREATIES 153–162 (Oliver Dörr & Kirsten Schmalenbach eds., 2012). In *Vienna Convention on the Law of Treaties*, Koskeniemi has suggested that treaty rules can be interpreted in light of their legal environment. See *infra* note 170; Int'l Law Comm'n, Rep. on the Work of Its Sixty-First Session, Supp. No. 10, ¶ 251, U.N. Doc. A/61/10 (2006). This is not a majority view, however. For such an argument in the context of nuclear weapons see DANIEL RIETIKER, HUMANIZATION OF ARMS CONTROL: PAVING THE WAY FOR A WORLD FREE OF NUCLEAR WEAPONS 141–253, 166 (2017).

⁶⁰ Abbott & Snidal, *supra* note 39, at 421; Daniel Bodansky, *Legally Binding Versus Non-Legally Binding Instruments*, in TOWARDS A WORKABLE AND EFFECTIVE CLIMATE REGIME 155, 160–61 (Scott Barrett et al. eds., 2015).

and permanency of the signal.⁶¹ Furthermore, treaty interpretation rules provide internationally shared methods for finding and understanding its meaning.⁶² As both treaty insiders and outsiders use the same treaty interpretation rules, this facilitates coherent and mutual understanding by the signal's senders and receivers.

Although a treaty can contain any substance except rules in contradiction with *ius cogens*,⁶³ treaty law does not enable signaling all content equally well. A treaty's substance can be aspirational, reflect a moral cause, or simply define what States intend to do. As a contractual arrangement between States, however, the essence of a treaty is the rights and obligations it procures. This means that the most important aspect of a treaty refers to what States agree to do or refrain from doing, which is manifested in its operational provisions. A treaty's preamble, on the contrary, serves to communicate how the States parties view the world or how the world should be. According to treaty interpretation rules, the preamble serves to inform the meaning of the terms of the treaty as well as to clarify the treaty's object and purpose.⁶⁴

Yet, a preamble does not have any independent legal value, suggesting that the central message most authoritatively and effectively communicated is the one that is backed by the operational provisions, namely those that define the rights and obligations. Accordingly, signaling by treaty has an inherent focus on what States do, and less so on what they believe or want from others. This is not only due to a treaty's structure and content, but also because of its contractual nature.

C. *Credibility*

A treaty provides credibility for its signal through its contractual nature. As contractual agreements, multilateral treaties create a high number of legal

⁶¹ Evolutionary treaty interpretation might be justified in certain cases, however. See EIRIK BJORGE, *THE EVOLUTIONARY INTERPRETATION OF TREATIES* 56–141 (2014).

⁶² RICHARD GARDINER, *TREATY INTERPRETATION* 496 (2015); see VCLT, *supra* note 59.

⁶³ *Ius cogens* is “a peremptory norm of general international law [...] accepted and recognized by the international community of States as a whole as a norm from which no derogation is permitted and which can be modified only by a subsequent norm of general international law having the same character.” VCLT, *supra* note 59, art. 53. For a discussion on peremptory norms of international law see Jochen A. Frowein, *Ius Cogens*, in MAX PLANCK ENCYCLOPEDIA OF PUBLIC INTERNATIONAL LAW (2013).

⁶⁴ The preamble is part of the context. VCLT, *supra* note 59, art. 31(2). Further, the “preamble is generally very useful for the determination of the ‘object’ and ‘purpose’ of the instrument to be construed.” *Golder v. The United Kingdom*, 18 Eur. Ct. H.R. (ser. A) at 1, 12, ¶ 34 (1975). See also JEAN-MARC SOREL, *Article 31 VCLT*, in *THE VIENNA CONVENTIONS ON THE LAW OF TREATIES: A COMMENTARY* 838 (Olivier Corten & Pierre Klein eds., 2011)

commitments between States parties. In Roman law, the legal essence of an agreement was described as *do ut des*, namely “I give so that you may give,” which implies an inherent sense of reciprocity that one party’s performance satisfies the condition for the other party’s performance.⁶⁵ Such legal commitments bind States to comply with the treaty’s legal obligations, ultimately reducing States’ freedom to maneuver as they forego potential policy options.⁶⁶

The constraining of States’ freedom is based on the premise that States honor their commitments. As a general principle of international law, *pacta sunt servanda* implies that States must respect their legal engagements.⁶⁷ Concretely, treaty law’s mechanism for creating and maintaining international cooperation among States parties ties their “hands.” Treaty law imposes constraints on actors which maximize individual and collective gains,⁶⁸ ultimately serving as a tool to express expectations of behavior.⁶⁹ As such, international agreements enable States to minimize or eradicate cooperation problems including cheating, asymmetry, and uncertainty about the behavior and expectations of others.⁷⁰ While treaties can be perceived as social contracts among States,⁷¹ independently thereof, they promote structured interactions between States leading to cooperative behavior.⁷² Moreover, reputational concerns,⁷³ reciprocity,⁷⁴ enforcement by other states,⁷⁵ and norm

⁶⁵ *Do ut des*, GUIDE TO LATIN IN INTERNATIONAL LAW (Aaron Xavier Fellmeth & Maurice Horwitz, eds., 2d ed. 2011).

⁶⁶ ROBERT KEOHANE, AFTER HEGEMONY: COOPERATION AND DISCORD IN THE WORLD POLITICAL ECONOMY 97 (1984); see also Simmons, *supra* note 55, at 819.

⁶⁷ For discussion on *pacta sunt servanda*, see Jean Salmon, *Article 26 1969 VCLT*, in THE VIENNA CONVENTIONS ON THE LAW OF TREATIES: A COMMENTARY 897 (Olivier Corten & Pierre Klein eds., 2011).

⁶⁸ See, e.g., Scott Barrett, *A Theory of Full International Cooperation*, in 11 J. THEORETICAL POL. 519, 521 (1999). In a similar fashion, Ikenberry argues that order in the international community is attributable to and maintained by rules and arrangements. Following this idea, what states gain via rules is order, hence the previsibility of behavior by other States. G. JOHN IKENBERRY, LIBERAL LEVIATHAN: THE ORIGINS, CRISIS AND TRANSFORMATION OF THE AMERICAN WORLD ORDER 12–13 (2011)

⁶⁹ LESLIE JOHNS, STRENGTHENING INTERNATIONAL COURTS: THE HIDDEN COSTS OF LEGALIZATION 13 (2015).

⁷⁰ See BARBARA KOREMENOS, THE CONTINENT OF INTERNATIONAL LAW: EXPLAINING AGREEMENT DESIGN 31–40 (2016).

⁷¹ Roger D. Congleton, *The Institution of International Treaty Organizations as Evidence for Social Contract Theory*, 63 EUR. J. POL. ECON. 1, 2 (2020).

⁷² See generally John J. Setear, *Law in the Service of Politics: Moving Neo-Liberal Institutionalism from Metaphor to Theory by Using the International Treaty Process to Define ‘Iteration,’* 37 VA. J. INT’L L. 641 (1997).

⁷³ Reputation is a concept developed in chapter three of the following, as part of Guzman’s theory on international law. ANDREW GUZMAN, HOW INTERNATIONAL LAW WORKS: A RATIONAL CHOICE THEORY 71–117 (2010).

⁷⁴ MORROW, *supra* note 52, at 124, 179–350.

⁷⁵ For background on enforcement theory, see generally MARY ELLEN O’CONNELL, THE POWER AND PURPOSE OF INTERNATIONAL LAW: INSIGHTS FROM THE THEORY AND PRACTICE OF ENFORCEMENT (2008).

internalization⁷⁶ make States respect their legal obligations and ultimately reduce the likelihood of defection.

The associated constraints are costly. Costs tend to arise prior to adherence when a State must change its policies or laws to comply with the treaty obligations.⁷⁷ Costs may also result from the domestic ratification procedure, which may involve bureaucratic efforts.⁷⁸ Once ratified, treaty ratification cannot be easily reversed. For States parties already in compliance with a treaty's obligations prior to adherence, these costs are minimal. But costs arise nonetheless if a State were to change its behavior in the future because the commitment limits future policy options. Overall, if any such costs are too high for certain states, thereby dissuading them from adhering, this strengthens a treaty's ability to credibly signal as it excludes states that are not willing to commit to its content.

D. Treaty Law's Opportunities and Limits

Treaty law's functioning as a formal, contractual arrangement for establishing and maintaining international cooperation allows signaling to states that have not adhered to the given treaty. A treaty's precise and effective signaling is enabled by its visibility, its screening regarding which states are "in" and which "out", its substance and methods for interpretation, as well as its credibility arising from its contractual nature. As such, intra-regime collaboration serves extra-regime communication.

Yet, formal functioning, rigidity, and reliance of treaty law on State consent also leads to limits. As treaties establish a legal divide between its States parties and outsiders, this has an exclusionary result. It is not possible to transpose legal effects from the treaty regime to the other applicable law. The legal division implies that those States that have not adhered to the treaty are clearly bound by other international rules. These states are thereby not only shielded from legal effects, but their non-adherence also indicates that they do not share the treaty's message. Moreover, by their formality and rigidity, treaties undermine easier ways to signal similar concerns, as their credibility lessens that of alternative, less formal means for signaling, such as unilateral policies or politically binding agreements. The potentially high

⁷⁶ On international norm internalization, see generally THOMAS RISSE, STEPHEN C. ROPP & KATHRYN SIKKINK, *THE POWER OF HUMAN RIGHTS: INTERNATIONAL NORMS AND DOMESTIC CHANGE* (1999); Harlan Grant Cohen, *Finding International Law: Rethinking the Doctrine of Sources*, 93 IOWA L. REV. 65 (2007). For a discussion on how states interests are integrated into international law, see IAN HURD, *HOW TO DO THINGS WITH INTERNATIONAL LAW* 97–100 (2017).

⁷⁷ von Stein, *supra* note 54.

⁷⁸ Martin, *supra* note 54, at 449.

costs for treaty adherence also impede States' easy transition from one camp to another, ultimately hampering change.

As a result, signaling by treaty may influence outsiders by communicating intentions, values, and expectations from States parties so that the outsiders can make informed policy decisions, thereby reducing uncertainty. Yet political messages signaled by treaty cannot directly influence or alter their audience' political or legal positions. The targeted States keep full autonomy over their actions. As a consequence, even when States cooperate by treaty to confront outsiders with signals, treaty law's functioning tempers this confrontation. Rather, as a treaty's signaling provides information on its States parties' intentions, this can provide a basis for cooperation between the treaty's membership and outsiders. Intra-regime cooperation for signaling thus means signaling for potential extra-regime cooperation. As such, even if States use treaties for exclusionary and confrontational purposes, treaty law remains biased towards cooperation as per its fundamental design, functioning, and finality.

III. THE TPNW'S SIGNALING

The following demonstrates how and what the TPNW signals to outsiders. It does so by retracing the treaty's negotiations history and assessing its current status, by analyzing the treaty's substance, and by contrasting the treaty's signaling with the international law to which the outsiders remain bound. The section then identifies and discusses the findings' implications on the TPNW and related politics.

A. *Creating a Legal Division*

The intellectual history of the TPNW process dates back to the invention of nuclear weapons since their ban had been attempted shortly thereafter. The United Nations General Assembly's very first resolution of January 24, 1946 addressed nuclear weapons and established a commission to make specific proposals, *inter alia*, "for the elimination from national armaments of atomic weapons and all other major weapons adaptable to mass destruction."⁷⁹ In 1948, the Assembly adopted a resolution with "prohibition of the atomic weapon" in its title.⁸⁰ One year later, Robert Oppenheimer urged

⁷⁹ G.A. Res. 1(I), ¶ 5(c), Establishment of a Commission to Deal with the Problems Raised by the Discovery of Atomic Energy (Jan. 24, 1946).

⁸⁰ G.A. Res. 192(III), Prohibition of the atomic weapon and reduction by one-third of the armaments and armed forces of the permanent members of the Security Council (Nov. 19, 1948).

the United States Atomic Energy Commission not to produce the thermonuclear bomb (hydrogen bomb, H-bomb), which he qualified as a “‘weapon of genocide’ and ‘beyond any military objectives.’”⁸¹ Nevertheless, nuclear weapons became the cornerstone of deterrence strategies during the Cold War. Besides multilateral agreements against nuclear testing and establishing certain exclusionary zones,⁸² only bilateral arms control agreements were established regarding nuclear weapons.

