# 1AC – China

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### 1AC – Footnote

Counter Solvency Advocates –

XI Lashout DA –

[Neel V. Patel, Neel is a space reporter for MIT Technology Review. 1-21-2021, "China’s surging private space industry is out to challenge the US," MIT Technology Review, <https://www.technologyreview.com/2021/01/21/1016513/china-private-commercial-space-industry-dominance/> accessed 12/14/21] Adam

Space Commercialization DA –

Klein 19, John J. Understanding space strategy: the art of war in space. Routledge, 2019. (a Senior Fellow and Strategist at Falcon Research, Inc. and Adjunct Professor at George Washington University’s Space Policy Institute) *Elmer*

Innovation DA –

Joshua Hampson 1-25-2017 "The Future of Space Commercialization" <https://republicans-science.house.gov/sites/republicans.science.house.gov/files/documents/TheFutureofSpaceCommercializationFinal.pdf> (Security Studies Fellow at the Niskanen Center) *Elmer*

### **1AC – FW**

#### The meta ethic is practical reason-

#### [1] Ethics must be derived a priori – moral truths exist independently of the empirical world. Prefer –

#### A] Uncertainty – our experiences are inaccessible to others which allows people to say they don’t experience the same, however a priori principles are universally applied to all agents which makes it action guiding

#### B] Naturalistic fallacy – experience only tells us what is since we can only perceive what is, not what ought to be, this means experience may be generally useful but should not be the basis for ethical action.

#### [2] Practical Reason is that procedure. To ask for why we should be reasoners concedes its authority since it uses reason – anything else is escapable and non-actionguiding which is the problem of regress. Aggregation is nonsensical since a] it impedes on one persons ends for another and b] assumes everyone values the same thing.

#### [3] Moral law must be universal—our judgements can’t only apply to ourselves any more than 2+2=4 can be true only for me – any non-universalizable norm justifies someone’s ability to impede on your ends.

Korsgaard ’83 (Christine M., “Two Distinctions in Goodness,” The Philosophical Review Vol. 92, No. 2 (Apr., 1983), pp. 169-195, JSTOR) // LEX JB [brackets for gendered language]

The argument shows how Kant's idea of justification works. It can be read as a kind of regress upon the conditions, starting from an important assumption. The assumption is that when a rational being makes a choice or undertakes an action, [they] supposes the object to be good, and its pursuit to be justified. At least, if there is a categorical imperative there must be objectively good ends, for then there are necessary actions and so necessary ends (G 45-46/427-428 and Doctrine of Virtue 43-44/384-385). In order for there to be any objectively good ends, however, there must be something that is unconditionally good and so can serve as a sufficient condition of their goodness. Kant considers what this might be**:** it cannot be an object of inclination, for those have only a conditional worth, "for if the inclinations and the needs founded on them did not exist, their object would be without worth" (G 46/428). It cannot be the inclinations themselves because a rational being would rather be free from them. Nor can it be external things, which serve only as means. So, Kant asserts, the unconditionally valuable thing must be "humanity" or "rational nature," which he defines as "the power set to an end" (G 56/437 and DV 51/392). Kant explains that regarding your existence as a rational being as an end in itself is a "subjective principle of human action." By this I understand him to mean that we must regard ourselves as capable of conferring value upon the objects of our choice, the ends that we set, because we must regard our ends as goo**d**. But since "every other rational being thinks of his existence by the same rational ground which holds also for myself' (G 47/429), we must regard others as capable of conferring value by reason of their rational choices and so also as ends in themselves. Treating another as an end in itself thus involves making that person's ends as far as possible your own (G 49/430). The ends that are chosen by any rational being, possessed of the humanity or rational nature that is fully realized in a good will, take on the status of objective goods. They are not intrinsically valuable, but they are objectively valuable in the sense that every rational being has a reason to promote or realize t hem. For this reason it is our duty to promote the happiness of others-the ends that they choose-and, in general, to make the highest good our end.

#### Thus the standard is consistency with the categorical imperative. To clarify, consequences don’t link to the framework.

#### Prefer additionally –

#### [1] Kantian theory has the best tools for fighting oppression through combatting ethical egoism and abstraction

Farr 02 [Arnold (prof of phil @ UKentucky, focusing on German idealism, philosophy of race, postmodernism, psychoanalysis, and liberation philosophy). “Can a Philosophy of Race Afford to Abandon the Kantian Categorical Imperative?” JOURNAL of SOCIAL PHILOSOPHY, Vol. 33 No. 1, Spring 2002, 17–32 // LEX JB]

