ARTICLES

Olive Branches or Fig Leaves: A Cooperation Dilemma for Great Power Competition in Space

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In war the peaceful olive branch is useful. – Ovid[1]

And the eyes of them both were opened, and they knew that they were naked; and they sewed fig leaves together, and made themselves aprons. – Genesis 3:7[2]

INTRODUCTION

The United States finds itself in a multi-domain great power competition with China[3]—one in which states seek relative advantage across the spectrum of

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1. Ovid, *Ex Ponto*, LOEB CLASSICAL LIBR., https://perma.cc/8BUV-P2BY.

2. *Genesis* 3:7 (King James).

3. *See* James N. Mattis, U.S. Sec'y of Def., *Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge* 2 (2018), https://perma.cc/H4YB-73Y9 [hereinafter National Defense Strategy] ("The central challenge to U.S. prosperity and security is the *reemergence of long-term, strategic competition* by what the National Security Strategy classifies as revisionist powers," namely China and Russia) (emphasis in original);

international power and across domains of activity, including the space domain.[4] However, the mere existence of a great power competition does not preclude other, more cooperative, forms of engagement among competitors; states seeking engagement—ranging from mere discussions to new rules regimes—should view cooperation as a form of competition. This paper argues that viewing cooperation *as* competition can benefit a state (the United States, in particular) in great power competition if that state appreciates the competitive approaches to cooperation and the attendant risks and challenges.

This paper explores engagement in space matters within this competitive context and provides two lenses through which cooperative efforts can be viewed: the olive branch approach and the fig leaf approach. Olive branches represent peace and gestures of genuine cooperation, driving towards meaningful mutual agreement; this approach reflects relative strength and can cement a lasting advantage. Conversely, fig leaves hide weakness or shame; they reveal a position of perceived inferiority, vulnerability, or discomfort. However, if used appropriately, a state can derive strategic advantage through limited fig leaf engagement from where it otherwise may not have existed. The approaches are value-neutral: they are neither "good" nor "bad" on their own terms. Instead, they are tools available to a state, and either one may be more appropriate given the state's goals, status in the international system, and available resources. The valuation of the approach lies in whether it can serve a state's pursuits.

In great power competition, both approaches may be useful and at times necessary for the creation, maintenance, or preservation of relative power in this long-term strategic contest.[5] However, as relative advantage and perceptions of mutual

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Joseph R. Biden, Jr., President, *Renewing America's Advantages: Interim National Security Strategy Guidance* 20 (Mar. 2021), https://perma.cc/SK35-S4DQ [hereinafter Interim National Security Strategy] (focusing on China, stating that the strategy "will strengthen our enduring advantages, and allow us to prevail in strategic competition with China or any other nation.") (emphasis removed).

4. *See* JOHN J. KLEIN, UNDERSTANDING SPACE STRATEGY: THE ART OF WAR IN SPACE 96 (2019) (borrowing from Thucydides, finding that states are driven by "fear, honor, and interest" in every domain, with space being no exception). In general, a "domain" is an area "within which military, civil, and commercial activities are conducted." JOINT CHIEFS OF STAFF, JOINT PUBLICATION 3-14, SPACE OPERATIONS I-2 (Apr. 10, 2018) (incorporating change Oct. 26, 2020). The space domain is a physical domain, covering "the area above the altitude where atmospheric effects on airborne objects become negligible." *Id.* The United States recognizes five domains: air, land, maritime, space, and cyber. *See* JOINT CHIEFS OF STAFF, DOD DICTIONARY OF MILITARY AND ASSOCIATED TERMS (Nov. 2021), https://perma.cc/XQN6-DKA4; *see also* National Defense Strategy, *supra* note 3, at 3 ("Today, every domain is contested—air, land, sea, space, and cyberspace.").

5. The underlying geopolitical disposition of this work is a realist one—viewing an anarchic system in which states are the actors and are co-equal under the law (though not equal in capacity and relative power). Within this realist context, power is a tool for other things; it is not an end unto itself, but the currency in the system. In broad terms, power includes capacity for military force, economic purchasing ability, options for advantageous diplomatic leverage, and influence through soft power; it is a means to achieve national ends, which can generally be categorized into security and prosperity-focused goals. Engagement—including mere discussions, cooperation, and even agreements that may appear to abrogate short-term power capacity (in favor of long term benefit)—is a means of developing and maintaining this power, thereby furthering overall national security and prosperity. That is, engagement and cooperation are not alternatives to realist power—they are approaches to it, when taking a broader and longer view than mere force capacity as the key to international gain. This is consistent with the

benefit shift over time, the balance between which approach is most desirable—or if there is any value to cooperation at all—may shift as well. These approaches assume good faith and voluntary participation among parties, which means there is some modicum of mutual benefit. Even if a state benefits from cooperation, it may still perceive relative competitive disadvantages in doing so—a complication called the cooperation dilemma.

This paper first broadly explores the benefits of strategic engagement from both substantive and procedural viewpoints. It then develops and applies the olive branch and fig leaf approaches to such engagement, discussing the difficulties and risks created by each, including the cooperation dilemma. Finally, it outlines areas of potential mutual engagement between the United States and China on space matters, discussing the advantages and challenges of these olive branch and fig leaf approaches in a great power competition environment.

I. BENEFITS OF ENGAGEMENT

A key assumption is that engagement—particularly culminating in cooperation, norm creation, or even rulemaking—is useful.[6] In the competition for power, engagement can yield greater benefits than just specific, negotiated solutions to discrete problems. While such solutions are useful and an important outcome of engagement (and cooperation), engagement can further be a flexible mechanism to secure relative advantages on an enduring basis by creating options and frameworks for future use, even as geopolitical, technical, and military contexts change over time.[7] Therefore, it requires a long-term view of advantage.

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view, adapted from Sun Tzu and others, that "[c]ommand of space—including making it a barrier—may be achieved without the overt use of military force." KLEIN, *supra* note 4, at 26.

6. This paper discusses engagement, cooperation, and norms—all terms with broad meaning. Here, engagement generally means participation with another state, irrespective of outcome; failed negotiations are still negotiations and discussions. It also includes participation at international fora, multinational talks or efforts, and certainly bilateral engagements. Cooperation is narrower and encompassed in engagement but suggests some mutual understanding and participation in space endeavors or governance. To the degree that "successful" engagement results in actionable agreements or mutual understanding, cooperation represents potential strategic victory in engagement terms. Norm creation is an even narrower form of engagement; "norms" is an imprecise term for both social and legal standards of behavior that lead to expectations of general predictability and stability in space operations. For purposes of this work, norms can range on a broad spectrum from informal practice that lends to a slight level of predictability—even further segmented into specific operators (commercial, but not civil or military)—to formal, clear rules regimes captured in treaties or other multilateral agreements. Norms are often created by states interacting (and coming to consensus—explicit or implicit), but they can also represent social expectations for behavior that peripherally shape the geopolitical flexibility of operations through the public "normalization" of activities. For example, the increased discussions of space as a warfighting domain by the U.S. Air Force and U.S. Space Force can be argued as more of a social effort to make a more active defensive posture in space and new weaponization programs more palatable to populations at home and abroad, as opposed to a real internal change in policy or military preparations. In terms of space engagement, the creation of genuinely agreed-upon, transparent, and enforceable rules represents the greatest degree of success, as these rules secure perceived relative advantages (reflected in the genuine agreement) and are the most enduring form of norms (derived from enforcement and transparency).

7. In this context, an engagement approach is most conducive to a long-term, "pure strategy" in that it reflects an enduring process and is not temporally-fixed or bound to specific tactical pursuits. As the

The U.S. government embraces an engagement approach in its policy guidance, suggesting strategic advantage in engagement and cooperation, particularly with established allies.[8]

However, this advantage potentially applies with geostrategic competitors as well; the National Defense Strategy states, "[a]s we expand the competitive space, we continue to offer competitors and adversaries an outstretched hand, open to opportunities for cooperation but from a position of strength and based on our national interests."[9] Of course, even though there are potential benefits of engagement, states should not blindly seek cooperation, particularly with bad faith actors, as antagonistic value sets are a fundamental challenge to meaningful cooperation.[10] Thus, a measured approach is needed, respecting international principles that maintain U.S. advantage while seeking areas of mutual benefit with competitors. In this cautious context, the benefits of engagement can be subdivided into substantive and procedural advantages.

A. Benefits of Substantive Engagement and Norm Creation

Substantive norms are rules and guidelines developed through engagement that reflect and further shape practice in the space domain. They are useful both when states follow the rules, and when states deviate from them. If states and

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space strategist Everett Dolman notes, "strategy, in its simplest form, is *a plan for attaining continuing advantage*." EVERETT C. DOLMAN, PURE STRATEGY: POWER AND PRINCIPLE IN THE SPACE AND INFORMATION AGE 6 (2005) (emphasis in original); *see also id.* at 4 ("Strategy is thus an unending process that can never lead to conclusion. And this is the way it should be: *continuation* is the goal of strategy—not *culmination*.") (emphasis in original); Everett C. Dolman, *Seeking Strategy*, *in* STRATEGY: CONTEXT AND ADAPTATION FROM ARCHIDAMUS TO AIRPOWER 12 (Richard J. Bailey, James W. Forsyth, Jr., and Mark O. Yeisley eds., 2016) ("Perhaps the most difficult thing for a strategist to accept is that there are no meaningful ends, goals, or targets in strategy—at least, there ought not to be, for including these forces the strategist to set aside purpose and focus on objectives.").

8. This includes general as well as space-specific guidance, such as the National Security Strategy, National Defense Strategy, National Space Policy, National Security Space Strategy, and the Defense Space Strategy. *See, e.g.*, Donald J. Trump, President, *National Space Policy of the United States of America* 5 (Dec. 9, 2020), https://perma.cc/E8RE-GSRN [hereinafter National Space Policy] (calling for "international cooperation"); U.S. DEP'T OF DEF. AND DIR. OF NAT'L INTEL., *National Security Space Strategy: Unclassified Summary* 5 (Jan. 2011), https://perma.cc/VS33-5GJ9 (promoting norms and responsible behaviors and encouraging others similarly); U.S. DEP'T OF DEF., *Defense Space Strategy (Summary)* 6–9 (Jun. 2020), https://perma.cc/7DYF-SYUS ("Cooperate with allies, partners, industry, and other U.S. Government departments and agencies"; "Promote standards and norms of behavior in space favorable to U.S., allied, and partner interests"; "Align with allies and partners on space policy"). In these documents, even when not explicit on norm creation, the admonitions for partnerships, engagement, and cooperation equate to a drive towards norms, as interdependence on tactics, techniques, and procedures and baselines for operations in space (civil, commercial, and military) grow into normalized expectations of practice. Along these lines, the U.S. Space Force recently determined it will actively engage in norm creation for the space domain. Frank Wolfe, *Biden Administration Plans to Move Ahead on Space Rules of the Road*, DEF. DAILY (Feb. 3, 2021), https://perma.cc/Y26F-NJSF.