A disarmament clause (Article VI) was included in the NPT in 1967, yet little progress was made thereafter. Proponents of a nuclear-weapon-free world became disillusioned and started to ponder new solutions on how to achieve this goal. In 1997, Costa Rica submitted a “Model Nuclear Weapons Convention” to the United Nations as a discussion document, which had originally been drafted by a group of disarmament experts, lawyers, scientists, and others.⁸³ In the same vein, a plan entitled “13 Practical Steps related to Non-Proliferation and Disarmament” was submitted at the end of the NPT Review Conference in 2000. The plan recommended States take concrete disarmament steps. Yet, it failed to achieve any results; one year after the conference, the United States withdrew its support.⁸⁴

As a consequence, in 2006, the International Physicians for the Prevention of Nuclear War (IPPNW), a non-governmental organization raising awareness about the dangers of nuclear war, founded the International Campaign to Abolish Nuclear Weapons Campaign (ICAN).⁸⁵ ICAN became an umbrella organization encompassing various groups advocating for nuclear disarmament. It launched its first denuclearization campaign at the 2007 NPT Review Conference where it presented an updated version of the “Model Nuclear Weapons Convention.”⁸⁶ Despite renewed enthusiasm for nuclear

⁸¹ Tom Sauer & Joellen Pretorius, *Nuclear Weapons and the Humanitarian Approach*, 26 GLOB. CHANGE, PEACE & SEC. 233, 238 (2014).

⁸² For an outline of relevant instruments, see *infra* pp. 20–39.

⁸³ *Proposed Nuclear Weapons Conventions (NWC)*, THE NUCLEAR THREAT INITIATIVE (Jan. 29, 2021), <https://www.nti.org/learn/treaties-and-regimes/proposed-nuclear-weapons-convention-nwc/>; Deputy Permanent Rep. of the Permanent Mission of Costa Rica to the U.N., Letter dated Oct. 31, 1997, from the Chargé d’affaires a.i. of the Permanent Mission of Costa Rica to the United Nations addressed to the Secretary General, U.N. Doc. A/C.1/52/7 (Nov. 17, 1997).

⁸⁴ CENTRE FOR NONPROLIFERATION STUDIES, 2000 REVIEW CONFERENCE OF THE PARTIES TO THE TREATY ON THE NON-PROLIFERATION OF NUCLEAR WEAPONS 375–76 (2000), www.nti.org/media/pdfs/npt_2kfd.pdf?=1316544426; Gibbons, *supra* note 7, at 13.

⁸⁵ *The Campaign*, INT’L CAMPAIGN TO ABOLISH NUCLEAR WEAPONS, https://www.icanw.org/the_campaign (last visited Apr. 15, 2021).

⁸⁶ It was also presented to the U.N. General Assembly in 2007. See Permanent Reps. of Costa Rica and Malaysia to the U.N., Updated Model Nuclear Weapons Convention, in letter dated Dec. 17, 2007, from the Permanent Reps. of Costa Rica and Malaysia to the United Nations addressed to the Secretary-General, U.N. Doc. A/62/650 (Jan. 18, 2008).

disarmament with the beginning of Barack Obama's presidency in the United States, the initiative was left without much response.

At the NPT Review Conference in 2010, the ICRC President, Jakob Kellenberger, gave a prominent speech that addressed the aftermath of Hiroshima, significantly contributing to framing the issue of nuclear weapons as one of humanitarian concern.⁸⁷ For the first time since the drafting of the NPT, language reflecting a humanitarian lens was included in the final document of the NPT Review Conference. Furthermore, the ICRC publicly called for the start of a negotiation process to ban nuclear weapons, encouraging international organizations and NGOs to publish reports outlining the humanitarian consequences of nuclear weapons. This gave new momentum and magnified the humanitarian discourse's reach.⁸⁸ Thereafter, ICAN started advocating for a complete ban on nuclear weapons, convinced that this was the only way to eliminate the risk of destructive humanitarian consequences caused by nuclear explosions.⁸⁹ The campaign gained traction among civil society organizations and States alike.

This led to the first "Conference on the Humanitarian Impact of Nuclear Weapons" in March 2013. Hosted by the Norwegian Ministry of Foreign Affairs,⁹⁰ all States were invited to participate: 127 did so.⁹¹ The conference included a series of presentations on the effects of nuclear weapon explosions on various aspects of life and managed to adopt an overarching humanitarian lens to discuss the issue. While the Oslo Conference was deemed a success, the NWS made the conscious, concerted decision not to attend.

⁸⁷ Jakob Kellenberger, *Bringing the Era of Nuclear Weapons to an End: Statement by Jakob Kellenberger, President of the ICRC, to the Geneva Diplomatic Corps, Geneva*, INT'L COMM. RED CROSS (Apr. 24, 2010), <https://www.icrc.org/en/doc/resources/documents/statement/nuclear-weapons-statement-200410.htm>; ALEXANDER KMENTT, THE TREATY PROHIBITING OF NUCLEAR WEAPONS: HOW IT WAS ACHIEVED AND WHY IT MATTERS 19 (2021); Alexander Kmentt, *The Development of the International Initiative on the Humanitarian Impact of Nuclear Weapons and its Effect on the Nuclear Weapons Debate*, 97 INT'L REV. RED CROSS 681, 683 (2015) [hereinafter Kmentt, *Development of International Initiative*].

⁸⁸ Bonnie Docherty, *A 'Light for All Humanity': The Treaty on the Prohibition of Nuclear Weapons and the Progress of Humanitarian Disarmament*, 30 GLOB. CHANGE, PEACE & SEC. 163, 172 (2018); see also RAY ACHESON ET. AL., UNSPEAKABLE SUFFERING: THE HUMANITARIAN IMPACT OF NUCLEAR WEAPONS (2013).

⁸⁹ EUROPEAN PARLIAMENTARY RESEARCH SERVICE, TREATY ON THE PROHIBITION OF NUCLEAR WEAPONS—THE 'BAN TREATY' 4 (Jan. 20, 2021), [https://www.europarl.europa.eu/RegData/etudes/BRIE/2018/614664/EPRS_BRI\(2018\)614664_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2018/614664/EPRS_BRI(2018)614664_EN.pdf).

⁹⁰ It should be noted that while Norway held the conference and funded research into the humanitarian impacts of nuclear weapons, it never made a statement at the Conference in relation to a potential treaty or political process, probably due to its NATO membership.

⁹¹ REACHING CRITICAL WILL, CONFERENCE REPORT: HUMANITARIAN IMPACT OF NUCLEAR WEAPONS (2013).

The second conference, held in Mexico in February 2014, cumulated an attendance of 146 States,⁹² a quantitative improvement of participation which testified to the growing visibility of the issue. Juan Manuel Gómez Robledo, the Vice Minister for Multilateral Affairs and Human Rights of Mexico, officially called for the start of a diplomatic negotiation process to create a legally binding instrument that would ban nuclear weapons.⁹³ While this statement received applause from some participants, many States, notably those that benefit from NWS' nuclear postures (so-called nuclear umbrella States), did not support such a drastic proposition. Germany and Australia, for example, communicated skepticism and reiterated their support for the NPT regime.

The third and last conference was held by Austria in December 2014, with an increased 158 States participating.⁹⁴ While this included the United States, United Kingdom, India, and Pakistan, other NWS continued to boycott the conference.⁹⁵ By the end of the conference, 127 countries signed the "Humanitarian Pledge," which called for filling the legal gap regarding the prohibition of nuclear weapons and working to "stigmatize, prohibit and eliminate" nuclear weapons.⁹⁶ While the United States had reiterated ideas of progressive disarmament, this did not convince a large swath of the audience.⁹⁷

This momentum reverberated into other fora. South Africa's statement on the humanitarian impact of the use of nuclear weapons gained 159 signatures by 2015.⁹⁸ The United Nations General Assembly further

⁹² RAY ACHESON, BEATRICE FIHN, & KATHERINE HARRISON, REPORT FROM THE NAYARIT CONFERENCE: MOMENTUM FOR A BAN 4 (2014).

⁹³ Chair's Summary to the Second Conference on the Humanitarian Impact of Nuclear Weapons, Ambassador Juan Manuel Gómez Robledo, Vice Minister of Multilateral Affairs & Hum. Rts., Ministry of Foreign Affs. (Feb. 14, 2014) (on file with Reaching Critical Will).

⁹⁴ REACHING CRITICAL WILL, FILLING THE GAP: REPORT ON THE THIRD CONFERENCE ON THE HUMANITARIAN IMPACT OF NUCLEAR WEAPONS 6 (2014);

⁹⁵ China sent a diplomat but only in an observer capacity. For the conference's list of participants, see *id.* at 6; Kukil Bora, *China Sends Official posing As 'Academic' to Attend Vienna Nuclear Conference: Report*, INT'L BUS. TIMES (Sept. 12, 2014) <https://www.ibtimes.com/china-sends-official-posing-academic-attend-vienna-nuclear-conference-report-1744914>.

⁹⁶ The Humanitarian Pledge was first proposed by Austria and known as the "Austrian Pledge." It was renamed at the 2015 NPT Review Conference due to the large number of adhesions. See Michael Linhart, Deputy Foreign Minister of Austria, Pledge Presented at the Vienna Conference on the Humanitarian Impact of Nuclear Weapons (Dec. 9, 2014). For discussion of the legal gap, see Nystuen & Egeland, *supra* note 29.

⁹⁷ Gibbons, *supra* note 7, at 11–36; Kmentt, *Development of International Initiative*, *supra* note 87, at 681.

⁹⁸ Ambassador Abdul Samad Minty, Permanent Representative of S. Afr. to the U.N. in Geneva, Joint Statement on the Humanitarian Impact of Nuclear Weapons (Apr. 24, 2013), in REPUBLIC OF S. AFR. DEP'T: INT'L REL. & COOP. The pledge was endorsed by 159 states. See Sebastian Kurz, Fed. Minister for Eur., Integration and Foreign Affs. of Austria, Statement to Conference on Disarmament (Mar. 3, 2015); Kmentt, *Development of International Initiative*, *supra* note 87, at 687.

established an open-ended working group which produced a report stating that a majority of States were in favor of starting negotiations for a treaty banning nuclear weapons.⁹⁹ Despite strong opposition by the United States and France, in December 2016 the General Assembly adopted Resolution 71/258, “Taking Forward Multilateral Nuclear Disarmament Negotiations,” to formally elaborate the TPNW as a binding treaty.¹⁰⁰

Negotiations started in March of 2017 with 130 participating States. While NWS and their allies boycotted the negotiations conference, ICAN actively contributed through lobbying activities. The final version of the TPNW was adopted by the United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons on July 7, 2017 by a majority of 122 states, with one abstention and one vote against.¹⁰¹ Its adoption was met with significant worldwide reporting and celebrations.¹⁰² The same year, ICAN was awarded the Nobel Peace Prize for its “ground-breaking efforts to achieve a treaty-based prohibition of such weapons,” which offered worldwide coverage.¹⁰³ The TPNW entered into force on January 22, 2021, ninety days after Honduras became the fiftieth state to ratify it.¹⁰⁴ Proponents of the TPNW used this event to further raise awareness and disseminate the treaty’s messages, including by organizing a high-level event at the United Nations,¹⁰⁵ which was widely covered in daily news around the world.¹⁰⁶

⁹⁹ U.N. Secretary General, *Report of the Open-Ended Working Group Taking Forward Multilateral Nuclear Disarmament Negotiations*, ¶ 34 U.N. Doc. A/71/371 (Sept. 1, 2016).

¹⁰⁰ G.A. Res. 71/258, *Taking Forward Multilateral Nuclear Disarmament Negotiations* (Dec. 23, 2016).

¹⁰¹ U.N. Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, *Leading Towards Their Total Elimination, Treaty on the Prohibition of Nuclear Weapons*, ¶ 13, U.N. Doc. A/72/206 (July 24, 2017); *see* TPNW, *supra* note 1. NWS and umbrella states (with the exception of the Netherlands) did not partake in the vote. For a detailed record of the vote see U.N. GAOR, 71st Sess., 68th plen. mtg. at 17–18 U.N. Doc. A/71/PV.68 (Dec. 23, 2016).

