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**REINFORCING GLOBAL BIODEFENSE: THE CASE FOR AMENDING
THE BIOLOGICAL WEAPONS CONVENTION TO ENHANCE
INTERNATIONAL LAW AND LEGITIMACY**

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INTRODUCTION

The COVID-19 pandemic brought the world to a standstill, infecting millions, and causing widespread economic and social disruption. The pandemic not only highlighted the importance of robust public health systems and emergency preparedness, but also brought to light the increasing threat of biological weapons. The potential for malevolent actors to use biological agents as weapons of mass destruction has been a concern for decades, but the COVID-19 pandemic has shown how devastating such an attack could be. Biological weapons involve the distribution of pathogens or poisons that can cause harm or death to living beings, including humans, animals, and plants.¹ Biological weapons are extremely dangerous and can spread easily from person to person. If used intentionally, they could have catastrophic consequences, including global spread of diseases beyond national borders, food shortages, environmental disasters, economic devastation, and widespread panic and mistrust. The aftermath of such an event would not only result in loss of lives but also impact the entire global population with far-reaching effects. There is a fifty-one-year-old international treaty that established the prevention of biological weapon usage. “In 1972, a historic attempt to create the

¹ *Biological Weapons Convention*, U.N. OFF. FOR DISARMAMENT AFFS., <https://www.un.org/disarmament/biological-weapons/> (last visited Mar. 2, 2024).

world's first international legal regime banning the development and possession of an entire class of weapons of mass destruction culminated in the drafting of the Biological Weapons Convention (BWC).² The BWC “reflects a comprehensive repudiation of the development, production, and stockpiling of biological weaponry.”³ Despite its symbolic importance as a norm creating treaty, the absence of verification and enforcement provisions has rendered it “merely a paper agreement that could easily be circumvented.”⁴

The BWC is the cornerstone of the biological weapons disarmament regime, but the treaty is having difficulty keeping up with changing threats due to its decision-making process and geopolitics. Fundamentally flawed, the BWC is “crippled by key compromises made by the great powers in pursuit of various self-interested security objectives in the context of the Cold War.”⁵ In November 2022, over two years after the widescale emergence of COVID-19, the international community met to review the BWC for the ninth time. In early 2022, the prospects for strengthening the BWC were the best they had been in years as China, Russia, and the United States had articulated individual plans that reflected enough common ground to craft a workable compromise.⁶ This cautious optimism around the BWC’s improvement prospects were spoiled by Russia’s invasion of Ukraine in February of 2022. The illegal aggression of Russia undermined the rules-based international order that the BWC is intertwined with. As part of the invasion, Russia also deliberately fabricated allegations levied against Ukraine, the United States, and other partners⁷ which “stigmatizes and politicizes biosafety, biosecurity, and cooperative public health and life sciences research to the detriment of not just

² Jack M. Beard, *The Shortcomings of Indeterminacy in Arms Control Regimes: The Case of the Biological Weapons Convention*, 101 AM. J. INT’L L. 271, 271 (2007).

³ Michael P. Scharf, *Clear and Present Danger: Enforcing the International Ban on Biological and Chemical Weapons Through Sanctions, Use of Force, and Criminalization*, 20 MICH. J. INT’L L. 477, 482 (1999).

⁴ See Susan Wright, *Prospects for Biological Disarmament in the 1990s*, 2 TRANSNAT’L. L. & CONTEMP. PROBS. 453, 454 (1992); see also Nicholas A. Sims, *The Diplomacy of Biological Disarmament: Vicissitudes of a Treaty in Force 1975-85*, 84 AM. J. INT’L L. 984 (1988) (Sims concludes, “Those who took the British initiative of 1968 [which included strong provisions for verification and complaint investigation] and watered it down into the Convention of 1972 gave the world biological disarmament on the cheap: a disarmament regime of minimal machinery which would cost next to nothing to sustain. It is now painfully evident that these short-term savings have been outweighed by the long-term costs of a regime lacking the means to sustain its credibility in the face of suspicious events which cannot be resolved one way or the other.”).

⁵ Beard, *supra* note 2, at 271.

⁶ Gregory D. Koblentz & Filipa Lentzos, *A Plan B to Strengthen Biosafety and Biosecurity*, THINKGLOBALHEALTH (Nov. 15, 2022), https://www.thinkglobalhealth.org/article/plan-b-strengthen-biosafety-and-biosecurity?utm_medium=social_owned&utm_source=tw_tgh.

⁷ Russia made spurious allegations that the United States and other NATO members are violating the treaty by developing biological weapons in Ukraine.

Ukraine, but global health security overall.”⁸ Efforts to misrepresent or undermine legitimate biosafety and biosecurity research and capacity building weaken the BWC and undermine international cooperation for peaceful purposes.

Russia failed to garner support for its allegations in UN Security Council meetings in March and May of 2022 and then in June, Russia invoked Article V of the BWC to force the treaty’s 184 member states to hold a special consultation meeting. While Russia stood largely alone⁹ in the November 2022 UN Security Council meeting it forced, this process highlighted how legitimate processes in treaties and governmental bodies can be turned towards illegitimate ends.¹⁰ The BWC’s durable framework, may be sunseting soon after its 50th anniversary as it attempts to stay on top of a changing global landscape that includes rapidly evolving capabilities and new actors in the life sciences, as well as disinformation.¹¹ The BWC is based on good faith implementation by state parties as there are no external monitoring measures or oversight of any kind. Compliance is based not on oversight, but the international legal principle of reciprocity and the threat of withdrawal from the Convention. International cooperation, solely based on good faith is likely a fleeting dream. The bad faith hijacking of the legitimate procedures outlined in the BWC by Russia in 2022, suggests that a true, binding cooperation pillar for the BWC may be needed. The concept of a cooperation pillar was first introduced in Article III of the 1968 Treaty on the Non-Proliferation of Nuclear Weapons (NPT).¹² The NPT pillar was based on the concept of “atoms for peace,” which anticipated that nuclear technology would be crucial for energy production and a cooperative pillar could provide incentives for States that lacked such technology to join the NPT.¹³ The actions of Russia also call into question the legitimacy of international law and the legitimacy of international order, a foundational principle for the BWC and other international treaties which keep the world safe and secure. Arguments for legal reform to improve the BWC are not new, but in a world with eroding international law legitimacy and norms of good faith disappearing, there is a need to reevaluate the legal landscape of the BWC which has laid dormant for over a decade.

⁸ Ryan Houser et al., *Understanding Biosafety and Biosecurity in Ukraine*, 21 HEALTH SECURITY 70, 80 (2023).

⁹ Only China supported Russia’s formal accusation that the United States was noncompliant with the BWC.

¹⁰ Yong-Bee Lim et al., *Preparing for Twenty-First-Century Bioweapons*, ISSUES SCI. & TECH. (Dec. 8, 2022); <https://issues.org/bioweapons-biological-weapons-convention-bwc-ngos/>.

¹¹ *Id.*

¹² James Reville & María Garzón Maceda, *Options for Article of the Biological Weapons Convention*, U.N. INST. FOR DISARMAMENT RSCH. (Feb. 3, 2022), <https://unidir.org/publication/options-article-x-biological-weapons-convention/>.

¹³ *Id.*

The 9th Review Conference, which ended in late 2022, was far from perfect, but it provided “a glimmer of hope in an overall bleak international security environment.”¹⁴ This note calls for an amendment to the Biological Weapons Convention that leverages a cooperation pillar to ensure compliance with the treaty while subsequently enhancing the legitimacy of international law, building upon a slim inertia for positive change. Part I of this paper analyzes the historical context to the creation of the Biological Weapons Convention and the legislative features that frames its current structure. Part II investigates the scope of international law and legitimacy, historically and in the current climate. Section I of Part II analyzes the components of international legitimacy. Next the subpart will define the framework of analysis of international law legitimacy. Section II of Part II investigates the current conflicts of international legitimacy and international law. The final section of Part II will subsequently suggest the principles which can make international law more legitimate. Part III of the note will discuss international institutions and their role in instilling a cooperation pillar for the BWC. The final section of this note, Part IV, will suggest recommendations that will improve the BWC and make it more adaptable to the evolving threats both in the international law and relations space, but also in the rapidly changing landscape of biological threats.

I. THE BIOLOGICAL WEAPONS CONVENTION

While the use of disease in warfare has been relatively rare, it is believed to have been employed as a weapon dating to the Middle Ages.¹⁵ The Biological and Toxin Weapons Convention¹⁶ is a key element in the international community’s efforts to address WMD proliferation and it has established a strong norm against biological weapons.¹⁷ The BWC was negotiated between 1969 and 1971, opened for signature in 1972, and entered into force in 1975.¹⁸ By the end of 2001, there were 145 states parties to the Convention.¹⁹ “By mid-2007, there were 159 states

¹⁴ Una Jakob, *The 9th Review Conference of the Biological Weapons Convention*, PRIF BLOG (Feb. 7, 2023), <https://blog.prif.org/2023/02/07/the-9th-review-conference-of-the-biological-weapons-convention/> (citing UN Secretary-General Antonio Guterres).

¹⁵ See ROBIN CLARKE, *THE SILENT WEAPONS* 14 (1968); GEORGE DEAUX, *THE BLACK DEATH: 1347 1444* (1969); Jeffery K. Smart, *History of Chemical and Biological Warfare: An American Perspective*, in *MED. ASPECTS OF CHEM. AND BIOLOGICAL WARFARE* 9, 12 (Frederick R. Sidell et al. eds., 1997).

¹⁶ Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction, *opened for signature* Apr. 10, 1972, 26 U.S.T. 583 [hereinafter BWC].

¹⁷ *Biological Weapons Convention*, *supra* note 1.

¹⁸ CHRISTER BERGGREN, *Arms Control and Disarmament Agreements*, in *SIPRI YEARBOOK* 761, 771 (2002).