9. National Defense Strategy, *supra* note 3, at 5.

10. For instance, the current National Security Strategy asserts that "China and Russia want to shape a world antithetical to U.S. values and interests." Donald J. Trump, President, *National Security Strategy of the United States of America* 25 (Dec. 2017) [hereinafter National Security Strategy]. While the recent Interim National Security Strategic Guidance does not repeat this exactly, the focus throughout remains similarly on China, order, and destabilization. Interim National Security Strategy, *supra* note 3.

space operators abide by norms, they represent a low-risk, high-benefit proposition for the states shaping them. Generally regarded as a fragile domain—contested, congested, and competitive—the risks to space operations can come from various intentional, accidental, and environmental sources. With the expensive and often singular nature of many space capabilities, mistakes and conflicts come at a high cost, whereas talk about norms is a low-cost venture. In this ambiguous and dangerous environment, there is potential for meaningful consensus among spacefaring states on norms or rules for significant issues. Rules provide predictability, stability, and sustainability for the domain, while allowing for freedom of access and operations necessary for both security and prosperity. Likewise, norms would place major space powers, seeking to preserve the domain, on the same side of an issue—even if they are otherwise rivals in terrestrial matters, such as economics, geopolitics, or national security. This dynamic can strengthen norms, promote their enforcement (physically, diplomatically, and informationally), and create genuine mutual benefit for those looking for long-term space utilization.

For many areas, norms or formalized rules may represent codification of non-contentious practices (e.g., standard procedures, traffic management, commercial notifications, etc.) and are likely to be followed in most situations.[11] Their simplicity, usefulness, and consistency with existing, uncontroversial practice makes them easy to follow as a matter of efficiency and good sense, and they may be fairly easy to create (or record) through dialogue among states, or even commercial or other non-governmental actors.

However, the saying "talk is cheap" has an unfortunate but accurate implication: without an enforcement mechanism or adequate specificity on which it would be more difficult to reach consensus, "talk"—in the form of discussing loose, practice-based norms, non-binding codes, and the like—may have limited use in an operational or intelligence setting, where both the stakes and the skepticism are highest. The concerns over verification, cheating, and specificity are especially acute in discussions of arms control measures.[12] Thus, despite the benefits discussed above, the myopic pursuit of, or over-reliance on, engagement and norms can present disadvantages for a state. Norms without adequate verification regimes to ensure the compliance of others can lead to a false impression of

11. *See generally* THE NEED FOR AN INTEGRATED REGULATORY REGIME FOR AVIATION AND SPACE: ICAO FOR SPACE? 39 (Ram S. Jakhu, Tommaso Sgobba, Paul S. Dempsey, eds., 2011) (linking the success of international regulatory regimes to "the recognition of the importance of standards by the international community. Each of these organizations works because the member States believe in the necessity of the standards it puts forth, and the member States individually derive some benefit from those standards.").

12. *See, e.g.*, 22 U.S.C. § 2577 ("In order to ensure that arms control, nonproliferation, and disarmament agreements can be verified," the Secretary of State is required to notify Congress of his or her assessment of the degree to which such agreements can be verified, any degradation or alteration of US capacity to verify agreements, the amount of research funds used for verification, and numbers of full-time professional personnel dedicated to verification); Jack M. Beard, *Soft Law's Failure on the Horizon: The International Code of Conduct for Outer Space Activities*, 38 U. PA. J. INT'L L. 335 (2017) (critiquing "soft law" approaches to arms control generally, and the proposed European Code of Conduct particularly).

security and allow adversaries who violate rules to gain advantage, at least in the short term.[13] Further, reliance on vague, undefined, or under-defined terms or practices can similarly make a state susceptible to strategic disadvantage resulting from an adversary's deviations from the purported rule or guideline, whether attributable to intentional cheating or genuine differing understandings as to states' obligations. For instance, any efforts to limit weapons in space must first overcome the lack of consensus as to what even constitutes a "weapon" in the space context.[14] If there is not a mutual understanding as to what is covered by a norm, it cannot be relied upon by states acting in good faith. In using engagement and norms to drive predictable and stable regimes, terms matter: greater specificity means greater clarity and reliability. However, greater specificity, deeper commitments, and tougher obligations may also make it more difficult to reach any agreement or acknowledgement of norms among parties.

The above discussion may apply to treaties or other "hard law" mechanisms, as well as to the softer norms and engagement discussed herein, so a state is no worse off in considering these options. Notwithstanding the above challenges, a state like the United States that acknowledges these difficulties and guards against them in conducting substantive engagement and norm creation stands to benefit from the predictability, stability, and cementing of advantage such engagement can bring.

Substantive norms are valuable, however, even when they are not followed. First, norms make military assessments cleaner: they aid attribution and discernment of a potential adversary's intent, helping to clarify, for example, whether there was an obligation or agreement broken (suggesting malevolence), or whether something was just vague activity that may not cross any legal or prudential lines. In this way, norms can narrow the "gray zone" for the irregular or hybrid conflict battlespace; more black and white rules mean less gray area, and fewer uncertainties provide a clearer decision space for military and national security leaders. Line-drawing norms contribute to attribution advantage and tie deeply into the U.S. Space Force shift from Space Situational Awareness (a largely observational approach, based on sensors and tracking data) to Space Domain

13. That said, no level of verification may be enough to assuage fears of an adversary cheating. For instance, the Intermediate-range Nuclear Forces (INF) Treaty between the United States and Soviet Union (and then Russia) had a fairly robust verification regime through notifications (Article IX), inspections (Article XI), ensuring and protecting national technical means of verification (Article XII), and creating a "Special Verification Commission" to help resolve issues (Article XIII). *Treaty Between The United States Of America And The Union Of Soviet Socialist Republics On The Elimination Of Their Intermediate-Range And Shorter-Range Missiles*, Dec. 8, 1987 (entered into force on Jun. 1, 1988), https://perma.cc/E7YM-BPND. However, even with those provisions, U.S. concerns over Russian noncompliance ultimately led to the dissolution of the agreement in 2019. *See* Shannon Bugos, *U.S. Completes INF Treaty Withdrawal*, ARMS CONTROL ASS'N (Sep. 2019), https://perma.cc/8SEJ-G425.

14. *See* TODD HARRISON, CTR. FOR STRATEGIC & INT'L STUD., INTERNATIONAL PERSPECTIVES ON SPACE WEAPONS 5 (May 2020), https://perma.cc/24NC-P6Y2 ("there is no universally agreed upon definition for what constitutes a space weapon"); *see also*, *infra* note 54 and accompanying text (addressing the Chinese and Russian efforts with the draft Prevention of the Placement of Weapons in Outer Space Treaty (PPWT) and U.S. objections to it).

Awareness (a full-fusion intelligence approach, leveraging broader data and resources to not just observe but also predict activity and help discern intent within the domain).[15] When analysts have a normalized, accepted baseline of expected behavior, findings of aberrations therefrom can form valuable data points in domain assessments.

Further, norms enable soft power, sub-conflict, and even force options for the United States. In deterrence, norms can help with communication and credibility by bringing a degree of clarity and letting parties know where each stands.[16] Norms also contribute to a basis for informational or diplomatic campaigns, by legitimizing the state that acts in conformity and delegitimizing those that do not. This is especially relevant when prestige plays a significant role in the geostrategic thinking of primary U.S. competitors, particularly Russia and China.[17] For example, the United States frequently makes statements of "threatening"[18] and "irresponsible"[19] Russian behavior in space, with the goal of isolating Russia—but by what metric? More recently, Russia conducted a destructive direct-ascent anti-satellite (ASAT) missile test that destroyed one of its own satellites in low earth orbit, creating between 1000 and 2000 pieces of debris that could remain in

15. *See* U.S. SPACE FORCE, *Spacepower: Doctrine for Space Forces* 38 (Jun. 2020), https://perma.cc/C7KU-B7WP (noting Space Domain Awareness "leverages the unique subset of intelligence, surveillance, reconnaissance, environmental monitoring, and data sharing arrangements that provide operators and decision makers with a timely depiction of all factors and actors" that are not just descriptive, but are also "predictive").

16. Adherence to or deviation from norms can serve communication in times of tension. For instance, akin to freedom of navigation operations in the sea or air interception rules, a "close approach" in space at a particular distance may signal discontentment (and a warning), while not crossing a known red-line and causing inadvertent escalation. If there is inadequate communication or understanding between the parties, there may be inadvertent escalation. THOMAS C. SCHELLING AND MORTON H. HALPERIN, STRATEGY AND ARMS CONTROL 25 (2014) (reprinted facsimile of 1961 ed.).

17. *See* ROBERT GILPIN, WAR AND CHANGE IN WORLD POLITICS (1981). Gilpin links international power and prestige, finding "both power and prestige function to ensure that the lesser states in the system will obey the commands of the dominant state or states." *Id.* at 30. Further, "[p]restige, rather than power, is the everyday currency of international relations, much as authority is the central ordering feature of domestic society." *Id.* at 31. For instance, "Russians largely draw pride from looking back, rather than looking forward. It is thought that Russian nostalgia for the power and prestige of the past has been expertly co-opted by the government under President Vladimir Putin, and the Russian space program is ideally suited for this effort." KLEIN, *supra* note 4, at 100; Florian Vidal, *Russia's Space Policy: Path of Decline?*, FRENCH INST. OF INT'L REL. 14–15 (Jan. 2021), https://perma.cc/FT6D-KZK7. Likewise, China has a prestige and influence-driven approach for its "Fourth Ring" (worldwide) ambitions. ANDREW J. NATHAN & ANDREW SCOBELL, CHINA'S SEARCH FOR SECURITY 7 (2012). Prestige is important to non-peer adversaries as well. For Iran, "status symbols" are vital to global power, and "Iran's space program is one on the cornerstones upon which the entire edifice of Iran's strategic concept is built." Uzi Rubin, *Iran's Space Program*, THE JERUSALEM INST. FOR STRATEGY AND SEC. (Oct. 9, 2020), https://perma.cc/WN9W-V5CF.

