Interpretation as Creation: Article VI of the Outer Space Treaty

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Abstract

From the launch of Sputnik I in 1957 to proposals for In-Space Servicing, Assembly and Manufacturing (ISAM) and new lunar activities such as resource utilization, advancing technology has always been a driving factor in the creation of space law. From a legal-historical perspective, the notion of law as creation should be contextualized in a broader legal-philosophical transition that began with the rise of positivism. Article VI of the Outer Space Treaty orbits unsteadily between international obligations and national implementation measures, rendering significant States' understandings of those provisions. Our understanding of Article VI turns on perhaps the most creative legal endeavor: interpretation. Bing Cheng established Article VI as a lynchpin between international obligations and national measures by finding in its first sentence an attribution clause extending responsibility to non-governmental activities falling under the jurisdiction of States. Though Cheng's interpretation has been accepted by scholars, and some domestic rules evidence its employ by States, the interpretation has been assailed on the basis that Cheng did not follow the strictures of the Vienna Convention on the Law of Treaties (VCLT). Codification, such as the VCLT, is itself an act of creation, which can have unintended consequences. Through the lens of Article VI, this Article explores interpretation as creation. It seeks to demonstrate that antipodal interpretations can be correct, that our determination of which interpretation to follow involves something other than a strict, positivist approach, and that the outcome of this debate may be more significant than perceived as states create a path forward for new space activities.

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I. INTRODUCTION: IMMUTABILITY AND CREATIVITY IN THE LAW

In *Astrotopia: The Dangerous Religion of the Corporate Space Race*, Mary-Jane Rubenstein describes a faith inherent in the new space race.[1] For Rubenstein, both the Cold War space race and today's corporate space race are extensions of a religiously rooted imperialism. To demonstrate this, she describes the Canaan Complex—the notion that there is some other land out there, a paradise that we might finally conquer—as a motivation fueling the Age of Discovery, European colonialism, the pioneering American Manifest Destiny and now, the "final frontier" of outer space.[2]

Rubenstein's evidence of religious, imperial roots is linguistic: leaders and public figures throughout periods of expansion have consistently drawn on biblical allusions, specifically a utopian "Promised Land," to justify and motivate expansion into new spaces.[3] Notwithstanding the devastating consequences of expansion, including the plundering of resources and displacement, enslavement and/or death of indigenous peoples, the same language has been continuously employed to motivate and validate space exploration.[4]

Though *Astrotopia* has been criticized for factual inaccuracies,[5] Rubenstein's philosophical treatment of new space activities brings to the fore questions about human knowledge and creativity. Rubenstein draws upon Nietzsche's critique of Western thought as nihilistic. For Nietzsche, the Judeo-Christian emphasis on an afterlife—another world that is made-up and non-existent—means that the faith is nihilistic, a belief in nothing.[6] Nietzsche extends this charge to secular science as well. According to Nietzsche, the search for eternal truths that are neither created nor subjective renders science a belief in the eternal or universal—scientists as a new priesthood declaring discoveries in language few understand, and in doing so, positing a claim of direct access to immutable truths that evade others.[7]

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1 MARY-JANE RUBENSTEIN, ASTROTOPIA: THE DANGEROUS RELIGION OF THE CORPORATE SPACE RACE (2022).

2 *Id.* at 8, 42–47, 75.

3 *Id.* at 50–54.

4 *Id.* at 12, 17–22, 42–43, 71. (Noting, for example, that then-Vice President Mike Pence, in his inaugural address to the National Space Council, quoted Psalm 139, claiming divine sanction for U.S. space exploration and exploitation; that space is routinely described as a "final frontier"; and that both Musk and Bezos pledge a utopia in outer space.)

5 Jeff Foust, *Reviews: Spaceflight Skeptics*, THE SPACE REV. (Oct. 21, 2024), https://perma.cc/2LXV-7T9E.

6 RUBENSTEIN, *supra* note 1, at 34 (citing FRIEDRICH NIETZSCHE, ON THE GENEALOGY OF MORALS 3.24-3.25 (Walter Kaufmann trans., Vintage Books 1989) (1887)).

7 RUBENSTEIN, *supra* note 1, at 35.

The common parlance of corporate space actors is typically that of policy. Perhaps this reflects two things: the political reality that the U.S. executive branch, specifically the funneling of congressional appropriations through NASA and DOD to private space companies, is the lifeblood of the space industry; but also the obliteration of the distinction between law and policy.[8] But, what is policy? Legal literature on the meaning of the term is scant, but an examination of it invariably leads back to the rise of equity as a relief to the strictures and rigidness of law.[9] It also leads to considerations of natural law, which sometimes was likened to a law of reason,[10] and other times to interpretations in light of moral considerations,[11] and still other times to placing community interests over those of the individual.[12]

Early common law, as judge-made law, faced a problem: how can one comply with rules unless they are known? The heart of that question is whether power is being exercised by fiat. The solution was the declarative theory: early common law judges were not making up something new with each decision. Rather, "these decisions were merely the concrete expression or evidence of the common law which, so to speak, had a permanent and universal existence."[13] Thus, the development of the common law might likewise succumb to Nietzsche's criticism of science, in that it claimed ownership over some universal, immutable truth.