One of the most popular criticisms of Kant’s moral philosophy is that it is too formalistic.13 That is, the universal nature of the categorical imperative leaves it devoid of content. Such a principle is useless since moral decisions are made by concrete individuals in a concrete, historical, and social situation. This type of criticism lies behind Lewis Gordon’s rejection of any attempt to ground an antiracist position on Kantian principles. The rejection of universal principles for the sake of emphasizing the historical embeddedness of the human agent is widespread in recent philosophy and social theory. I will argue here on Kantian grounds that although a distinction between the universal and the concrete is a valid distinction, the unity of the two is required for an understanding of human agency. The attack on Kantian formalism began with Hegel’s criticism of the Kantian philosophy.14 The list of contemporary theorists who follow Hegel’s line of criticism is far too long to deal with in the scope of this paper. Although these theorists may approach the problem of Kantian formalism from a variety of angles, the spirit of their criticism is basically the same: The universality of the categorical imperative is an abstraction from one’s empirical conditions. Kant is often accused of making the moral agent an abstract, empty, noumenal subject. Nothing could be further from the truth. The Kantian subject is an embodied, empirical, concrete subject. However, this concrete subject has a dual nature. Kant claims in the Critique of Pure Reason as well as in the Grounding that human beings have an intelligible and empirical character.15 It is impossible to understand and do justice to Kant’s moral theory without taking seriously the relation between these two characters. The very concept of morality is impossible without the tension between the two. By “empirical character” Kant simply means that we have a sensual nature. We are physical creatures with physical drives or desires. The very fact that I cannot simply satisfy my desires without considering the rightness or wrongness of my actions suggests that my empirical character must be held in check by something, or else I behave like a Freudian id. My empiri- cal character must be held in check by my intelligible character, which is the legislative activity of practical reason. It is through our intelligible character that we formulate principles that keep our empirical impulses in check. The categorical imperative is the supreme principle of morality that is constructed by the moral agent in his/her moment of self-transcendence. What I have called self-transcendence may be best explained in the following passage by Onora O’Neill: In restricting our maxims to those that meet the test of the categorical imperative we refuse to base our lives on maxims that necessarily make our own case an exception. The reason why a universilizability criterion is morally signiﬁcant is that it makes our own case no special exception (G, IV, 404). In accepting the Categorical Imperative we accept the moral reality of other selves, and hence the possibility (not, note, the reality) of a moral community. The Formula of Universal Law enjoins no more than that we act only on maxims that are open to others also.16 O’Neill’s description of the universalizability criterion includes the notion of self-transcendence that I am working to explicate here to the extent that like self-transcendence, universalizable moral principles require that the individ- ual think beyond his or her own particular desires. The individual is not allowed to exclude others as rational moral agents who have the right to act as he acts in a given situation. For example, if I decide to use another person merely as a means for my own end I must recognize the other person’s right to do the same to me. I cannot consistently will that I use another as a means only and will that I not be used in the same manner by another. Hence, the universalizability criterion is a principle of consistency and a principle of inclusion. That is, in choosing my maxims I attempt to include the perspective of other moral agents. … Whereas most criticisms are aimed at the formulation of universal law and the formula of autonomy, our analysis here will focus on the formula of an end in itself and the formula of the kingdom of ends, since we have already addressed the problem of universality. The latter will be discussed ﬁrst. At issue here is what Kant means by “kingdom of ends.” Kant writes: “By ‘kingdom’ I understand a systematic union of different rational beings through common laws.”32 The above passage indicates that Kant recognizes different, perhaps different kinds, of rational beings; however, the problem for most critics of Kant lies in the assumption that Kant suggests that the “kingdom of ends” requires that we abstract from personal differences and content of private ends. The Kantian conception of rational beings requires such an abstraction. Some feminists and philosophers of race have found this abstract notion of rational beings problematic because they take it to mean that rationality is necessarily white, male, and European.33 Hence, the systematic union of rational beings can mean only the systematic union of white, European males. I ﬁnd this interpretation of Kant’s moral theory quite puzzling. Surely another interpretation is available. That is, the implication that in Kant’s philosophy, rationality can only apply to white, European males does not seem to be the only alternative. The problem seems to lie in the requirement of abstraction. There are two ways of looking at the abstraction requirement that I think are faithful to Kant’s text and that overcome the criticisms of this requirement. First, the abstraction requirement may be best understood as a demand for intersubjectivity or recognition. Second, it may be understood as an attempt to avoid ethical egoism in determining maxims for our actions. It is unfortunate that Kant never worked out a theory of intersubjectivity, as did his successors Fichte and Hegel. However, this is not to say that there is not in Kant’s philosophy a tacit theory of intersubjectivity or recognition. The abstraction requirement simply demands that in the midst of our concrete differences we recognize ourselves in the other and the other in ourselves. That is, we recognize in others the humanity that we have in common. Recognition of our common humanity is at the same time recognition of rationality in the other. We recognize in the other the capacity for selfdetermination and the capacity to legislate for a kingdom of ends. This brings us to the second interpretation of the abstraction requirement. To avoid ethical egoism one must abstract from (think beyond) one’s own personal interest and subjective maxims. That is, the categorical imperative requires that I recognize that I am a member of the realm of rational beings. Hence, I organize my maxims in consideration of other rational beings. Under such a principle other people cannot be treated merely as a means for my end but must be treated as ends in themselves. The merit of the categorical imperative for a philosophy of race is that it contravenes racist ideology to the extent that racist ideology is based on the use of persons of a different race as a means to an end rather than as ends in themselves. Embedded in the formulation of an end in itself and the formula of the kingdom of ends is the recognition of the common hope for humanity. That is, maxims ought to be chosen on the basis of an ideal, a hope for the amelioration of humanity. This ideal or ethical commonwealth (as Kant calls it in the Religion) is the kingdom of ends.34 Although the merits of Kant’s moral theory may be recognizable at this point, we are still in a bit of a bind. It still seems problematic that the moral theory of a racist is essentially an antiracist theory. Further, what shall we do with Henry Louis Gates’s suggestion that we use the Observations on the Feeling of the Beautiful and Sublime to deconstruct the Grounding? What I have tried to suggest is that instead of abandoning the categorical imperative we should attempt to deepen our understanding of it and its place in Kant’s critical philosophy. A deeper reading of the Grounding and Kant’s philosophy in general may produce the deconstruction35 suggested by Gates. However, a text is not necessarily deconstructed by reading it against another. Texts often deconstruct themselves if read properly. To be sure, the best way to understand a text is to read it in context. Hence, if the Grounding is read within the context of the critical philosophy, the tools for a deconstruction of the text are provided by its context and the tensions within the text. Gates is right to suggest that the Grounding must be deconstructed. However, this deconstruction requires much more than reading the Observations on the Feeling of the Beautiful and Sublime against the Grounding. It requires a complete engagement with the critical philosophy. Such an engagement discloses some of Kant’s very signiﬁcant claims about humanity and the practical role of reason. With this disclosure, deconstruction of the Grounding can begin. What deconstruction will reveal is not necessarily the inconsistency of Kant’s moral philosophy or the racist or sexist nature of the categorical imperative, but rather, it will disclose the disunity between Kant’s theory and his own feelings about blacks and women. Although the theory is consistent and emancipatory and should apply to all persons, Kant the man has his own personal and moral problems. Although Kant’s attitude toward people of African descent was deplorable, it would be equally deplorable to reject the categorical imperative without ﬁrst exploring its emancipatory potential.

#### [2] Hijacks every FW – they contain conditional value on other objects but that presupposes an agent has the unconditional worth to confer value on objects

#### [3] Analytical philosophy means anyone can generate offense under the framework with analytics without evidence – couple impacts

#### a) Accessibility – util disproportionately favors evidence-based debate which is what big schools with coaching staffs have which kills small school engagement

#### b) Ground – it ensures that there’s always offense on both sides whereas util might skew against an uninherent aff because of what countries do

#### c) Critical thinking – ensures that you engage and contest offense instead of running to cards for argumentation

#### [4] Ideal theory is in no way incompatible with a radical agenda—broad principles can inspire broad sweeping change and allow previously-excluded groups to claim political agency. Ideal theory can make changes to the nonideal world

**Holmstrom** [Holmstrom, Nancy [Prof. Emeritus @ Rutgers]. "Response to Charles Mills's." Radical Philosophy Review 15.2 (2012): 325-330.] [recut by Lex CH]

We have to speak to people where they are, he says, and that means appealing to core values of liberalism: individualism, equal rights and moral egalitarianism. Against what he calls the conventional wisdom among radi- cals, he argues that there is no inherent incompatibility between these values and a radical agenda. If these values are suitably interpreted, I think he is absolutely right. Over two hundred years ago, Mary Wollstonecraft and Toussaint Louverture took the abstract universalistic principles of the French Revolution and extended them to groups they were intended to exclude. Gradually and incompletely women and blacks and landless men have achieved the democratic rights promised to all (in words) by the anti-feudal revolution. So I agree with Charles that such universalistic principles have great value; even if usually applied in self-serving ways, they have a deeply radical potential and it would be foolish of radicals to reject them, any more than we should reject all of the technological developments of the Indus- trial Revolution which also developed with the rise of capitalism. in fact, few American radicals have rejected these aspects of liberalism in their politi- cal practice but have been their strongest champions since the Revolution; socialists of all kinds helped to build the labor and civil rights movements.