¹⁹ *Id.*

partied to the Biological Weapons Convention.”²⁰ “The Convention has reached almost universal membership with 185 States Parties and four Signatory States.”²¹ The BWC itself is comparatively short, comprising only 15 articles; however, over the years, it has been supplemented by a series of additional understandings reached subsequent to Review Conferences which occur every 5 years.²²

Under Article I of the 1972 Convention, each State party agrees never to produce, stockpile, or otherwise acquire: 1. Microbial or other biological agents or toxins whatever their origin or method of production of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes; [and] 2. Weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.²³ Article II requires each State Party to destroy existing stockpiles of biological weapons within nine months of the Convention's entry into force.²⁴ There are eight key provisions of the BWC which provide for biodefense.²⁵

The BWC has proven to be an incredible international treaty that has remained remarkably durable.²⁶ The deliberate broad scope of the treaty allows the BWC to “cover cutting-edge developments in genome editing and next-generation biotechnology that were far beyond the imagination of the diplomats who crafted the treaty.”²⁷ This is not, however, to suggest that the BWC is not “riddled with

²⁰ Symposium, *International Humanitarian Law: Think Piece: WMD Arms Control Agreements in The Post-September 11 Security Environment: Part of The 'Counter-Terrorism Toolbox'*, 8 MELBOURNE J. OF INT'L LAW 292 (2007).

²¹ *Biological Weapons Convention*, *supra* note 1.

²² *Id.*

²³ BWC, *supra* note 16, at art. I.

²⁴ *Id.* art. II.

²⁵ Article I: Undertaking never under any circumstances to develop, produce, stockpile, acquire or retain biological weapons; Article II: Undertaking to destroy biological weapons or divert them to peaceful purposes; Article III: Undertaking not to transfer, or in any way assist, encourage or induce anyone to manufacture or otherwise acquire biological weapons; Article IV: Requirement to take any national measures necessary to prohibit and prevent the development, production, stockpiling, acquisition or retention of biological weapons within a State's territory, under its jurisdiction, or under its control; Article V: Undertaking to consult bilaterally and multilaterally and cooperate in solving any problems which may arise in relation to the objective, or in the application, of the BWC; Article VI: Right to request the United Nations Security Council to investigate alleged breaches of the BWC, and undertaking to cooperate in carrying out any investigation initiated by the Security Council; Article VII: Undertaking to assist any State Party exposed to danger as a result of a violation of the BWC; Article X: Undertaking to facilitate, and have the right to participate in, the fullest possible exchange of equipment, materials and information for peaceful purposes. *Biological Weapons Convention*, *supra* note 1.

²⁶ Gregory D. Koblenz & Filippa Lentzos, *A Plan B to Strengthen Biosafety and Biosecurity*, THINKGLOBALHEALTH (Nov. 15, 2022), https://www.thinkglobalhealth.org/article/plan-b-strengthen-biosafety-and-biosecurity?utm_medium=social_owned&utm_source=tw_tgh.

²⁷ *Id.*

gaps and loopholes.”²⁸ When it comes to international enforcement, the BWC provides that a state party may submit a complaint of noncompliance to the UN Security Council as Russia did in 2022, but the BWC does not specify any clear legal requirements or rules to invoke in lodging such a complaint, which must establish a “breach of obligations deriving from the provisions of the Convention.”²⁹ The BWC, while arguably considered hard law due to its theoretically binding constraints in a legally binding agreement, operates more like soft law due to hortatory language,³⁰ and to imprecise, ambiguous, vague, or otherwise indeterminate formulations.³¹ The main failure of the BWC is the lack of provisions for “any mandatory mechanisms to enhance transparency and enforcement” which are “sometimes associated with soft law when the elements of an international agreement are viewed as a whole.”³² These non-concrete foundations for the BWC allow for erosion of norms with bad faith actions undermining not only the treaty, but international law overall. Russia’s recent illegal invasion of Ukraine and their purposeful disinformation that expropriates a legitimate provision in the BWC for self-interested gain, the legitimacy of international law, that is necessary for a meaningful implementation of the BWC, is called into question a reality which is discussed in part II of this note.

II. INTERNATIONAL LAW AND LEGITIMACY

Prior to the fall of the Berlin Wall and the end of the Cold War, few seemed to be asking the fundamental questions about the legitimacy of international law.³³ This is no longer the case as international law’s legitimacy has become a central

²⁸ Scharf, *supra* note 3, at 483.

²⁹ *Id.*; BWC, *supra* note 16, at art. VI(1). Without UN action, resolution of disputes between states parties is subject only to voluntary consultation and cooperation under Article V.

³⁰ Edith Brown Weiss, *Introduction to INTERNATIONAL COMPLIANCE WITH NONBINDING ACCORDS* 1, 3 (Edith Brown Weiss ed., 1997).

³¹ See Kenneth W. Abbott & Duncan Snidal, *Hard and Soft Law in International Governance*, 54 INT’L ORG. 421, 422 (2000) (arguing that “soft law” begins once legal arrangements are weakened along one or more of the dimensions of obligation, precision, and delegation”); Prosper Weil, *Towards Relative Normativity in International Law?*, 77 AM. J. INT’L L. 413, 414-15 n.7 (1983) (stating that “[i]t would seem better to reserve the term ‘soft law’ for rules that are imprecise and not really compelling”); Dina L. Shelton, *Normative Hierarchy in International Law*, 100 AM. J. INT’L L. 291, 319 (2006) (noting that “[t]he term ‘soft law’ is also sometimes employed to refer to the weak, vague or poorly drafted content of a binding instrument”); see also Beard, *supra* note 2, at 273 n. 17 (“Unlike hortatory or purely aspirational language, however, such indeterminate provisions retain a legally binding character and are not soft law in the sense that an adjudicative body with jurisdiction would decline to apply them on the grounds that they do not entail a legal obligation whose content can be ascertained by resort to established interpretive techniques.”).

³² Beard, *supra* note 2, at 273-74.

³³ Thomas Franck, *Why a Quest for Legitimacy?*, 21 UC DAVIS L. REV. 535, 535 (1987).

concern. Scholars have been debating in the last few decades, but recent events including Russia's invasion of Ukraine,³⁴ call into question the legitimacy of international law in the face of eroding events. There are a number of ways in which to assess the various dimensions of international law including the individual norms or bodies of norms such as international human rights law or humanitarian law on top of its associated institutions and enforcement mechanisms including the International Court of Justice and United Nations Security Council resolutions.³⁵ A key debate in international relations is the extent to which moral values play into an international domain that is anarchic in that it lacks a sovereign political authority or reliable enforcement mechanism.³⁶ One of the prominent mechanisms for assessing international law is the contested idea of legitimacy.³⁷ Debates revolve around de facto and de jure interpretations of legitimacy in which de facto interpretation provides legitimacy to international law by its ability to exert a high level of compliance pull amongst international actors, while de jure legitimacy is the existence of a right to rule.³⁸

A. The Components of International Legitimacy

Any theory of the legitimacy of international law must explain the normative basis of international law's legitimacy while also offering guidance on how to identify legitimate international law.³⁹ There are a number of critical components that make up the legitimacy of international law which will be defined in this section of the paper in order to evaluate later the conflicts of legitimacy and ways by which to improve the legitimacy of international law.

1. International Community Membership

The concept of an international community has been a steady driving force behind the progressive development of international law and its codification.⁴⁰

³⁴ See *Russia's Invasion of Ukraine*, BROOKINGS, <https://www.brookings.edu/tags/russias-invasion-of-ukraine/>.

³⁵ See John Tasiloulas & Guglielmo Verdirame, *Philosophy of International Law*, in THE STANFORD ENCYCLOPEDIA OF PHILOSOPHY (Edward N. Zalta ed.) (2022), <https://plato.stanford.edu/archives/sum2022/entries/international-law/>.

³⁶ *Id.*

³⁷ *Id.*

³⁸ *Id.*

³⁹ DAVID LEFKOWITZ, *The Legitimacy of International Law*, in PHILOSOPHY AND INTERNATIONAL LAW: A CRITICAL INTRODUCTION 98, 98-128 (2020).

⁴⁰ See PEMMARAJU SREENIVASA RAO, *The Concept of International Community in International Law: Theory and Reality*, in INTERNATIONAL LAW BETWEEN UNIVERSALISM AND FRAGMENTATION 85, 85-106 (Isabelle Buffard, James Crawford, Alain Pellet, & Stephan Wittich eds., 2008).

Following the Westphalia Treaty in 1648 in which an organization of international relations was constructed, States with sovereign equality began to develop international law to regulate their relationships. The United Nations is one of the key parts of an international community that provides legitimacy to international law. The fundamental principles of the United Nations Charter enhanced the solidarity with the concept of an international community as they provided the foundation for the contemporary world order. These principles are fundamentally pronounced in the name of “We, the people of the United Nations.” The international community membership through the United Nations and other subsidiary organs provides that similar to domestic rule in which every community at every level of social interaction is governed by its own rules of behavior, though organs in which member States can be part of an international community, there is a platform for which international interaction can likewise be governed by its own rules of behavior, or international law. This inextricably and inexorably relates international law and international community to the relationship between law and society everywhere.⁴¹ The ability to define who can be recognized as a legitimate member of an international community is a key measure of the right to govern and implement politics which is the goal of international legitimacy.

2. *International Rights Holding*

International right holding is defined as the right to have rights at the international level.⁴² This right creates duties and responsibilities for the party and involves much of collective security. The legitimacy of international law is thus defined by whether it serves the interests of the community or only the interests of powerful states and that it frequently prioritizes peace and stability at the expense of justice.⁴³ The United Nations General Assembly Declaration on the Rule of Law at National and International Levels stipulates that “the rule of law applies to all States equally, and to international organizations, including the United Nations and its principal organs.”⁴⁴ The legitimacy of global actors is primarily a question about how, when exercising public authority, this actor is perceived as having a “right to rule.”⁴⁵ This implicates, to a large extent, a moral question of global actors exercising public authority.

⁴¹ *Id.*

⁴² See Alison Kresby, *THE RIGHT TO HAVE RIGHTS: CITIZENSHIP, HUMANITY, AND INTERNATIONAL LAW* 1-8 (2012).