For Nietzsche, science is a nihilistic enterprise similar to Judeo-Christian faith; the opposite, then, is the subjective and creative, namely, art.[14] By the eighteenth century, the declarative theory was eroding; policy was applied in judicial reasoning only where statutes or precedents did not adequately address a situation, and the legal fiction of an immutable, permanent, universal law gave way to the admission that judges were engaged in making "judicial legislation."[15]

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8 Theodore J. Lowi, *Law vs. Public Policy: A Critical Exploration*, 12 CORNELL J. L. & PUB. POL'Y 493, 497 (2003) (explaining that ". . . somewhere during the rise of the modern liberal state, law lost its autonomy and its integrity as an institution—albeit a man-made, human-scale, fallible, changeable institution. If Hayek can be considered the first, I have to count myself as the second to insist that the distinction between law and policy has been obliterated.").

9 Percy H. Winfield, *Public Policy in the English Common Law*, 42 HARV. L. REV. 76, 77 (1928).

10 *Id.* at 78.

11 Brian Bix, *On the Dividing Line between Natural Law Theory and Legal Positivism*, 75 NOTRE DAME L. REV. 1613, 1615 (2000).

12 James D. Hopkins, *Public Policy and the Formation of Rule of Law*, 37 BROOK. L. REV. 323, 323 (1971) (citing Roscoe Pound, *A Survey of Social Interests*, 57 HARV. L. REV. 1, 4–7 (1943)).

13 Joseph Dainow, *The Civil Law and the Common Law: Some Points of Comparison*, 15 AM. J. COMP. L. 419, 423 (1967).

14 RUBENSTEIN, *supra* note 1, at 165.

15 Winfield, *supra* note 9, at 86–90.; *see generally* J.A. Jolowicz, *Development of Common and Civil Law–the Contrasts*, LLOYD'S MAR. AND COM. L. Q. 87, 92 (1982).

Legislative powers were exercised by the judiciary throughout the nineteenth century, but they began to wane in the twentieth century.[16]

Though the legal fiction of declarative theory has been abandoned, the roles of morality and reason are still debated by theorists addressing the natural law and positivism, but it is safe to say that all law is a human creation.[17] States create treaties, legislatures create statutes, but perhaps the most creative of all legal enterprises is interpretation.

This Article explores interpretation as a creation by examining, in the next Section, dueling interpretations of Article VI of the Outer Space Treaty.[18] That diametrically opposed and incommensurate interpretations can be reached using treaty interpretation rules and canons of construction seems to demonstrate not only a creative process in interpretation but also that policy choices are innately involved, thus raising the specter of natural law. This is addressed in Section III, which also describes some policy ramifications of the two dueling interpretations of Article VI of the Outer Space Treaty. Finally, Section IV offers some concluding thoughts on implications of the dueling interpretations.

II. "[T]HE INTERPRETATION OF DOCUMENTS IS TO SOME EXTENT AN ART, NOT AN EXACT SCIENCE."[19]

One of the primary concerns demonstrated in *Astrotopia* is the outsized role that non-governmental actors—tech billionaires—are playing in space exploration and exploitation. Rubenstein, who is neither a lawyer nor legal scholar, does a fair job of assessing the Outer Space Treaty, acknowledging the anti-colonial purpose of Article II whilst addressing how recent political developments, such as space resources legislation and policies, may have undermined that purpose.[20] Given concerns over the activities of non-governmental entities, she might have paid more attention to Article VI of the Outer Space Treaty.

Article VI serves as a lynchpin between international space law and domestic laws, regulations and policies for space activities. It does this through three provisions. First, it states that "State Parties to the Treaty shall bear international responsibility for national activities in outer space . . . whether such activities are carried on by governmental agencies or by non-governmental entities." Second, it

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16 WINFIELD, *supra* note 9, at 90–91.

17 For a summary of this debate, *see generally* Bix, *supra* note 11, at 1615–18.

18 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, Jan. 27, 1967, 18 U.S.T. 2410, 610 U.N.T.S. 205 [hereinafter Outer Space Treaty].

19 ANTHONY AUST, MODERN TREATY LAW AND PRACTICE 238 (3rd ed. 2013) (quoting International Law Commission, *Draft Articles on the Law of Treaties with Commentaries,* 2(2) Y.B. OF THE INT'L L. COMM'N 187 arts. 27 & 28 ¶ 4 (1966)).

20 RUBENSTEIN, *supra* note 1, at 101–107.; *see also* Outer Space Treaty, *supra* note 18.

mandates that "State Parties to the Treaty . . . shall bear international responsibility . . . for assuring that national activities are carried out in conformity with the provisions set forth in the [Outer Space] Treaty." Finally, Article VI also mandates that "[t]he activities of non-governmental entities in outer space . . . shall require authorization and continuing supervision by the appropriate State Party to the Treaty."