18. Sandra Erwin, *Raymond Calls Out Russia for 'Threatening Behavior' in Outer Space*, SPACENEWS (Feb. 10, 2020), https://perma.cc/V2ZK-GPFQ (referring to a Russian satellite that ejected another sub-satellite that can maneuver near US and others' space objects).

19. Press Release, U.S. SPACE COMMAND, Russia tests direct-ascent anti-satellite missile (Apr. 10, 2020), https://perma.cc/GD5T-PZ4D (referring to a Russian direct-ascent ASAT test that did not destroy or contact any space objects).

orbit for an extended period of time.[20] The U.S. Space Command,[21] Department of Defense,[22] and Department of State[23] criticized the strike as "reckless and irresponsible"[24] and highlighted the potential threat to the International Space Station, its personnel, and future space operations from the space debris created. In response, Russia denied the degree and effect of the debris,[25] and some media noted the United States conducted a destructive ASAT operation of its own in 2008,[26] albeit under different circumstances and with substantially different debris implications.[27]

At present there is plenty of rhetorical disagreement, but no technical or regulatory benchmark against which the action can be measured. Without rules, "responsibility" is merely a matter of U.S. preference, which may not carry objective weight beyond the United States' borders or tight security alliances.[28] If acceptable behaviors were codified, or at a minimum recognized, the United States could have far greater power in the informational and diplomatic realms, bolstered by military space discussions and norms.

Finally, when peace falters, an enemy's abrogation of established norms is useful. As noted above, norms can enhance assessments of threats and support decision-making for assertions of self-defense under the *jus ad bellum*.[29] Norms (soft

20. *EU SST Confirms the Fragmentation of Space Object COSMOS 1408*, EU SPACE SURVEILLANCE AND TRACKING (Nov. 18, 2021), https://perma.cc/833L-5AJM ("The resulting fragments from this event could remain in orbit for long periods of time, endanger other space assets, and ultimately render some orbits unusable."); Press Release, U.S. SPACE COMMAND, Russian direct-ascent anti-satellite missile test creates significant, long-lasting space debris (Nov. 15, 2021), https://perma.cc/YW2U-K7N5 (estimating 1500 pieces of debris).

21. Press Release, U.S. SPACE COMMAND, *Russian Direct-Ascent Anti-Satellite Missile Test Creates Significant, Long-Lasting Space Debris* (Nov. 15, 2021), https://perma.cc/YW2U-K7N5.

22. John Kirby, Press Sec'y, *Press Briefing*, U.S. DEP'T OF DEF. (Nov. 15, 2021), https://perma.cc/299M-U6L8.

23. Press Release, Anthony Blinken, U.S. Sec'y of State, *Russia Conducts Destructive Anti-Satellite Missile Test*, U.S. DEP'T OF STATE (Nov. 15, 2021), https://perma.cc/P4CS-7B2L.

24. *Id.*

25. Press Release, Russian Directorate of Media Service and Information, *Russian Defence Minister General of the Army Sergei Shoigu confirms successful test of anti-satellite system*, MINISTRY OF DEF. OF THE RUSSIAN FED'N (Nov. 16, 2021), https://perma.cc/32FY-M2KZ (confirming the test, but claiming that "the resulting fragments do not pose any threat to space activities").

26. Michael Sheetz, *Russia Calls U.S. 'Hypocritical' for Condemning Anti-Satellite Weapons Test*, CNBC (Nov. 16, 2021), https://perma.cc/3NTL-V7XZ (noting that the United States, Russia, China and India "have previously destroyed their own satellites in ASAT tests. The U.S. most recently conducted an ASAT test in 2008, while Russia on Tuesday called out the Air Force's testing of the X-37 spacecraft as showing the Pentagon 'is actively developing' space weapons.").

27. NASA's Chief Scientist for Orbital Debris at the time, Nicholas Johnson, described his role in the whole-of-government assessment of the operation, including supporting the need to mitigate the risk of large radioactive debris and poisonous hydrazine reaching Earth and the determination "that 99% of the debris left in orbit [post-strike] were expected to reenter the atmosphere within only 1 week." Nicholas L. Johnson, *Operation Burnt Frost: A View From Inside*, 56 SPACE POLICY 10411 at 4 (May 2021), https://perma.cc/B6LU-U9AC.

28. Park Si-soo, *Japan, Australia Condemn Russia for 'Irresponsible' Anti-Satellite Missile Test*, SPACE NEWS (Nov. 19, 2021), https://perma.cc/MN77-EXXF.

29. *See generally* Sean Murphy, *The Doctrine of Preemptive Self-Defense*, 50 VILL. L. REV. 699 (2005); Hunter Miller ed., *British-American Diplomacy: The Caroline Case*, THE AVALON PROJECT,

included) also bolster the morality of defensive actions through clarity of purpose and legitimacy when a state acts in conformity with law, thereby supporting the "just cause" aspect of just war that states may seek.[30] Russia is aware of these benefits and the power of rules (or information) to justify military force when needed.[31] With clear expectations of behavior, the United States can similarly benefit when force is necessary and proportionate to the threat.

B. Procedural Benefits from Engagement

Beyond cementing advantageous practices in the space domain, there are procedural reasons to pursue norms, irrespective of the substance of any resulting rules.[32] First, engagement and pursuit of norms through established systems leverages a relative U.S. advantage. The rules-based world order is useful to the United States, and norms created through accepted rule-of-law and order-related mechanisms (e.g., the United Nations system, the International Civil Aviation Organization, the International Telecommunications Union, regional organizations, etc.) bolster both the U.S. position within the institutions, as well as the institutions themselves. This has been a traditional strength of the United States, starting with the Wilson era and the push for the League of Nations, and culminating in the post-World War II world order. Creation of future norms and rules through this order solidifies this advantageous system and institutions, thereby benefitting the United States.

Second, pursuit of norms embraces competition "across the entire spectrum of conflict,"[33] including within the human domain. Recognizing the importance of people—friendly and adversary, leaders and general population—and their beliefs, decisions, and actions, this domain is "a web of interactions" that has become "the central battlefield between rival antagonists" in modern war.[34] In the human domain, "shifting economic, social, and political networks cluster in time

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https://perma.cc/ZYZ6-K8C7 (describing how the 1842 exchange of letters between British Lord Ashburton and U.S. Secretary of State Daniel Webster captured the self-defense standard under customary international law as "a necessity of self defence, instant, overwhelming, leaving no choice of means and no moment for deliberation").

30. John F. Coverdale, *An Introduction to the Just War Tradition*, 16 PACE INT'L L. REV. 221, 229 (2004).

31. President of Russia, *Военная доктрина Российской Федерации* [*Military Doctrine of the Russian Federation*] para. 13(d) (Feb. 5, 2010), https://perma.cc/862F-PAPA (translated to "early implementation of information warfare measures to achieve political goals without the use of military force, and subsequently—in the interest of forming a favorable reaction of the world community to the use of military force"); *Text of Newly-Approved Russian Military Doctrine*, CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE, https://perma.cc/EM3M-ZYGS (translating paragraph 13(d) of the 2010 Doctrine as "the prior implementation of measures of information warfare in order to achieve political objectives without the utilization of military force and, subsequently, in the interest of shaping a favourable response from the world community to the utilization of military force.").

32. *See* discussion *supra* note 6.

33. National Defense Strategy, *supra* note 3, at 5.

34. CHARLES CLEVELAND ET AL., MILITARY STRATEGY IN THE 21ST CENTURY: PEOPLE, CONNECTIVITY, AND COMPETITION 5 (2018); *see also*, Austin Branch, Ed Cardon, Devin Ellis and Adam Russell, *We Ignore the Human Domain at Our Own Peril*, MODERN WAR INSTITUTE (Jun. 14, 2021), https://perma.cc/SMB9-G8ZG.

and space, generating key nodes that friendly nations have to access or at least influence to advance their interests."[35] The primary adversaries in great power competition recognize this, as both Russia and China have embraced "informatized" warfare as a means of undermining rival powers, namely the United States, and boosting their own position.[36] Along these lines, both Russia[37] and China[38] seek norms discussions as battlefields for information campaigns, be it for prestige building, adverse rule creation, unseating the United States as a diplomatic leader, or other competitive purposes. But it is not just U.S. adversaries participating in this area; partner states such as Japan[39] and the United Kingdom[40] explicitly pursue international rulemaking as part of their space strategies. If the United States does not do the same, it is ceding ground by default. Thus, engagement can serve as a subtle form of competition in terms of the *National Defense Strategy's* great power contest.

Finally, norms are always being developed as states and commercial entities operate in space. Precedents are being created whether or not the United States affirmatively engages—the only question is whether the United States is consciously or unconsciously participating. Instead of passively letting norms happen, the United States is better served by actively shaping them, through supporting positive practices, condemning bad practices, and stating U.S. views on the status of norms and rules of behavior in engagement with other states.

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35. *Id.*

36. DEF. INTEL. AGENCY, CHALLENGES TO SECURITY IN SPACE 14 (2019), https://perma.cc/WLN2-5N6X ("The PLA uses 'informatized' warfare to describe the process of acquiring, transmitting, processing, and using information to conduct joint military operations across the domains of land, sea, air, space, cyberspace, and the electromagnetic spectrum during a conflict."). In particular, "[t]he PLA views space superiority, the ability to control the information sphere, and denying adversaries the same as key components of conducting modern 'informatized' wars." *Id. See also* KLEIN, *supra* note 4, at 104.

37. *See* James C. Moltz, *The Russian Space Program: In Search of a New Business Model*, 15(2) ASIA POLICY 19, 24–25 (Apr. 2020) ("Russia's strategy at the United Nations and elsewhere seems to be aimed mostly at blocking and discrediting the growing U.S. commercial and military role in space by building a coalition of like-minded nations behind a set of vague and unverifiable initiatives allegedly intended to prevent the weaponization of space.").