⁴³ David Lefkowitz, *supra* note 39, at 105.

⁴⁴ G.A. Res. 67/1, ¶ 2 (Sep. 24, 2012).

⁴⁵ Jean d’Aspremont & Eric De Brabandere, *The Complementary Faces of Legitimacy In International Law: The Legitimacy of Origin and the Legitimacy of Exercise*, 34 *FORDHAM INT’L L. J.* 190, 190 (2011).

3. *Hierarchy of International Rights Holding*

While international right holding is the first step in the legitimacy of international law, there is also a hierarchy of these right holders. Not all right holders are equal, as states are the primary right holders of international law while individuals pursue human rights that are not always recognized in the international law system.⁴⁶ While states are the primary subjects of international law and possess the greatest range of rights and obligations, they are not the only entities with international legal standing. While states may possess rights and obligations more automatically under the international law system, individuals and international organizations still derive rights and duties under international law, although directly as a result of particular instruments.⁴⁷ Individuals, for example, assert their rights under international laws through various covenants such as the International Covenant on Economic, Social, and Cultural Rights and the International Covenant on Civil and Political Rights, both of which entered into force in 1976.⁴⁸

4. *International Rightful Conduct*

International rightful conduct is one of the fundamental principles of international law. How actors at the international level behave towards one another and individually based on international law is a key part of the legitimacy of the system. John Tasioulas, an author of “Philosophy of International Law,” maintains that “the law’s distinctive contribution to a community’s realization of valuable goals consists precisely in successfully laying down authoritative standards of conduct.”⁴⁹ Where international law’s legitimacy is a function of its facilitation of the coordination of different common standards of rightful conduct, the de facto legitimacy is a necessary condition for its de jure authority.⁵⁰ Generally the primary function of law, especially at an international level where there is no primary

⁴⁶ See *International Human Rights Law*, UNITED NATIONS, <https://www.ohchr.org/en/instruments-and-mechanisms/international-human-rights-law> (last visited Apr. 9, 2024).

⁴⁷ Malcolm Shaw, *States in international law*, BRITANNICA, <https://www.britannica.com/topic/international-law/States-in-international-law> (last modified Jan. 9, 2024).

⁴⁸ *Id.*

⁴⁹ JOHN TASIOLAS, *The Legitimacy of International Law*, in *THE PHILOSOPHY OF INTERNATIONAL LAW* 100 (Samantha Besson & John Tasioulas eds., Oxford University Press 2010).

⁵⁰ Joseph Raz, *The Problem of Authority: Revisiting the Service Conception*, 90 MINN. L. REV. 1003, 1004 (2006).

authority, is to provide a structure for generating norms that guide human and state behavior, with or without the existence of effective sanctions.⁵¹

5. *International Authority*

Who gets to decide what is legitimate in international law and beyond laws in the international system is also a key component of the legitimacy of international law. Despite the absence of superior authority to enforce all rules which govern relations between states, international law is considered binding upon them.⁵² Besson argues that “legitimate authority is an essential part of legality,” meaning that “the law should be made in such a way that its claim to legitimacy can sometimes be warranted.”⁵³ This emphasizes an authority’s coordinative capacity and makes legitimacy dependent on an international authority’s service of ultimate individual subjects rather than of the states by which they are represented.⁵⁴ The idea that law claims authority, is in itself abstract, but strengthened by the practices in which official agents of the law, both individual and institutional, purport to bind subjects.⁵⁵ In the international order, the more powers and influence these actors acquire, the more their legitimacy proves to be controversial.⁵⁶

B. Conflicts of International Legitimacy and International Law

The principles that make international law legitimate are often conflicted as a result of a complicated international environment that muddies the overall legitimacy. These conflicts have had the impact of delegitimizing international law following the Cold War, potentially eroding the strengths provided by an international system that defines behaviors between sovereign states. International law today is no longer adequately described by the law of a narrowly circumscribed domain of foreign affairs.⁵⁷ Questions concerning the legitimacy of international law are relevant for deciding what the future of international law should be, considering the current conflicts that erode legitimacy.

⁵¹ JOHN TASIOLAS, *supra* note 48 at 100.

⁵² *How International Law Works*, AN ROINN GNÓTHAI EACHTRACHA – DEP’T OF FOREIGN AFFS, <https://www.ireland.ie/en/dfa/role-policies/international-priorities/international-law/how-international-law-works> (last visited Mar. 23, 2023).

⁵³ Samantha Besson, *The Authority of International Law: Lifting the State Veil*, 31(3) SYDNEY L. REV. 343, 349 (2009).

⁵⁴ *Id.*

⁵⁵ Nicole Roughan, *Mind the Gaps: Authority and Legality in International Law*, 27(2) EUR. J. OF INT’L L. 329, 336 (2016).

⁵⁶ Jean d’Aspremont, *supra* note 44, at 204.

⁵⁷ Matthias Kumm, *The Legitimacy of International Law: A Constitutionalist Framework of Analysis*, 15(5) EUR. J. OF INT’L L. 907, 907 (2004).

1. *Principles of International in Competition and Legitimacy*

As a result of the number of actors in international law, there is a frequent issue with compatibility, as there is a need for convergence and coherence to have a functioning legal system. Disagreements have the effect of limiting the plurality and inclusion of different ideas into law at the international system, putting sovereign ideals in conflict. The subject matter of international law has expanded significantly. There is an overlap between the questions that “traditionally have been addressed by liberal democracies as domestic concerns and the kinds of questions that international law now addresses.”⁵⁸ Globalization did not lead to a world in which borders are irrelevant, but it rather led to a world in which decisions on how borders are relevant are increasingly made outside the national democratic process. “Who and what can cross a border, under what conditions, are circumscribed increasingly by the rules of international law” that complicates and creates conflicts within the international system and legitimacy of such.⁵⁹ Current issues are expanded to other contexts which increases the conflicts amongst nations. The WTO for example, no longer considers trade issues in the sole context of economic issues and instead considers pressures linked to environmental and human rights concerns.⁶⁰

2. *History and Philosophical Assumptions of International Law*

There was a general lack of interest in international law’s legitimacy during the Cold War as a result of the perspective that international law was “ineffective and unreliable as a guarantor of international peace and security.”⁶¹ During the Cold War international law was seen as a social force that affected the lives of other people. “[T]he International Monetary Fund (IMF) and the World Bank were central actors in developing countries and that the United Nations played an important role in the process of decolonization.”⁶² The decline in the legitimacy in international law has been linked to the emergence of an international legal order that increasingly serves as “a firmly structured normative web that makes an increasingly plausible claim to authority.”⁶³ International law “tends to exert influence on national political and legal processes and often exerts pressure on

⁵⁸ *Id.* at 913.

⁵⁹ *Id.*

⁶⁰ *Id.*

⁶¹ *Id.* at 911.

⁶² *Id.*

⁶³ Mattias Kumm, *supra* note 57 at 912.

nations not in compliance with its norms.”⁶⁴ History has had a major impact on customs and operations of international law, even with the complicated nature of our troubled past.

3. *Political and Geographical Instrumentalization of International Law*

International law occupies a precarious position between the demands of the powerful and the ideals of justice held in international society.⁶⁵ The relative polarization around the positions defended by the United States and Western countries on the one side, and Russia and China on the other in many contexts⁶⁶ makes international law a pawn that is delegitimized by conflicts. Even successes in international law as a result of debate create useful tools by which to organize and create peaceful coexistence of states are not panaceas, as there are nevertheless power struggles in a context of heightened geopolitical tensions that delegitimize the process of international law amongst selfish sovereign interests, creating a fragmentation of international law.⁶⁷

4. *Legitimacy Analysis Foundation*

Legitimacy is an elusive concept although it is used mainly to designate rule as rightful, moral, or justified.⁶⁸ Research on legitimacy usually sets out from the distinction between normative and empirical (or sociological) approaches to legitimacy. A framework from which to analyze legitimacy is thus a crucial component of improving the legitimacy of international law. Three key elements are important when evaluating the successes and legitimacy of international law and its subsequent organs including legal, performance, and procedural legitimacy. Based on the traditional Lockean view, “legitimacy depends upon consent.”⁶⁹ The legal legitimacy of international law is thus based on its process in acting in accordance with its established rules and norms which states have consented to and “which determine who has the right to exercise authority, according to whatever

⁶⁴ *Id.*

⁶⁵ Nico Krisch, *International Law in Times of Hegemony: Unequal Power and the Shaping of the International Legal Order*, 16(3) EUR. J. INT’L L. 369, 369-408 (2005).

⁶⁶ François Delerue, Frédéric Douzet and Aude Géry, *The Geopolitical Representations of International Law in the International Negotiations on the Security and Stability of Cyberspace*, IRSEM/EU CYBER DIRECT 13, 17-18 (Nov. 2020), <https://eucd.s3.eu-central-1.amazonaws.com/eucd/assets/EOETDUfd/report-75-delerue-et-al-v2.pdf>.

⁶⁷ Harlan Grant Cohen, *From International Law to International Conflicts of Law: The Fragmentation of Legitimacy*, 104 AM. SOC’Y INT’L L. PROC. 1, 1-5 (2010).

⁶⁸ Martin Binder and Monika Heupel, *The Legitimacy of the UN Security Council: Evidence from Recent General Assembly Debates*, 59 INT’L STUD. Q. 238, 238-50 (2015).

⁶⁹ *Id.* at 240.

procedures have been established, and subject to whatever limits have been determined.”⁷⁰ “In the international realm, scholars have stressed the role of ‘fair and accepted procedure’ for the legitimacy of international norms.”⁷¹ These procedural legitimacies are defined by “equal participation of all of its member states in formal decision making,” the “function of transparency that enables interested states and stakeholders to trace the decision-making process,” accountability to hold decision-makers and actors responsible, and the equal division of power where actions are not dominated by great powers where weaker states are “forced to bow to their interests and accede to their values.”⁷² Legitimacy is also a component of output. Performance legitimacy depends on the ability of an institution, organ, regime, or international system to “enhance the common welfare of a given constituency by effectively solving problems in need of collective solutions.”⁷³

C. How to Make International Law More Legitimate

The extent to which international law is losing its legitimacy is a case of on-going debate, but the conflicts of international law legitimacy in the light of on-going current events limits the impact and legitimacy of international law. As a system that defines the behaviors of actions between international actors in lieu of any other possible system, it is crucial that steps are taken to improve international law making it more legitimate.