### 1AC – Offense

#### 1] An exclusive and permanent right to property is not entailed by the categorical imperative. Only conditional use is universalizable

Westphal 97 [(Kenneth R., Professor of Philosophy at Boðaziçi Üniversitesi, PhD in Philosophy from Wisco) “Do Kant’s Principles Justify Property or Usufruct?” Jahrbuch für Recht und Ethik/Annual Review of Law and Ethics 5 (1997):141–94.] RE

The compatibility of possession with the freedom of everyone according to universal laws is not a trivial assumption even for the case of detention or “empirical” possession. Under conditions of extreme scarcity, anyone’s use of some vital thing precludes someone else’s equally vital use of that thing or of anything of its kind (given the condition of extreme relative scarcity). This is not quite to agree with Hume, that conditions of justice exclude both extreme scarcity and superabundance.32 But it is to recognize that he came close to an important insight: legitimate action requires sufficient abundance so that one person’s use (benefit) is not (at least not directly) someone else’s vital injury (deprivation). This is not merely to say that property is psychologically impossible in extreme scarcity because no one could respect it (per Hume); the point is that possession and perhaps even use are not, at least not obviously, legitimate under such conditions. (How Kant would propose to resolve the conflicting grounds of obligation in such circumstances, the duty to self-preservation versus the duty not to harm others’ life or liberty, I do not understand.)

The assumption that possession is compatible with the freedom of everyone according to universal laws [5] is even less trivial for the case of “intelligible” or “noumenal” possession, that is, possession without physical detention. The compatibility of intelligible possession with the freedom of everyone according to universal laws requires both sufficient resources so that the free use of something by one person is not as such the infringement of like freedom of another, and it requires that mere empirical or physical possession does not suffice to secure the innate right to freedom of overt (äußere) action. If physical possession did suffice to secure the innate right to overt action, Kant’s main ground of proof would entail no conclusion stronger than that rights of physical possession (detention) are legitimate. Furthermore, by assuming that noumenal possession is compatible with the freedom of everyone according to universal laws [5], Kant assumes rather than proves that possession without detention is permissible. However, this is precisely the point that needs to be proven! This issue remains central throughout the remainder of §2 and is addressed again in §3 below.

2.2.6 The previous section raises a very serious question about Kant’s justification of intelligible rights to possess and use (possessio). The questions about Kant’s supposed justification of property rights, the possibility of having things as one’s own (Eigentum, dominium), are even more acute. To derive such strong rights from Kant’s argument requires at least one of three assumptions. The first assumption would be that the sole relevant condition of use is proprietary ownership of things (cf. RL §1 ¶1); this assumption requires interpreting “Besitz” broadly. The second assumption would involve conflating the ownership of a right – viz., a right to use – with a right to property ownership. However, the legitimacy of neither of these assumptions is demonstrated by Kant’s argument in RL §2. Or it may be assumed, third, that Kant’s argument in §2 aims to prove, not merely rights to possession, but rights to property, insofar as it aims to prove a right to “arbitrary” (beliebigen) use, that is, the right to do whatever one pleases with something ([10]; cf. RL §7, 253.25–27), where this can include any of the rights involved in the further incidents of proprietary ownership. Reading Kant’s text in this way assimilates possessio to dominium by stressing Kant’s term “beliebigen”. So far as Kant’s literal statement is concerned, it is equally plausible to stress Kant’s term “Gebrauch” (use), which would restrict Kant’s argument to justifying possessio. Kant’s reductio ad absurdum argument assumes the contrapositive thesis that [it is not] altogether ... rightly in my power, i.e. it [is] not ... compatible with the freedom of everyone according to a universal law ([it is] wrong), to make use of [something which is physically within my power to use]. ([2], [1])

His argument then purports to derive a contradiction from this assumption. From this contradiction follows the negation of this assumption by disjunctive syllogism. Strictly speaking, what Kant’s argument (at best) proves is that it is indeed rightful to make use of things which in principle are within one’s power, provided (“obgleich ...”) that one ’s use is compatible with the freedom of everyone in accord with a universal law [5]. As mentioned, Kant’s argument assumes rather than proves that this assumption is correct. Kant must prove that this assumption is correct in order to prove his conclusion. This requires showing that possession and use of things (in their narrow, strict senses) is consistent with the freedom of everyone in accord with universal laws. That would justify rights to possessio. To justify the stronger rights to dominium requires showing that holding things in accord with the rights involved in the further incidents of property ownership is also consistent with the freedom of everyone in accord with universal laws. Because the rights involved in property ownership are not analytically, indeed are not necessarily, related, justifying dominium requires separate justification of each component right. But it also requires more than this. Insofar as these rights are supposed to be proven as a matter of natural right, these further rights cannot be instituted solely by convention. However, there are alternative packages of rights, both for kinds of property as well as for various weaker sets of rights to use, any of which can be formulated in ways that are consistent with the like freedom of everyone according to universal laws. Consequently, merely demonstrating the consistency of one or another of these sets of rights with the freedom of everyone according to universal laws suffices only to justify the permissibility of that set of rights.

It does not suffice to justify the obligation to respect that set of rights instead of any other such set of rights. This is to say, once alternative sets of rights are possible or permissible because they meet the sine qua non of consistency with the like freedom of everyone according to universal laws [5], Kant’s natural law grounds of proof do not suffice to justify an obligation to respect one particular set of rights among the range of possible, permissible alternatives. Consequently, interpreting Kant’s statement [10] by stressing “beliebigen”, using it to specify the scope of “Gebrauch”, can only lead to fallacious, question-begging interpretations of Kant’s argument. Consequently, it is strongly preferable to interpret Kant’s statement by stressing “Gebrauch”, and using it in its strict, narrow sense to specify the scope of “beliebigen”. (This parallels the case for interpreting “Besitz” narrowly instead of broadly.)

In sum, to use something legitimately it suffices to have a right to use it. That, in brief, is “possession” strictly speaking; in the narrow sense of the term, “possession” involves only the right of a qualified chose in possession. Since this condition suffices to fulfill the condition specified by Kant’s reductio argument, no stronger condition follows from Kant’s argument. One can have or “own” a right to use something without, of course, having property in that thing. Recall Honoré’s point that possession involves two claims: being in exclusive control and remaining in control by being free of unpermitted interference of others. Insofar as possession persists despite subsequent and continuing disuse, Kant’s proof does not demonstrate even a narrow right to possession. (This is why I speak of qualified choses in possession; one key qualification justified by Kant’s argument is that one’s right to use persists only so long as one’s legitimate need to use and regular use continue.) Moreover, aside from the prohibition on harmful use, Kant’s argument does not even address the other incidents of property ownership. If Kant’s primary assumption [5] can be justified, then Kant’s proof demonstrates at most three important conclusions: one has the right to use things one currently detains, one has the right to use any usable thing not previously (and hence currently) detained by others (provided one’s use does not infringe the like freedom of others), and one has the right to continue to use things so long as one’s need to use them and actions of using them continue. These are not trivial theses! However, because it does not prove the indefinite duration of possession, in the narrow sense, Kant’s proof of the (first version of the) Postulate of Practical Reason regarding Right is unsound. Kant’s further considerations in RL §6 suffer analogous weaknesses (see §§2.4f.).