A host of interpretations of these three provisions have been offered by various jurists and commentators, but one has prevailed: that of Bin Cheng. Only one other author directly challenges Cheng's conclusions: Curtis Schmeichel. These dueling interpretations are described next.

A. Cheng's Interpretation as Orthodox

The leading interpretation of Article VI was set forth by Bin Cheng, who read the foregoing three provisions in conjunction to determine that Article VI, "is not merely innovatory. It is almost revolutionary."[21] Almost revolutionary, according to Cheng, because the effect of these provisions is to render States directly responsible for the activities of non-governmental entities; or put another way, the activities of non-governmental entities are imputable to States where such activities constitute a breach of an international obligation.[22] Thus, under Cheng's interpretation, Article VI represents a departure from, or perhaps an addition to, customary international law on attribution.

Cheng arrives at his interpretation via contextual and historical analyses. Cheng uses a textual analysis focused on the conjunction "and" between the first and second clauses of the first sentence of Article VI to demonstrate that international responsibility for non-governmental space activities cannot be limited merely to obligations of States to "assure" compliance via authorization and continuing supervision.[23] Cheng reaches this conclusion by noting that provisions on "assuring" or "ensuring" that non-governmental activities comply with a treaty are commonplace and typically lead to a due diligence obligation and, potentially, indirect responsibility.[24] For Cheng, the conjoining of the recognition of State responsibility for non-governmental activities with the obligation to assure compliance with the Outer Space Treaty creates a situation of direct responsibility for the activities of non-governmental entities.

To support his textual analysis, Cheng points to an impasse between the U.S. and U.S.S.R.: the U.S.S.R. wanted to restrict space activities to States only, whilst

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21 Bin Cheng, *Article VI of the 1967 Space Treaty Revisited: 'International Responsibility', 'National Activities', and the 'Appropriate State'*, 26 J. SPACE L. 7, 15 (1998).

22 *Id.*

23 *Id.* at 14.

24 *Id.* at 13–15.

the U.S. wanted non-governmental entities (private, commercial actors) to be permitted to conduct space activities.[25] Thus, Cheng turned to supplemental means of interpretation—the preparatory works—to confirm his textual interpretation, which is in keeping with Articles 31 and 32 of the Vienna Convention on the Law of Treaties,[26] though many authors begin their analyses with an historical approach.[27]

Continuing with Cheng's interpretation, the question that remained was the scope of those non-governmental activities that would be directly imputable to states: could all non-governmental activities be attributable to a state or only some non-governmental activities, such as those directed and controlled by a state? The solution lay in the interpretation of the phrase "national activities" in the first clause of Article VI. To answer this question, Cheng moves further afield than the text and history of the Outer Space Treaty.

Cheng begins his interpretation of the phrase "national activities" by positing that it "cannot mean solely official State space activities, whether operated by governmental agencies or through non-governmental entities. Yet . . . [it] must refer to activities that have some special connection with the [State]." [28] Cheng posits this notion that it cannot mean "solely official State space activities" without explanation, which is problematic from an interpretation perspective. Yet, a rationale is discernable elsewhere in Cheng's writing. Cheng may have used a canon of interpretation: the rule against surplusage.

According to Cheng, to interpret the phrase "national activities" as meaning only *state* space activities, even if those activities are carried on by a non-governmental entity under the direction and control of a state, would read the phrase "non-governmental activities" out of the first sentence of Article VI and render Article VI a superfluous restatement of customary international law.[29] The result would be that space activities are treated like any other activities under international law: they are imputable to a state if the requisite legal links under customary international law exist.[30] Thus, according to Cheng, the surplusage

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25 *Id.* at 14.

26 Vienna Convention on the Law of Treaties, arts. 31 & 32, May 23, 1969, 1155 U.N.T.S. 331, 8 I.L.M. 679 [hereinafter VCLT].

27 *See, e.g.*, Michael Gerhard, *Article VI*, *in* STEPHEN HOBE, ET AL., COLOGNE COMMENTARY ON SPACE LAW 103, 105 (2009).

28 Cheng, *supra* note 21, at 20.

29 Bin Cheng, *The 1967 Space Treaty*, *in* STUDIES IN INTERNATIONAL SPACE LAW 238 (1997). ("If the expression ["national activities"] means State activities, whether carried on directly by governmental agencies or indirectly by non-governmental entities, then the article appears to be superfluous.")

30 For a description of those legal links, *see generally* International Law Commission, *Commentaries to the Draft Articles on Responsibility of States for Internationally Wrongful Acts*, U.N. Doc A/56/10/chp.IV.E.2/Sup.No.10 (2001), Ch. II on 'Attribution of Conduct to a State' [hereinafter Commentaries to ARSIWA].

canon indicates that Article VI must mean something more than a mere reflection of customary international law on attribution.

Ultimately, Cheng arrives at an interpretation that "national activities" for the purpose of direct responsibility include all activities that fall under a state's jurisaction.[31] There is more nuance to Cheng's argument, but in a simplified version, he claims that any space activities, which a state has the legal authority to control, should be attributable to the state, unless another state has a superior jurisdictional nexus.