38. *See* Kevin Pollpeter, *China's Space Program: Making China Strong, Rich, and Respected*, 15(2) ASIA POLICY 12, 16–17 (Apr. 2020)

> The narrative of a "shared vision for humanity in space" is intended to increase the PRC's influence in space-related diplomacy and build relationships with foreign partners. Using space for peaceful purposes and working to bring the benefits of space to all countries is one element of its larger endeavor to reduce U.S. power and influence.

39. *See* NAT'L SPACE POLICY SECRETARIAT (JAPAN), OUTLINE OF THE BASIC PLAN ON SPACE POLICY (Jun. 30, 2020), https://perma.cc/CM2T-MWT7.

40. *See* MINISTRY OF DEF. (U.K.), TOWARDS A DEFENCE SPACE STRATEGY https://perma.cc/53DU-S53X; Press Release, Foreign & Commonwealth Office (U.K.), UK push for landmark UN resolution to agree responsible behaviour in space (Aug. 26, 2020), https://perma.cc/DF9Q-CNVZ; Press Release, Foreign, Commonwealth & Development Office (U.K.) & The Rt Hon. James Cleverly, Member of Parliament, UN General Assembly's First Committee approves UK push to tackle threatening space behaviour, (Nov. 1, 2021), https://perma.cc/KJ3H-TD4C ("There is no doubt that there is a growing range of threats to space systems, and a risk that those threats could lead to miscalculation and, in turn, escalation and conflict. Only together can we find solutions to keep space peaceful, sustainable and open to all.").

Whether or not an adversary abides by norms, the creation of norms beneficial to the United States creates advantages—either in predictability and stability, or in opening doors to legitimate countermeasures, uses of force in self-defense, or in soft power or informational measures. Expanding cooperation to encompass these opportunities would provide the United States with new tools to engage in competition. To do so, the joint force and the United States writ large must view engagement on a more holistic basis, rather than a finite and transactional basis, and must treat cooperation *as* competition, breaking from current conceptual limitations.[41]

The space domain is physically, geopolitically, and historically well-suited for such engagement. Space operations present enough inherent challenges that states seeking advancement are incentivized to minimize artificial or avoidable human-imposed difficulties. Additionally, from its beginnings during the Cold War, space exploration has been intertwined with diplomatic and informational instruments of power.[42] Early consensus quickly resulted in cooperation through the United Nations (UN) and ultimately the 1967 Outer Space Treaty.[43] Cooperation in space is also available to modern geostrategic actors. From the U.S.-Soviet civil space cooperation during the Cold War[44] to the International

41. *See, e.g.*, JOINT CHIEFS OF STAFF, JOINT PUBLICATION 3-0, JOINT OPERATIONS xix-xx (Jan. 17, 2017) (incorporating change Oct. 22, 2018). This doctrine document discusses the myriad ways the U.S. joint forces compete and fight, employing the full range of military operations. It sets forth straightforward views of cooperation, with a focus on military engagement and security cooperation to secure fairly transactional goals and improve U.S. standing vis-à-vis future armed conflicts. It states that "[m]ilitary engagement, security cooperation, and deterrence activities develop local and regional situational awareness, build networks and relationships with partners, shape the OE, keep day-to-day tensions between nations or groups below the threshold of armed conflict, and maintain US global influence." *Id.* at V-4. While it has long term focus, it is not far-sighted in the scope of benefits from cooperation.

42. Unlike the law of war or the law of sea, which developed gradually over centuries, space rules emerged quickly—driven by consensus among the key power poles (led by the United States and Soviet Union, but including many states that either actively supported freedom of space operations or consciously chose not to object to them). *See* Matthew T. King, *Sovereignty's Gray Area: The Delimitation of Air and Space in the Context of Aerospace Vehicles and the Use of Force*, 81 J. AIR L. & COM. 377, 426, 448 (2016); North Sea Continental Shelf (Ger. v. Den., Ger. v. Neth.), Judgment, 1969 I.C.J. Rep. 3, 230 (Feb. 20) (separate opinion by Lachs, J.)

> [T]he first instruments that men sent into outer space traversed the air space of States and circled above them in outer space, yet the launching States sought no permission, nor did the other States protest. This is how the freedom of movement into outer space, and in it, came to be established and recognized as law within a remarkably short period of time.

43. G.A. Res. 1962 (XVII) Declaration of Legal Principles Governing the Activities of States in the Exploration and Uses of Outer Space (Dec. 13, 1963); 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 [Outer Space Treaty] (entered into force on Oct. 10, 1967). The international community went on to draft four more UN-sponsored space agreements under the auspices of the Committee on Peaceful Uses of Outer Space. *See* UN OFFICE FOR OUTER SPACE AFFAIRS, SPACE LAW TREATIES AND PRINCIPLES https://perma.cc/GZX4-VT35.

44. King, *supra* note 42, at 483; Roald Sagdeev and Susan Eisenhower, *United States-Soviet Space Cooperation During the Cold War*, NASA (May 28, 2008), https://perma.cc/YE9W-VXBZ (highlighting

Space Station framework[45] and the future planetary exploration of our solar system, space affords competitors an opportunity for cooperation, despite terrestrial tension.

II. OLIVE BRANCHES, FIG LEAVES, AND THE COOPERATION DILEMMA

Where there are uses for cooperation but also strategic challenges and mistrust, how can the United States leverage advantage through engagement? In a measured way, the United States can utilize both the olive branch and the fig leaf approaches to secure benefit and reduce threats and ambiguity. These approaches are not mutually exclusive and there is not a clear line between the two; they represent poles on a spectrum of engagement, ranging from full cooperation with mutual agreement (olive branches) to minimally scoped interactions to ward off threats to power (fig leaves). Further, what starts as a fig leaf approach to cooperation can evolve into broader, sustained cooperation, and vice versa.

Both approaches assume and rely on good faith and the principle of *pacta sunt servanda* ("agreements must be kept"), a foundational concept in the rules-based world order and a core premise of the modern Westphalian and UN systems.[46] With respect for state sovereignty comes the implicit responsibility of good faith adherence to commitments. For engagement to work, there must be a measure of reciprocal respect among states; otherwise, there could never be any meaningful degree of faith in an agreement or consensus, even along lines of mutual advantage or interest. However, the level of respect or good faith need not be equal; rather, it is a matter to factor into which approach is most appropriate vis-à-vis a competitor. Less faith suggests a fig leaf approach, and greater faith may enable olive branches. Moreover, in a more practical sense specific to the United States, to engage in negotiations or discussions in bad faith would undermine the system and institutions advantageous to U.S. interests in the current world order, and more deeply, the foundations of order, stability, and predictability that any system brings. Therefore, though mistrust and intrigue are part of geopolitics, genuine good faith must be a requirement for U.S. engagement under either approach.

A. Olive Branches

The olive branch, an ancient symbol of peace and cooperation, has long represented the end of a conflict and the beginning of a new relationship when

attempts at space cooperation, from the beginning of the space age); Office of the Historian, *U.S.-Soviet Space Cooperation*, U.S. DEP'T OF STATE, https://perma.cc/TK74-AD5B (official documents related to U.S.-Soviet cooperation).

45. *See Partners Sign ISS Agreement*, NASA, https://perma.cc/C5AU-GU3C; Daniel Oberhaus, *How Cold War Politics Shaped the International Space Station*, SMITHSONIAN MAG. (Sep. 9, 2020), https://perma.cc/FV94-M3P6.

46. Though it transcends mere treaty interpretation, its most common articulation is found in the Vienna Convention on the Law of Treaties. Vienna Convention on the Law of Treaties art. 26, May 23, 1969, 1155 U.N.T.S. 331 [VCLT] ("Every treaty in force is binding upon the parties to it and must be per formed by them in good faith."). Most states are signatories to the VCLT, and the United States acknowledges it as representing customary international law.

extended to an adversary,[47] It allows powers to cement their positions of advantage (either relative to each other or to third-party, less-powerful states) and box weaker states into their positions through agreements, mutual understandings, and institutions. For instance, the entire UN system, designed "to maintain international peace and security" and premised on "the equal rights . . . of nations large and small," has been a foundation of U.S. preeminence in the world order since 1945.[48]

In terms of engagement and negotiation, olive branches represent the epitome of good faith negotiations seeking lasting consensus. It is an effort to see what consensus exists, and to agree upon it for posterity. The olive branch reflects a genuine attempt to seek mutual benefit and clarity under international norms and rules regimes. For larger and more powerful states, it represents a position of authority and magnanimity; it is the tool of stewards of international systems seeking to bolster not just their own short-term interests, but also their long-term success through strong systemic rules. States wielding the olive branch approach expect to be in positions of authority well into the future in order to reap its full benefits. It is also useful for emerging and middle powers, which can use olive branch approaches with relative peers or weaker states, while also seeking mutually advantageous agreements with more powerful states. Seeking a voice in larger systems or institutions is a viable approach to international relevance and power for those who recognize their unlikelihood of exercising hegemonic authority.

The olive branch approach presents challenges as well, including the potential need to subordinate short-term gain for long-term success. This may make the approach appear undesirable, either in a cost-benefit analysis where future gain is difficult to weigh against current success, or in a domestic policy sense where political power is measured on a narrow temporal horizon. Likewise, trust is a key limitation; generally, for one state to commit to an agreement, potentially sacrificing immediate or short-term advantage, that state must trust that other parties will be similarly committed through its "break-even" point in order to generate any advantage. This is not a measure of altruism of states, but rather a calculus of shifting interests and power, an intangible math difficult to calculate. While verification measures and other compliance mechanisms can help allay this concern, the specters (or reality) of non-compliance or cheating will always moderate the depth of a state's commitment to and reliance on others' adherence to norms and rules—no state or leader wants to be a "sucker."[49]

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47. In geopolitical schools of thought, it can represent the liberal institutionalist ideal of cooperation and subjugation of impulses towards war in favor of the pursuit of pacific interaction. However, it is not just for liberalist views of relations—great strides can be made from securing realist advantage through mutual agreement solidified in law. *See* discussion, *supra* note 5.