1. Consent

A prominent approach that traces the legitimacy of international law is the actual consent, whether explicit or implicit of its subjects. States are bound by treaties insofar as they consent to them while states are bound by customary international law insofar as they explicitly, through *opinion juris*, consented to the norms in the process of their formation or whether they implicitly did so.⁷⁴ International law is thus built on the foundation of state consent. A cumbersome status quo is created as a result of sovereign interests. A country can avoid a change that does not serve its interests by withholding from the agreement.⁷⁵ Our existing commitment to consent, although well-intentioned, may be excessive and unlikely to

⁷⁰ *Id.* at 241.

⁷¹ *Id.*

⁷² *Id.*

⁷³ *Id.*

⁷⁴ JOHN Tasioulas, *supra* note 49.

⁷⁵ Andrew Guzman, *The Consent Problem in International Law* 26 (Mar. 10, 2011) (on file with University of California, Berkeley Program in Law and Economics).

succeed in the current environment. The world might be better situated with more meaningful outcomes if there was a use of non-consensual forms of international law.⁷⁶ This is not to say this would not create additional problems as a rule made without the consent of states faces a legitimacy problem that implicate the desirability and practicality of non-consensual rules. This approach is already a part of international law.

Doctrines and practices can constrain the actions of states without implicating consent. Both formal and binding international law and soft law approaches are all permissible angles to improve the legitimacy of international law while ensuring actions can be achieved within a highly polarized world. Customary International law, *jus cogens*, United Nations Security Council Resolutions under Chapter VII of the Charter are all binding approaches to international law, while international organization and international tribunals can be a means to leverage soft law.⁷⁷ The dominant view on the meaning of *opinio juris* is the sense of legal obligations that must be felt by states generally and not by any acting state in particular. This view has been upheld by the International Court of Justice (ICJ) in the North Seas Continental Shelf cases in which, while describing customary international law, the Court states “[t]he States concerned must therefore feel that they are conforming to what amounts to legal obligation.”⁷⁸ A failure to object to a rule of customary international law can thus be taken as support for a rule, under the persistent objector doctrine. It is clear international law can bind states without their consent,⁷⁹ providing an opportunity to evade the implications of sovereign interests eroding the legitimacy of nearly perfect worldwide agreements in the absence of one country.

Following the Peace of Westphalia in 1648, custom and practice was seen as primary sources of international law, although the emphasis of state sovereignty did not fit well within that concept.⁸⁰ The history of customary international law thus provides support for the key notion that non-consensual rules can lead to better outcomes for states and individuals.⁸¹ All nations have the ability to be parties to the BWC. Their signatures on the treaty serve to legitimize its purpose by ensuring all nations abide by its principles. Consent is also crucial in other aspect of

⁷⁶ *Id.*

⁷⁷ *Id.* at 32.

⁷⁸ North Sea Continental Shelf (F.R.G. v. Den., F.R.G. v. Neth.), Judgment, 1969 I.C.J. Rep. 3, ¶ 44 (Feb. 20).

⁷⁹ See Michael Akehurst, *Custom as a Source of International Law*, 47 Brit. Y.B. INT’L L. 1, 23 (1975) (where a State can be bound by a rule of customary international law even if it has never consented to that rule).

⁸⁰ Harold Hong Koh, *Why Do Nations Obey International Law?*, 106 YALE L.J. 2599, 2607-08 (1997).

⁸¹ Andrew Guzman, *supra* note 75, at 35.

international law legitimacy including accountability which will be discussed in the next section.

2. *Accountability*

Accountability is key to improve the legitimacy of international law. International legal accountability “involves the legal justification of an international actor’s performance *vis-à-vis* others, the assessment or judgment of that performance against international legal standards, and the possible imposition of consequences if the actor fails to live up to applicable legal standards.”⁸² While state responsibility remains the paradigm form of responsibility on the international plane, this is a lacking principle of accountability in contemporary international law. In a system without a superior authority, creating an anarchic world, a system by which to hold violators accountable is a must. The International Court of Justice provides important authoritativeness that can uphold the rule of law in the international system. The court provides objectivity, knowledgeability, analysis, reasoning and, and persuasion in their rulings. The Court provides a presumption of authoritativeness as without a central authority, “authoritativeness in international law must always be earned and is also the reason for the lack of a hierarchical order between, as well as within, judicial pronouncements and learned writings.”⁸³

In order to improve international law legitimacy, the United Nations has created the formal jurisdiction of the ICJ. States, however, have attempted to limit the jurisdiction of the ICJ and have found ways to delegitimize the actions of the court based on rulings that states dislike. When France became a defendant in the *Nuclear Weapons Case*, it refused to participate.⁸⁴ While the ICJ retained its jurisdiction over the dispute, the lack of cooperation of France undermined the institution, delegitimizing its place in international law and thus international law as a whole. States also have the ability to undermine the ICJ by withdrawing consent to jurisdiction. The United States withdrew its consent from the Court’s general compulsory jurisdiction during the *Nicaragua* case and withdrew its consent to jurisdiction under the Vienna Convention on Consular Relations following the *Avena* case.⁸⁵

⁸² Jutta Brunnée, *International Legal Accountability Through the Lens of the Law of State Responsibility*, 36 NETH. Y.B. OF INT’L L. 3, 4 (2005).

⁸³ Franklin Berman, *Authority in International Law 3* (Berlin Potsdam Rsch. Grp., Working Paper No. 22, 2018).

⁸⁴ Gary L. Scott & Craig L. Carr, *The ICJ and Compulsory Jurisdiction: The Case for Closing the Clause*, 81 AM. J. INT’L L. 57, 65 n.49 (1987).

⁸⁵ *Id.*

States may make declarations accepting the compulsory jurisdiction of the International Court of Justice over international law disputes with other States that have made a similar declaration.⁸⁶ However, only a small number of United Nations members accept such jurisdiction and among permanent members of the Security Council, only the United Kingdom does.⁸⁷ If used universally this form of jurisdiction would represent a major delegation by states to the Court to uphold the accountability of international actors.

The accountability of member states is the key failure of the BWC. The lack of provisions to practically mandate and ensure compliance allows for the improper hijacking of the legitimate provisions by nations such as Russia. Any measures that mandate compliance through verification and cooperation pillars would ensure appropriate accountability not only for the BWC itself, but also the good faith application of its provisions as intended.

3. Consistency

Consistency in interpretations and applications of international law is another crucial aspect of legitimacy in international law which is currently lacking. The most glaring cases of unjustifiable inconsistency are cases “where the same investment treaty standard or same rule of customary international law was interpreted differently in the absence of justifiable ground for the distinction.”⁸⁸ Other inconsistencies include justifiable actions, where tribunals are interpreting similar, but materially different treaty texts – or interpreting the same treaty in relation to materially different facts.⁸⁹ Unjustifiably inconsistent interpretations of the rules of the game are problematic, insofar as they create severe uncertainty and unpredictability in the making of investments and for national regulatory choice.⁹⁰ The erosion of consistency would call into question any application of customary international law which is developed through “a general and consistent practice of states followed by them from a sense of legal obligation.”⁹¹ Consistency is an essential characteristic of the law where inconsistent practice diminishes the

⁸⁶ Statute of the International Court of Justice art. 36(2), June 26, 1945, ¶ 33.

⁸⁷ See U.N. Secretary-General, Growth in U.N. Membership, <https://www.un.org/en/about-us/growth-in-un-membership>; see also I.C.J., Declarations Recognizing the Jurisdiction of the Court as Compulsory, <https://www.icj-cij.org/declarations> (last visited Mar. 15, 2023).

⁸⁸ U.N. Comm’n on Int’l Trade L Working Grp. III, *Report of Working Group III (Investor-State Dispute Settlement Reform) on the Work of its Thirty-Fifth Session*, ¶ 21, U.N. Doc. A/CN.9/935 (May. 14, 2018).

⁸⁹ Chester Brown, Federico Ortino & Julian Arato, *Lack of Consistency and Coherence in the Interpretation of Legal Issues*, EUR. J. OF INT’L L. BLOG (Apr. 5, 2019), <https://www.ejiltalk.org/lack-of-consistency-and-coherence-in-the-interpretation-of-legal-issues/>.

⁹⁰ *Id.*

⁹¹ RESTATEMENT (THIRD) OF FOREIGN REL. L. OF THE U.S. § 102(2) (1987).

prospects of the development of norms of protection and associated practices and institutions.⁹² Additionally, inconsistent practice means that fewer people receive protection from egregious violations of human rights.⁹³ For example, there may be ambiguity about the extent to which UN Charter obligations prevail over conflicting obligations under other international agreements. One of the defining characteristics of international law is that it lacks coherence, at least when compared with domestic law limiting the consistent application of principles and rules.⁹⁴

A legitimate international system requires that the rule of law be applied equally, without unjustifiable differentiation. The inconsistency at an international level creates a gap in coverage of the protection of various regimes or people. The failure to pursue greater legitimacy for the international legal order may lead to more injustice as cynicism erodes some of the advances in, for example, managing conflicts, promoting human rights, and protecting the environment to which international law has been a significant contributor.⁹⁵ An increase in the actual legitimacy of international law, through amendments to the BWC, however, will lead to an increase in belief in its legitimacy, which will, in turn, increase international law's actual legitimacy by making it more effective at guiding its subjects conduct and making it more consistent for all nations.⁹⁶

4. Representation and Participation

As part of a unified international community, representation and participation are also key elements in improving legitimacy of international law. The United Nations General Assembly looks to uphold this principle as it is composed of representatives from each Member State of the United Nations and is the main deliberative body on matters relating to international law. However, the representation is limited when looking at the United Nations Security Council. The current structure, ensures dialogue between only geopolitical powers and excludes Global South actors from the same dialogue.⁹⁷ Most member states increasingly oppose the Council's inadequate adaptation to current geopolitical realities. There

⁹² Noele Crossley, *Consistency, Protection, Responsibility: Revisiting the Debate on Selective Humanitarianism*, in GLOBAL GOVERNANCE: A REVIEW OF MULTILATERALISM AND INTERNATIONAL ORGANIZATIONS 473 (26th ed. 2020).