Though Cheng's interpretation has been scrutinized often, most of the criticism involves nuances rather than opposition to his conclusion that Article VI adds something new to attribution. This conclusion has been roundly endorsed.[32] There is also evidence that Cheng's interpretation has been embraced by states. Cheng points to state practice as evidence of his interpretation, thus utilizing, without invoking, VCLT Article 31 or 32 provisions on subsequent practice. [33] Specifically, he references Article 14(1) of the Moon Agreement, which is a restatement of Article VI of the Outer Space Treaty, with the exception that it expressly describes, vis-à-vis responsibility, non-governmental entities under the "jurisdiction" of a state.[34] Thus, states may have provided an interpretation via the unanimous adoption of the Moon Agreement by the U.N. General Assembly.[35]

Frans von der Dunk likewise points to State practice as evidence that States have embraced a broad interpretation of "national activities" under Article VI of the Outer Space Treaty.[36] Specifically, he points to the 2013 UNGA resolution addressing national space legislation for space activities as demonstrating that national activities subject to authorization and supervision requirements entail nearly all activities that fall under the jurisdiction of a state.[37] He also points out examples of national legislation demonstrating conformity with this interpretation.[38] Similarly, Jakhu criticized the breadth of Canada's Remote

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31 Cheng, *supra* note 21, at 24.

32 *See, e.g.*, Frans von der Dunk, *International Space Law in* Frans von der Dunk, *et al.*, eds. HANDBOOK OF INTERNATIONAL SPACE LAW 46 (2015); ANNETTE FROEHLICH ET AL., NATIONAL SPACE LEGISLATION: A COMPARATIVE AND EVALUATIVE STUDY 9 (2018); FRANCIS LYALL & PAUL B. LARSEN, SPACE LAW: A TREATISE 66 (2009).

33 *See* International Law Commission, *Draft Conclusions on Subsequent Agreements and Subsequent Practice in Relation to the Interpretation of Treaties, with Commentaries*, U.N. Doc. A/73/10, Conclusion 4 (2018).

34 Cheng, *supra* note 21, at 23 (citing Agreement Governing the Activities of State on the Moon and Other Celestial Bodies, 18 Dec. 1979, 1363 U.N.T.S. 3 [hereinafter Moon Agreement]).

35 G.A. Res. 34/68, 1622 U.N. Doc. A/34/PV.89, (Dec. 5, 1979) (Indicating that Moon Agreement was adopted by the UNGA without a vote).

36 Frans G. von der Dunk, *Scoping National Space Law: The True Meaning of 'National Activities in Outer Space' of Article VI of the Outer Space Treaty*, 62 PROC. INT'L INST. SPACE L. 227, 229–33 (2019).

37 *Id.* at 230; G.A. Res. 68/74, ¶ 2 (Dec. 11, 2013).

38 von der Dunk, *supra* note 36, at 234–36.

Sensing Space System Act as potentially applying to a Canadian national anywhere in the world, thus demonstrating the breadth of Canada's perception of the jurisdictional reach required by Article VI.[39] New Zealand's requirement of an overseas launch license or overseas payload permit likewise demonstrates this trend of a broad interpretation of "national activities" under Article VI by demonstrating extra-territorial effect.[40] Thus, it appears that Cheng's interpretation has won the day.

B. Schmeichel: Article VI as a Restatement of Custom

Cheng's interpretation has been subject to scrutiny by many authors, but few have challenged his conclusion on direct responsibility for purely non-governmental space activities. The most formidable challenge to Cheng's interpretation comes from Curtis Schmeichel, a Canadian diplomat who serves as head of delegation to Legal Subcommittee of U.N. Committee on the Peaceful Uses of Outer Space.[41]

Schmeichel identifies several problems with Cheng's interpretation, but his most biting criticism is the lack of a clear methodology of interpretation.[42] Schmeichel notes that, "those interpreting Article VI rarely, if ever refer to the interpretive technique they have used in their analysis."[43] This criticism is leveled not only at Cheng but also at the few seminal jurists who have come to conclusions differing from, though not contradicting, Cheng.

Notably, Schmeichel points out that Manfred Lachs offered only very vague conclusions about the reach of Article VI; Aaron Demblings, who participated in the negotiations on the behalf of NASA, did not go so far as to endorse the notion of Article VI as an attribution clause; C. W. Jenks intentionally stopped short of describing Article VI as an attribution clause; NASA's Ed Frankle defined "national activities" very narrowly, resulting in an interpretation of Article VI that would have led to responsibility in the case of de facto, but not de jure, control; but most importantly, none of these authors offered insights on their interpretive methodology nor followed the strictures of the VCLT.[44] Schmeichel thus fills that void and produces what might be the only methodical, step-by-step walk through of VCLT Article 31 in interpreting Article VI of the Outer Space Treaty.

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39 Ram S. Jakhu & Aram D. Kerkonian, *Second Independent Review of Canada's Remote Sensing Space Systems Act*, 42 J. SPACE L. 1, 11–12 (2018).