48. U.N. Charter pmbl.

49. *See, e.g.*, Memorandum from Andrew Goodpastor, Brigadier Gen., U.S. Army, of Conference with President Eisenhower (Nov. 4, 1959) (on file with the Dep't of State Office of the Historian), https://perma.cc/CL6Y-WTFM (stating that the President thought "Europeans are close to 'making a sucker out of Uncle Sam'" because of the United States investment and military presence in Europe);

B. Fig Leaves

The fig leaf is a similarly well-established symbol in western civilization; taken from the book of Genesis when Adam and Eve were cast out of Paradise, it represents an understanding of shame, weakness, and an attempt to hide vulnerabilities. The fig leaf conceals bareness, allowing a state to obscure a lack of relative power or authority in a system. The fig leaf approach can be used to secure relative power, but also to limit that of a competitor, both tactics advantageous in a zero-sum concept of international power. However, it can also lead to incremental agreement that may form the basis of greater, later, cooperation.[50] Examples are not always evident, as a state's intent in engagement is not always clear. For instance, consider the Paris Climate Agreement[51]: while the agreement constitutes cooperation in good faith, it is only incremental and highly flexible, reflecting a lack of deep mutual interest or commitment.[52] The agreement allows states to claim they are taking action toward noble ends without real commitment or high cost.

In the engagement context, fig leaves can represent shorter-term fixes to problems or even patches for issues the broader international system cannot, or does not seek to, remedy in a more sustained manner. The approach may represent either perceived weakness or a skepticism about other parties and their intentions, or possibly a desire to engage but still maintain legal or regulatory ambiguity, thereby preserving freedom of action. Fig leaf approaches can be useful to states of all power levels: strong states may use them to modulate commitment levels in areas of discomfort or future uncertainty, or to avoid undesired precedent when skeptical of other parties' intentions, whereas weaker states may similarly hedge with limited agreements out of distrust of more powerful states, or in hopes of having a greater position of systemic authority and better bargaining leverage in the future.

This approach can also fit into an informational or diplomatic offensive strategy in two ways. First, fig leaf efforts at consensus may resemble olive branch approaches, but can be less focused on addressing the substantive issue; instead, they are more of a set-up for prestige attacks or diminution of a competitor in international fora and amongst other states. Examples of this include the Russian

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Stephen Walt, *Trump's Final Foreign-Policy Report Card*, FOREIGN POLICY (Jan. 5, 2021), https://perma.cc/GQC7-9V8E.

50. In geopolitical terms, the fig leaf approach most closely fits into the realist school because it relies on the need to project power and shore up perceived short-term weakness. However, though it should not be expected to result in sustained systemic change, it is not incompatible with more cooperative views of international relations. Small, issue-specific, or incremental agreements for limited mutual advantage have their place in even the most liberal institutionalist outlook, as it represents at least some modicum of international cooperation and shared interest. *See* discussion *supra* note 5.

51. Paris Agreement, Parties to the United Nations Framework Convention on Climate Change, Dec. 12, 2015.

52. Melissa Denchak, *Paris Climate Agreement: Everything You Need to Know*, NAT'L RES. DEF. COUNCIL (Feb. 19, 2021), https://perma.cc/7Q5A-KFWE ("No language is included about the commitments countries should make; nations can set their own emissions targets (NDCs) consistent with their level of development and technological advancement.").

and Chinese efforts in the UN General Assembly regarding the Prevention of an Arms Race in Outer Space (PAROS) resolution[53] and the Conference on Disarmament with the Prevention of the Placement of Weapons in Outer Space Treaty (PPWT).[54] The United States asserts that these efforts were made in bad faith and notes the critical flaws of the PPWT in particular, namely a lack of transparency mechanisms and the notable exclusion of terrestrially-based ASAT kinetic-kill vehicles from the PPWT's scope.[55] In the draft PPWT text, the "weapons" prohibition includes only space objects,[56] thereby permitting the direct-ascent (terrestrially-based) ASAT kinetic-kill vehicles possessed by China and Russia, while potentially prohibiting on-orbit capabilities that can disrupt attacks or support terrestrial defense (a relative U.S. advantage).[57] Despite these valid critiques, China and Russia have made enough of a perceived good faith effort and have offered just enough substantive merit to not only place the United States on the diplomatic and informational defensive, but also gain favor with neutral space actors seeking greater meaning for the "peaceful purposes" language of the Outer Space Treaty and a more pacific space domain.[58]

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53. María del Rosario Estrada Girón (Rapporteur), *Prevention of an Arms Race in Outer Space,* Rep. of the First Comm., A/75/397 (Nov. 16, 2020), https://perma.cc/AP9X-FR4 (showing that the PAROS measure passed with a vote of 174–2, with the United States and Israel the only "no" votes).

54. Alexey N. Borodavkin, Russian Amb., and Wu Haitao, Chinese Amb., *Letter from the Permanent Representative of the Russian Federation and the Permanent Representative of China to the Conference on Disarmament Addressed to the Acting Secretary-General of the Conference Transmitting the Updated Russian and Chinese Texts of the Draft Treaty on Prevention of the Placement of Weapons in Outer Space and of the Threat or Use of Force Against Outer Space Objects (PPWT) Introduced by the Russian Federation and China*, CD/1985 (Jun. 12, 2014) [hereinafter PPWT]; *see also Conference on Disarmament (CD)*, NUCLEAR THREAT INITIATIVE (Dec. 16, 2020), https://perma.cc/TNH4-XLJZ.

55. Jeff Foust, *U.S. Dismisses Space Weapons Treaty Proposal As "Fundamentally Flawed,"* SPACE NEWS (Sep. 11, 2014), https://perma.cc/4ZHD-L7HZ; Robert Wood, U.S. Amb. to UN Conference on Disarmament, The Threats Posed by Russia and China to Security of the Outer Space Environment (Aug. 14, 2019), *in* US MISSION TO THE INTERNATIONAL ORGANIZATIONS IN GENEVA, https://perma.cc/E4Z6-TK6U ("Russia and China believe it is currently acceptable to attack satellites in orbit from the ground, whether through directed energy or missile strikes. At the same time, they hypocritically profess their concern about attacks on satellites and serve as the main proponents of the draft PPWT.").

56. PPWT, *supra* note 54, art. I(b) ("'weapon in outer space' means any outer space object or its component thereof which has been produced or converted to destroy, damage or disrupt the normal functioning of objects in outer space, on the Earth's surface or in its atmosphere, or to eliminate human beings or components of biosphere which are important to human existence, or to inflict damage to them by using any principles of physics."); art. II ("States Parties to this Treaty shall . . . not place any weapons in outer space").

57. U.S.-CHINA ECONOMIC AND SECURITY REVIEW COMMISSION, CHINA'S POSITION ON A CODE OF CONDUCT IN SPACE 2 (2017), https://perma.cc/5MWK-FAWC [hereinafter China's Position on a Code of Conduct] ("The PPWT would also favor China and Russia by prohibiting space-based 'weapons' under broad terms that could include satellites that support missile defense systems on the ground—which these countries have long opposed—while allowing the terrestrial-based weapons that pose the greatest threat to space systems."); BRIAN WEEDEN AND VICTORIA SAMSON, EDS., SECURE WORLD FOUNDATION, GLOBAL COUNTERSPACE CAPABILITIES: AN OPEN SOURCE ASSESSMENT (Apr. 2021), https://perma.cc/D5LH-4FVF.

58. *See* Moltz, *supra* note 37, at 25 ("Since many countries are without space programs, or are friendly with frequent co-sponsor China, the PPWT and Russia's resolution on no first placement of weapons in space continue to receive widespread support.").

Second, cooperation can be used as a wedge tool to divide adversaries through fig leaf engagement. By actively engaging with competitors, a state can do enough to ensure it does not fall behind collective advances in technology or developments in law or domain governance, but can still resist major commitments or deep cooperation. In so doing, a state can separate potential adversaries from teaming to their mutual advantage and to its exclusion. The fig leaf approach follows the proverb, "keep your friends close but your enemies closer."[59] Such interaction for the United States must at least be in good faith, but the ends may not be merely a small substantive agreement or cooperation—it is the keeping of competitors in check and within the U.S.-synchronized system.

Like olive branches, the fig leaf approach presents challenges and potential drawbacks. First, there may be limited substantive upside; shallow commitments make for shallow agreements, and that may not serve the interests of a sustainable domain any more than unilateral declarations.[60] Also, while low commitment sounds easy, this approach may be difficult for the United States to execute in line with its broader cooperation narrative in support of rule of law, transparency, and bolstering international institutions and order. There is no harm from limited engagement or keeping commitments only to realistically attainable levels, but if the approach slips into bad faith action or is perceived as purely information operations[61] or, worse, military deception,[62] it may undermine the broader U.S. interests in being (or being viewed as) a reliable, honest broker in international affairs.

C. The Cooperation Dilemma

Under this framework, matters for strategic engagement may not fit decisively into just one approach: consideration of the nature and complexity of the overall relationship among competitors, the relationships related to the particular topic of engagement, and the nuances of the issue being discussed can drive different views of the level of commitment and trust among competitors, and all of these factors will likely shift over time. The space domain demonstrates the dynamic nature of this framework: the Outer Space Treaty was arguably a fig leaf,

59. The saying is generally attributed to both Sun Tzu and Niccolò Machiavelli (though it does not appear directly in their works), but the clearest articulation is found from the character Michael Corleone (Al Pacino) in the film THE GODFATHER PART II (Paramount Pictures 1974). A video of the quote can be seen at Jerry Carr, *The Godfather 2 "Keep Your Friends Close, But Your Enemies Closer,"* YOUTUBE (Sept. 21, 2013), https://www.youtube.com/watch?v=DfHJDLoGInM.

60. The United States recently announced its Department of Defense *Tenets of Responsible Behavior in Space*, which provide five guidelines for steady-state space operations to support "the safety, security, stability, and sustainability of the domain." Lloyd Austin, U.S. Sec'y of Def., Memorandum: Tenets of Responsible Behavior in Space (Jul. 7, 2021), https://perma.cc/WP7Z-9AP6 [hereinafter DoD Tenets].

61. In U.S. military doctrine, "information operations" are "the integrated employment, during military operations, of IRCs [information-related capabilities] in concert with other lines of operation to influence, disrupt, corrupt, or usurp the decision making of adversaries and potential adversaries while protecting our own." JOINT CHIEFS OF STAFF, JOINT PUBLICATION 3-13, INFORMATION OPERATIONS I-1 (Nov. 27, 2012) (incorporating change Nov. 20, 2014).