#### That implies that private appropriation is unjust.

Westphal 97 [(Kenneth R., Professor of Philosophy at Boðaziçi Üniversitesi, PhD in Philosophy from Wisco) “Do Kant’s Principles Justify Property or Usufruct?” Jahrbuch für Recht und Ethik/Annual Review of Law and Ethics 5 (1997):141–94.] RE

6.2 One right that is not justified by the Kantian defense of rights to use developed above is the exclusion of others from the use of something to which one has a right on those occasions when one does not need and is not likely to need to use the item in question. Property rights involve such an exclusion. To the extent that I have shown that qualified choses in possession suffice to fulfill the desiderata established by Kant’s own principles and strategy for justifying possession (in the narrow sense), I have shown that property rights cannot be justified by Kant’s metaphysical principles. This is because there are alternative sets of rights to things which meet both Kant’s sine qua non of being consistent with the freedom of all in accord with universal laws [5] and Kant’s metaphysical grounds of proof concerning freedom of overt action. Neither Kant’s own argument nor my reconstruction of it address most of the incidents of property ownership. (Though I have suggested that Kant’s principles can justify the prohibition on harmful use and very likely some version of the liability to execution.) Indeed, Kant’s sole Innate Right to Freedom, Universal Law of Right, and Permissive Law of Practical Reason appear to entail that it is illegitimate to exclude others’ use of something to which one has a qualified chose in possession provided that their use does not interfere with one’s own regular and reliable use of the item in question. Moreover, Kant’s principles give priority to use over first acquisition, and indeed they justify first acquisition only in view of legitimate and needful use. To this extent, Kant’ s principles undermine and repudiate one of the cherished hallmarks of the liberal conception of private property, namely, that first acquisition as such secures a right over the disposition of a thing, regardless of subsequent disuse (cf. §3.10).

#### 2] Privatization of outer space runs counter to international law

van Eijk 20 [(Cristian, finishing an accelerated BA in Law at the University of Cambridge. He holds a BA cum laude in International Justice and an LLM in Public International Law from Leiden University, and has previously worked at the T.M.C. Asser Institute and the International Commission on Missing Persons.) “Sorry, Elon: Mars is not a legal vacuum – and it’s not yours, either,” 5/11/20, Völkerrechtsblog, [https://voelkerrechtsblog.org/sorry-elon-mars-is-not-a-legal-vacuum-and-its-not-yours-either](https://voelkerrechtsblog.org/sorry-elon-mars-is-not-a-legal-vacuum-and-its-not-yours-either%20)] TDI

On October 28th, Elon Musk’s company SpaceX published its Terms of Service for the beta test of its Starlink broadband megaconstellation. If successful, the project purports to offer internet connection to the entire globe – an admirable, albeit aspirational, mission. I must confess: Starlink’s terrestrial impact is a pet issue of mine. But this time, something else caught my attention. Buried in said Terms of Service, under a section called “Governing Law”, I discovered this curious paragraph:

“Services provided to, on, or in orbit around the planet Earth or the Moon… will be governed by and construed in accordance with the laws of the State of California in the United States. For Services provided on Mars, or in transit to Mars via Starship or other colonization spacecraft, the parties recognize Mars as a free planet and that no Earth-based government has authority or sovereignty over Martian activities. Accordingly, Disputes will be settled through self-governing principles, established in good faith, at the time of Martian settlement.”

CAN HE DO THAT? In short, the answer is a resounding “no”. Outer space is already subject to a system of international law, and even Elon Musk cannot colombus a new one.

Who’s responsible for Elon Musk?

Two provisions of the Outer Space Treaty (OST), both also customary, are particularly relevant here.

OST article II: “Outer space, including the moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means.”

OST article III: “States… shall carry on activities in the exploration and use of outer space, including (…) celestial bodies, in accordance with international law”.

SpaceX is a private entity, and is not bound by the Outer Space Treaty – but that does not mean it can opt out. Its actions in space could have consequences for the United States in three ways. First, the US, as SpaceX’s launch state, bears fault-based liability for injury or damage SpaceX’s space objects cause to other states’ persons or property (OST article VII, Liability Convention articles I, III). Second, the US, as SpaceX’s state of registry, is the sole state that retains jurisdiction and control over SpaceX objects (OST article VIII, Registration Convention article II). Both refer to objects in space and are irrelevant.

According to article VI OST, States “bear international responsibility for national activities in outer space”, including Mars, including those by “non-governmental entities”. The US, as SpaceX’s state of incorporation, must authorise and continuously supervise SpaceX’s actions in space to ensure compliance with the OST (OST article VI) and international law (OST article III). In practice, this task is done by the US Federal Communications Commission, which licenses and regulates SpaceX.

Article VI OST sets a specific rule of attribution, supplementing the customary rules of state responsibility (Stubbe 2017, pp. 85-104). SpaceX acts with US authorisation, and its conduct in space within and beyond that authorisation is attributable to the US (ARSIWA articles 5, 7). In the absence of circumstances precluding wrongfulness, the result is straightforward. If SpaceX breaches a US obligation under international law, the US bears responsibility for an internationally wrongful act.

The principle of non-appropriation

SpaceX risks breaching OST article II, the “cardinal rule” of space law (Tronchetti, 2007). This principle is a jus cogens norm (Hobe et al. 2009, pp. 255-6) establishing Mars as res communis, rather than terra nullius. I must acknowledge, with tongue firmly in cheek, that SpaceX is partly correct – states have no sovereignty on Mars. But that does not leave Mars a “free planet” up for grabs – SpaceX has no sovereignty either.

On plain reading, article II OST lacks clarity on two key points: i) whose claims are prohibited, and ii) what exactly constitutes a ‘claim of sovereignty’. The first has been answered; per the then-customary interpretative rules and travaux préparatoires, there is quite broad academic consensus (Hobe, et al. 2017; Tronchetti, 2007; Pershing, 2019; Cheney, 2009) that sovereign claims include those by private entities. This is consistent with OST article VI; private entities act in space with state authorisation, and thus state authority. It also accords with the law of state responsibility, wherein conduct of entities exercising state authority is attributable to the state, even if ultra vires (ARSIWA articles 5, 7).