40 Outer Space and High-Altitude Activities Act 2017, Part 2, §§ 3 & 4 (N.Z.).

41 Comm. on Peaceful Uses of Outer Space, Rep. of the Legal Subcomm. on Its Sixty-Third Session, , UN Doc A/AC.105/C.2/2024/INF/55 (2024).

42 CURTIS SCHMEICHEL, STATE RESPONSIBILITY FOR NON-GOVERNMENTAL ENTITIES IN OUTER SPACE 24–40 (2010).

43 *Id.* at 29.

44 *Id.* at 30–33.

In line with VCLT Article 31, Schmeichel begins with a contextual approach, examining the ordinary meaning of "national activities" and concluding that the phrase means, "activities of the nation."[45] He then looks to context within the Outer Space Treaty, noting that the term "national" as used in Article II referred to acts of the state, whereas Article IX distinguishes between acts planned by the State and those planned by its "nationals."[46] From this, he concludes, "There does not appear to be any evidence of an intention that the word 'national' in Article VI should be interpreted to include all activities under national jurisdiction."[47]

Schmeichel then goes on to apply both functional and historical approaches. On the former, he makes the very profound point that the purpose and function of the Outer Space Treaty was to provide basic principles, rather than to legislate for every situation, and such instrument is not generally the place one would find a dramatic deviation from general international law.[48] From the historical approach, Schmeichel notes that the preparatory works demonstrate very little discussion of the first sentence of Article VI, suggesting that states were not contemplating a radical deviation from general international law.[49] Ultimately, Schmeichel concludes that the customary rules of attribution should apply to non-governmental activities and, moreover, that these rules are well-equipped to identify which activities of non-governmental entities should be attributable to states.[50]

Both Cheng and Schmeichel present rather compelling arguments. Given that both interpretations appear equally valid and authentic, how can one evaluate which is more accurate? Are there other theoretical approaches that could be leveraged to determine which is correct? Can or should the effects of the interpretations be considered in choosing one over the other? Thoroughly exploring these questions could fill a thesis; nevertheless, some policy considerations are offered in the next part.

III. PERILS OF CODIFICATION OR POLICY CHOICES?

Cheng's interpretation appears to have swayed states, as we now see evidence of this interpretation in state practice.[51] However, Schmeichel's interpretation appears to hew more closely to the strictures of the VCLT. Codification, such as the VCLT, is itself an act of creation, which can have

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45 *Id.* at 39.

46 *Id.* at 40.

47 *Id.*

48 SCHMEICHEL, *supra* note 42, at 40.

49 *Id.* at 43.

50 *Id.* at 44.

51 *See infra* Section II.

unintended consequences. It necessarily leads to a perception that the things codified have a universal character and are the only rules available to states to resolve a particular problem to which the codified rules relate. For example, in examining the ILC's work on state responsibility, Zachary Douglas pointed out that, "[t]his is the danger of codification: it undermines the credibility of what is left out, and gives an exalted status to what is let in."[52]

Historically, codification was seen as a means to correct injustices. Jeremy Bentham, in criticizing the common law declarative theory, described judge-made law as 'dog law,' explaining that, "When your dog does anything you want to break him of, you wait until he does it, and then beat him for it."[53] He described unwritten law as priestly "dogma" and natural law as, "nonsense upon stilts."[54]

More recent scholarship embraces Bentham's optimism on codification. In tracing the history of codification of international law, Stanislaw Nahlik identifies a marked uptick in codification post-World War II and attributes it to "stupendous development of science and technology, leading mankind to the conquest of outer space and heretofore unknown energies" and to the exploitation of new spaces, such as airspace and new areas of the high seas, all for which it "would be difficult to find a satisfactory solution in traditional customary law."[55] Moreover, Nahalik describes the VCLT as strongly reflecting customary international law, which lends credibility to Schmeichel's strict adherence to its calls for contextualism in Article 31.[56]

Though Schmeichel did employ some historical analysis, he does not take into account earlier preparatory works that described the impasse between the U.S. and U.S.S.R. This is likely because of perils Schmeichel identified with an historical approach. Specifically, Schmeichel emphasized that preparatory works should only be used as a supplemental means of interpretation, quoting Schwarzenberger for the proposition that "'. . . *travaux preparatoire* are highly treacherous . . .' as '. . . this technique lends itself too readily to abuse for the purpose of changing the plain meaning of a text.'"[57]

Perhaps ironically, Schmeichel quotes Myres McDougal's seminal 1958 article on "Perspectives for a Law of Outer Space," just after describing the perils

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52 Zachary Douglas, *Killing It Softly: The ILC's Articles on State Responsibility*, ICSID REV. FOREIGN INV. L. J. 1, 8 (2025).

53 Dean Alfange, Jr., *Jeremy Bentham and the Codification of Law*, 55(1) CORNELL L. REV. 58, 65 (1969–70) (quoting Jeremy Bentham, *Truth v. Ashhurst*, *in* 5 WORKS 235(1838—1843)).

54 *Id.* at 67, 68 (quoting JEREMY BENTHAM, 3 WORKS 206 (1838—1843); Jeremy Bentham, *Anarchial Fallacies, in* 2 WORKS 501 (1838—1843)).