¹⁰² *See, e.g., Treaty Banning Nuclear Weapons Opens for Signature at UN*, U.N. NEWS (Sept. 20, 2017), <https://news.un.org/en/story/2017/09/565582-treaty-banning-nuclear-weapons-opens-signature-un>; Nina Tannenwald, *The U.N. Just Passed a Treaty Outlawing Nuclear Weapons. That Actually Matters.*, WASH. POST (July 17, 2017), <https://www.washingtonpost.com/news/monkey-cage/wp/2017/07/17/the-u-n-just-passed-a-treaty-outlawing-nuclear-weapons-that-actually-matters/>; Rick Gladstone, *A Treaty Is Reached To Ban Nuclear Arms. Now Comes The Hard Part.*, THE N.Y. TIMES (July 7, 2017), <https://www.nytimes.com/2017/07/07/world/americas/united-nations-nuclear-weapons-prohibition-destruction-global-treaty.html>.

¹⁰³ *International Campaign to Abolish Nuclear Weapons: History*, THE NOBEL PRIZE, <https://www.nobelprize.org/prizes/peace/2017/ican/history> (last visited Apr. 15, 2021).

¹⁰⁴ *See* TPNW, *supra* note 1.

¹⁰⁵ *See* Fihn Speech, *supra* note 23; *Guterres Hails Entry Into Force of Treaty Banning Nuclear Weapons*, U.N. NEWS (Jan. 22, 2021), <https://news.un.org/en/story/2021/01/1082702>.

¹⁰⁶ *See, e.g., Dan Sabbagh, Global Nuclear Weapons Ban Begins—Without the World’s Nuclear Powers*, THE GUARDIAN (Jan. 21, 2021), <https://www.theguardian.com/world/2021/jan/21/global-nuclear-weapons-ban-begins-without-the-worlds-nuclear-powers>; Gladstone, *supra* note 102; *Landmark Anti-*

The formalities surrounding the TPNW inform regarding which States have adhered to the treaty via ratification or intend to join as indicated by their signature. As of May 1, 2022, sixty States have ratified or accessed to the treaty¹⁰⁷ and twenty-nine additional States are signatories.¹⁰⁸ A closer look at the division between the TPNW States parties and those States that have not committed to the TPNW reveals strong patterns. No declared or *de facto* NWS¹⁰⁹ has ratified, nor signed the treaty. The same is true for umbrella States.¹¹⁰ Nor has Iran, which is allegedly working on the acquisition of nuclear weapons, committed to the TPNW. Because only the States with no connection to nuclear weapons have signed and adhered to the TPNW, this suggests that the TPNW has not brought substantial change to the policy or behavior among the States that have committed to it so far. Rather, the treaty screens between States that complied with the agreement's obligations before ratification from those that did not—and did not intend to. Thus, the States parties' *ex ante* costs for adherence were rather low. They do incur *ex post* costs, however, as they are legally committed to comply with the treaty's obligations, foregoing future policy options regarding nuclear weapons. These facts provide credibility to the TPNW's signaling.

Accordingly, the creation process of the TPNW has procured a high level of visibility for the treaty to the extent that no State could ignore or deny its signal. Creating the signaling device did not incur lengthy or complicated negotiations, because only like-minded States were involved.¹¹¹ As such, the negotiations served to unite States interested in sending the TPNW's signal, yet also served as an exclusionary process that established a legal divide

Nuclear Treaty Enters into Force, AL-JAZEERA (Jan. 22, 2021), <https://www.aljazeera.com/news/2021/1/22/landmark-anti-nuclear-treaty-enters-into-force>; Eric Johnston, *As U.N. Nuclear Treaty Comes into Force, Japan Sees Different Path to Nonproliferation*, THE JAPAN TIMES (Jan. 20, 2021), <https://www.japantimes.co.jp/news/2021/01/20/national/japan-un-nuclear-treaty-nonproliferation/>; Sanders-Zakre, *supra* note 22.

¹⁰⁷ TPNW Status, *supra* note 1.

¹⁰⁸ Algeria, Angola, Brazil, Brunei Darussalam, Cabo Verde, Central African Republic, Colombia, Congo, Democratic Republic of the Congo, Dominican Republic, Ghana, Grenada, Guatemala, Indonesia, Libya, Liechtenstein, Madagascar, Malawi, Mozambique, Myanmar, Nepal, Niger, Sao Tome and Principe, Sudan, Timor-Leste, Togo, United Republic of Tanzania, Zambia, Zimbabwe.

¹⁰⁹ States besides the NWS that are generally believed to possess nuclear weapons are the Democratic People's Republic of Korea (DPRK), India, Israel, and Pakistan.

¹¹⁰ It should be noted that in many umbrella states, there is a divide between the State's policy on nuclear weapons and the general population's opinion which is often in favor of the ban. See BLACK-BRANCH, *supra* note 13, at 309, 332–33. For a comprehensive overview of the behavior and response of NWS and umbrella states during the treaty negotiation process, see KMENTT, *supra* note 87, ch. 7.

¹¹¹ Many states involved in the TPNW discussions were not interested in, and even opposed to, the inclusion of NWS in the negotiations, as doing so could have shifted or slowed the conversation in order to “cater” to their needs. See Heather Williams, *A Nuclear Babel: Narratives Around the Treaty on the Prohibition of Nuclear Weapons*, 25 NONPROLIFERATION REV. 51, 51–63 (2018).

between the States that would ratify and those that would not. This screening allowed States parties to signal the TPNW's content to outsiders.

Importantly, while the approval rates for the idea of a nuclear ban treaty rose during its creation and was still relatively high at the TPNW's adoption, the numbers of ratifications and signatures are significantly lower. The latter numbers also stand in contrast to higher approval rates for the United Nations General Assembly Resolution on "Treaty on the Prohibition of Nuclear Weapons" (A/RES/75/40)¹¹² and other resolutions adopted in 2020 that welcome the adoption of the TPNW.¹¹³ While many States are willing to support the TPNW's cause, few are ready to formally adhere to the legal regime. This suggests that treaty adherence is more costly and thus credible than political statements and resolutions. NWS' and NATO's efforts to keep allies, umbrella States, and others from joining the TPNW aim to further increase their costs for adhering, thereby dissuading allies and other States from joining and cementing the divide.

B. The Treaty's Messages

The TPNW's content defines its signal's substance. In an attempt to unambiguously prohibit, delegitimize, and stigmatize nuclear weapons and related activities and policies, the TPNW is a purist treaty with clear-cut provisions. This allows strong and coherent signaling of values, expectations, and intentions. The TPNW sends four messages: that nuclear weapons are illegal, immoral, and dangerous, and that nuclear disarmament should advance. These messages are written into the treaty's preamble and operational provisions.

The TPNW's first message is that nuclear weapons and related activities are illegal. The illegality of nuclear weapons is the legal contribution and baseline of the weapons ban treaty. While the preamble hints at this and describes why a legal ban is necessary, namely because it "constitutes an important contribution towards the achievement and maintenance of a world free of nuclear weapons,"¹¹⁴ the TPNW's operational provisions comprehensively and undoubtedly prohibit activities related to nuclear

¹¹² G.A. Res. 75/40 (Dec. 7, 2020) (approving the TPNW with 130 votes in favor, 42 against, and 14 abstaining). For voting record, see Press Release, United Nations, General Assembly, Adopting 66 First Committee Texts, Calls on States to Revitalize Stalled Disarmament Machinery, Tackle Chronic, Emerging Security Threats (Dec. 7, 2020), <https://www.un.org/press/en/2020/ga12296.doc.htm>.

¹¹³ Press Release, United Nations, First Committee Approves 22 Drafts, Most by Recorded Votes, Reflecting Growing Divergence on How to Create Nuclear-Weapon-Free World (Nov. 3, 2020), <https://www.un.org/press/en/2020/gadis3656.doc.htm>.

¹¹⁴ See TPNW, *supra* note 1, pmbl. ¶¶ 2, 15.

weapons. Article 1 of the TPNW notably forbids States to “develop, test, produce, manufacture, otherwise acquire, possess, or stockpile nuclear weapons or other nuclear explosive devices,” threaten or use nuclear weapons, and receive their transfer.¹¹⁵

States parties also commit not to assist or benefit from those with nuclear weapons. This includes the prohibition to transfer nuclear weapons, assist or encourage activities prohibited by the treaty, seek or receive any assistance from anyone to engage in any activity prohibited, or allow “any stationing, installation, or deployment of any nuclear weapons or other nuclear explosive devices in its territory or at any place under its jurisdiction or control.”¹¹⁶ Such obligation excludes adherence of nuclear umbrella States that benefit from extended deterrence (unless they engage in immediate and complete disarmament as per Article 4 of the TPNW).

The TPNW further obliges States parties to submit declarations regarding their past or present ownership, possession, or control of nuclear weapons or their toleration within their jurisdiction.¹¹⁷ It also obliges States parties to conclude comprehensive safeguards agreements.¹¹⁸ In addition to a program for disarmament, it binds States parties to implement their obligations and foresees victim assistance and environmental remediation, as well as international cooperation and assistance.¹¹⁹ This is complemented by formal provisions,¹²⁰ including the obligation to organize meetings of States parties. As such, the treaty’s obligations and prohibitions establish the complete illegality of nuclear weapons, as well as joint cooperation in this regard.

In addition, the TPNW’s preambular paragraph 10 unites States parties around the legal position that “any use of nuclear weapons would be contrary to the rules of international law applicable in armed conflict, in particular the principles and rules of international humanitarian law.” Paragraph 11 also reaffirms that “any use of nuclear weapons would be abhorrent to the principles of humanity and the dictates of public conscience,” which corresponds to a certain interpretation of international humanitarian law (IHL). While this has no direct legal effect of its own, it does indicate that all

¹¹⁵ *Id.* arts. 1(1)(a), (c), (d).

¹¹⁶ *Id.* arts. 1(1)(b), (e)–(g).

¹¹⁷ *Id.* art. 2.

¹¹⁸ *Id.* art. 3. Rietiker and Mohr consider that the TPNW’s approach to safeguards showcase the “openness and flexibility of the treaty” which can be ‘developed into an instrument providing for a complete (contractual) ban on nuclear weapons’ by assisting states in their denuclearization process. *See* DANIEL RIETIKER & MANFRED MOHR, TREATY ON THE PROHIBITION OF NUCLEAR WEAPONS: A SHORT COMMENTARY ARTICLE (2018).

¹¹⁹ *See* TPNW, *supra* note 1, arts. 4–7.

¹²⁰ *Id.* arts. 8–20.

States parties perceive these rules and principles of international law in this way.¹²¹

The second message that the TPNW conveys is that nuclear weapons are immoral and illegitimate. The preamble notes in its second paragraph the States parties' concern about the "catastrophic humanitarian consequences that would result from any use of nuclear weapons," which justifies nothing else but these weapons' complete elimination. Cognizant of the "grave implications for human survival" and mindful of "unacceptable suffering and harm,"¹²² *inter alia*, the preamble acknowledges "the ethical imperatives for nuclear disarmament and the urgency of achieving and maintaining a nuclear-weapon-free world."¹²³ The reference to the principle of humanity and the dictates of public conscience in preambular paragraph 11 further refers to ethical standards against nuclear weapons. In addition, the preamble appeals to moral authority by "stressing the role of public conscience in the furthering of the principles of humanity," which it links to "the call for the total elimination of nuclear weapons."¹²⁴ It also recognizes related efforts by actors other than States parties, such as the United Nations, the Red Cross Movement, religious leaders, and the "hibakusha."¹²⁵ Thus, the treaty projects the moral message but also seeks broader moral authority than would arise only from States parties or the cause itself.

As its third message, the treaty communicates that nuclear weapons are dangerous. According to its third preambular paragraph, States parties are "[m]indful of the risks posed by the continued existence of nuclear weapons, including from any nuclear-weapon detonation by accident, miscalculation or design, and emphasiz[e] that these risks concern the security of all humanity." Besides setting the context of these risks, namely catastrophic consequences and grave implications, the preamble further states that a nuclear-weapon-free world would be "a global public good of the highest order" that serves "both national and collective security interests."¹²⁶ The danger of nuclear weapons

¹²¹ The inclusion of this paragraph was criticized by a few states during the Second Session of the Diplomatic Conference (such as the Netherlands and Sweden) because it did not reflect the actual state of international law on the use or threat of nuclear weapons, as ruled by the ICJ in its 1996 Advisory Opinion. Others have argued that the treaty acts as a clarification of international law, which is indeterminate on the subject of legality of nuclear weapons. It closes the door to the "escape hatch" left by the ICJ. See CASEY-MASLEN, *supra* note 32, at 101, discussing comments in plenary on numerous occasions during the Second Session of the Diplomatic Conference (author's notes); see also G.A. Res. 71/258, ¶¶ 8–11 (Dec. 23, 2016) (planning to convene a U.N. conference to negotiate a legally binding instrument to prohibit nuclear weapons, leading towards their total elimination); RIETIKER & MOHR, *supra* note 118.