⁹³ *Id.*

⁹⁴ *Id.*

⁹⁵ *Id.*

⁹⁶ David Lefkowitz, *supra* note 39.

⁹⁷ Bjarke Zinck Winther, *Reforming the United Nations Security Council: Increasing Equality in the International Arena*, GEO. J. OF INT'L AFF. (Sep. 9, 2022), <https://gjia.georgetown.edu/2022/09/09/reforming-the-united-nations-security-council-increasing-equality-in-the-international-arena/>.

is great inequity that comes from a lack of representation as there are inherent powers and benefits that come from being a permanent membership, including the veto prerogatives, access to exclusive internal relationships, and ensuing economic benefits associated with the P5. The Security Council only consists of five permanent members (the P5: China, France, Russia, United Kingdom, and the US) and ten non-permanent members elected by the General Assembly for two-year stints to ensure regional representation on the Council.⁹⁸ The lack of representation and equal participation of all actors in the international community directly delegitimizes any actions of the council and international law itself. While efforts to increase permanent membership have been suggested, the lack of improvements have left the body without an ability to strengthen the body's legitimacy which has led to decreased performance based on the lack support from more United Nation member states. International law's illegitimacy is owed largely to its being an instrument for the unjust advancement of national or special interests by the relatively powerful, the less powerful may have little choice but to play by the existing legal rules.⁹⁹ The cooperation pillar acts as a counterbalance to ensure that the relatively powerful are held to the same standard as agreed upon globally as those less powerful. No P5 would have the ability to override the BWC for self-interested purposes without the necessary accountability measures such as sanctions which would generally deter any delegitimate actions.

5. A Better Universality

In a traditional sense, the universality of international law refers to international law as a global system of law, which is of worldwide validity and is binding on all States.¹⁰⁰ The universality of international law through the development of custom, treaty-making, and participation in “universal international organization is inextricably linked to the formality of international law. This formality of international law supports its universality, as it allows coexistence between entities with different values and conceptions of justice.”¹⁰¹ The universality of international law is a heavily contested concept, especially in a diverse world where the issue of “whose international law is universal” is not an easy one to answer.¹⁰² Actions taken by the international community however can help improve the

⁹⁸ *Id.*

⁹⁹ Lefkowitz, *supra* note 39.

¹⁰⁰ André Nollkaemper, *Universality*, MAX PLANCK ENCYCLOPEDIAS OF INTERNATIONAL LAW (2011), <https://opil.oup.com/display/10.1093/law:epil/9780199231690/law-9780199231690-e1497>.

¹⁰¹ Jo Wojtkowski, *The universality of international law*, OXFORD PUBLIC INTERNATIONAL LAW, Sep. 3, 2018, <https://blog.oup.com/2018/09/universality-international-law/> (quoting André Nollkaemper).

¹⁰² *Id.* (quoting Alexandra Hofer).

impacts of international law and thus its legitimacy. The universality of human rights is one of the most important principles codified in international law during the 20th century and is the central idea of the Universal Declaration of Human Rights and a foundational aspect of the entire human rights system.¹⁰³ Universality means that human beings are endowed with equal human rights simply by virtue of being human, wherever they live and whoever they are, regardless of their status or any particular characteristics. As such to improve international law legitimacy universality must be “understood as closely related to other core human rights principles of interdependence, indivisibility, equality and dignity.”¹⁰⁴ This becomes a critical tool for the United Nations human rights system, diverse regional human rights mechanisms and human rights defenders around the world.¹⁰⁵ The rights of nations to conduct biological research for public health and other peaceful purposes must be upheld through the BWC and protected from improper incursion from other nations, such as Russia’s disinformation attempts in Ukraine. The BWC stands to “support scientific cooperation and assistance to share biological knowledge, tools, and best practices is crucial to promote the security of states from infectious disease threats.”¹⁰⁶ The collective biosecurity of the world depends on our ability to prevent, detect, and respond to the most serious biological threats wherever they arise, and the promotion of international scientific cooperation and assistance in the biological and medical sciences, which the BWC is meant to support absent delegitimate abuse, benefits us all.¹⁰⁷

D. Legitimizing International Law

There is no shortage of problems facing the world today. Climate change, nuclear proliferation, terrorism, economic crises, and war are on-going problems that implicate the entire world. While we may live interdependently, we have shared challenges which necessitate a collaborative effort by many states to effectively response. Effective and necessary solutions may not always serve the interest of every country on the planet, but sometimes the best solutions require some countries accept the burdens so others can benefit. The rule of international law is thus a crucial pillar in solving the world’s problems. In order for the global community to make progress on our problems, it is necessary, but not sufficient, that we focus on re-legitimizing international law. Making international law more

¹⁰³ UNITED NATIONS, *Universality and diversity, Special Rapporteur in the field of cultural rights*, <https://www.ohchr.org/en/special-procedures/sr-cultural-rights/universality-and-diversity> (Last visited March 6, 2023 at 7:47 pm).

¹⁰⁴ *Id.*

¹⁰⁵ *Id.*

¹⁰⁶ Ryan Houser et al., *supra* note 8.

¹⁰⁷ *Id.*

legitimate will provide a legal system which supports international rule and order to effectively move towards solutions that are currently beyond our reach, ensuring that the BWC remains a useful treaty to ensure the world is safe from biological threats. A cooperation pillar, is necessary, but not sufficient to ensure that the BWC becomes a staple in international law and a treaty which upholds the legitimacy of international law, as will be discussed in part III of this note.

III. AN INTERNATIONAL INSTITUTION FOR BIOLOGICAL WEAPONS CONTROL

A verification and compliance measure itself, as argued by this note as a necessary amendment to the BWC, is only one part of a complex puzzle to improve international law and legitimacy while also improving international biosecurity. The current international system is defined as a brutal arena where states look for opportunities to take advantage of each other and therefore have little reason to trust each other.¹⁰⁸ One has to look no further than Russia's invasion of Ukraine and their abuse of the BWC to make false allegations of biological weapons usage and research within Ukraine to advance their purposes. A purely voluntarily cooperative mechanism such as the BWC is thus limited by the good faith of nations, which has recently been lacking, limiting the strength needed to protect the world from biological weapons. International institutions, however, offer an opportunity for a body to help upload the norms that are currently the on-going discourse following the BWC Review Conference in November and December of 2022. Much of the international politics and legal discourse today revolves around institutions just as much as intergovernmental.¹⁰⁹ The international institutions are found in every functional domain in every region of the world with a collection of 'alphabet soup' institutions playing a major role in international relations. This modern reality includes "the United Nations (UN), World Trade Organization (WTO), International Monetary Fund (IMF), Nuclear Non-Proliferation Treaty (NPT), International Atomic Energy Agency (IAEA), Trade-Related Aspects of Intellectual Property Rights (TRIPS), Missile Technology Control Regime (MTCR), European Union (EU), Shanghai Cooperation Organization (SCO), Association of Southeast Asian Nations (ASEAN), Organization of the Petroleum Exporting Countries (OPEC), Asia-Pacific Economic Cooperation (APEC), North Atlantic Treaty Organization (NATO), North American Free Trade Agreement (NAFTA), Gulf Cooperation Council (GCC)" among many more.¹¹⁰ This section of the paper will investigate the current scholarship around international institutions

¹⁰⁸ See Stephen Van Evera, *The Hard Realities of International Politics*, 17 BOS. REV., No. 6 at 19.

¹⁰⁹ Arthur A. Stein, *Neoliberal Institutionalism*, THE OXFORD HANDBOOK ON INTERNATIONAL RELATIONS, 201–21 (Christian Reus-Smit & Duncan Snidal eds., 2008).

¹¹⁰ *Id.*

and their role in the international relations landscape to suggest an international institution as a key element of a cooperation pillar within the BWC to enhance international law and legitimacy.

A. Historical Trends

International organizations have seen a growing importance in global governance as a product of the rise of globalization and the end of the Cold War.¹¹¹ Scholars have been increasingly seeing international organizations as actors in their own right which play an ever more salient role in global politics than previously envisioned rather than merely extensions of states or arenas in which to build winning coalitions.¹¹² The original study of international organizations was focused on concrete entities that had physical presences. Scholars generally defined these organizations as a formal agreement that extends beyond borders, aiming to establish institutional mechanisms fostering collaboration among members in areas such as security, economy, social welfare, or related domains.¹¹³ This narrow conceptualization of organizations and their role was later broadened to focus on regimes which were “principles, norms, rules, and decision-making procedures around which actor expectations converge in a given issue-area.”¹¹⁴ The other critical feature of the evolving of international organizational scholarship was that it became rooted in realist theories of states, power, and interests.¹¹⁵ Regimes thus became an alternative way of thinking about international politics with states being central actors in international politics with behaviors rooted in power and interest.¹¹⁶ These institutions thus became a part of an intellectual tool to approach conflict analysis such as game theory where there was a self-interested basis for international institutions. The regime definition was broadened into a focus on “institutions” as “the rules of the game in a society, or more formally, [the] humanly devised constraints that shape human interaction.”¹¹⁷ The expanded focus allowed for the theories to recognize a broader array of international politics such as the

¹¹¹ See generally Jutta Joachim et. al., *International Organizations and Implementation: pieces of the puzzle*, in INTERNATIONAL ORGANIZATIONS AND IMPLEMENTATION, (Jutta Joachim et. al. eds., 2007).