The second issue is more complex. Much has been written on whether claims to space resources or space property (Nemitz v United States) are sovereign. In this case, the territorial claim is less clear; is establishing a jurisdiction a sovereign claim “by other means”? SpaceX purports not to create law horizontally via contract, but to establish the only law on Mars – a vertical structure endemic to sovereign legal orders. International caselaw on territorial acquisition agrees; sovereign acts include “legislative, administrative and quasi-judicial acts” (Case concerning sovereignty over Pulau Ligitan and Pulau Sipadan (Indonesia v. Malaysia), para 148; Decision regarding delimitation of the border between Eritrea and Ethiopia, para. 3.29) with the exercise of jurisdiction and local administration having “particular, probative value” (Minquiers and Ecrehos (France v. UK), p. 22). Also relevant are attempts to exclude other states’ jurisdiction (Island of Palmas (USA v. Netherlands), pp. 838-9). An attempt by SpaceX to prescribe its own jurisdiction on Mars would constitute a sovereign claim in breach of OST article II, and entail US responsibility for an internationally wrongful act.

Of course, as Thom Cheney points out, this is all just words until it isn’t – but there is cause for concern. The Federal Communications Commission (FCC) has been consistently accommodating to commercial space actors, and to SpaceX in particular, preferring to leave regulation up to markets rather than regulatory bodies. As Commissioner O’Rielly said upon granting SpaceX market access: “our job at the Commission is to approve the qualified applications [by SpaceX et al.] and then let the market work its will.” It is not unforeseeable that the FCC would prioritise corporate objectives over principle, and under an administration increasingly dismissive of the international rule of law, might fail to regulate SpaceX in case of breach. Both SpaceX’s actions or FCC inaction risk breaching OST article II, and could leave the US facing reparations claims from injured state(s).

Mars nullius: A thought experiment

But this problem extends beyond the legal. As previously mentioned, the OST, especially article II, designates Mars as res communis. This precludes territorial acquisition by occupation, which can only legitimately occur on terra nullius.

But indulge me for a moment in a half-serious thought experiment. No provision of outer space law explicitly designates Mars res communis. The exploration and use of Mars is the “province of mankind” per OST article I (emphasis added), but that language was specifically diluted in negotiations from the originally-proposed “common heritage of mankind”. The Moon is the “common heritage of mankind” (Moon Agreement, article 5), but only for 18 states. The United States has recently and repeatedly attempted to erode the status of space as res communis, including by treaty and by Executive Order, and it is not alone. If current trends continue, Mars nullius may come sooner than we think.

That line between res communis and terra nullius is the principal legal obstacle to acquiring extra-terrestrial land by the legal process of occupation. In territorial acquisition cases, international law distinguishes between the act of attempting to exercise jurisdiction or sovereignty (called an ‘effectivité‘), and the legal right to do so (sovereign title). The former is a question of fact; the latter is a question of law. Absent other sovereign claims, an effectivité compliant with international law is “as good as title” (Island of Palmas (USA v. Netherlands), p. 839; Frontier Dispute (Burkina Faso v. Mali), para 63). Such an effectivité would contravene international law now, but that law is in flux. What if the current rule proves less-than-robust? As shown above, the elements of successful effectivité, state attribution and a sovereign act with sovereign intention, are satisfied. Slipping this provision on the future Martian legal order into satellite broadband Terms of Service serves little purpose – except as basis for a claim prior to some future critical date.

Crucially, SpaceX is not an international actor. It is an American company subject to US law and continuing US supervision. In both Island of Palmas and the Pedra Branca Dispute, corporations acting under national authorisation and regulation established sovereign titles for their respective states. A future attempt by SpaceX to act on its Terms could be received by other states, either legally or politically, as an American colonisation of Mars.

Concerns and conclusions

Three primary concerns emerge from this picture. First, non-appropriation is cardinal for a reason – if breached, international peace and security in space hangs in the balance. Second, even signalling the implementation of a provision so contrary to US obligations without censure risks the international rule of law. Finally, and most pragmatically, American vulnerability to future claims by other states should concern American citizens; it is their money, their national reputation on the line.

Commercial actors in space present great innovative and developmental potential for all mankind (Aganaba-Jeanty, 2015), but their so-called ‘self-regulatory’ or administrative role should be taken with a healthy scepticism. We already know how that story ends. As Bleddyn Bowen put it, “[t]he continuation of the term ‘colonies’ in describing the potential human future in space should raise political and moral alarm bells immediately given the last 500 years of international relations. Will billionaires run their ‘colonies’ the way they run their factory floors, and treat their citizens like they treat their lowest paid employees?”

As humanity expands into space, we will need new legal rules and understandings of sovereignty to govern the process (Leib, 2015). The current legal order is a critical framework that, without supplement, will someday prove incomplete. The legal governance of Mars is an excellent example. However, those new laws must fit into that framework; they cannot hang suspended in a vacuum. We have seen previously the dangers of rashly governing the global commons based on aspiration and resource hunger (Ranganathan, 2016 and 2019). Martian soil cannot become the manganese nodules of this century. If anything, it is imperative on us to recognise and correct the inequities the current rules have created (Craven, 2019) before proposing new ones.

Space law is an established rulebook likely to undergo some high-octane developments in coming decades. While Elon is welcome to the table, he can’t keep sucking the air from the room. It leaves us space lawyers just shouting into the void.

#### Violating i-Law is a form of promise breaking that is non universalizable since it leads to an inconceivable world where everyone lies and there is no conception of truth.

### 1AC – Plan

#### Plan: The Peoples Republic of China ought to prohibit appropriation of space by private entities.

### 1AC – Adv

#### The Advantage is Primacy.

#### 1] The US is in the lead now but China’s set to surpass – space becomes a new frontier for war, influence, and property.

**Kharpal 21** [Arjun Kharpal, 5-29-2021, “China once said it couldn’t put a potato in space. Now it’s eyeing Mars,” CNBC, [https://www.cnbc.com/2021/06/30/china-space-goals-ccp-100th-anniversary.html //](https://www.cnbc.com/2021/06/30/china-space-goals-ccp-100th-anniversary.html%20//) JB]