¹²² See TPNW, *supra* note 1, pmb. ¶¶ 4, 6.

¹²³ *Id.* pmb. ¶ 5.

¹²⁴ *Id.* pmb. ¶ 24.

¹²⁵ *Id.* pmb. ¶ 24.

¹²⁶ *Id.* pmb. ¶ 5.

is thereby mainly linked to humanitarian considerations, which intend to shift the focus from state-based security, such as international and national security, to human security.¹²⁷ Yet, with the reference to national and collective security interests, the message also includes that nuclear weapons pose threats to States. In this context, it is interesting that preambular paragraph three says that “all states share the responsibility to prevent any use of nuclear weapons.” By not limiting the responsibility to States parties, this wording projects the given perspective beyond the treaty membership and signals expectations to NWS.

The fourth message is that nuclear disarmament needs to move forward. Preambular paragraph fourteen communicates the States parties’ concern of “the slow pace of nuclear disarmament, the continued reliance on nuclear weapons in military and security concepts, doctrines and policies, and the waste of economic and human resources on programmes for the production, maintenance and modernization of nuclear weapons.” With this, the treaty communicates that action is urgent and necessary. Furthermore, States parties would be determined to act towards a world free of nuclear weapons and “to achieving effective progress toward general and complete disarmament.”¹²⁸ The preamble also reaffirms “that there exists an obligation [as per Article VI of the NPT] to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament.”¹²⁹ While these statements certainly communicate the States parties’ frustration and impatience that NWS do not engage in more serious disarmament efforts,¹³⁰ they also signal their expectations in this regard. The involvement of several small NNWS that were previously barred from discussions on nuclear weapons further indicates that NNWS were not willing to let NWS dominate the discourse, and the TPNW was a way for them to take back some control.¹³¹

Article four of the TPNW further signals such expectations toward NWS and nuclear umbrella States. The provision, entitled “Towards the total elimination of nuclear weapons,” notably obliges a State party that “owns, possesses, or controls nuclear weapons or other nuclear explosive devices” to

¹²⁷ Mitsuru Kurosawa, *The Treaty on the Prohibition of Nuclear Weapons: Its Significance and Challenge*, 65 OSAKA UNIV. L. REV. 1, 20 (2018). The language of ‘security of humanity’ is derived from the Humanitarian Pledge of the Vienna Conference and refers to the dangers posed by nuclear weapons to humankind. See CASEY-MASLEN, *supra* note 32, at 74 (commentary on pmb. ¶ 3).

¹²⁸ See TPNW, *supra* note 1, pmb. ¶¶ 15–16.

¹²⁹ *Id.* pmb. ¶ 17.

¹³⁰ On the frustration of states regarding disarmament, see Kile, *supra* note 2. Switching from adhering from the NPT to the TPNW could be an even more radical way for states to communicate their discontent with the lack of progress in disarmament. See Paul Meyer, “Permanence with Accountability”: *An Elusive Goal of the NPT*, 3 J. PEACE & NUCLEAR DISARMAMENT 215, 215–23 (2020).

¹³¹ KMENTT, *supra* note 87, at 190; BLACK-BRANCH, *supra* note 13, at 47–48, 57.

“remove them from operational status, and destroy them as soon as possible.”¹³² Umbrella States shall also “ensure the prompt removal of such weapons,”¹³³ among other obligations contained in Article 4. While this operational provision certainly only applies to States parties, these obligations serve to signal precisely what actions are expected from NWS and umbrella States.

Accordingly, the TPNW’s straightforward and clear provisions define the signal’s substance, namely that nuclear weapons are illegal, immoral, and dangerous, and that nuclear disarmament should advance. While the treaty unites States parties around this common understanding, its substance is crafted such that messages are also communicated to those States that have not adhered. Interestingly, the treaty’s structure—a relatively long preamble and relatively few and short operational provisions—indicates that the signaling of values, perceptions, and expectations are as important, or even more important, than the signaling of States parties’ intentions.

Yet, the TPNW’s signaling has limits. As a contractual, formal arrangement under international law, the substance it conveys only reflects States parties’ views and commitments. There is a coherence between its aspiration to fully eliminate nuclear weapons and related messages in its preamble and its operational provisions. However, the message that nuclear weapons are illegal only reflects the States parties’ legal situation—no legal effects can be projected onto outsiders. Similarly, as a formal treaty, the TPNW only signals that its States parties perceive nuclear weapons as immoral and dangerous. Though this view may be shared by many around the world, the treaty only represents the views of those States that have adhered. The expectation regarding the advancement of nuclear disarmament also does not engage NWS and other outsiders. Yet, these are signals that effectively inform outsiders of TPNW States parties’ common standing regarding nuclear weapons.

Furthermore, because the TPNW binds States to legal commitments, the focus of the treaty’s signaling is on States’ actions. Indeed, the States parties’ renouncement of any benefits that can arise from possessing nuclear weapons or nuclear deterrence, including benefitting from alliances with NWS, make the signal costly and credible. As such, based on its formal functioning, the TPNW most effectively signals what the States parties commit towards each other, namely their common intentions. The TPNW’s signaling of values, perceptions, and expectations towards outsiders is less

¹³² See TPNW, *supra* note 1, art. 4, ¶ 3.

¹³³ *Id.* art. 4, ¶ 4. For further discussion, see BLACK-BRANCH, *supra* note 13, at 146, 182–83.

strong. In essence, this means that the TPNW States parties signal to outsiders via the treaty that “we (the States parties) want nothing to do with nuclear weapons, nor should you (the outsiders) have anything to do with nuclear weapons.” Yet, as a formal contractual arrangement, the TPNW more effectively signals “we (the States parties) want nothing to do with nuclear weapons.” This difference in effectiveness is exacerbated by the fact that States remaining outside the treaty communicate their understanding and intentions according to the otherwise applicable international rules.

C. *The Outsiders’ Law*

As the TPNW divides insiders and outsiders and also serves to signal its content to the outsiders, the question remains what implication this division has on those States that remain outside. From a legal perspective, the TPNW leaves outsiders bound by the other applicable international rules. States that do not adhere to the TPNW are therefore indicating that they choose the other applicable international law—even if they have never issued any specific legal position on the issue. As such, these States communicate perceptions, values, and intentions other than those of the TPNW. While the generally applicable law on nuclear weapons remains ambiguous, except regarding certain geographical exclusion zones, States’ preference for that law indicates that they do not perceive the threaten of the use or the actual use of nuclear weapons as clearly illegal, immoral, or dangerous to the extent that they cannot even be possessed.

Most analyses regarding the effects of the TPNW on existing international law focus on its relationship to the NPT.¹³⁴ This is because the NPT forms the current basis for the world’s nuclear order. Most importantly, the NPT establishes that the United States, Russia, China, the United Kingdom, and France possess nuclear weapons in all legality,¹³⁵ a norm that

¹³⁴ See, e.g., Joint Statement, *supra* note 24; Egeland et al. *supra* note 16, at 74–94; Thomas Hajnoczi, *The Relationship Between the NPT and the TPNW*, 3 J. PEACE & NUCLEAR DISARMAMENT 87, 87–91 (2020); Williams, *supra* note 111; Tytti Erästö, *The NPT and the TPNW: Compatible or Conflicting Nuclear Weapons Treaties?*, STOCKHOLM INT’L PEACE RSCH. INST. (Mar. 6, 2019), <https://www.sipri.org/commentary/blog/2019/npt-and-tpnw-compatible-or-conflicting-nuclear-weapons-treaties>.

¹³⁵ NPT, *supra* note 2, at 9, ¶ 3. Paragraph three defines an NWS as “one which has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January 1967,” a definition which corresponds to the five states mentioned above. Article II prohibits NNW to acquire, manufacture or receive the transfer of nuclear weapons. Article I prohibits NWS to transfer nuclear weapons or assist NNWS in manufacturing or acquiring such weapons but does not prohibit them from possessing nuclear weapons; see also the P5 statements regarding the TPNW, *P5 Joint Statement*, *supra* note 27; Joint Statement, *supra* note 24.

TPNW proponents intended to challenge by offering an alternative treaty regime that does not tolerate or legitimize nuclear weapons. The NPT, however, remains in essence a nonproliferation treaty that seeks to curb horizontal nuclear proliferation.¹³⁶ It does not explicitly or directly address the legality of a State's own possession and use of nuclear weapons.

Accordingly, the most relevant international rules concerning nuclear weapons are those on their use. These rules and their interpretation have evolved over time. The atomic bombings of Hiroshima and Nagasaki were not generally deemed illegal under existing international law,¹³⁷ in particular because in 1945, there was no instrument prohibiting attacks against civilian populations and objects specifically by air warfare.¹³⁸ Yet even after the adoption of the United Nations Charter in 1945 and the Geneva Conventions in 1949, it was mostly undisputed that no instrument existed that specifically prohibited the possession or use of nuclear weapons.¹³⁹ The UNGA adopted Resolution 1653 in 1961, however, which stated that the use of nuclear weapons was contrary to the "spirit, letter and aims of the United Nations and, as such, a direct violation of the United Nations Charter."¹⁴⁰

Thereafter, a legal debate between two dominant schools of thought emerged. The first, the minority school of thought, considered that the laws of war did not apply to nuclear weapons as they had become obsolete after States manifestly disregarded them during World War II.¹⁴¹ In opposition, a majority of scholars argued that IHL principles did apply to nuclear weapons;

¹³⁶ See notably NPT, *supra* note 2, arts. I–III, VI–VII.

¹³⁷ Katherine E. McKinney, Scott D. Sagan & Allen S. Weiner, *Why the Atomic Bombing of Hiroshima Would Be Illegal Today*, 76 BULL. ATOMIC SCIENTISTS, 157, 157–65 (2020); Javier Guisández Gómez, *The Law of Air Warfare*, 38 INT'L REV. OF RED CROSS 347, 347–63 (1998); see generally ANTONIO CASSESE, THE HUMAN DIMENSION OF INTERNATIONAL LAW: SELECTED PAPERS OF ANTONIO CASSESE (2008).

¹³⁸ McKinney et. al., *supra* note 137, at 157–158; ROBERT P. NEWMAN, TRUMAN AND THE HIROSHIMA CULT 121–25 (2011); CASSESE, *supra* note 137, at 177–78; Gomez, *supra* note 137. For a discussion of the legal framework regulating air warfare during this period, see CHARLES ROUSSEAU, LE DROIT DES CONFLITS ARMÉS 360 (1983), as cited in Gómez, *supra* note 137, at 351.

¹³⁹ See Adam Roberts, *Law, Lawyers, and Nuclear Weapons*, REV. INT'L STUD. 75, 75–84 (1990); Elliott L. Meyrowitz, *The Opinions of Legal Scholars on the Legal Status of Nuclear Weapons*, 24 STAN. J. INT'L L. 111, 111–77 (1987); Georg Schwarzenberger, *The Legality of Nuclear Weapons*, 11 CURRENT LEGAL PROBS. 258, 258–92 (1958); Richard Falk, Elliott Meyrowitz & Jack Sanderson, *Nuclear Weapons and International Law*, 20 INDIAN J. INT'L L. (1980), reprinted in LASSA FRANCIS LAWRENCE OPPENHEIM, INTERNATIONAL LAW: A TREATISE. VOL. II, DISPUTES, WAR AND NEUTRALITY 347, 347–349 (Hersch Lauterpacht ed., 7th ed., 1952).

¹⁴⁰ G.A. Res. 1653 (XVI) A, Declaration on the Prohibition of the Use of Nuclear and Thermonuclear Weapons (Nov. 24, 1961).