¹¹² *Id.*

¹¹³ Jack C. Plano and Roy Olton, *The International Relations Dictionary* (2d. ed. 1979).

¹¹⁴ Steven D. Krasner, *Structural Causes and Regime Consequences: Regimes as Intervening Variables*. 36 INTERNATIONAL ORGANIZATION, 185-205 (1982).

¹¹⁵ Stein, *supra* note 109, at 203.

¹¹⁶ *Id.*; See also Oran R. Young, *International Regimes: Toward a New Theory of Institutions*, 39 WORLD POLITICS, 104 (1986); Volker Rittberger with Peter Mayer eds., *Regime Theory and International Relations*, 89 AMERICAN JOURNAL OF INTERNATIONAL LAW 454 (1995).

¹¹⁷ DOUGLASS C. NORTH, INSTITUTIONS, INSTITUTIONAL CHANGE, AND ECONOMIC PERFORMANCE (1990).

effort of states to stop the proliferation of nuclear weapons and their delivery systems which has ample correlations to the ideal of preventing biological weapon usage. This was evidence in the 1960s when a majority of states signed the NPT and constructed the IAEA to monitor compliance.¹¹⁸ The end of the Cold War, globalization, and regional integration have changed the perimeters of world politics.¹¹⁹ This evolving of the international landscape allows international organizations to have more tools of influence at their disposal, promoting their autonomous influence on international policy making.¹²⁰

B. Game Theory Approach to Mutual Disarmament and Confidence Building

The game theory approach to cooperation is one that has explained the rise of multilateral institutions. Oye suggests that there are a number of factors that affect cooperation.¹²¹ Payoff structure, iteration (“the shadow of the future”), and number of players all impact how likely cooperation is to occur. Changing the payoff structure is an important part of increasing the likelihood of cooperation. On the international level, multilateral negotiation such as using institutions to create norms that appeal to domestic constituencies and to share information among states can help change the payoff structure into one that promotes cooperation which would be crucial in improving the BWC.¹²² Additionally the fact that there are so many players that are involved in the BWC and the goal of prohibition of biological weapons, implicates the importance of multilateral institutions in reducing information and transaction costs and which can have clauses for collective punishment in the event of defection. The BWC itself aims at addressing some of these matters, but without an institution to help with the information and transactional costs, there generally would be no collective punishments in the event of a defection, absent an overt use of biological weapons. As a result of no institution to ensure compliance and oversee punishment in the event of defection, and as a result of the limitations of the UN Security Council, states are left in an information gap that breeds conflict and distrust which is playing out nefariously in Russia’s disinformation campaign regarding biological weapons production and research in Ukraine by the United States and Ukrainian scientists during their war on Ukraine.¹²³

¹¹⁸ Stein, *supra* note 109, at 204.

¹¹⁹ BERTJAN VERBEEK, *International Organizations: The ugly duckling of international relations theory?*, in *AUTONOMOUS POLICY MAKING BY INTERNATIONAL ORGANISATIONS* (Bob Reinolda & Bertjan Verbeek eds., 1998)

¹²⁰ *Id.*

¹²¹ Kenneth A. Oye, *Explaining Cooperation Under Anarchy: Hypotheses and Strategies*, in *COOPERATION UNDER ANARCHY* (1986).

¹²² *Id.*

¹²³ Houser, *supra* note 8.

As discussed by Stein, a Distinguished Research Professor, the heart of neoliberal institutionalism is a view of international institutions as self-interested creations of states.¹²⁴ States will often find that autonomous self-interested behavior can be complicated on an international platform and as such they prefer to construct international institutions to deal with a host of concerns. These competing interests and coordination problems, yields an equilibrium selection, in which situations can generate multiple equilibria for which a mechanism is needed to coordinate a solution.¹²⁵ Some situations pose little conflict of interest and as such international institutions can be easily constructed.¹²⁶ However, there are cases in which conflicts of interest between equilibria, yet there may be institutional solutions that may be preferable to the risk of coordination failure.¹²⁷ The Prisoner's Dilemma game is a quintessential example of a situation in which autonomy results in poorer outcomes.¹²⁸ In these games institutions can resolve the collective action problems and allow states to reach mutually preferred outcomes. In the international arena, from trade to arms races, these Prisoner's Dilemma games have precisely been ones in which states have created, or tried to create, international institutions.¹²⁹ In contrast to coordination games where there are multiple equilibria over which actors have strongly divergent preferences, states have a strong mutual interest in reducing the possibilities of biological weapon usage.¹³⁰

Even with concerns about relative gain and standing from cooperative arrangements that do not focus on a state's own returns, there is a great deal of internationalized cooperation that still exists.¹³¹ There is concern that powers will use their bargaining power as well as their power in general to structure the choices for others in the construction of institutions. Stephen Krasner argued that when there is a set of acceptable outcomes, great powers will use their bargaining powers

¹²⁴ *Id.*, at 208.

¹²⁵ *Id.*

¹²⁶ *Id.*

¹²⁷ See generally Arthur A. Stein, *Coordination and Collaboration: Regimes in an Anarchic World*, 36 INTERNATIONAL REGIMES 299 (1982); Arthur A. Stein, *Why Nations Cooperate: Circumstance and Choice* in INTERNATIONAL RELATIONS (1990); Duncan Snidal, *Coordination Versus Prisoners' Dilemma: Implications For International Cooperation and Regimes*, 79 AMERICAN POLITICAL SCIENCE REV. 923-42 (1985); Lisa L. Martin, *Interests, Power, and Multilateralism*, 46 INTERNATIONAL ORGANIZATION 765-92 (1992).

¹²⁸ Stein, *supra* note 109, at 208.

¹²⁹ *Id.*

¹³⁰ Lisa L. Martin & Beth A. Simmons, *Theories and Empirical Studies of International Institutions*, 52 INT'L ORG. 729 (1998).

¹³¹ See Joseph M. Grieco, *Anarchy and the Limits of Cooperation: A Realist Critique of the Newest Liberal Institutionalism*, 42 INT'L ORG. 485 (1988); see also Robert Powell, *Absolute and Relative Gains in International Relations Theory*, 85 AM. POL. SCI. REV. 1303 (1991).

to obtain outcomes they most prefer.¹³² The coordination for the powerful was also identified by Stein in which states have multiple conflicting preferences over which of the multiple equilibria they want to see emerge.¹³³ These conflicts, however, occur even without international organizations that could bolster current international law. Single countries have had the ability to eliminate any advancement in BWC improvements. The existence of these power struggles within international organizations thus in no way reduces the importance of institutions and voluntaristic agreements, although in this current climate reaching these agreements may be increasingly challenging. The debate must then be targeted with a reasonable understanding that there are coercive aspects to mutually beneficial exchanges within the BWC and any institution that will help upload the elements similar to other treaties like the CWC or NPT.

C. The Gains and Losses of Institutions

International institutions are akin to the social contract arguments of political theorists for the creation of states themselves. Individuals out of their own self-interest will voluntarily cede some of their freedom of action, Stein argued, in order to achieve better outcomes than those arrived at in the state of nature.¹³⁴ This cession of some power is what has held up previous negotiations related to cooperation and compliance with the BWC at previous Review Conferences, but it is also one that has been recognized with other forms of arms control such as with nuclear weapons. Institutions have the ability to help reduce the governance costs associated with autonomous decision-making.¹³⁵ Currently, states have voluntary self-reported compliance measures with the Confidence Building Measures submitted to the BWC Implementation Support Unit. The costs of organizing coalitions of the willing for every specific problem and circumstance is quite high, however states may find that an international institution can help keep transaction costs reduced.¹³⁶ Institutions may also provide a domestic benefit which can override the current hesitation of some countries. International intuitions may provide a degree of legitimacy¹³⁷ and make difficult domestic policy changes more palatable by providing political cover.¹³⁸ International organizations have similar

¹³² Stephen D. Krasner, *Global Communications and National Power: Life on the Pareto Frontier*, 43 *World Pol.* 336 (1991).

¹³³ Stein, *supra* note 109, at 210.

¹³⁴ *Id.*

¹³⁵ *Id.*

¹³⁶ *Id.*

¹³⁷ See Thomas M. Franck, *Legitimacy in the international system*, 82 *AM. J. OF INT'L. L.* 705 (1988); Ian Hurd, *Legitimacy and Authority in International Politics*, 53 *INT'L ORG.* 379 (1999).

¹³⁸ See Todd L. Allee & Paul K. Huth, *Legitimizing dispute settlement: international legal rulings as domestic political cover*, 100 *AM. POL. SCI. REV.* 219 (2006); James R. Vreeland, *Why*

characteristics of bureaucracies which makes them powerful.¹³⁹ International organization make rules as part of their institutionalization and in doing so they create social knowledge. This knowledge can be deployed in ways that define shared international tasks, create new categories of actors, form new interests for actors, and transfer new models of political organization around the world.¹⁴⁰ Recognizing that there are a multitude of stakeholders that must be involved in the principles of the BWC, especially in the advancement of biosecurity pillars which include researchers, laboratories, and nations, helps support the advancements that an international organization would bring by sharing international tasks of compliance insurance and whole-of-government involvement. An international organization could be an agenda setter, adjudicator, and teacher affecting the decision-making process that advances the interests of the BWC.¹⁴¹ An independent institution would have larger impact in advancing the goals of the BWC rather than pitting individual nations against each other in an advancement of individual interests. Additionally, the three main fields of international relations: security, economics and the humanitarian domain often overlap in international organizations making organizations a key function in ensuring the safety and stability of nations which is a general mutual interest.¹⁴²

D. Institutional Design

Compliance is the key focus of any international institution for the BWC. Scholars have generally held that, by and large, states comply with the agreements they make although compliance is not easy to ascertain,¹⁴³ and is more related to the design of the institution.¹⁴⁴ International institutions vary along many dimensions including their membership and size as well as issue focus.¹⁴⁵ Koremonos, Lipson and Snidal laid out five dimensions of design: membership, scope of issues covered, centralization of tasks, rules for control of the institution, and flexibility of

do governments and the IMF enter into agreements? Statistically selected cases. 24 INT'L POL. SCI. REV. 321 (2003).