GUANGZHOU, China — In 1957, the Soviet Union launched Sputnik, the first artificial satellite, which sparked a space race with the U.S. China, however, was nowhere to be seen. While the U.S. and the Soviet Union were battling for superiority in this new domain, Mao Zedong, one of the founders of the Chinese Communist Party (**CCP**), reportedly **said**: “**China cannot even put a potato in space**.” Fast forward more than six decades and President [**Xi** Jinping](https://www.cnbc.com/xi-jinping/), China’s current leader, **is seen congratulating** [three **astronauts** who were sent](https://www.cnbc.com/2021/06/17/china-launches-first-astronauts-to-its-self-developed-space-station.html) to the country’s own **space station** earlier this month. Since Mao’s comments, [**China** has **launched satellites**](https://www.cnbc.com/2020/06/23/beidou-china-completes-rival-to-the-us-owned-gps-system.html), sent humans to space and is **now**[**planning to build a base on Mars**](https://www.cnbc.com/2021/06/24/china-plans-to-send-its-first-crewed-mission-to-mars-in-2033.html)**, achievements** and ambitions Beijing has highlighted as the **centennial of the CCP’s founding approaches**. Space is now another **battleground between the U.S. and China** amid a **broader technological rivalry for supremacy**, one that could have **scientific and military implications on Earth**. “President **Xi** Jinping has **declared that China’s ‘Space Dream’ is to overtake all nations and become the leading space power by 2045**,” said Christopher Newman, professor of space law and policy at the U.K.’s Northumbria University. “This all feeds into **China’s ambition to be the world’s single science and technology superpower**.” In March, [China highlighted space as a “frontier technology”](https://www.cnbc.com/2021/03/05/china-to-focus-on-frontier-tech-from-chips-to-quantum-computing.html) it would focus on and research into the “origin and evolution of the universe.” But there are other implications too. “It is important for China and the US because it can advance **technological development**” in areas such as “**national security** and some **socioeconomic development**,” according to Sa’id Mosteshar, director of the London Institute of Space Policy and Law, and research fellow Christoph Beischl. While experts doubt it could spiral into war in space, **extra-terrestrial activities** can support **military operations on Earth**. Space achievements are also about the optics. Through **space exploration** to the Moon or to Mars, “China and the U.S. display their technological sophistication to the domestic audience and the world, increasing their domestic and **international prestige, domestic legitimacy** and **international influence**,” Mosteshar and Beischl said. China’s space program kicked off in the late 1950s but it was only recently that the world’s second-largest economy was able to tout major successes. In June last year, **China** [completed its own global **satellite** navigation system called **Beidou**](https://www.cnbc.com/2020/06/23/beidou-china-completes-rival-to-the-us-owned-gps-system.html), a rival to the U.S. government-owned Global Positioning System (GPS). [Experts said](https://www.cnbc.com/2020/06/22/beidou-china-aims-to-complete-gps-system-that-rivals-us.html) it will **help China’s military systems** stay **online in the event of a conflict**. In December, a Chinese spacecraft returned to Earth [carrying rock samples from the moon](https://www.cnbc.com/2020/12/17/china-brings-moon-rocks-back-to-earth-in-a-first-for-the-country.html), a first for the country. Last month, [China sent a crewed mission](https://www.cnbc.com/2021/06/17/china-launches-first-astronauts-to-its-self-developed-space-station.html) to its self-developed space station which is [still being built](https://www.cnbc.com/2021/04/29/china-launches-key-module-of-space-station-planned-for-2022-.html). It was China’s first time sending humans to space since 2016. Beijing has now turned its sight on Mars. [China hopes to send its first crewed mission to the Red Planet in 2033](https://www.cnbc.com/2021/06/24/china-plans-to-send-its-first-crewed-mission-to-mars-in-2033.html) after landing a [spacecraft there in May](https://www.cnbc.com/2021/05/15/china-completes-historic-mars-spacecraft-landing.html). China has been a lot more aggressive in recent years in **filing for patents** related to space technologies as it **sets up for** some of these **future missions**. Between January 2000 and June 2021, **Chinese entities filed 6,634 patents related to space travel**, including vehicles and equipment, according to data compiled for CNBC by GreyB, a patent research firm. But nearly 90% of those patent requests were submitted in the last five-and-a-half years. Between January 2016 and June 2021, the top three patent requests came from Chinese entities, followed by U.S. planemaker [Boeing](https://www.cnbc.com/quotes/BA). It highlights how rapidly **China** is hoping to **develop the technologies** required for more advanced space flights. **Patents are seen as one way to help define** and control standards for next-generation technologies — [a goal for China in many different sectors](https://www.cnbc.com/2020/04/27/china-standards-2035-explained.html), including telecommunications to **artificial intelligence**. “These patents do not just signify the level of innovation in China related to space, but also a well thought of strategy to protect these innovations to gain economic advantage for its space related tech,” said Vikas Jha, assistant vice president for intellectual property solutions at GreyB. “In the near future, **most** of the **patents** in cosmonautics will be **owned by China** (unless others follow suit), meaning **China** can become a **gatekeeper for the use of space tech for both private players and governments**. This is in line with the **Chinese strategy** of become a superpower not just on Earth, but also in space.” The **U.S. and China are already** battling for **dominance** in areas **from semiconductor development to artificial intelligence**. Space will be another frontier, even as the U.S. is dominating in that area for now. “**The United States** remains **ahead** overall in all areas of space capability, **but China is rapidly closing that lead**,” Scott Pace, director of the Space Policy Institute at The George Washington University’s Elliott School of International Affairs, told CNBC. “The United States has a strong policy for space exploration, a clear direction, and capable allies and partners,” he said. “The challenge for the United States is not so much what China does, but how well and **how quickly the United States implements its own plans**.” But widening **political differences between China and the U.S. can** also **spill** into the space arena. One example is a disagreement last year between the **two nations over** the so-called **Artemis Accords**, an agreement led by NASA that looks to create rules around responsible and fair space exploration. Australia, Canada, Italy, Japan, Luxembourg, the United Arab Emirates, and the U.K all signed up. China didn’t. “The **polarisation of space activity** along geopolitical lines pause **is a key and possibly existential threat to human space activity**,” Northumbria University’s Newman said. “To China and its allies, the Accords represent an attempt to bypass traditional forum for international decision making,” he added. “It is therefore becoming increasingly **difficult to achieve** the kind of unified **agreements** that are necessary in order **to deal with** problems such as **space debris**, space traffic management and the **exploitation of extra-terrestrial resources**.”

#### 2] Appropriation is key to meet China’s goals through space resources and tech

Campo 21 [Jose A. Martin del Campo, J.D. Candidate at Texas A&M University School of Law, 3-23-2021, “Finders K Finders Keepers: Who Has Say Over Private Property in Space,” Texas A&M Journal of Property Law, https://scholarship.law.tamu.edu/cgi/viewcontent.cgi?article=1155&context=journal-of-property-law]/Kankee