¹⁴¹ CARL BUILDER & MORLIE GRAUBARD, THE INTERNATIONAL LAW OF ARMED CONFLICT: IMPLICATIONS FOR THE CONCEPT OF ASSURED DESTRUCTION (1982); see Dean Acheson, *Remarks by the Honourable Dean Acheson*, in PROCEEDINGS OF THE AMERICAN SOCIETY OF INTERNATIONAL LAW AT ITS ANNUAL MEETING (1921–1969): VOLUME 57, at 13–14 (2017); Mark Weston Janis, *Do 'Laws' Regulate Nuclear Weapons?*, in NUCLEAR WEAPONS AND INTERNATIONAL LAW, xiii, 253 (Istvan Pogany ed., 1987).

thus, debates revolved around their application.¹⁴² In the following years, most legal scholars agreed that the use of nuclear weapons was illegal and rejected exceptions for military necessity¹⁴³ or self-defense,¹⁴⁴ except in situations of lawful reprisal as a response to an adversary's first use of such weapons.¹⁴⁵ Other scholars warned that the use of nuclear weapons for deterrence purposes, or as a means of "massive retaliation," would be unlawful.¹⁴⁶ Scholars also debated who could benefit from the principle of distinction,¹⁴⁷ whether nuclear weapons were inherently indiscriminate,¹⁴⁸ caused unnecessary suffering,¹⁴⁹ or qualified as poisonous weapons.¹⁵⁰ The adoption of the 1967 NPT, as well as the 1963 Partial Test Ban Treaty (PTBT)¹⁵¹ and the 1996 Comprehensive Nuclear-Test-Ban Treaty (not in force as of May 1, 2022),¹⁵² did not alter this legal situation, although these treaties limited nuclear transfers and testing.

¹⁴² Hisakazu Fujita, *First Use of Nuclear Weapons: Nuclear Strategy vs. International Law*, 3 KANSAI U. REV. L. & POL. 57 (1982); Meyrowitz, *supra* note 138, at 166.

¹⁴³ See Falk et. al., *supra* note 139; NAGENDRA SINGH, NUCLEAR WEAPONS AND INTERNATIONAL LAW 243–244 (1969); William T. Mallison, *The Laws of War and the Juridical Control of Weapon of Mass Destruction in General and Limited Wars*, 36 GEO. WASH. L. REV. 308, 343 (1967); ROBERT W. TUCKER, THE LAW OF WAR AND NEUTRALITY AT SEA (1957); Fred Bright Jr., *Nuclear Weapons as a Lawful Means of Warfare*, 30 MIL. L. REV. (1965); MYRES MCDUGAL & FLORENTINO P. FELICIANO, LAW AND MINIMUM WORLD PUBLIC ORDER: THE LEGAL REGULATION AND INTERNATIONAL COERCION (1961); WILLIAM O'BRIEN, LEGITIMATE MILITARY NECESSITY IN NUCLEAR WAR (1960); J.M. SPAIGHT, AIR POWER AND WAR RIGHTS 274–276 (3d ed. 1947).

¹⁴⁴ For examples, see Falk et. al. *supra* note 138, at 40; For the opposite argument, see MCDUGAL ET. AL., *supra* note 143, discussed also in ISTVAN POGANY, NUCLEAR WEAPONS AND INTERNATIONAL LAW (1987), *supra* note 141.

¹⁴⁵ Allan Rosas, *International Law and the Use of Nuclear Weapons*, in ESSAYS IN HONOUR OF ERIK CASTREN 73 (1979). For similar views, see John H. E. Fried, *First Use of Nuclear Weapons—Existing Prohibitions in International Law*, 12 BULL. PEACE PROPOSALS 21, 21–29 (1981); Schwarzenberger, *supra* note 139; Erik Castren, *The Illegality of Nuclear Weapons*, 89 TOLEDO L. REV. (1971); SINGH, *supra* note 143, at 222–23.

¹⁴⁶ Ian Brownlie, *Some Legal Aspects of the Use of Nuclear Weapons*, 14 INT'L & COMP. L. Q. 437, 440, 445–447 (1965).

¹⁴⁷ Schwarzenberger, *supra* note 139, at 22; OPPENHEIM, *supra* note 139.

¹⁴⁸ Bright, *supra* note 143; Burns H. Weston, *Nuclear Weapons Versus International Law: A Contextual Reassessment*, 28 MCGILL L.J. 542, 543 (1983); SINGH, *supra* note 143, at 190–94; Denise Bindschedler-Robert, *A Reconsideration of the Law of Armed Conflict*, in REPORT OF THE CONFERENCE ON CONTEMPORARY PROBLEMS OF THE LAW OF ARMED CONFLICTS 40–47 (1971); Falk et. al. *supra* note 138; MORRIS GREENSPAN, THE MODERN LAW OF LAND WARFARE (1959); Schwarzenberger, *supra* note 139, at 441, 446.

¹⁴⁹ Castren, *supra* note 142; Bright, *supra* note 142, at 16–17; Henri Meyrowitz, *Les juristes devant l'arme nucléaire*, 67 REVUE GÉNÉRALE DE DROIT INTERNATIONAL PUBLIC 820, 820–73 (1963); Schwarzenberger, *supra* note 139.

¹⁵⁰ Eric J. G. McFadden, *The Legality of Nuclear Weapons: A Response to Corwin*, 6 DICK. J. INT'L L. 313 (1988); Falk et. al., *supra* note 139; Bindschedler-Robert, *supra* note 148; SINGH *supra* note 143; Brownlie, *supra* note 146, at 442, 445; Bright, *supra* note 142; Schwarzenberger, *supra* note 139, at 33–37.

¹⁵¹ TPNW, *supra* note 1; Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water, Aug. 5, 1963, 480 U.N.T.S. 45.

¹⁵² G.A. Res. 50/245 A, Comprehensive Nuclear Test-Ban Treaty (Sept. 10, 1996).

In 1994, the international community sought to clarify the existing law. The United Nations General Assembly, as per its Resolution 49/75, asked the International Court of Justice (ICJ) to clarify the legality of the threat of use and use of nuclear weapons.¹⁵³ The Court rendered its Advisory Opinion in 1996, which failed to determine conclusively the law. The ICJ first held that no customary rule specifically prohibited or authorized the use of nuclear weapons. The Court admitted that the threat or use of nuclear weapons would most likely be contrary to the rules and principles of IHL.¹⁵⁴ Nevertheless, the ICJ presented a caveat stating that it could not “conclude definitively whether the threat or use of nuclear weapons be lawful or unlawful in an extreme circumstance of self-defence, in which the very survival of a State would be at stake.”¹⁵⁵

The Advisory Opinion was controversial. In their dissenting opinions, Judges Weeramantry, Koroma, and Higgins opposed the findings of the Court, criticizing *inter alia* the ICJ’s reasoning in its application of the law, the lack of legal basis for the conclusion,¹⁵⁶ as well as the general vagueness of the exception.¹⁵⁷ Others criticized the Court’s conclusion by commenting “that in certain cases of self-defence humanitarian law no longer applies is [...] dangerously like an application of the discredited doctrine of *Kriegsraison geht vor Kriegsmanier*”¹⁵⁸ or by highlighting the absence of a definition for

¹⁵³ *Legality of the Threat or Use of Nuclear Weapons: Overview of the Case*, INT’L CT. JUST., <https://www.icj-cij.org/en/case/95>, (last visited Apr. 15, 2021).

¹⁵⁴ *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, 1996 I.C.J. 226, ¶ 74 (July 8) [hereinafter Advisory Opinion].

¹⁵⁵ *Id.* ¶ 105 (2)(E).

¹⁵⁶ See Dapo Akande, *Nuclear Weapons, Unclear Law? Deciphering the Nuclear Weapons Advisory Opinion of the International Court*, 68 BRITISH Y.B. INT’L L. 165, 209 (1997).

¹⁵⁷ Advisory Opinion, *supra* note 154, at 429, ¶ 10 (Weeramantry, J., C. G. dissenting); *id.* at 556 (Koroma, J., dissenting); *id.* at 583 (Higgins, J., dissenting); see also Prosper Weil, “*The Court Cannot Conclude Definitively . . .*” *Non Liquet Revisited*, 36 COLUM. J. TRANSNAT’L L. 109, 112, 118 (1998); Ole Spiermann, *Lotus and the Double Structure of the Legal Argument*, in INTERNATIONAL LAW, THE INTERNATIONAL COURT OF JUSTICE AND NUCLEAR WEAPONS 131 (Laurence Boisson De Chazournes & Philippe Sands, eds., 1999); Daniel Bodansky, *Non-Liquet and the Incompleteness of International Law*, in INTERNATIONAL LAW, THE INTERNATIONAL COURT OF JUSTICE AND NUCLEAR WEAPONS 153 (Laurence Boisson De Chazournes & Philippe Sands, eds., 1999).

¹⁵⁸ Jasmine Moussa, *Nuclear Weapons and the Separation of jus ad bellum and jus in bello*, in NUCLEAR WEAPONS UNDER INTERNATIONAL LAW 59, 68 (Gro Nystuen et al. eds., 2014); Louise Doswald-Beck, *International Humanitarian Law and the Advisory Opinion of the International Court of Justice on the Legality of the Threat or Use of Nuclear Weapons*, 37 INT’L REV. RED CROSS 35, 54 (2010); Robert D. Sloane, *The Cost of Conflation: Preserving the Dualism of Jus ad bellum and Jus in Bello in the Contemporary Law of War*, 34 YALE J. INT’L L. 47, 91–92 (2009). For a discussion on the conflation of both branches and its ramifications, see Alexander Orakhelashvili, *Overlap and Convergence: the Interaction between jus ad bellum and jus in bello*, 12 J. CONFLICT & SEC. L. 157, 164 (2007).

the new concept of “extreme circumstances of self-defence.”¹⁵⁹ The ICJ President’s statement asserting that “the Court’s inability to go beyond this statement of the situation can in no way be interpreted to mean that it is leaving the door ajar to recognition of the legality of the threat or use of nuclear weapons”¹⁶⁰ did not contribute much clarity.

Commentators largely accepted the Court’s logic that the legality of a threat of use of nuclear weapons would depend on the legality of the use itself. This is sometimes referred to as the “Brownlie formula.”¹⁶¹ It had been noted that while IHL would prohibit certain threats, such as threatening to attack a civilian population in order to spread terror,¹⁶² nothing would indicate that the threat of breach of any IHL rule would be illegal.¹⁶³ Others clarified that nuclear threats should primarily be assessed under *jus ad bellum*,¹⁶⁴ and it has been argued that threats of force would be illegal in any circumstances under the United Nations Charter.¹⁶⁵

Subsequent work continued to study the question but did contribute to clarifying the law. As such, there is “no single or unequivocal legal answer” regarding the current status of the legality of nuclear weapons.¹⁶⁶ In most instances, the use of nuclear weapons would be unlawful under international law, although exceptions exist despite being unlikely or, as per the ICRC,

¹⁵⁹ Moussa, *supra* note 158, at 70; NICHOLAS STÜRCHLER, *THE THREAT OF FORCE IN INTERNATIONAL LAW* (2007); Marcelo Gustavo Kohen, *THE NOTION OF STATE SURVIVAL IN INTERNATIONAL LAW* (1999); Michael Matheson, *The Opinions of the International Court of Justice on the Threat or Use of Nuclear Weapons*, 91 AM. J. INT’L L. 417, 430 (1997); Peter Weiss, *The World Court Tackles the Fate of the Earth: an Introduction to the ICJ Advisory Opinion on the Legality of the Threat and Use of Nuclear Weapons*, 7 TRANSNAT’L L. & CONTEMP. PROBS. 313, 325–26 (1997). For discussions on the potential meaning of the term, see Akande, *supra* note 154, at 209; Richard Falk, *Nuclear Weapons, International Law and the World Court: A Historic Encounter*, 91 AM. J. INT’L L. 64, 64–75 (1997); Advisory Opinion, *supra* note 154, at 287 (Judge Guillaume, separate opinion) & 305 (Judge Fleischhauer).

¹⁶⁰ Advisory Opinion, *supra* note 154, at 11 (declaration of President Bedjaoui).

¹⁶¹ STÜRCHLER, *supra* note 159; Marco Roscini, *Threats of Armed Force and Contemporary International Law*, 54 NETH. INT’L L. REV. 229, 229–77 (2007); see also Charles J. Moxley Jr., *The Unlawfulness of the Use or Threat of Use of Nuclear Weapons*, 8 ILSA J. INT’L & COMP. L. 447, 447–72 (2002); Romana Sadurska, *Threats of Force*, 82 AM. J. INT’L L. 239, 239–69 (1988); IAN BROWNLIE, *INTERNATIONAL LAW AND THE USE OF FORCE BY STATES* 364 (1963); BLACK-BRANCH, *supra* note 13, at 206–227.