55 Stanislaw E. Nahlik, *On Codification on International Law*, 15 POLISH Y.B. INT'L. L. 103, 107–08 (1986).

56 *Id.* at 116.

57 SCHMEICHEL, *supra* note 42, at 38 (quoting GEORG SCHWARZENBERGER, INTERNATIONAL LAW AS APPLIED BY INTERNATIONAL COURTS AND TRIBUNALS 183 (3rd ed. 1957)).

of using an historical approach relying on the preparatory works and just before applying a contextual approach under VCLT Article 31.[58] This is ironic because McDougal, as part of the U.S. delegation to the negotiations of the VCLT, advocated for a more prominent role for supplementary work, describing the ILC's approach as highly restrictive and proposing that supplementary means should play the same role as the elements of the general rule presented in VCLT Article 31.[59]

According to Richard Gardiner, McDougal's concerns were misplaced, for the prioritization of text in Article 31, coupled with the recourse to supplemental means in Article 32, are "more of an attempt to give guidance on priorities or emphasis than an indication that the general rule has the character of a straightjacket."[60] Thus, Schmeichel's emphasis on a contextual approach, in line with VCLT Article 31, and his identification of the 'perils' of preparatory works likewise may have been misplaced, and Cheng's reliance on the historical impasse between the U.S. and U.S.S.R. as evidence of the meaning of Article VI may be adequate evidence to support his interpretation.

Moreover, Gardiner points out that, because the VCLT only states general principles of interpretation, other means of interpretation, such as the use of traditional maxims of construction, have not been ruled out.[61] Thus, principles and maxims of interpretation, which are discretionary principles of logic and good sense, were intentionally sidelined by the ILC in order to concentrate on the minimum necessary rules.[62] If it is correct that Cheng relied on the (unwritten) constructive canon of surplusage of words, then such reliance by Cheng on extra-VCLT principles might also be sufficient to support his interpretation.

Nevertheless, the consequences of Cheng's interpretation should be considered. The effect is that the space activities of non-governmental actors are imputable to States where such activities constitute a breach of international law. The specter of responsibility is thought to make states more cautious with authorizing and supervising non-governmental activities. This appears to be the source of regulatory inertia in authorizing and supervising non-traditional space activities, such as space resource utilization and exploitation and In-Space Servicing, Assembly and Manufacturing (ISAM). In 2016, Brian Egan, then-Legal Advisor to the U.S. State Department, in an official statement of the U.S., alluded

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58 *Id.* at 38–39 (citing Myres S. McDougal & Leon Lipson, *Perspectives for a Law of Outer Space*, 52(3) AM. J. INT'L L. 407 (1958)).

59 Richard Gardiner, *The Vienna Convention Rules on Treaty Interpretation*, *in* THE OXFORD GUIDE TO TREATIES 475, 479, 487 (Duncan B. Hollis ed., 2012).

60 *Id.* at 482.

61 *Id.* at 504.

62 *Id.* at 477.

that concerns over authorization, supervision, and potential responsibility were the source of such inertia.[63]

Thus, Cheng's interpretation might contribute to the safety and sustainability of outer space activities by creating a closer legal link between state and non-governmental activities. It should be noted as well that regulatory inertia may represent a symptom of a more fundamental problem with the rule of law. As noted by Lowi, "Just about the time the aging Holmes was about to die, the laws had become, as he predicted, mainly legislative, and legislation had become, as Hayek predicted, mere 'instructions to administrators.'"[64] The rise of the administrative state coincides with the decline of judicial legislation. This too is somewhat ironic. Holmes was the scourge of natural law, and yet by eschewing the application of natural law in courts, policy (if we can describe equity that way) migrated to the executive branch, and it now is exercised by regulators rather than the judiciary.[65]

Not all of the results of Cheng's interpretation are potentially beneficial. M.J. Durkee has proffered a theory that the result of Cheng's interpretation is that the space activities of non-governmental activities might be State practice for the purposes of interpretation and even custom formation, a phenomenon she dubbed "attributed law-making."[66] One significance of Durkee's theory is that Cheng's interpretation of Article VI elevates non-governmental actors to the international plane. Another is that it significantly buoys the influence of non-governmental actors, endowing their decisions with normative character.

From the perspective of a jurist influencing interpretation and elevating individuals (or in the case of Article VI, space corporations) to the international plane, this is not unprecedented. Hersh Lauterpacht's work on both *An International Bill of the Rights of Man* and on the development of crimes against humanity for the Nuremburg Trials, elevated individuals to the international level under some limited circumstances.[67] Interestingly, Lauterpacht was criticized for this work as a revival of Grotius' philosophy of natural law.[68] Whilst this criticism is misplaced and unfair, an interpretation, which elevates corporations to the

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63 Brian Egan, Legal Advisor of the Dep't of State, *The Next Fifty Years of the Outer Space Treaty* (Galloway Symposium on Critical Issues in Space Law, 2016), https://perma.cc/32DS-8PE8.