¹³⁹ Michael N. Barnett & Martha Finnemore, *The Politics, Power, and Pathologies of International Organizations*, 53 INT'L ORG. 699 (1999).

¹⁴⁰ *Id.*

¹⁴¹ Joachim, *supra* note 111.

¹⁴² Bob Reinalda, *Routledge History of International Organizations: From 1815 to the Present Day* (2009).

¹⁴³ Abram Chayes and Antonia Handler Chayes, *On Compliance*, 47 INTERNATIONAL ORGANIZATION 175 (1993).

¹⁴⁴ Ronald B. Mitchell, *Regime design matts: intentional oil pollution and treaty compliance*, 48 INTERNATIONAL ORGANIZATION, 425 (1994).

¹⁴⁵ Stein, *supra* note 109, at 213.

arrangements in dealing with new unanticipated circumstances.¹⁴⁶ These features can help design an institution that is sensitive to the distribution of problems, enforcement concerns, the number of state actors, and the asymmetries and uncertainties between them.¹⁴⁷ These considerations would be especially important in the contentious environment that surrounds the current debates with biological protection and the BWC. International institutions can be viewed in their government analogues as forms of governance where the structure of an institution can have legislative, executive, and judicial features.¹⁴⁸ Features also consider how institutions treat property and provide the good in question. Similar to environmental problems such as clean air, which are quintessential examples of public goods, safe access to life sciences is also a public good, but one that should be protected while navigating the domestic perspectives of biological weapon control. Throughout the world, post COVID-19 pandemic, many countries citizens have called for a tighter control on life science research and potential dual-use research that could lead to biological weapon usage. An institution could help countries lock in domestic changes and make credible their commitment to a policy path that could eliminate these biological threats.¹⁴⁹

Implementation of the international organization is also a function of the instruments and tools that the institution has at its disposal to ensure the transposition and further implementation of international agreements at the domestic level.¹⁵⁰ The two perspectives that have evolved in implementation are the enforcement and managerial perspectives.¹⁵¹ These differing perspectives reflect the differing visions of how the international system works, “possibilities for governance with international law, and the policy tools that are available and should be used to handle implementation problems.”¹⁵² More recently a third perspective, the normative perspective, has emerged which directly stresses the authority and legitimacy of international organizations. The enforcement perspective suggests that implementation of, and compliance with, international agreements is best ensured through coercive means. This suggests that international organizations can influence and ensure implementation through two coercive measures such as monitoring and sanctioning which is severely lacking as an

¹⁴⁶ BARBARA KOREMENOS, CHARLES LIPSON, AND DUNCAN SNIDAL, *THE RATIONAL DESIGN OF INTERNATIONAL INSTITUTIONS* 2003.

¹⁴⁷ *Id.*

¹⁴⁸ Stein, *supra* note 109, at 214.

¹⁴⁹ See Jon C.W. Pevehouse, *With a Little Help From my Friends? Regional Organizations and the Consolidation of Democracy*, 46 *AMERICAN JOURNAL OF POLITICAL SCIENCE*, 611 (2002); Alexandru Grigorescu, *International organizations and government transparency: linking the international and domestic realms*, 47 *INTERNATIONAL STUDIES QUARTERLY*, 643 (2003).

¹⁵⁰ Joachim, *supra* note 111, at 8.

¹⁵¹ *Id.*

¹⁵² *Id.*

actionable measure in the current BWC. The former measure increases transparency among the states and ensures that violators are detected, while the latter means punishment for those who shirk their obligations.¹⁵³ The managerial perspective in contrast operates from “the assumption that the decision to implement or comply with international agreements is ‘a plastic process of interaction among the parties concerned in which the effort is to reestablish, in the micro-context of the particular dispute, the balance and advantage that brought the agreement into existence.’”¹⁵⁴ Those who support this perspective thus consider arrangements featuring enforcement as a means of eliciting compliance as not of much use. They suggest that rather than monitoring and sanctioning, problem solving and capacity building, rule interpretation and transparency are more important.

Under this perspective, outside actors such as international organizations, can play an important role in implementation because they can help countries to develop capacities to take the steps needed.¹⁵⁵ The BWC supports this ideal, but lacks the entity in place to help facilitate such an exchange between or within countries. The normative power perspective suggests the authority of international organizations flows from two sources. It can result from control over information and expertise as specialized technical knowledge, training, and experience can enable the organization to carry out directives or agreements more efficiently.¹⁵⁶ Additionally the authority can be derived from the fact that international organizations are created to be and perceived as rational and impartial. If an entity presents themselves as impersonal, technocratic, and neutral – as not exercising power but instead of serving others, then the international organization gains its influential power.¹⁵⁷ To utilize authority under this perspective, international organizations use reasoned argument to persuade states that meeting their international commitments is the appropriate and right thing to do rather than coercing states.

While biological weapons and their implications on the globe have their unique considerations, much can be learned role of institutions in the revival of trade in medieval Europe.¹⁵⁸ An institution assists states with the ability to trust reputations even in an imperfect share of information. A good reputation can be an effective bond for honest behavior in a community which is crucial for the proliferation of life sciences and not biological weapons. In large communities, such as what exists

¹⁵³ *Id.*

¹⁵⁴ *Id.* at 10.

¹⁵⁵ Joachim, *supra* note 111, at 11.

¹⁵⁶ *Id.*

¹⁵⁷ *Id.*

¹⁵⁸ Paul Milgrom, Douglass C. North & Barry R. Weingast, *The Role of Institutions In the Revival of Trade: The Law Merchant, Private Judges, And The Champagne Fairs*, ECONOMICS AND POLITICS 1-23 (1990).

on an international scale, it would be impossibly costly for individuals to be perfectly informed about each other's behaviors. Nations do not have the ability on a legal level to even determine at this juncture the state of biological weapons research or proliferation in any country. This inadequate information exchange limits the effectiveness of the BWC and raises the mutual fear and antagonism without any checks and balances. Institutions thus can restore the effectiveness of a reputations system using much less extensive information,¹⁵⁹ providing a platform of mutual trust from which to continue to strengthen the BWC. During the revival of medieval trade in Europe an institution created as a system of judges to enforce commercial law before the rise of the state.¹⁶⁰ The institution was successful in encouraging merchants engaged in trade to “(1) to behave honestly, (2) to impose sanctions on violators, (3) to become adequately informed about how others had behaved, (4) to provide evidence against violators of the code, and (5) to pay any judgments assessed against them, even though each of these behaviors might be personally costly.”¹⁶¹

An international institution for the BWC could thus support the initiatives of Article X to exchange equipment, materials and information for peaceful purposes while also ensuring that there is a mechanism from which to uphold Article VI's goal of investigating alleged breaches of the BWC. This could help eliminate the role of the Security Council in the BWC as the current structure of the Security Council allows major powers to veto Security Council actions limiting the effectiveness of such investigations, and allowing the current abuse of the BWC as seen with Russia's false allegations of biological weapons research and usage by Ukraine during Russia's invasion of Ukraine.

E. Corollary Example to Inform a Biological International Organization

An organization for the BWC does not have to be one that is derived as a completely novel institution. Biological weapons are just one of the many security threats that nations around the world face. Accountability is a key pillar for international law and legitimacy, and one that is at the forefront of the need for amendments to the BWC. The Organization for the Prohibition of Chemical Weapons (OPCW) is unique in the world of international organizations. Its parent treaty – the Chemical Weapons Convention – puts in place an absolute prohibition on chemical weapons, and creates the OPCW to verify compliance with its terms.¹⁶²

¹⁵⁹ *Id.* at 1.

¹⁶⁰ *Id.*

¹⁶¹ *Id.*

¹⁶² Treasa Dunworth, *Towards a Culture of Legality in International Organizations: The Case of the OPCW*, 5 INT'L ORG. L. REV. 5 119, 119-39 (2008).

The OPCW is an independent intergovernmental Organization,¹⁶³ which the Chemical Weapons Convention has entrusted with municipal (Article VIII(E), paras. 48 and 50) and international legal personality (Article VIII, para. 1).¹⁶⁴ Through the Chemical Weapons Convention (CWC), the OPCW has a number of objectives with the goal of reducing chemical weapons.¹⁶⁵ Its municipal and international legal personality is instituted in the following prescriptions:

“According to Article VIII(E), para. 48,

The Organisation shall enjoy on the territory and in any other place under the jurisdiction or control of a State Party such legal capacity and such privileges and immunities as are necessary for its functions.

Paragraph 50 of the same article stipulates that,

The legal capacity, privileges and immunities [...] shall be defined in agreements between the Organisation and the States Parties as well as in an agreement between the Organisation and the State in which the headquarters of the Organisation is seated [...].”¹⁶⁶

These express provisions provide the OPCW with attribution of personality at the domestic level within the legal orders of state parties enabling the entity to enter into contracts, acquire and dispose of property, and to institute legal proceedings.¹⁶⁷ In order to uphold the legitimacy of an organ that has international standing, the OPCW in its structure in general, and its policy-making organs, is truly democratically constituted. The principles of institutional law are well reflected in the structures of the various organs of the institution and the democratic decision-

¹⁶³ Bimal N. Patel, *The Accountability of International Organisations: A Case Study of the Organisation for the Prohibition of Chemical Weapons*, 13 LEIDEN J. INT’L L. 571 (2000) (noting “[t]he term ‘intergovernmental Organisation’ has not been defined in major multilateral treaties such as the 1969 Vienna Conventions on the Law of Treaties, 8 ILM 679 (1969), the 1986 Vienna Conventions on Treaties Between States and International Organizations and Between International Organizations, 25 ILM 543 (1986), and the 1982 UN Convention on the Law of the Sea, 21 ILM 1477 (1982)). An intergovernmental Organisation must fulfil three requirements: (1) it must be established by an international agreement; (2) it must have organs; and (3) it must be established under international law. See Harry G. Schermers, *International Institutional Law* 8-9 (2nd ed. 1980).