¹⁶² Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I) art. 40, June 8, 1977, 1125 U.N.T.S. 3.

¹⁶³ Doswald-Beck, *International Humanitarian Law*, *supra* note 158, at 50.

¹⁶⁴ Nobuo Hayashi, *Legality Under Jus Ad Bellum of the Threat of Use of Nuclear Weapons*, in *NUCLEAR WEAPONS UNDER INTERNATIONAL LAW* 31, 31–38 (Gro Nystuen, Stuart Casey-Maslen & Annie Bersagel eds., 2014).

¹⁶⁵ STÜRCHLER, *supra* note 159.

¹⁶⁶ Gro Nystuen, *Conclusions on the Status of Nuclear Weapons under International Law*, in *NUCLEAR WEAPONS UNDER INTERNATIONAL LAW* 483, 486 (Gro Nystuen et al. eds., 2014).

difficult to envisage.¹⁶⁷ Concretely, this would mean that “only low-yield tactical nuclear weapons could realistically be used in accordance with the rules of distinction and proportionality and then only in very specific and highly improbable scenarios in an international armed conflict between nuclear powers.”¹⁶⁸ This example, however, does not take into account environmental law.¹⁶⁹ Nonetheless, nuclear weapons are not illegal per se.¹⁷⁰

NWS’s legal positions suggest that the Advisory Opinion still reflects the generally applicable international law. Indeed, the legal positions refuse restrictive legal conclusions that would limit NWS’s ability to use nuclear weapons. In particular, NWS continue to reserve themselves the right to use nuclear weapons in “extreme circumstances of self-defence”¹⁷¹ The White Papers of the United Kingdom, the United States, and France all use very

¹⁶⁷ Stuart Casey-Maslen, *The Use of Nuclear Weapons Under Rules Governing the Conduct of Hostilities*, in NUCLEAR WEAPONS UNDER INTERNATIONAL LAW 91, 126 (Gro Nystuen et al. eds., 2014) [hereinafter Casey-Maslen, *Use of Nuclear Weapons*]; Int’l Comm. of the Red Cross [ICRC], Council of Delegates Res. 1 CD/13/R1, ¶ 2 (Nov. 2011); ICRC *Statement to the United Nations General Assembly on the Advisory Opinion of the International Court of Justice on the Legality of the Threat or Use of Nuclear Weapons*, INT’L REV. RED CROSS, No. 316, at 118–19 (1997); see also 31ST INTERNATIONAL CONFERENCE OF THE RED CROSS AND RED CRESCENT MOVEMENT, REPORT OF THE CONFERENCE 11, 112–17 (2011). Christopher Greenwood, *The Advisory Opinion on Nuclear Weapons and the Contribution of the International Court to International Humanitarian Law*, INT’L REV. RED CROSS, No. 316, at 65–75 (1997). Notable opposition to this conclusion includes Daniel Rietiker, who used the humanitarian lens to conclude that nuclear weapons can never be lawful under IHL and that nonproliferation obligations should be interpreted in light of IHL and IHRL. RIETIKER, *supra* note 59, at 166, 287. For further humanitarian-centered discussions, including on the unnecessary suffering rule, see generally Simon O’Connor, *Nuclear Weapons and the Unnecessary Suffering Rule*, NUCLEAR WEAPONS UNDER INT’L L. 128 (Gro Nystuen et al., 2014); 1 JEAN-MARIE HENCKAERTS & LOUISE DOSWALD-BECK, CUSTOMARY INTERNATIONAL HUMANITARIAN LAW 237 (2005); see CLAUDE PILLOUD ET AL., COMMENTARY ON THE ADDITIONAL PROTOCOLS OF 8 JUNE 1977 TO THE GENEVA CONVENTIONS OF 12 AUGUST 1949, 409–410 (Yves Sandoz et al. eds., 1987).

¹⁶⁸ Casey-Maslen, *Use of Nuclear Weapons*, *supra* note 167, at 126; For details on the prohibition of indiscriminate weapons, see generally HENCKAERTS & DOSWALD-BECK, *supra* note 167, at 244–50 (2005). Doswald-Beck, *International Humanitarian Law*, *supra* note 158, at 35–55. As outlined by ICJ Judge Schwebel in his dissenting opinion, strikes with a tactical nuclear weapon strike against military forces in the desert could respect core principles of IHL and thwart the risk of mass civilian casualties. Advisory Opinion, *supra* note 154, at 311 (Schwebel M., dissenting); Casey-Maslen, *Use of Nuclear Weapons*, *supra* note 167, at 125.

¹⁶⁹ See Timothy J. Heverin, *Legality of the Threat or Use of Nuclear Weapons: Environmental and Humanitarian Limits on Self-Defense*, 72 NOTRE DAME L. REV. 1277, 1304 (1997).

¹⁷⁰ Michael N. Schmitt, *Book Review: Nuclear Weapons and the World Court*, 9 J. LEGAL STUD. 179, 179–80; see also YORAM DINSTEIN, THE CONDUCT OF HOSTILITIES UNDER THE LAW OF INTERNATIONAL ARMED CONFLICT ¶ 86 (2016); Dakota Rudesill, *Regulating Tactical Nuclear Weapons*, 102 GEO. L.J. 99 (2013); Martti Koskeniemi, *The Silence of Law/The Voice of Justice*, in INTERNATIONAL LAW, INTERNATIONAL COURT OF JUSTICE, AND NUCLEAR WEAPONS 493 (Laurence Boisson de Chazournes & Philippe Sands eds., 1999).

¹⁷¹ HER MAJESTY’S GOVERNMENT, NATIONAL SECURITY STRATEGY AND STRATEGIC DEFENCE AND SECURITY REVIEW 2015, ¶ 4.68 (2015); U.S. OFFICE OF THE SECRETARY OF DEFENSE, NUCLEAR POSTURE REVIEW 21, 23 (2018); Press Release, Russian Federation, Military Doctrine of the Russian Federation ¶ 27 (June 29, 2015) [hereinafter Russian Federation]; see *Arms Control and Proliferation Profile: Russia*, ARMS CONTROL ASSOC. (Aug. 2019), <https://www.armscontrol.org/factsheets/russiaprofile#nw>; THE FRENCH MINISTRY OF DEFENCE, THE 2013 WHITE PAPER ON DEFENCE AND NATIONAL SECURITY (2013).

similar terms. Russia and Pakistan present a very similar doctrine.¹⁷² China adopted a self-defensive nuclear strategy, which implies that it reserves itself the right to use nuclear weapons in certain situations of self-defense.¹⁷³ As the first NWS to do so, China excludes the first use of nuclear weapons. Although the lawfulness of NWS's policies can be disputed,¹⁷⁴ these do remain the relevant State practices.

In response to the adoption of the TPNW, the United States, the United Kingdom, and France stated that “there will be no change in the legal obligations on our countries with respect to nuclear weapons.”¹⁷⁵ The P5 further declared that the “TPNW will not be binding on our countries, and we do not accept any claim that it contributes to the development of customary international law.”¹⁷⁶ As such, the NWS hinder the emergence of any customary rule based on the TPNW that would unequivocally prohibit the use of nuclear weapons or nuclear threats. Even if such a rule were to emerge, this opposition would make the rule inapplicable to NWS as they would be considered a “persistent objector.”¹⁷⁷ By their statements, NWS have not only declared that the TPNW has no legal effects on them and actively countered its further legal development into customary international law, but they also explicitly recommitted to the otherwise applicable rules. Furthermore, forty-two States have also communicated that they would not support the TPNW,¹⁷⁸ thereby also emphasizing that the law generally applicable to nuclear weapons better represents the perceptions, values, and intentions than the law of the TPNW and its signals.

¹⁷² Russian Federation, *supra* note 171; *Arms Control and Proliferation Profile: Pakistan*, ARMS CONTROL ASSOC. (Mar. 2022), <https://www.armscontrol.org/factsheets/pakistanprofile>; For discussions on the doctrine of India, see *Arms Control and Proliferation Profile: India*, ARMS CONTROL ASSOC. (Jan. 2018), <https://www.armscontrol.org/factsheets/indiaprofile#bio>; Sameer Lalwani & Hannah Hageland, *The Debate Over Indian Nuclear Strategy Is Heating Up*, WAR ON THE ROCKS (Apr. 5, 2017), <https://warontherocks.com/2017/04/the-debate-over-indian-nuclear-strategy-is-heating-up/>.

¹⁷³ CHINA STATE COUNCIL INFORMATION OFFICE, CHINA'S MILITARY STRATEGY (2015); *Arms Control and Proliferation Profile: China*, ARMS CONTROL ASSOC. (July 2017), https://www.armscontrol.org/factsheets/china_profile#bio.

¹⁷⁴ Scott D. Sagan & Allan S. Weiner, *The Rule of Law and the Role of Strategy in U.S. Nuclear Doctrine*, 45 INT'L SECURITY 126, 126–66 (2021).

¹⁷⁵ Joint Statement, *supra* note 24.

¹⁷⁶ P5 Joint Statement, *supra* note 27. Arguing that the TPNW has legal effects on non-signatories would suppose a hierarchy of treaties which does not exist, as each treaty is free-standing and applicable solely when there is consent to be bound. BLACK-BRANCH, *supra* note 13, at 94, 96–98.

¹⁷⁷ Int'l Law Comm'n, Rep. on the Work of Its Seventieth Session, U.N. Doc A/73/10, at 119–57 (2018); For a discussion on the TPNW and its potential at developing CIL, see BLACK-BRANCH, *supra* note 13, at 116–134.

¹⁷⁸ These states voted against the 2018 UNGA Resolution on the TPNW. Non-supporters are mainly comprised of nuclear weapons states and umbrella states. See NUCLEAR WEAPONS BAN MONITOR, NUCLEAR WEAPONS BAN MONITOR 2020, 16–17 (2020).

With regard to particular geographical zones, several treaties contain clear prohibitions. The 1959 Antarctic Treaty prohibits military activities,¹⁷⁹ including nuclear explosions,¹⁸⁰ in Antarctica. The 1967 Outer Space Treaty¹⁸¹ explicitly prohibits the placement and use of nuclear weapons in orbit around Earth,¹⁸² which is echoed by the 1979 Moon Treaty.¹⁸³ Finally, the 1971 Seabed Treaty prohibits States parties from placing weapons of mass destruction or any testing or launching facility on sea-beds and ocean floors.¹⁸⁴ States that are not parties to the TPNW, including many NWS, have joined these prohibitions. In addition, five regional treaties establish nuclear-weapon-free zones (NWFZ) that prohibit nuclear weapons.¹⁸⁵ These prohibitions, however, are *lex specialis* rules as opposed to the *lex generalis* rules on the legality of nuclear weapons at the global level.

Accordingly, while the TPNW has brought legal division that enables it to signal to outsiders, this division also leads the outsiders to remain bound by the generally applicable international law. International law other than the TPNW generally remains ambiguous regarding nuclear weapons' legality. In NWS's view, international law authorizes the use of nuclear weapons when their State survival is at stake. NWS and partner States have re-emphasized this authorized use after the TPNW's adoption. The legal divide established by the TPNW leads to the conclusion that States that have not joined the TPNW share this view, even if they have never communicated their legal positions. In addition, the legal divide cannot be overcome due to treaty law's formalism and rigidity. States can only switch from one camp to another through costly adherence to the TPNW—uncostly political statements of intentions or values do not mean much when refusing adherence. While this barrier gives credibility to TPNW's signaling, it also solidifies the legal divide as it makes States' moves from one camp to another unlikely. As much as treaty law's formality and rigidity enables clear and credible signaling, it also impedes change.

¹⁷⁹ The Antarctic Treaty art. I(1), Dec. 1, 1959, 12 U.S.T. 794, 402 U.N.T.S. 71.

¹⁸⁰ *Id.* at art. V(1); G.A. Res. 71/258 A(Dec. 23, 2016).

¹⁸¹ Outer Space Treaty, Jan. 27, 1967, 18 U.S.T. 2410, 610 U.N.T.S. 205 [hereinafter Outer Space Treaty].

¹⁸² *Id.* at art. IV.

¹⁸³ G.A. Res. 34/68, at art. 3(3) (Dec. 5, 1979).

¹⁸⁴ Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Sea-Bed and the Ocean Floor and in the Subsoil Thereof art. 1, Feb. 11, 1971, 23.1 U.S.T. 701, 955 U.N.T.S. 115.