64 Lowi, *supra* note 8, at 498.

65 *See generally* United States v. Rahimi, 602 U.S. 680 (2024) (Kavanaugh, J., concurring).

66 Melissa J. Durkee, *Interstitial Space Law*, 97 WASH. U. L. REV. 423, 426 (2019).

67 *See generally* HERSH LAUTERPACHT, AN INTERNATIONAL BILL OF THE RIGHTS OF MAN (1945); *see also* PHILIPPE SANDS, EAST WEST STREET: ON THE ORIGINS OF "GENOCIDE" AND "CRIMES AGAINST HUMANITY" 280 (2016).

68 SANDS, *supra* note 67, at 111 (citing Hans Morgenthau, *Review: An International Bill of Rights of Man*, 13 U. CHI. L. REV. 400, 402 (1945–46)).

international plane and bodes custom formation by well-heeled Western companies with a first-mover advantage, should create alarm.

Durkee's theory is less than speculative; indeed, the actions of companies like SpaceX, and its several thousand-strong satellite constellation Starlink, may have already influenced customs for activities in outer space, such as risk tolerance under a due diligence analysis assessing appropriate measures to mitigate harm.[69]

Starlink and other constellations are also influencing international law in other ways, particularly in terms of armed conflicts. Starlink has been supporting Ukraine's war efforts by providing not merely equipment, but on-going services that enable targeting. David Koplow described the military use of dual use satellites as "reverse distinction," theorizing that the intermingling of military capabilities with civilian objects, such as military payloads hosted on civilian satellites, either violates International Humanitarian Law (IHL) on distinction or is an anticipatory breach of such provisions.[70]

Daniel Beaulieu refuted Koplow's theory on the basis that dual-use objects are not contemplated by IHL, and therefore such categorization cannot render a military objective a civilian object.[71] A statement by Russian diplomat Konstantin Voronstov indicates the accuracy of Beaulieu's analysis: "such actions [i.e.: the use of commercial space systems for combat] in fact constitute indirect [State] participation in military conflicts," and the satellites "may become a legitimate target for retaliation."[72] Thus, the activities of companies like SpaceX are informing our understanding of international humanitarian law and neutrality law.[73]

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69 Information furnished in conformity with the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies: Note verbale dated 3 December 2021 from the Permanent Mission of China to the United Nations (Vienna) addressed to the Secretary-General, U.N. Doc. A/AC.105/1262 (6 December 2021) (Notifying the U.N. Secretary General of near conjunctions of the Starlink constellation with the China Space Station as phenomena endangering the crew onboard.).

70 David A. Koplow, *Reverse Distinction: A U.S. Violation of the Law of Armed Conflict in Space*, 13 HARV. NAT'L SEC. J. 25, 32, 98–99 (2022).

71 Major Daniel P. Beaulieu, USAF, *State Practice and Military Objectives: International Humanitarian Law Regarding Military Applications of Otherwise Civil/Commercial Satellites, in* DUKE LAW CENTER ON LAW, ETHICS AND NATIONAL SECURITY ESSAY SERIES, NO. 16 at 27 (2023).

72 Konstantin Vorontsov, Deputy Head of the Delegation of the Russ. Fed'n, Deputy Dir. of the Dept. for Non-Proliferation and Arms Control of the Ministry of Foreign Affs. of the Russian Fed'n, Statement at the Thematic Discussion on Outer Space (Disarmament) in the First Committee of the Seventy-Seventh Session of the U.N. G.A. (Oct. 26, 2022).

73 STEPHEN P. MULLIGAN, CONG. RSCH. SERV., LSB10735, INTERNATIONAL NEUTRALITY LAW AND U.S. MILITARY ASSISTANCE TO UKRAINE 3–4 (2022) (describing, under a section entitled, 'Co-Belligerency: Becoming a Party to an Existing Conflict,' how the law of neutrality intersects with other areas of law, including IHL and customary rules on State responsibility) [hereinafter CRS Report].

The confluence of Article VI of the Outer Space Treaty and neutrality law leads to one remaining, admittedly very highly speculative, idea on an effect of Cheng's interpretation. As Oona Hathaway and Scott Shapiro explain, the international legal system was fundamentally altered in the wake of the 1928 Paris Peace Pact; specifically, the Stimson Doctrine recognized that strict impartiality of neutrality law was effectively abolished.[74] That 'Old World Order' was built on the writings of Grotius, the seeds of which were Grotius's defence of his cousin Van Heemskerck.[75] Van Heemskerck, a non-governmental actor who worked for the Dutch East India Company, had attacked and seized a Portuguese ship, in effect committing piracy for which no prize court would recognize title over the seized goods. Grotius solved this problem by elevating Van Heemskerck's activities and those of the Dutch East India Company to the international level, likening the activities to war and privateering, and rendering the prizes as lawful gains.[76]