I. INTRODUCTION On October 4, 1957, the Space Age officially began when the Soviet Union launched Sputnik into orbit, the first successful, human-made satellite.1 A little more than a decade later, on July 20, 1969, American astronauts Neil Armstrong and Edwin “Buzz” Aldrin became the first humans to land and step foot on the moon.2 Neil Armstrong marked the completion of John F. Kenney’s national goal of landing an astronaut on the moon when he radioed back to Earth “[t]hat’s one small step for man, one giant leap for mankind.”3 The launch of Sputnik, the moon landing, and other endeavors achieved by the scientific community, kick-started a chain of events leading to the current ambition of exploring outer space and mining resources throughout the solar system. The push for unlocking low-cost space travel and space industrialization by entrepreneurs, like Elon Musk and Jeff Bezos, propels the search for extraterrestrial materials such as water and minerals.4 According to NASA, minerals found in the asteroid belt between Mars and Jupiter contain an estimated value of approximately $100 billion for every person on Earth.5 However, uncertainty lingers because private entities are unsure that they will possess property rights to their payload or the mined celestial body.6 Celestial bodies refer to naturally occurring objects in space. The United States Commercial Space Transportation Advisory Committee (“COMSTAC”), an advisory body to the Federal Aviation Administration’s (“FAA”) Office of Commercial Space Transportation (“FAA-AST”), has undertaken review regarding the granting of private property licenses.7 COMSTAC expressed a desire to confirm that private entity resource extractions may be owned and utilized as it deems appropriate.8 The current framework of space law is a combination of agreements with the foundation of space law consisting of the 1967 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (“Outer Space Treaty”).9 At the time of signing, the Outer Space Treaty hoped to foster cooperative and peaceful exploration of outer space without discrimination of any kind.10 However, Article II of the Outer Space Treaty contains the bane of private property rights in outer space, which forbids the national appropriation of the moon and other celestial bodies.11 While the Outer Space Treaty explicitly mentions the prohibition of public entities claiming celestial bodies, private enterprises risk failing to have their interest in property rights recognized by the global community. Private entities and investors grapple with the issues pertaining to their rights to mine and extract resources from outer space legally. Without further international recognition of their property rights, private entities may shy away from exploring the concept of celestial mining. The issue of not knowing what laws are applicable, or to whom private companies are accountable, impedes the progress private entities make in achieving their goal of harvesting extraterrestrial resources. Private entities fear that the non-appropriation clause of Article II of the Outer Space Treaty, the epicenter of the issue, will strip them of the right to transport their mined resources back to Earth. A new legal regime will likely need to be formed that facilitates the continuation of innovation and promotes the exploration of outer space. Whether or not past private and public international doctrines, i.e., the law of the sea, may provide guidance in creating a new doctrine of space law is yet to be determined. The advancement in modern technology, along with the depletion of natural resources, creates a unique opportunity for private entities to resolve this issue through the exploitation of outer space. Space law is once again relevant due to its inadequacies in protecting the property rights of said entities in space. Part II will explore the different treaties and principles that gave rise to space law, and Part III will analyze whether the application of such principles should continue, or if the establishment of a new regime offers a more beneficial long-term solution. Part IV will then explore the structure of a new outer space regime and the enforcement of property rights. II. LEGAL PRINCIPLES INFLUENCING THE DEVELOPMENT OF SPACE LAW

#### 3] Space becomes a new domain where China establishes primacy and appropriation is their golden ticket

**Jiang Zhao 18** [Shengli Jiang & Yun Zhao (2018) “The Aftermath of the US Space Resource Exploration and Utilization Act: What’s Left for China?” [https://pdfs.semanticscholar.org/c3a4/fb6e0f91f4d8a13ddac4b0f949f6c3afa5c0.pdf //](https://pdfs.semanticscholar.org/c3a4/fb6e0f91f4d8a13ddac4b0f949f6c3afa5c0.pdf%20//) JB]

* Enforcement

China is a “responsible major country” of **space activities**.96 It should thus take corresponding positions in response to the adoption of the Act. With rapid development of space science and technology, **China** will be ready to **engage** in the exploration and **utilization of space resources** in the near future.97 Space resources have high value but limited quantity. As **space science** and technology **for** exploring and **utilizing** those space **resources** may be used for both **civilian** and **military purposes**, it is necessary for China to firmly **refute** the **legality of granting private entities** the right of **appropriation over space resources** for global common interest. In addition, China should **not** follow the **unilateral approach** of appropriating space resources. Instead, it should actively promote the improvement of the existing space legal regime, taking the leading role in establishing an **international mechanism** governing the exploration and **utilization of space resources**. In this process, China should take full account of due interests of the whole international community in the exploration and utilization of space resources, as well as maintain the international rule of law for the peace and security of outer space.98 On the domestic level, meanwhile, China is in the process of drafting its national space law which will provide legal basis for the space industry.99 This law is expected to clarify the legal status of space resources, the attribution of the right of appropriation, the right to use and profits over space resources, and the rules for the exploration and utilization of space resources by both governmental and private entities. On the international law level, China should play a more active role in the international space law-making process regarding space commercialization and privatization.100 In this course, China is willing to **establish** a **global governance** mechanism for space exploration and utilization. This part will focus on an international mechanism for the space mining activities.

#### 4] Mining basing competition causes war

Jamasmie 21 — (Cecilia Jamasmie, Cecilia has covered mining for more than a decade. She is particularly interested in Corporate Social Responsibility (CSR), Diamonds and Latin America. Cecilia has been interviewed by BBC News and CBC among others and has been a guest speaker at mining conventions, including MINExpo 2016 and the World’s Copper Conference 2018. She is also member of the expert panel on Social License to Operate (SLO) at the European project MIREU (Mining and Metallurgic Regions EU). She holds a Master of Journalism from the University of British Columbia, and is based in Nova Scotia., “Experts warn of brewing space mining war among US, China and Russia“, MINING, 4-29-21, Available Online at https://www.mining.com/experts-warn-of-brewing-space-mining-war-among-us-china-and-russia/, accessed 1-11-2022, HKR-AR)

A brewing war to set a mining base in space is likely to see China and Russia joining forces to keep the US increasing attempts to dominate extra-terrestrial commerce at bay, experts warn.

The Trump Administration took an active interest in space, announcing that America would return astronauts to the moon by 2024 and creating the Space Force as the newest branch of the US military.

It also proposed global legal framework for mining on the moon, called the Artemis Accords, encouraging citizens to mine the Earth’s natural satellite and other celestial bodies with commercial purposes.

The directive classified outer space as a “legally and physically unique domain of human activity” instead of a “global commons,” paving the way for mining the moon without any sort of international treaty.

Spearheaded by the US National Aeronautics and Space Administration (NASA), the Artemis Accords were signed in October by Australia, Canada, England, Japan, Luxembourg, Italy and the United Emirates.

“Unfortunately, the Trump Administration exacerbated a national security threat and risked the economic opportunity it hoped to secure in outer space by failing to engage Russia or China as potential partners,” says Elya Taichman, former legislative director for then-Republican Michelle Lujan Grisham.

“Instead, the Artemis Accords have driven China and Russia toward increased cooperation in space out of fear and necessity,” he writes.

Russia’s space agency Roscosmos was the first to speak up, likening the policy to colonialism.

“There have already been examples in history when one country decided to start seizing territories in its interest — everyone remembers what came of it,” Roscosmos’ deputy general director for international cooperation, Sergey Saveliev, said at the time.

China, which made history in 2019 by becoming the first country to land a probe on the far side of the Moon, chose a different approach. Since the Artemis Accords were first announced, Beijing has approached Russia to jointly build a lunar research base.

President Xi Jinping has also he made sure China planted its flag on the Moon, which happened in December 2020, more than 50 years after the US reached the lunar surface.