62. Military deception (MILDEC) is a form of information operations, defined "as actions executed to deliberately mislead adversary decision makers, creating conditions that will contribute to the accomplishment of the friendly mission." *Id.* at II-10.

designed to cement U.S.-Soviet advantages and their mutual need for free access and movement in the domain, but over time it has evolved into a genuine legal architecture, still relevant today and cited as authoritative by all major space powers in their space strategy and policy documents.

Changing advantages and interests create a dilemma for those seeking cooperation and deciding which approach to pursue. The first aspect of this cooperation dilemma resembles the "security dilemma" in broader international relations, "refer[ring] to the difficulty of increasing a state's security without simultaneously . . . decreasing the security of other states," thereby "blunder[ing] into arms races, crises, or wars."[63] The same phenomenon—of more anticipated benefit yielding more discomfort—can apply to cooperation among competing states, particularly with olive branch approaches. For instance, greater integration and mutual advancement means an adversary is similarly advancing; thus, if a state is driven by increasing the delta in relative power, equitable mutual benefit will not help. This concern is exacerbated when greater powers cooperate with weaker ones on reform-based initiatives—the lesser power may derive greater relative benefit from the cooperation and actually begin to close any gaps between the powers. While the greater power derives benefit from improvements to the weaker party—perhaps in the form of value-spreading, a more predictable operational environment, or improved markets—the weaker state may make improvements to its economic or political system that allow it to transcend structural roadblocks (e.g., corruption, inefficiency, etc.) that mired it in a developing or emerging-state status.

The second aspect of the cooperation dilemma relates to the trust and mutual interest deficit between cooperating states. Such mistrust or misaligned interest may lead to use of only the fig leaf approach, which may in turn potentially breed greater skepticism of deeper commitment among parties, precluding any meaningful cooperation. Both olive branches and fig leaves assume good faith among actors; thus, to agree to cooperate, a state must perceive some benefit and cannot be tricked, defrauded, or compelled. Even in this good faith structure, relative power is always rising or receding, resulting in shifting interests and cost-benefit analyses over time; this may be fueled by the above concerns of unequal benefit, but also the fleeting nature of perceived benefit, as driven by shifting interests and politics. This dynamic drives the potential mutual interest deficit. On the issue of trust, states may be similarly misaligned. For instance, the United States may genuinely base its cooperation on claims of moral propriety and shared values, but other states, such as China, may view cooperative attempts as veiled power plays to bolster U.S. authority and undermine states that do not subscribe to the same values—that is, one may offer olive branches, but the other only sees fig leaves. This skepticism is difficult to overcome and is likely to drive only guarded engagement, capped at finite, modest fig leaf approaches.

The best results of a cooperative approach come when there is an alignment of approaches and expectations among parties. This leads to both parties having the

63. Vsevolod Gunitskiy, *Security Dilemma*, *in* ENCYCLOPEDIA OF POWER 596 (Keith Dowding ed., 2011).

best chance at meeting anticipated benefits (long or shorter-term) and enhancing predictability, and thereby stability, among participants.

Table 1: Potential alignments of interests between two states seeking cooperation.[64]

	State B - OB	**State B - FL**
State A - OB	(1) Sustained collaboration	(2) Fleeting agreement
State A - FL	(2) Fleeting agreement	(3) Short engagement

This chart assumes states can come to an agreement or engage in some form of voluntary cooperation at the outset, which is not a given. However, if they do so, results can fall into three main categories: (1) sustained collaboration, (2) fleeting agreement, and (3) short engagement.

Sustained collaboration (Category 1) can occur when both parties take an olive branch approach, seeking cooperation and genuine engagement on the substance of an issue. This engagement is the most enduring because both parties find acceptable benefit on the substance of a matter and are not distracted by subterfuge or ancillary benefits from engagement. An example for the space domain may be multilateral agreements on space traffic management or orbital debris mitigation. Spacefaring states currently enjoy a great amount of freedom in space operations, capitalizing on the "free . . . exploration and use" enshrined in the Outer Space Treaty and the lack of specificity of the "due regard" standard therein.[65] However, major powers (including the United States and China) view sustainability and predictability of the domain as increasingly valuable as it becomes more congested and commercialized.[66] The cost of cooperation, particularly on

64. Table 1 covers two notional states (State A and State B, presumed to be competitors not otherwise engaged in cooperative activities across the spectrum) and olive branch (OB) and fig leaf (FL) approaches; the more parties (and interests) involved and the more dynamic the relationships, the more complex the assessment would become.

65. Outer Space Treaty, *supra* note 43, art. I(2), art. IX.

66. *See, e.g.*, National Space Policy, *supra* note 8, at 5 (stating that one of the U.S. goals is: "Create a safe, stable, secure, and sustainable environment for space activities, in collaboration with industry and international partners, through the development and promotion of responsible behaviors; improved practices for the collection and sharing of information on space objects; protection of critical space systems and supporting infrastructures, with special attention to cybersecurity and supply chains; and measures to mitigate orbital debris."); The State Council (People's Republic of China), *Full Text of White Paper on China's Space Activities in 2016*, CHINA DAILY § V.2(2) (Dec. 28, 2016), https://perma.cc/6VUV-SR9P [hereinafter White Paper on China's Space Activities] ("China takes an active part in activities organized by the United Nations Committee on the Peaceful Uses of Outer Space and its Scientific and Technical Subcommittee and Legal Subcommittee, and negotiations on international space rules such as the long-term sustainability of outer space activities."); *see also id.* §§ II.9, III.10, and V.2(1) (discussing debris mitigation efforts).

straightforward governance and agreeable regulatory matters, appears to be low, relative to the potential benefit. Perhaps the best existing example of this is the civil air regime and traffic management system under the auspices of the Chicago Convention and the International Civil Aviation Organization.[67]

Fleeting agreement (Category 2) occurs when the expectations and approaches of parties are mixed. Meaningful agreement on an issue is possible, as both parties expect to derive some form of benefit from engagement and cooperation. The mismatch of intentions, however, suggests that one party will not find benefit for as long as the other or at the same level of depth, causing any cooperation to be fleeting. Also, from the start, the lack of interest in long-term, sustained agreement by one of the parties (taking the fig leaf approach) should be expected to cap the overall depth and level of commitment of any agreement reached.

Short engagement (Category 3) assumes both parties employ fig leave approaches and seek only short-term or ancillary benefit from engagement. This may still lead to some degree of cooperation among competitors for mutual benefit on substantive or other matters, but states should expect the consensus to be of the shortest duration of any category because the perceived advantage from such engagement is likely narrow and finite. Substantive, long-term agreements are unlikely when both parties enter under fig leaf approaches. This category is likewise particularly at risk of the cooperation dilemma because states may see a gap in their relative gains (which they perceive as unfair), or the limited commitment of the other state may only foster deeper mistrust or skepticism by a state (such that it decides to resist any engagement).

The cooperation dilemma creates a dynamic environment of interests as the engagements or agreements develop and mature, thus impacting all of the above categories. Category 3 (mutual fig leaf) engagement can lead towards deeper cooperation, as states may find actual benefit in their loose participation or as trust among parties grows, potentially leading to either Category 2 (mixed) or Category 1 (olive branch) cooperation into the future. Conversely, olive branch approaches may not live up to anticipated value, or one party may gain more than the other expected, leading to one or both parties decreasing its perceived benefit, thus sliding into Categories 2 or 3 or even potential dissolution.

For any form of collaboration, from mere engagement to formal agreements (regardless of whether a state is collaborating with allies or geostrategic competitors), states should be expected to do what is in their self-interest to preserve sustained advantage. This framework cannot predict specific outcomes in competition through cooperation, but it can focus on the realistic dynamics of interest, benefit, and advantage over short and long-term horizons, thereby guiding strategic approaches. Understanding oneself, one's adversaries, and the rest of the strategic state of play (particularly among allies and neutral states) is essential, and

67. Convention on International Civil Aviation, Dec. 7, 1944, 61 Stat. 1180, 15 U.N.T.S. 295 [Chicago Convention] (entered into force 4 April 1947); *About ICAO*, INT'L CIVIL AVIATION ORG., https://perma.cc/LU3C-GBCQ.

appreciation of olive branch and fig leaf approaches—and factoring in the cooperation dilemma they may create—can suggest predictable routes to maintaining or enhancing state power and strategic advantage through engagement.

III. UNITED STATES SPACE ENGAGEMENT WITH CHINA: A COOPERATION DILEMMA?

As states rely on the space domain more for national security and military purposes, the security dilemma presents an acute risk in space competition.[68] China is the fastest rival developer of the United States in both economic and military applications in space, raising concern for the United States. However, even in this context, China is simply another issue to be dealt with—no more, no less.[69] In addressing China, one way the United States may undermine itself is in feeling compelled to employ (or stoop to) extraordinary measures—particularly those that are counter to U.S. and Western values and undermine the integrity of the world order created by the United States—in order to compete against an overstated Chinese threat. Consequently, cooperation as competition with China may be the best avenue to curb threat perception and avoid inadvertent escalation, all while bolstering the international system most advantageous to enduring U.S. interests.

A. Engagement with China – Olive Branches

There are potential olive branch approaches for U.S.-China engagement in space matters, despite the adversarial relationship in broader geopolitics. While some interests diverge, the two states share the overwhelming majority of the world's space power capacity and have a mutual interest in preserving that status vis-à-vis others (particularly less technologically-advanced states). This shared interest can serve as a building block for substantive engagement between these two competitors, both in security and non-security matters.

As noted above, the United States and China espouse goals of domain sustainability and debris mitigation to support their future plans in space.[70] Space traffic management also fits into this mutual interest, as it not only bolsters safer operations in this increasingly crowded domain, but also enhances security in space through more predictable operations. This goal is especially important as both states are encouraging growth of commercial space sectors to support their

68. *See* JOAN JOHNSON-FREESE, SPACE AS A STRATEGIC ASSET 105 (2007) ("The current U.S. approach to space assumes that any other country's efforts to use space for military modernization, or in some cases for economic development if dual-use technology is involved, is a threat to the United States. . . . U.S. efforts to deny them will likely only result in increased determination on their parts.").

69. As one author noted recently, "[c]oncentrating on China's strengths without accounting for its vulnerabilities creates anxiety. Anxiety breeds insecurity. Insecurity leads to overreaction, and overreaction produces bad decisions that undermine the United States' own competitiveness." Ryan Hass, *China Is Not Ten Feet Tall: How Alarmism Undermines American Strategy*, FOREIGN AFFAIRS (Mar. 3, 2021), https://perma.cc/GVR2-7J7Y.