¹⁸⁵ The 1967 Treaty of Tlatelolco establishes such a zone in Latin America and the Caribbean; the 1985 Treaty of Rarotonga in the South Pacific; the 1995 Bangkok Treaty in Southeast Asia; the 1996 Pelindaba Treaty in Africa; and the 2006 Treaty of Semipalatinsk in Central Asia.

D. *A Global Nuclear-Weapon-Free-Zone*

The TPNW's signaling impacts the treaty's role in nuclear politics as well as the treaty's characterization. Because the legal divide shields States that have not adhered to the treaty from any direct legal effects, the TPNW is not particularly threatening to NWS and its partner States. Rather, the treaty allows better communication between its States parties and the outsiders, ultimately laying a foundation for potential cooperation between the two camps. From a substantive point of view, by most effectively signaling that "we (the States parties) want nothing to do with nuclear weapons," the TPNW's signaling based on its legal effects is analogous to that of NWFZ treaties. This suggests that the TPNW can be characterized as a global NWFZ treaty,¹⁸⁶ which has multiple implications.

NWFZ are geographical areas in which nuclear weapons are not tolerated, established by treaty, characterized by an absence of stockpiling, producing, acquiring, and testing of nuclear weapons, and maintained through a system of verification and control.¹⁸⁷ The five treaties establishing NWFZ each contain a provision renouncing nuclear explosion devices that generally comprises prohibitions to develop, manufacture, acquire, possess, station, or test nuclear weapons, to seek assistance to do so, to allow other States to do so on their territory, or to encourage other States to engage in those activities.¹⁸⁸ The treaties' protocols also prohibit the States parties from using, or threatening to use, nuclear weapons.¹⁸⁹

¹⁸⁶ A similar analogy was made by BLACK-BRANCH, *supra* note 13, at 268, 276–77.

¹⁸⁷ G.A. Res. 3472 (XXX) B, at 24, ¶ 1 (Dec. 11, 1975); For an overview of the functioning and oversight mechanisms of NWFZ, see Michael Hamel-Green, *Nuclear Deadlock, Stalled Diplomacy: The Northeast Asia Nuclear Weapon Free Zone Alternative—Proposals, Pathways, Prospects*, J. PEACE & NUCLEAR DISARMAMENT 1, 2–3 (2021) [hereinafter Hamel-Green, *Nuclear Deadlock*]; Elizabeth Mendenhall, *Nuclear-Weapon-Free Zones and Contemporary Arms Control*, 14 STRATEGIC STUD. Q. 122, 122–51 (2020); VALERIA PUGA ALVAREZ, *FUNCTIONAL PEACE? THE "FIRST WAVE" OF NUCLEAR-WEAPON-FREE ZONES PROPOSALS IN THE COLD WAR* (2018); P. MOORTHY, *NUCLEAR WEAPON FREE ZONE* (2006).

¹⁸⁸ The Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Treaty of Tlatelolco) art. 1, Feb. 14, 1967, 22 U.S.T. 754, 634 U.N.T.S. 281 [hereinafter Treaty of Tlatelolco]; African Nuclear-Free-Zone Treaty arts. 3–5, Apr. 11, 1996, 35 I.L.M. 698 (Pelindaba Treaty) [hereinafter Pelindaba Treaty]; South Pacific Nuclear-Free Zone (Treaty of Rarotonga) arts. 3, 5–6, Aug. 6, 1985, 1445 U.N.T.S. 24592 [hereinafter Treaty of Rarotonga]; Southeast Asian Nuclear-Weapon-Free-Zone Treaty (Bangkok Treaty) art. 3, Nov. 27, 1971, 1981 U.N.T.S. 33873 [hereinafter Bangkok Treaty]; Treaty on a Nuclear-Weapon-Free Zone in Central Asia arts. 3 & 5, Sept. 8, 2006, 2970 U.N.T.S. 51633.

¹⁸⁹ Additional Protocol II to the Treaty of Tlatelolco art. 3, Feb. 14, 1967, 22 U.S.T. 754, 634 U.N.T.S. 364; Additional Protocol I to the Pelindaba Treaty art.1, K.A.V. 9116; *Protocol to the Treaty on Southeast Asia Nuclear Weapon-Free Zone*, UNITED NATIONS OFF. FOR DISARMAMENT AFFS., https://treaties.unoda.org/t/bangkok_protocol (last visited May 25, 2022) [hereinafter Bangkok Treaty Protocol]; Treaty of Rarotonga, *supra* note 188, art 1.

NWFZ are disarmament and denuclearization tools to ensure that nuclear weapons and their associated risks are absent in a particular region.¹⁹⁰ NWFZ treaties are based on the premise that nuclear weapons have the potential to cause massive damage. The Cuban missile crisis was at the origin of the Tlatelolco Treaty, for instance.¹⁹¹ At the time, Mexico explained that the NWS's lack of initiative regarding nuclear disarmament left NNWS with the responsibility to act themselves.¹⁹² In the case of the Rarotonga Treaty, the former Australian Defence Minister Kim Beazley admitted that the treaty was aimed primarily against France's nuclear testing in the Pacific.¹⁹³ Despite such specific concerns, the creation of NWFZ generally correlates with low levels of nuclear confrontation and threats in a given region.¹⁹⁴

NWFZ's rationale and long-term goals also concern broader considerations. It has been argued that the Tlatelolco Treaty served to reject neo-colonial power and ensure regional sovereignty.¹⁹⁵ This and other NWFZ treaties were also adopted in the hope that other regions of the world would follow, thereby promoting a universalism of their principles as well as relating their efforts with progressive and total abolition of nuclear weapons.¹⁹⁶ It has also been argued that NWFZ treaties enable NNWS to position themselves as proponents of a peaceful, non-nuclear world.¹⁹⁷ Accordingly, the NWFZ treaties' rationale is similar to that of the TPNW. Most importantly, because the NWFZ treaties' substance, particularly their operational provisions, strongly overlaps with that of the TPNW,¹⁹⁸ they send analogous signals.

¹⁹⁰ FRANÇOIS CARREL-BILLIARD & CHRISTINE WING, NUCLEAR WEAPON FREE ZONES, IN NUCLEAR ENERGY, NONPROLIFERATION, AND DISARMAMENT: BRIEFING NOTES FOR THE 2010 NPT REVIEW CONFERENCE 24 (2010); Wakana Mukai, *The Importance of Nuclear Weapons Free Zones*, 1 J. SCI. & WORLD AFFS. 79, 80 (2005).

¹⁹¹ William Epstein, *The Making of the Treaty of Tlatelolco*, 3 J. HIST. INT'L LAW 153, 153–79 (2001); Hamel-Green, *Nuclear Deadlock*, *supra* note 187, at 1–33; see similar remarks in Robles' speech to the UN General Assembly First Committee, U.N. GAOR, 29th Sess., 2018th mtg. at 32, U.N. Doc. A/C.1/PV.2018 (Nov. 13, 1974).

¹⁹² U.N. GAOR, 29th Sess., 2261st plen. mtg. at 559, U.N. Doc. A/PV.2261 (Oct. 8, 1974).

¹⁹³ Ramesh Thakur, *The South Pacific Nuclear Free Zone*, 44 INDIA Q. 253, 253–69 (1988).

¹⁹⁴ FUHRMANN & LI, *supra* note 56, at 12–14.

¹⁹⁵ Ryan A. Musto, *A Desire to Close to the Hearts of all Latin Americans: Utopian Ideals and Imperfections Behind Latin America's Nuclear Weapon Free Zone*, 37 BULL. LATIN AM. RSCH. 160, 160–74 (2018).

¹⁹⁶ *Id.* at 165; Hirosumi Tosaki, *Nuclear Weapons-Free-Zone and Nuclear Non-Proliferation*, 1 J. SCI. & WORLD AFFS. 79, 79–86 (2005); Mendenhall, *supra* note 187, at 122–51; Mukai, *supra* note 190, at 80.

¹⁹⁷ Mendenhall, *supra* note 187, at 122–51.

¹⁹⁸ Michael Hamel-Green, *The Implications of the 2017 UN Nuclear Prohibition Treaty for Existing and Proposed Nuclear-Weapon-Free Zones*, 30 GLOB. CHANGE, PEACE & SECURITY 209, 209–32 (2018) [hereinafter Hamel-Green, *Implications*]. The obligations of the TPNW go further than that of NWFZ. For example, the TPNW prohibits any use of nuclear weapons, not solely use of nuclear weapons against on in specific regions, requires the incorporation of the treaties' obligations into member states' domestic legislations, and sets stronger obligations regarding victim assistance. BLACK-BRANCH, *supra* note 13, at 274–75.

If the TPNW signals the same as NWFZ treaties, then by its global scope and adherence, the TPNW establishes a global NWFZ. Importantly, the membership of the TPNW has a strong overlap with the membership of the five treaties on NWFZ. As of May 1, 2022, fifty States of all sixty States parties to the TPNW (eighty-three percent) are also parties to a treaty on NWFZ. Only ten TPNW States parties have not joined a treaty on NWFZ.¹⁹⁹ Taking the signatures without ratification of the TPNW, the percentage of overlapping adherence is seventy-nine percent and only eight States have signed the TPNW but not joined a treaty on NWFZ.²⁰⁰ Thirty States have adhered to a NWFZ but neither signed nor ratified the TPNW.²⁰¹ Such strong overlap in adherence to the different treaties confirms the overlapping signal, as States that are party to a NWFZ are more inclined to join the NWFZ than those that are not.

This overlap raises the question of redundancy. In terms of legal obligations, joining the TPNW is indeed mostly redundant for States parties to a NWFZ to the extent that most obligations are nearly identical. Yet, the TPNW does provide its own, independent signal. Moreover, the TPNW has an adherence that is global rather than only regional and a higher number of States parties, which means more mutual legal commitments among States, and higher visibility. It is thus a stronger signal, particularly in terms of credibility, as a high number of mutual legal commitments more effectively binds States than a smaller number, although the NWFZ members' costs for ratification of the TPNW were minimal as they were already in compliance with the TPNW's primary obligations prior to its creation and ratification. Accordingly, States' double adhesion to both a NWFZ treaty and the TPNW does not render the signaling of one or the other redundant but reflects a coherent signaling via more than one legal instrument.

The TPNW's signaling and characterization as global NWFZ pose direct policy relevance. Just like NWFZ treaties, the TPNW provides information on its members' perceptions, values, expectations, and intentions to outsiders, which allows them to make informed decisions and thereby reduce uncertainty. This suggests, however, that the TPNW is less

¹⁹⁹ Austria, Bangladesh, the Holy Sea, Ireland, Maldives, Malta, Mongolia, Palau, San Marino, State of Palestine.

²⁰⁰ Cabo Verde, Central African Republic, the Democratic Republic of the Congo, Liechtenstein, Nepal, Sao Tome and Principe, Sudan, Timor-Leste.

²⁰¹ Argentina, Australia, Bahamas, Barbados, Burkina Faso, Burundi, Cameroon, Chad, Equatorial Guinea, Eswatini, Ethiopia, Gabon, Guinea, Haiti, Kenya, Kyrgyzstan, Mali, Mauritania, Mauritius, Papua New Guinea, Rwanda, Senegal, Singapore, Solomon Islands, Suriname, Tajikistan, Tonga, Tunisia, Turkmenistan, Uzbekistan. *Disarmament Treaties Database*, UNITED NATIONS OFF. FOR DISARMAMENT AFFS., <http://disarmament.un.org/treaties/> (last visited Apr. 15, 2021).

confrontational than generally perceived by NWS. Indeed, the legal divide and signaling do not particularly threaten NWS but provide a basis for cooperation, or at least coordination, between NWS and TPNW States parties. As the TPNW signals that its members do not tolerate nuclear weapons in their jurisdiction, this signal allows NWS to worry less about threats and risks from nuclear weapons and related activities that could arise from these States. This narrowing of the field of States of concern serves the interests of NWS, which should incentivize NWS to respect and value the TPNW. At most, it suggests that NWS can use the TPNW for strengthening nuclear disarmament and non-proliferation efforts, and thus acknowledges and strengthens the TPNW States parties' efforts, as well as incentivizes more States to join the TPNW. At the very least, it suggests that NWS have no reason to work against the TPNW.