¹⁶⁴ *Id.*

¹⁶⁵ OPCW objectives are: to eradicate all chemical weapons; to ensure the non-proliferation of chemical weapons among States Parties; to provide assistance and protection to State Parties in case of the use or threat of use of chemical weapons; to protect the confidentiality of all information that is entrusted to the OPCW; to avoid hampering the economic or technological development of States Parties and international cooperation in the field of chemical activities for purposes not prohibited under the Convention; to provide assistance to all State Parties in implementing the Convention at the national level; and to establish dispute settlement mechanisms and procedures.

¹⁶⁶ Patel, *supra* note 163.

¹⁶⁷ *Id.*

making processes are expressly aimed to build consensus among the members of the organs.¹⁶⁸

F. Current Threat Environment

Historical considerations of international institutions have also focused on military threats, but these threats can also be theorized in a more general context in which biological weapons would apply. Wallander and Keohane discuss institutions within the context of security strategies that involve measures to protect the territorial integrity of states from the adverse use of military force; efforts to guard state autonomy against the political effects of potential use; and policies designed to prevent the emergence of situations that could lead to the use of force against one's territory or vital interests.¹⁶⁹ There is a classical security dilemma which is described by John Herz and Robert Jervis in which states with purely defensive or status quo intentions adopt policies to provide for their own security, can unintentionally lead other states to take countermeasures that lead to a spiral of mutual fear and antagonism.¹⁷⁰ In order to manage these security threats, security management institutions can be created to create "inclusive, risk-oriented arrangement[s] with highly institutionalized practices."¹⁷¹ Currently the BWC follows an early NATO structure which was more of an alignment. There is some semblance of rules, norms, and procedures for members to identify threats and respond effectively against them. However, the lack of a highly institutionalized structure is what limits the effectiveness of the BWC.

IV. AMENDING THE BWC

The number of troubling trends that are shaping the biorisk landscape have been underway before COVID-19, but we have seen their significant acceleration due to the pandemic. The same is true with the erosion of the legitimacy of international law as seen with Russia's illegal invasion of Ukraine. To meet these challenges, we need to adopt a comprehensive approach to biorisk management which encompasses key international law principles and institutional oversight. It will take a concerted effort by all state parties to reduce the risk posed by biological

¹⁶⁸ *Id.*

¹⁶⁹ Celeste Wallander and Robert O. Keohane, RISK, THREAT, AND SECURITY INSTITUTIONS, IN IMPERFECT UNIONS: SECURITY INSTITUTIONS OVER TIMES AND SPACE, 21-47 (1999).

¹⁷⁰ See John H. Herz, POLITICAL REALISM AND POLITICAL IDEALISM: A STUDY IN THEORIES AND REALITIES (1951); Robert Jervis, Cooperation Under the Security Dilemma, WORLD POLITICS, 167-214 (1978).

¹⁷¹ Celeste Wallander, *supra* note 169, at 28.

weapons and now is the time to ensure that amendments are made before the erosions hollow out the foundation from which the BWC and other international treaties are formed.

A. The Cooperation Pillar

Accountability is a key pillar for international law and legitimacy and should be the focus of any BWC amendments. Commitments for advancement must include accepted hard law commitments with states agreeing to be subject to intrusive inspection and monitoring measures similar to requirements under other arms control and disarmament agreements like the Chemical Weapons Convention.¹⁷² Legally binding agreements that include more precise obligations provide an increased capacity for enforcement by bodies that are delegated that responsibility.¹⁷³ Improved determinacy within the BWC could allow for Security Council action that includes more effective sanctions, particularly if combined with transparency measures. The BWC was written with quasi-judicial or legalistically formal language, requiring the demonstration of a "breach of obligations" which reinforces the need for determinate provisions that allow both allegations and potential defenses to be tested by agreed legal rules or requirements.¹⁷⁴ As currently construed, the indeterminate BWC framework limits the threat of sanctions, projecting little deterrence which is even further diminished by the BWC's lack of mandatory transparency measures.¹⁷⁵ Following the example of the CWC, the BWC must instill mechanisms for compliance evaluations which would ensure that any claims about non-compliance are appropriately remedied and any false allegations are swiftly sanctioned. This ensures consistency in interpretations and applications of the BWC legitimizing international law. All parties have and must consent to the principles of the BWC and with an institution in place that ensures a unified international community with equal representation and participation, the BWC can be a key treaty that improves the legitimacy of international law.

¹⁷² Convention on the Prohibition of the Development, Production, Stockpiling, and Use of Chemical Weapons and on their Destruction, Jan. 13, 1993, 32 I.L.M 800 (1993).

¹⁷³ See Kenneth W. Abbott & Duncan Snidal, *Hard and Soft Law in International Governance*, 54 INT'L ORG. 421, 427 (2000).

¹⁷⁴ *Id.* (noting that legal review in the context of agreed rules and procedures is also more likely to increase the reputational costs associated with violations).

¹⁷⁵ Beard, *supra* note 2, at 307.

B. An Institution to Ensure Compliance

The powerful and pervasive role of international organizations in the international legal landscape of the 21st century is being increasingly recognized.¹⁷⁶ The United Nations and NATO have been described as highly portable in which the rules and practices of one institution can be adapted to other situations.¹⁷⁷ This concept helps explain why member states have attempted to use existing NATO principles, practices, procedures, and rules to deal with new security problems and to overcome new obstacles to security cooperation amongst allies when they emerge.¹⁷⁸ Similar functionality would be crucial for the BWC and the international institution charged with carrying out its functions. The emerging life science technologies and research can have major implications for international affairs which requires an adaptable framework from which to respond to the constantly evolving threat landscape of biological weapons. Along the tenets of classical liberalism, international organizations and institutions are a peaceful way to manage rapid technological change and globalization, a far preferable option to the alternative of war which would likely ensue following the use of a biological weapon.¹⁷⁹

A BWC-based entity would need to follow both the enforcement and managerial perspectives of implementation in order to be successful, although this would not be a heavy lift in terms of legal legitimacy. These principles are already outlined in the BWC, although not delegated to an independent body like the CWC instills on the OPCW. Monitoring and sanctioning are key parts of an actionable deterrence structure that is envisioned by the BWC, but the goal of the BWC should be to adapt to the everchanging biological threat landscape by moving past only a deterrence focus into a convention that through an international organization can help promote problem solving and capacity building as well as transparency amongst nations that ensures that safe and legitimate biological research is able to be conducted to improve mankind. This institution would help ensure that the cooperation pillar is upheld through independent evaluation of any claims, limiting the abuse of the legitimate processes already outlined in the BWC.

¹⁷⁶ Treasa Dunworth, *supra* note 162, at 120. *See also The Global Administrative Law Project at the Institute for International Law and Justice*, NYU, <https://www.iilj.org/GA> (last visited Mar. 22, 2023); Benedict Kingsbury ET AL., *The Emergence of Global Administrative Law*, 68 LAW & CONTEMP. PROBS 15 (2005); Nico Krisch & Benedict Kingsbury, *Introduction: Global Governance and Global Administrative Law in the International Legal Order*, 17 EUR. J. INT'L L. 1 (2006).

¹⁷⁷ Celeste Wallander, *supra* note 169, at 34.

¹⁷⁸ Celeste Wallander, *supra* note 169, at 35.

¹⁷⁹ Michael N. Barnett, *supra* note 24.

Much like international economic organizations,¹⁸⁰ governments will begin to perceive the value of an organization for the BWC as it can advance national objectives of safety and security while protecting safe and legitimate life science research. The principles of good science are also the foundations of good international relations as thorough knowledge of the subject, objective analysis, honesty, good communication, and openness to new ideas are all necessary for success.¹⁸¹ The world benefits not only from sharing scientific achievements, but also ensuring that it is used for the right purposes. The OPCW and their expertise has ensured that “chemistry is used for peaceful purposes, not weapons of war, so that our neighbors and children live in a better world.”¹⁸² These ideals can be adopted in a BWC oriented institution that ensures biology, not chemistry is on the next forefront of innovative safety and security.

CONCLUSION

The Russian commandeering of legitimate BWC provisions highlights the strain on legitimate international law and the tensions that threaten the success of the BWC. While a cooperation pillar and independent institution to maintain the BWC is necessary, these options are not sufficient. These common-sense amendments are also not guaranteed as the consensus needed for amendment allows one country, or a small number of states, to act as a spoiler.¹⁸³ The efforts to ensure compliance by all parties, however, through mandatory compliance measures, similar to those required of nuclear and chemical weapons, may be an appealing check on mutual distrust around the world. The response to the COVID-19 pandemic must be used as an opportunity to re-evaluate the biological threat landscape. The BWC as the international treaty focused on preventing biological weapon usage that would have tremendous implications on the world at large is fractured and in need of great repair. Given the new reality of biological threats the BWC must play a critical role in all-hazard biological threat reduction by ensuring a concrete system is in place to prevent biological and toxin weapons through an international cooperation pillar which upholds the principles that define legitimate international law and a pillar which would uphold a shield of protection from the threat to international peace and security that biological weapons pose.

¹⁸⁰ NICHOLAS BAYNE, *International Economic Organizations: More Policymaking, Less Autonomy*, in *AUTONOMOUS POLICY MAKING BY INTERNATIONAL ORGANIZATIONS* (Bob Reinalda and Bertjan Verbeek eds., 1998).

¹⁸¹ Deva Hupaylo, *SCIENCE IN DIPLOMACY AND GLOBAL RELATIONS: “GOOD GUYS ONLY WIN IF THEY WORK TOGETHER,”* *CHEMISTRY WITHOUT BORDERS: CAREERS, RESEARCH, AND ENTREPRENEURSHIP* 49-55.

¹⁸² *Id.*

¹⁸³ Koblentz and Lentzos, *supra* note 6.