70. *See supra* note 66 (quoting U.S. and Chinese space policy statements on sustainability and debris mitigation).

economies and overall (non-national security) space ambitions.[71] If tailored toward civil or commercial actors only, the political and practical costs of traffic management agreements are generally low, making U.S.-China consensus achievable.

However, given the mutual benefit of preserving advantage over newcomers to the domain and the groundwork already existing in the Outer Space Treaty, there is an opportunity for substantive engagement even in a national security context. The foundation for such engagement is already laid out in Article IX of the Outer Space Treaty and its provisions for "due regard," avoidance of "harmful interference," and endorsement of "appropriate international consultations" with other spacefaring states.[72] The United States has already unilaterally committed to these concepts for Department of Defense operations with the *Tenets of Responsible Behavior in Space*, and considers the *Tenets* an opportunity "to continue space leadership through demonstrating and acknowledging responsible behavior in space."[73] Working with China to further forge actionable meaning for these provisions could mean not only that the United States and China act consistently with their need for a safe and sustainable domain, but also that newcomers—that may otherwise be inclined to produce excessive debris, quietly engage in riskier experimental behaviors, or disregard the interests of existing space powers—are held to the same standards. The United States and China may achieve this through universally applicable formal rules, bilateral or multilateral affinity-based agreements, and general expectations of practice.

Another area of possible mutual benefit is refining the status of space resource extraction in the context of the ambiguous language of the Outer Space Treaty related to ownership. Both states demonstrate great interest in resource extraction and would mutually benefit from clarity as to how it can be "carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development"[74] without constituting

71. White Paper on China's Space Activities, *supra* note 66, § V.2(3) ("China encourages and supports Chinese enterprises to participate in international commercial activities in the space field."); National Space Policy, *supra* note 8, at 3 ("A robust, innovative, and competitive commercial space sector is the source of continued progress and sustained United States leadership in space. The United States remains committed to encouraging and facilitating the continued growth of a domestic commercial space sector that is globally competitive, supports national interests, and advances United States leadership in the generation of new markets and innovation-driven entrepreneurship.").

72. Outer Space Treaty, *supra* note 43, art. IX ("In the exploration and use of outer space . . . States Parties . . . shall conduct all their activities in outer space . . . *with due regard to the corresponding interests of all other States Parties* to the Treaty. . . . If a State Party to the Treaty has reason to believe that an activity or experiment planned by it or its nationals in outer space . . . would cause *potentially harmful interference with activities of other States Parties* in the peaceful exploration and use of outer space . . . it shall *undertake appropriate international consultations before proceeding* with any such activity or experiment.") (emphasis added).

73. DoD Tenets, *supra* note 60. The *Tenets* include operating with "due regard," limiting "long-lived debris," avoiding "harmful interference," and seeking to "communicate and make notifications to enhance the safety and stability of the domain." *Id.* Of course, coming in a national security context, these tenets apply only "[u]nless otherwise directed." *Id.*

74. Outer Space Treaty, *supra* note 43, art. I(1).

"national appropriation."[75] Congress has asserted the propriety of private resource mining in conformity with international law,[76] and NASA's Artemis Accords internationalize this view.[77] China has teamed up with Luxembourg to help finance—and normalize—space resource extraction;[78] likewise, China has already established potentially applicable multilateral resource and technology sharing arrangements with the Asia-Pacific Space Cooperation Organization (APSCO) and its "fair-return" provisions.[79] This demonstrates a profit-motivated view that rewards relative investment and could endorse U.S. resource-retrieval plans, ostensibly in line with the Outer Space Treaty. If consensus could be reached between the United States and China—two powers who are generally at odds, but among the most likely to have large-scale success in celestial body resource extraction—it would create a powerful precedent for future operations, potentially setting the norm for space resource extraction. At a minimum, it could establish state practice and *opinio juris* to bolster the propriety of U.S. and Chinese activities under international law.[80] Therefore, engagement for mutual benefit can help both parties in this regard.

B. Engagement with China – Fig Leaves

The olive branch approach assumes a capacity for trust and genuine engagement that may be prohibitively weak in U.S.-China relations. The two states

75. Outer Space Treaty, *supra* note 43, art. II (precluding "national appropriation by claim of sovereignty, by means of use or occupation, or by any other means appropriation.").

76. U.S. Commercial Space Launch Competitiveness Act, Pub. L. No. 114–90, § 403, 129 Stat. 703, 722 (2015) ("It is the sense of Congress that by the enactment of this Act, the United States does not thereby assert sovereignty or sovereign or exclusive rights or jurisdiction over, or the ownership of, any celestial body."); 51 U.S.C. § 51303 ("A United States citizen engaged in commercial recovery of an asteroid resource or a space resource under this chapter shall be entitled to any asteroid resource or space resource obtained, including to possess, own, transport, use, and sell the asteroid resource or space resource obtained in accordance with applicable law, including the international obligations of the United States.").

77. The Artemis Accords: Principles for Cooperation in the Civil Exploration and Use of the Moon, Mars, Comets, and Asteroids for Peaceful Purposes § 10, ¶ 2, Oct. 13, 2020 [hereinafter Artemis Accords] ("The Signatories affirm that the extraction of space resources does not inherently constitute national appropriation under Article II of the Outer Space Treaty, and that contracts and other legal instruments relating to space resources should be consistent with that Treaty.") (including the following signatories: Australia, Bahrain, Brazil, Canada, Israel, Italy, Japan, the Republic of Korea, Luxembourg, Mexico, New Zealand, Poland, Romania, Singapore, Ukraine, the United Arab Emirates, the United Kingdom, and the United States).

78. Namrata Goswami, *China's Grand Strategy in Outer Space: To Establish Compelling Standards of Behavior*, THE SPACE REVIEW (Aug. 5, 2019), https://perma.cc/CBR6-72XR.

79. Convention of the Asia-Pacific Space Cooperation Organization (APSCO), art. 5, ¶¶ 3–4, Oct. 28, 2005, 2423 U.N.T.S. 127 ("the Organization shall ensure participation of all Member States in an equitable manner, commensurate with their respective investment which may also include technological inputs. . . . The concept of 'fair return' for Member States shall be the corner stone of the Organization's industrial policy.").

80. The International Court of Justice has taken into special account the practice of "specially affected" states. North Sea Continental Shelf (Ger. v. Den., Ger. v. Neth.), Judgment, 1969 I.C.J. Rep. 3, at 43 (Feb. 20) (noting that "an indispensable requirement would be that within the period in question, short though it might be, State practice, including that of States whose interests are specially affected, should have been both extensive and virtually uniform in the sense of the provision invoked").

come from a starting point of mistrust, with the U.S. view that China seeks "to shape a world antithetical to U.S. values and interests."[81] Likewise, in space matters, the Wolf Amendment precludes civil (non-military) bilateral engagement between the two states, while technically allowing for multilateral or defense-oriented engagement.[82] China is similarly distrustful of the United States.[83] Therefore, the fig leaf approach may be most suitable, seeking shallow agreement or cooperation either as a short-term building block or a tool to curb rival advantage.

The United States may use engagement as a wedge tool: bringing China more into the fold can isolate China from actors the United States considers non-friendly, or otherwise unaligned, and can prevent them from forming rival alliances. For instance, China dominates the APSCO and (because the other member states are not especially strong) stands to solely reap the benefits of its stewardship over that group through Belt and Road Initiative-related expansion into the space economies of emerging spacefaring states.[84] Involving China in broader, less China-dominated fora will decrease its relative advantage regionally, as well as in space technological development outside the United States' purview. Also, if China participates with the United States, it is less likely to dominate an organization and fuel assertions of the regional preeminence it seeks in its overall foreign policy.[85]

More importantly, engagement with China could separate China and Russia, potentially further isolating Russia, another strategic competitor. For instance, Sino-Russian space cooperation is in direct competition with the U.S.-led Artemis program for deeper exploration of the moon and even establishment of installations on the lunar surface and beyond.[86] For the United States, this merely represents competition in an intangible sense—prestige—at this point in time. But as finite, advantageous locations on the lunar surface are discerned, the competition is likely to become more of a race for tangible, physical positions as well. While U.S. cooperation with China could be mutually advantageous, it may more

81. National Security Strategy, *supra* note 13, at 25.

82. The Amendment, renewed annually on appropriations bills since 2011, only applies to NASA, the White House Office of Science and Technology Policy (OSTP), and the National Space Council for bilateral engagement with China. Department of Defense and Full-Year Continuing Appropriations Act of 2011, Pub. L. No. 112–10, § 1340, 125 Stat. 123 (Apr. 15, 2011) (disallowing NASA or the OSTP "to develop, design, plan, promulgate, implement, or execute a bilateral policy, program, order, or contract of any kind to participate, collaborate, or coordinate bilaterally in any way with China or any Chinese-owned company," unless explicitly authorized by Congress.); Consolidated Appropriations Act of 2021, Pub. L. No. 116-260, § 526, 134 Stat. 1281 (Dec. 27, 2020) (adding the National Space Council to the above).

83. Zhu Ying (Ng Kum Hoon trans.), *The China-US Trust War*, THINKCHINA (Dec. 9, 2019) https://perma.cc/ST8N-YD2E.

84. *See* Michael S. Chase, *The Space and Cyberspace Components of the Belt and Road Initiative*, in SECURING THE BELT AND ROAD INITIATIVE, NATIONAL BUREAU OF ASIAN RESEARCH SPECIAL REPORT #80 (Nadège Rolland ed., Sep. 2019), https://perma.cc/E6PN-UB3Y.

85. NATHAN & SCOBELL, *supra* note 17, at 6.

86. Eva Dou, *China and Russia to Open Moon Base, Expanding Space Cooperation*, WASH. POST (Mar. 10, 2020), https://perma.cc/BA2B-FTUM.

acutely serve the United States to keep China in sync with the United States, and out of touch with Russia, to moderate any breakthroughs or advances outside of U.S. control or participation. Further, despite Sino-Russian cooperation, there are friction points between the two states, including an at-times contentious border, technology disparities, rivalry over primacy in Central Asia, and competition for leadership of the non-Western world.[87] Why give China and Russia a unifying cause and common adversary (i.e., the United States), when instead the United States can split their efforts and possibly benefit from U.S.-Chinese cooperation? Strategically-placed engagement in space issues can keep both parties isolated and less likely to advance without benefit to the United States.