The point of this example is not to argue that Cheng's interpretation brings back privateering, or even less plausibly, brings back Grotius's conception of a just war thereby undoing the Paris Peace Pact and U.N. Charter's prohibition on the use of force. It is nevertheless remarkable that Cheng's interpretation serves a similar purpose to Grotius' defence of Van Heemskerck: it elevates the individual and corporation to the international level and certainly creates increasing difficulty in analysing the application of neutrality law to commercial space activities during armed conflicts.[77]

All of which is to demonstrate that Schmeichel's interpretation might be more palatable than it appears a first blush. Cheng's interpretation is roundly heralded and supported by international space law scholars as it is perceived to create a more robust legal link between states and their commercial space actors. However, if states want to diffuse the profound influence of non-governmental actors on the formulation and interpretation of international law for space activities—attributed law-making—or if states want to diffuse any confusion in attribution of activities of non-governmental actors during an armed conflict—confluence of neutrality law and state responsibility—then Schmeichel's interpretation could accomplish those ends. As described, Schmeichel's interpretation more closely hews toward a strict VCLT analysis. Though it has been demonstrated above that such adherence to Article 31 is not necessarily called for by the VCLT, there are good reasons to re-think Cheng's interpretation.

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74 OONA HATHAWAY & SCOTT J. SHAPIRO, THE INTERNATIONALISTS: HOW A RADICAL PLAN TO OUTLAW WAR REMADE THE WORLD 169–70 (2017).

75 *Id.* at 12.

76 *Id.* at 17–18.

77 *See* CRS Report, *supra* note 73; *see also* Joshua J. Wolff, *Interrupted Broadcasts? The Law of Neutrality and Communications Satellites*, 45 J. SPACE L. 239 (2021); *see also* Jimmy Gutzman, *State Responsibility for Non-State Actors in Times of War: Article VI of the Outer Space Treaty and the Law of Neutrality*, 80 AIR FORCE L. REV. 89 (2019).

IV. CONCLUSIONS ON CREATION, INTERPRETATION, AND CUSTOM

From the perspective of interpretation, though, can the VCLT and customary law on interpretation support such change in interpretive direction? The purpose of interpretation is to ascertain a state's intention in the drafting of a treaty. Once obtained, if we allow ourselves to modify that interpretation via policy choices—Reason? Moral consideration? Community interest?—are we reinvigorating natural law and abandoning the positivist, contextual approach that seems implicit in the VCLT?[78]

Cheng playfully described the activities surrounding the launch of Sputnik 1 in 1957 as the creation of "instant custom."[79] Though the instantaneous creation of custom is doubtful, the point that custom can be generated very quickly has been recognized and is well supported by State practice.[80] Indeed, it has been also been recognized that customs developed in the mere ten years between the launch of Sputnik 1 and the coming into force of the Outer Space Treaty.[81] Thus, the law followed humans into outer space; and the creation of technology drove law, which responded with its own creative enterprise: the Outer Space Treaty and interpretations thereof.

As Holmes wrote, "Many things which we take for granted have had to be laboriously fought out or thought out in past times."[82] Now is the time to fight out, or think through again, Article VI of the Outer Space Treaty. Though Cheng's interpretation has been accepted by scholars and some domestic rules evidence its employ by States, the interpretation has been assailed on the basis that Cheng did not follow the strictures of the VCLT. Both Cheng and Schmeichel appear to be correct, and yet they offer diametrically opposed, incommensurate interpretations: one demonstrating that Article VI is an attribution clause; the other demonstrating that it is not.

The effect of the U.S.-U.S.S.R. compromise and Cheng's use of it for interpretation bodes profound consequence. At the time of the negotiations, there were no private enterprises in the U.S.S.R. Thus, if Cheng is correct, then the U.S.S.R. won the day. Without a change to the U.S. constitutional system, the U.S.S.R. was able to convert all private space enterprises in the U.S. to government enterprises, at least from the perspective of international responsibility. With

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78 *See* Bix, *supra* note 11, at 1615 (Defining legal positivism as "belief that it is both tenable and valuable to offer a purely conceptional and/or purely descriptive theory of law.").

79 *See* BIN CHENG, *UN Resolutions on Outer Space: 'Instant' International Customary Law?*, *in* STUDIES IN INTERNATIONAL SPACE LAW 125–49 (2015).

80 *See generally* Michael Scharf, *Accelerated Formation of Customary International* Law 20 ILSA J. OF INT'L. & COMP. L. 305 (2014)

81 V.S. Vereshchetin & G.M. Danilenko, *Custom as a Source of International Law of Outer Space*, 13(1) J. SPACE L. 22, 25 (1985).

82 O.W. HOLMES, JR., THE COMMON LAW 2 (1881).

hindsight, this may have been a pyrrhic victory. The elevation of non-governmental space activities to the international plane for the purposes of responsibility raises the specter of undue non-governmental influence on the progressive development of international space law. Moreover, it muddles attribution of the activities of non-governmental actors to states vis-à-vis other areas of international law, such as IHL and neutrality law. All of which is to say that in an era of increased commercialization and increased military reliance on commercial satellite systems, Schmeichel's approach may be more attractive. Jurists should create a way forward for states on whether to follow Cheng's or Schmeichel's interpretation.