In line with the fact that signaling allows international cooperation, the TPNW's signaling provides a basis for institutionalized cooperation between its States parties and outsiders. As the TPNW's signal communicates that no nuclear threats arise from its member States, the NWS could reciprocate by eliminating any nuclear threats against TPNW States parties. This can be communicated by negative security assurances (NSA), which aim "to assure non-nuclear-weapon States against the use or the threat of use of nuclear weapons."²⁰² The five declared NWS made unilateral pledges on NSA to the non-nuclear-weapon States parties to the NPT in 1995, which were reflected in United Nations Security Council Resolution 984.²⁰³ France, Russia, the United Kingdom, and the United States stated that they would not use nuclear weapons against NNWS that are party to the NPT and in compliance with its obligations unless NNWS attack them in "association or alliance" with a NWS. China went further. It has persistently declared that it will never use or threaten the use of nuclear weapons against a NNWS or a NWFZ.²⁰⁴

Most relevant in relation to the TPNW, the Protocols to NWFZ treaties establish NSA by ensuring that NWS refrain from using or threatening to use nuclear weapons against any party or territory within the zones.²⁰⁵ Some also

²⁰² G.A. Res. S-10/2, ¶ 32 (Jun. 30, 1978).

²⁰³ S.C. Res. 984 (Apr. 11, 1995).

²⁰⁴ CHINA'S MILITARY STRATEGY, *supra* note 173.

²⁰⁵ See G.A. Res. S-10/2, *supra* note 202. The Additional Protocol to the Bangkok Treaty also bans "the use or threat of use of nuclear weapons from within the zone by an external nuclear state targeting countries outside the zone"—a direct prohibition that is not found in the other treaties, which is one of the reasons why the Additional Protocol has yet to be ratified by any NWS. Bangkok Treaty Protocol, *supra* note 189, art. 2; Hamel-Green, *Implications*, *supra* note 198, at 231.

prohibit the testing of nuclear weapons in the zone.²⁰⁶ The Protocol II with respect to denuclearization to Treaty of Tlatelolco was ratified by all declared NWS. The Protocol II on no-use against Treaty members to Treaty of Rarotonga, the Protocol I on no-use against Treaty members to Pelindaba Treaty, and the Additional Protocol to Treaty of Semipalatinsk were ratified by China, Russia, the United Kingdom, and France, whereas the United States only signed them.²⁰⁷ Only the Additional Protocol to the 1995 Bangkok Treaty has so far not been signed by any NWS.²⁰⁸ Such broad engagement by NWS suggests that they may offer renewed, unambiguous NSA that eliminate any threats or use of nuclear weapons against or on the territory of TPNW states parties.²⁰⁹

New NSA would recognize and help establish the TPNW as a global NWFZ that protects its populations from the risks of nuclear weapons. NSA could also create incentives for more States to join the TPNW, eventually supporting global nuclear non-proliferation and disarmament. In addition, NSA could transform the current political confrontation between TPNW States parties and NWS into broader cooperation. At a minimum, this would show that NWS and its partners value the TPNW as a serious initiative and support nuclear disarmament.

Accordingly, based on its signaling function, the TPNW can be characterized as a global NWFZ. This implies that rather than for political confrontation, the treaty can be used as a tool for cooperation between NNWS and NWS. NSA would represent a form of contracting between TPNW States parties and NWS, which would respond to the TPNW's signaling and strengthen the treaty regime. Admittedly, the TPNW was not created to seek and establish cooperation with NWS and umbrella States but rather to

²⁰⁶ Additional Protocol III to the South Pacific Nuclear-Free Zone Treaty art. 1, Dec. 1, 1986, UNITED NATIONS OFF. FOR DISARMAMENT AFFS., https://treaties.unoda.org/t/rarotonga_p3 (last visited May 25, 2022).; Additional Protocol I to the Pelindaba Treaty, *supra* note 189, art.1.

²⁰⁷ Additional Protocol II to the Treaty of Tlatelolco, *supra* note 189; *Protocol to the Treaty on a Nuclear-Weapon-Free Zone in Central Asia (CANWFZ): Status of the Protocol*, UNITED NATIONS OFF. FOR DISARMAMENT AFFS., http://disarmament.un.org/treaties/t/canwfz_protocol (last visited Apr. 15, 2021); *Protocol I to the Pelindaba Treaty: Status of the Protocol*, UNITED NATIONS OFF. FOR DISARMAMENT AFFS., http://disarmament.un.org/treaties/t/pelindaba_1/text (last visited Apr. 15, 2021); *Protocol I to the South Pacific Nuclear Free Zone Treaty: Status of the Protocol*, UNITED NATIONS OFF. FOR DISARMAMENT AFFS., http://disarmament.un.org/treaties/t/rarotonga_p2/text (last visited Apr. 15, 2021);

²⁰⁸ Bangkok Treaty Protocol, *supra* note 189.

²⁰⁹ Marc Finaud, *Why New Thinking is Needed on Negative Security Assurances*, 47 ARMS CONTROL TODAY 12, 12–16 (2017). The work discusses how in recent years, some NWS have modified their policy as to create an NSA exclusion for use of biological and chemical weapons by other states, thus lowering the threshold for use of NW. For a review of NSA see John Simpson, *The Role of Security Assurances, in SECURITY ASSURANCES AND NUCLEAR NONPROLIFERATION* 57, 57–86 (2020). For discussion of NSA in relation to the TPNW and NWFZ, see Hamel-Green, *Implications*, *supra* note 198, at 209–32.

confront them.²¹⁰ It has also been argued that mentioning NSA in the treaty would contradict its rationale to not tolerate nuclear weapons and its goal to contribute to the complete elimination of nuclear arsenals, which would also prevent the TPNW from representing a global NWFZ.²¹¹ Indeed, NSA or collaboration with NWS are not mentioned in the TPNW.²¹² However, if policymakers give appropriate attention to the TPNW's signaling, NSA or collaboration with NWS would be a logical consequence that would help bridge the political polarization and turn the TPNW's extra-regime confrontation into cooperation.

CONCLUSION

Treaty law enables signaling to states that have not joined a given treaty regime, namely outsiders. Treaties serve as signaling devices by providing visibility to its messages and by screening between States that adhere to the message and those that do not. Treaties further provide substantial clarity to the signal. As contractual arrangements that legally bind States, treaties also provide a certain level of credibility to the signal. Treaties further establish legal divides which, although rigid and exclusionary, hamper political confrontation because outsiders remain shielded from direct legal effects. Indeed, as signaling by treaty provides information, thereby reducing uncertainty, signaling may serve as basis for cooperation between parties to a treaty and outsiders. Intra-regime cooperation creates a basis for extra-regime collaboration.

The analysis of the TPNW's signaling leads to the conclusion that Christopher Ashley Ford's description of the TPNW as "emptily divisive virtue-signaling"²¹³ is not completely accurate. The TPNW does effectively signal substance and thereby is not hollow. While it signals values, it also signals perceptions, expectations, and intentions. The latter is most effectively signaled. Overall, while the TPNW's principal message is that "we (the States parties) want nothing to do with nuclear weapons, nor should you (the outsiders) have anything to do with nuclear weapons," as per treaty law's functioning, the TPNW more effectively signals "we (the States parties) want

²¹⁰ Williams, *supra* note 111.

²¹¹ Artem Churliaev, *Treaty on the Prohibition of Nuclear Weapons: What and Why*, LOSSERVATORIO, <https://www.losservatorio.org/en/publications/in-focus/item/937-treaty-on-the-prohibition-of-nuclear-weapons-what-and-why> (last visited Apr. 15, 2021).

²¹² At most, preamble paragraph eighteen mentions the NPT as a cornerstone of the disarmament regime, and paragraph twenty commands NWFZ as strengthening steps of disarmament. There is no mention of negative security assurances, nuclear weapons states, or any collaboration with non-state parties.

²¹³ Ford, *supra* note 5.

nothing to do with nuclear weapons.” Lastly, although the TPNW is divisive from a legal perspective, the treaty’s signaling lends to extra-regime collaboration rather than confrontation.

This has implications on the characterization of the TPNW and its role in nuclear politics. As per its signaling, the TPNW resembles a treaty establishing a global NWFZ. This is supported by its membership, which mostly comprises States that are party to a NWFZ treaty. As long as no NWS or umbrella States adhere, the treaty may even be considered rather like a non-armament treaty which prevents NNWS from acquiring or benefiting from nuclear weapons than a veritable disarmament treaty which brings states to renounce nuclear weapons and associated policies. Similar to NWFZ treaties’ protocols, NSA would represent a form of contracting between TPNW states parties and outsiders which would value and strengthen the TPNW. Most importantly, it would bridge current political divides and foster cooperation between the TPNW States parties and NWS.

In general, the assessment of political effects of international law needs to duly consider the law’s legal effects and formal functioning. In the case of the TPNW, assessing its political effects as a formal contractual arrangement governed by international law cannot be dissociated from its legal effects. The TPNW may well serve as vehicle for diffusing norms at the individual level. Yet at the level of States, which remain the main subjects of international law and take the formality and rigidity of international law seriously, the treaty serves as a signaling device. If norm diffusion is or gets stuck, which is possible, then this may be the primary function of the TPNW. In this case, the TPNW may have failed its initiators’ high ambitions, but it would still be valuable and represent a cornerstone that further nuclear disarmament efforts can be built upon.

Regarding the broader generalization of these findings, it is noteworthy that the TPNW is a special case by the fact that its initiators created the treaty specifically to confront NWS and nuclear umbrella States while having no illusion that these States would join the treaty in the short term. Therefore, additional research could further test how treaty law enables signaling to outsiders, in particular regarding other weapons ban treaties which great powers have not joined, such as the Anti-Personnel Mine Ban Convention²¹⁴ and the Convention on Cluster Munitions.²¹⁵ This could also be applied to more complex, regulatory treaties, such as the Arms Trade Treaty²¹⁶ or treaties

²¹⁴ Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction, Sept. 18, 1997, 2056 U.N.T.S. 35597.

²¹⁵ Convention on Cluster Munitions, May 30, 2008, 2688 U.N.T.S. 47713.

²¹⁶ Arms Trade Treaty, Apr. 2, 2013, 3013 U.N.T.S. 52373.

not in the security field. Other research could assess how treaty law supports or undermines norm diffusion, especially as norms of appropriateness and beliefs are not bound by the formality and rigidity of international law. This could culminate in a broader research agenda on how treaties affect outsiders.

For the politics of the TPNW, the TPNW's nature and functioning as a treaty under international law are relevant. Policymakers should pay more attention to the legalities, notably as they allow to see beyond the political confrontation for which the TPNW is currently used. Indeed, as much as the TPNW serves to signal, its limits as per treaty law makes it less threatening to outsiders. Accordingly, treating the TPNW like a global NWFZ can relax tensions and allow bridging the current political polarization and division. Maybe the discourse between the two camps is already softening.²¹⁷ Maybe the related confrontation is also relaxing already at some levels.²¹⁸ The P5 also stated that they are committed to avoid war between NWS and nuclear stability on January 3, 2022.²¹⁹ Relying on how international treaty law works may offer the next step towards international cooperation on nuclear disarmament.

²¹⁷ Hill, *supra* note 28; Tom Sauer, *NATO Allies, Don't Dismiss the TPNW*, EUR. LEADERSHIP NETWORK (Jan. 21, 2021), https://www.europeanleadershipnetwork.org/commentary/nato-allies-dont-dismiss-the-tpnw/?mc_cid=efaa0eb7cb&mc_eid=e38e866d8b; Tom Sauer & Claire Nardon, *The Softening Rhetoric by Nuclear-Armed States and NATO Allies on the Treaty on the Prohibition of Nuclear Weapons*, WAR ON THE ROCKS (Dec. 7, 2020), <https://warontherocks.com/2020/12/the-softening-rhetoric-by-nuclear-armed-states-and-nato-allies-on-the-treaty-on-the-prohibition-of-nuclear-weapons/>.

²¹⁸ Oliver Meier & Maren Vieluf, *From Division to Constructive Engagement: Europe and the TPNW*, ARMS CONTROL TODAY (Dec. 2021), <https://https://www.armscontrol.org/act/2021-12/features/division-constructive-engagement-europe-tpnw>.

²¹⁹ *Joint Statement of the Leaders of the Five Nuclear-Weapon States on Preventing Nuclear War and Avoiding Arms Races*, THE WHITE HOUSE (Jan. 3, 2022) <https://www.whitehouse.gov/briefing-room/statements-releases/2022/01/03/p5-statement-on-preventing-nuclear-war-and-avoiding-arms-races/>.