The United States can also consider fig leaf engagement as a means of creating viable future options, from diplomatic acts and informational attacks to economic sanctions and even military force. Throughout history, the United States has positioned itself as a steward of the rules-based world order; embracing the institutions and mechanisms of this order come at a low cost. For instance, the Department of Defense *Tenets of Responsible Behavior in Space* lay the foundation and set an example of U.S. leadership towards a sustainable domain, even in a national security context—all with a fairly shallow level of commitment.[88] This framework may help inoculate the United States from critiques of inaction, and creates the basis of standards under which the United States can operate. If the United States can convince China to commit to the same standards, it may create opportunity. Likewise, consider the Prevention of the Placement of Weapons in Outer Space Treaty (PPWT) discussions in the UN Conference on Disarmament, where the United States has expressed valid skepticism of Chinese intent to abide by rules created against the weaponization and first-use of weapons in outer space.[89]

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87. *See, e.g.* Kadri Liik, *It's Complicated: Russia's Tricky Relationship with China*, EUROPEAN COUNCIL ON FOREIGN RELATIONS (Dec. 17, 2021), https://perma.cc/KAE5-M5F7 (describing the longstanding Russia-China border tensions and military technology disparities); *Central Asia's Silk Road Rivalries*, INTERNATIONAL CRISIS GROUP, EUROPE & CENTRAL ASIA REPORT NO. 245 (Jul. 27, 2017), https://perma.cc/NAW6-26JT (exploring the tension between Chinese economic advances and Russian security positions in Central Asia); Jim Townsend and Andrea Kendall-Taylor, *Partners, Competitors, or a Little of Both? Russia and China in the Arctic*, CENTER FOR A NEW AMERICAN SECURITY (Mar. 30, 2021), https://perma.cc/R34L-67Y2 (detailing potential friction points over Arctic expansion); Charlie Campbell, *'We Face Very Tough Challenges.' How Mongolia Typifies the Problems Posed to Small Countries by China's Rise*, TIME (Apr. 13, 2021), https://perma.cc/RT9V-PTSG (outlining Mongolia's challenges as Russia and China both attempt to exert influence in Central Asia); Micahel McFaul (Panelist), *What's Next for the China-Russia Relationship?*, CENTER FOR STRATEGIC & INTERNATIONAL STUDIES (Feb. 23, 2022), https://perma.cc/C97K-AS35 (discussing differing Russian and Chinese views of the world order).

88. *See* DoD Tenets, *supra* note 60 (applying the *Tenets* "[u]nless otherwise directed"); Sandra Erwin, *DoD Calls for Broader Dialogue on Space Rules of Behavior*, SPACE NEWS (Jul. 26, 2021), https://perma.cc/5CWC-64Q2 ("This means all bets would be off during a conflict if the United States came under attack.").

89. *See* Wood, *supra* note 55; China's Position on a Code of Conduct, *supra* note 57, at 2 (noting that one U.S. assessment concluded that "Beijing's rejection of the [International Code of Conduct for Outer Space Activities] in favor of the PPWT allows it to continue developing military space capabilities while appearing to support disarmament in space."); Chris Johnson, *Draft International Code of*

Even with this trust deficit, the United States may have an interest in (and derive advantage from) locking China into such rule sets, provided the United States intends to uphold its initial obligations in good faith. Of course, with the PPWT, China may genuinely intend not to pursue weapons in space that would destabilize the domain, and such a stable, secure environment would benefit the United States greatly. Similarly, a commitment to the nominal obligations of the *Tenets* would serve U.S. sustainability efforts. However, if the United States is correct about its skepticism and China's use of the PPWT and other talks is a ruse to distract from more meaningful regulation or to artificially develop credibility in the face of United States opposition, U.S. engagement can at least negate this Chinese informational and diplomatic advantage. More importantly, if the United States is correct and China intends to violate its obligations, the United States will have opportunities to respond in a host of ways based on its good faith participation and having solidified obligations and rules for China. These responses may include valid diplomatic or informational campaigns to diminish the credibility and prestige of China—in the space domain or more broadly—for failing to adhere to its own principles. The United States could also justify economic sanctions or broad disengagement from space cooperation, both of which could harm Chinese development.[90] Lastly, in the starkest terms, the United States could lay the groundwork for countermeasures under international law[91] or even the legitimate use of force in self-defense.[92]

C. A Cooperation Dilemma with China?

Despite potentially beneficial avenues for cooperation, the United States may find itself in a cooperation dilemma with China, should it choose to engage. One concern may be that China stands to benefit more significantly from cooperation, to the point that it may overcome some fundamental systemic flaws holding it back from dominance in the space domain. While China is progressing in space capacity at an impressive rate, it suffers from structural limitations driven by systemic issues within the Chinese Communist Party (CCP), including corruption, disregard for intellectual property, military domination of the space program, and

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Conduct for Outer Space Activities Fact Sheet, SECURE WORLD FOUNDATION (Feb. 2014), https://perma.cc/2MG7-XDPF (explaining that for different reasons, the United States also resisted the European Code of Conduct in 2012 after finding "that the draft International Code could limit space operations." Instead, "the United States announced it would join with foreign partners in developing an International Code of Conduct, using the EU draft as a foundation.").

90. For the impact of sanctions on space programs, *see* Vidal, *supra* note 17, at 11 (finding Western sanctions as one of two major limitations of the historically strong Russian program).

91. Michael N. Schmitt, *"Below the Threshold" Cyber Operations: The Countermeasures Response Option and International Law*, 54 VA. J. INT'L L. 697, 700 (2014) ("A remedial measure situated in the law of State responsibility, countermeasures are State actions, or omissions, directed at another State that would otherwise violate an obligation owed to that State and that are conducted by the former in order to compel or convince the latter to desist in its own internationally wrongful acts or omissions.").

92. *See generally* U.N. Charter chap. VII (supporting the argument that while UN Security Council action would be exceedingly unlikely, the United States and allies could point to the intent of Chapter VII of the UN Charter and the threat such breaches pose to international peace and security to bolster actions necessary to thwart an armed attack or imminent use of force in space).

intense CCP focus in all affairs. These flaws compound to stifle Chinese native innovation, making it undesirable for international commercial engagement and unreliable for productive (co-equal, not merely China-dominated) international partnerships. Meaningful olive branch cooperation with the United States, as well as other established, rules-based world order actors, is likely to either remedy some of these ills, or at least assuage concerns from potential suitors of Chinese industrial cooperation. If China genuinely reforms and embraces a rule of law approach, capitalist innovation, and quality governance, the United States may lose its foundational competitive advantage against China. It may be better to have a chaotic enemy with a cap on capacity than one that is less adversarial but more dominant in substance.

Engagement may also provide China with the tool it seeks for international power: prestige. "China seeks a voice in the shape of the evolving global order," and diplomacy, information, and "soft power" are key to this[93]—China's space program is directly targeted to enhance this approach.[94] If the United States treats China as an equal in space matters, it risks strengthening the perception China seeks to project on the world stage. The deeper the engagement, the greater potential that China will be perceived as a co-equal to the United States.[95]

Finally, the United States must consider its trust deficit with China. The U.S.-China relationship is one of mutual distrust, making deep engagement difficult. If no olive branches are pursued, the fig leaf approach would primarily be subterfuge to merely set a trap for Chinese failures to abide by rules, rather than a foundation for meaningful engagement. Such evasion would likely breed deeper mistrust and further diminish the likelihood of more substantively meaningful cooperation, or even set the states on a path towards escalation. Also, while China purports to have some degree of private industry and a civil space sector, their independence from the CCP and the military is dubious.[96] Therefore, national security concerns cannot be set aside for civil or commercial-only engagement, as with other states.[97] Space presents a unique opportunity for cooperation, but if it cannot be separated from broader national security concerns, it becomes less unique.

Even with these complications of the cooperation dilemma, the United States has much to gain through space cooperation with China. Policymakers may have to thread a needle to derive a net-benefit through cooperation as competition, but it is possible as long as U.S. interests, concerns, threats, and thresholds are clearly established internally. If executed well, the United States will solidify mutually

93. NATHAN & SCOBELL, *supra* note 17, at 34.

94. Goswami, *supra* note 78.

95. Of course, the United States already presents China as a "near-peer" and primary security threat in its National Defense Strategy and recent Interim National Security Strategic Guidance, but deep cooperation in space runs the risk of taking the equality to a new level. National Defense Strategy, *supra* note 3; Interim National Security Strategy, *supra* note 3.

96. *See* KLEIN, *supra* note 4, at 185.

97. *See* Artemis Accords, *supra* note 77, § 1 ("The principles set out in these Accords are intended to apply to civil space activities conducted by the civil space agencies of each Signatory.").

advantageous norms for the domain that enhance its power generally, all while keeping China enough "in the loop" to maintain cooperation, but not so much as to allow China to surpass the United States in ally-based technological or other advances.

CONCLUSION

Space presents unique opportunities for strategic gain if U.S. leaders can exercise measured engagement with both allies and competitors. Leaders must gauge the threat posed by China—both in general and by its space sectors—balanced against the potential gains from cooperation, measured over time, to ensure long-term interests are weighed appropriately. Once leaders appreciate what each state stands to gain (or is restricted from), they can formulate olive branch and fig leaf approaches that will promote U.S. interests, mitigate Chinese gains, and secure systemic stability to cement sustained US advantage into the future. Winston Churchill prepared the British people to fight in all domains and all forms: "We shall go on to the end . . . we shall fight on the beaches, we shall fight on the landing grounds, we shall fight in the fields and in the streets, we shall fight in the hills; we shall never surrender."[98] In modern space and national security strategy—across the entire spectrum of conflict and transcending the domains and means of military operation—the United States should be similarly willing to take the competition to the adversary, wherever it may be operating. Here, the adversary is China in the space domain, in the arenas of diplomacy, information, and norms; the United States' best competitive tool is to use its olive branches and fig leaves in furtherance of engagement, viewing this measured cooperation *as* competition.

98. Winston Churchill, U.K. Prime Minister, We Shall Fight on the Beaches, Address Before the U.K. House of Commons (Jun. 4, 1940), https://perma.cc/LL2H-AEY5.

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