#### 5] That goes nuclear – space is fragile and offense dominant, so even small incidents escalate

Laura Grego 18, Senior Scientist in the Global Security Program at the Union of Concerned Scientists, Postdoctoral Researcher at the Harvard-Smithsonian Center for Astrophysics, PhD in Experimental Physics at the California Institute of Technology, Space and Crisis Stability, Union of Concerned Scientists, 3-19-18, <https://www.law.upenn.edu/live/files/7804-grego-space-and-crisis-stabilitypdf>

Why space is a particular problem for crisis stability

For a number of reasons, space poses particular challenges in preventing a crisis from starting or from being managed well. Some of these are to do with the physical nature of space, such as the short timelines and difficulty of attribution inherent in space operations. Some are due to the way space is used, such as the entanglement of strategic and tactical missions and the prevalence of dual-use technologies. Some are due to the history of space, such the absence of a shared understanding of appropriate behaviors and consequences, and a dearth of stabilizing personal and institutional relationships. While some of these have terrestrial equivalents, taken together, they present a special challenge.

The vulnerability of satellites and first strike incentives

Satellites are inherently fragile and difficult to protect; in the language of strategic planners, space is an “offense-dominant” regime. This can lead to a number of pressures to strike first that don‘t exist for other, better-protected domains. Satellites travel on predictable orbits, and many pass repeatedly over all of the earth‘s nations. Low-earth orbiting satellites are reachable by missiles much less capable than those needed to launch satellites into orbit, as well as by directed energy which can interfere with sensors or with communications channels. Because launch mass is at a premium, satellite armor is impractical. Maneuvers on orbit need costly amounts of fuel, which has to be brought along on launch, limiting satellites‘ ability to move away from threats. And so, these very valuable satellites are also inherently vulnerable and may present as attractive targets.

Thus, an actor with substantial dependence on space has an incentive to strike first if hostilities look probable, to ensure these valuable assets are not lost. Even if both (or all) sides in a conflict prefer not to engage in war, this weakness may provide an incentive to approach it closely anyway.

A RAND Corporation monograph commissioned by the Air Force15 described the issue this way:

First-strike stability is a concept that Glenn Kent and David Thaler developed in 1989 to examine the structural dynamics of mutual deterrence between two or more nuclear states.16 It is similar to crisis stability, which Charles Glaser described as ―a measure of the countries‘ incentives not to preempt in a crisis, that is, not to attack first in order to beat the attack of the enemy,‖17 except that it does not delve into the psychological factors present in specific crises. Rather, first strike stability focuses on each side‘s force posture and the balance of capabilities and vulnerabilities that could make a crisis unstable should a confrontation occur.

For example, in the case of the United States, the fact that conventional weapons are so heavily dependent on vulnerable satellites may create incentives for the US to strike first terrestrially in the lead up to a confrontation, before its space-derived advantages are eroded by anti-satellite attacks.18 Indeed, any actor for which satellites or space-based weapons are an important part of its military posture, whether for support missions or on-orbit weapons, will feel “use it or lose it” pressure because of the inherent vulnerability of satellites.

Short timelines and difficulty of attribution

The compressed timelines characteristic of crises combine with these “use it or lose it” pressures to shrink timelines. This dynamic couples dangerously with the inherent difficulty of determining the causes of satellite degradation, whether malicious or from natural causes, in a timely way.

Space is a difficult environment in which to operate. Satellites orbit amidst increasing amounts of debris. A collision with a debris object the size of a marble could be catastrophic for a satellite, but objects of that size cannot be reliably tracked. So a failure due to a collision with a small piece of untracked debris may be left open to other interpretations. Satellite electronics are also subject to high levels of damaging radiation. Because of their remoteness, satellites as a rule cannot be repaired or maintained. While on-board diagnostics and space surveillance can help the user understand what went wrong, it is difficult to have a complete picture on short timescales. Satellite failure on-orbit is a regular occurrence19 (indeed, many satellites are kept in service long past their intended lifetimes).

In the past, when fewer actors had access to satellite-disrupting technologies, satellite failures were usually ascribed to “natural” causes. But increasingly, even during times of peace operators may assume malicious intent. More to the point, in a crisis when the costs of inaction may be perceived to be costly, there is an incentive to choose the worst-case interpretation of events even if the information is incomplete or inconclusive.

Entanglement of strategic and tactical missions

During the Cold War, nuclear and conventional arms were well separated, and escalation pathways were relatively clear. While space-based assets performed critical strategic missions, including early warning of ballistic missile launch and secure communications in a crisis, there was a relatively clear sense that these targets were off limits, as attacks could undermine nuclear deterrence. In the Strategic Arms Limitation Treaty, the US and Soviet Union pledged not to interfere with each other‘s ―national technical means‖ of verifying compliance with the agreement, yet another recognition that attacking strategically important satellites could be destabilizing.20 There was also restraint in building the hardware that could hold these assets at risk.

However, where the lines between strategic satellite missions and other missions are blurred, these norms can be weakened. For example, the satellites that provide early warning of ballistic missile launch are associated with nuclear deterrent posture, but also are critical sensors for missile defenses. Strategic surveillance and missile warning satellites also support efforts to locate and destroy mobile conventional missile launchers. Interfering with an early warning sensor satellite might be intended to dissuade an adversary from using nuclear weapons first by degrading their missile defenses and thus hindering their first-strike posture. However, for a state that uses early warning satellites to enable a “hair trigger” or launch-on-attack posture, the interference with such a satellite might instead be interpreted as a precursor to a nuclear attack. It may accelerate the use of nuclear weapons rather than inhibit it.

Misperception and dual-use technologies

Some space technologies and activities can be used both for relatively benign purposes but also for hostile ones. It may be difficult for an actor to understand the intent behind the development, testing, use, and stockpiling of these technologies, and see threats where there are none. (Or miss a threat until it is too late.) This may start a cycle of action and reaction based on misperception. For example, relatively low-mass satellites can now maneuver autonomously and closely approach other satellites without their cooperation; this may be for peaceful purposes such as satellite maintenance or the building of complex space structures, or for more controversial reasons such as intelligence-gathering or anti-satellite attacks.

Ground-based lasers can be used to dazzle the sensors of an adversary‘s remote sensing satellites, and with sufficient power, they may damage those sensors. The power needed to dazzle a satellite is low, achievable with commercially available lasers coupled to a mirror which can track the satellite. Laser ranging networks use low-powered lasers to track satellites and to monitor precisely the Earth‘s shape and gravitational field, and use similar technologies. 21

Higher-powered lasers coupled with satellite-tracking optics have fewer legitimate uses. Because midcourse missile defense systems are intended to destroy long-range ballistic missile warheads, which travel at speeds and altitudes comparable to those of satellites, such defense systems also have inherent ASAT capabilities. In fact, while the technologies being developed for long-range missile defenses might not prove very effective against ballistic missiles—for example, because of the countermeasure problems associated with midcourse missile defense— they could be far more effective against satellites. This capacity is not just theoretical. In 2007, China demonstrated a direct-ascent anti-satellite capability which could be used both in an ASAT and missile defense role, and in 2009, the United States used a ship-based missile defense interceptor to destroy a satellite, as well. US plans indicated a projected inventory of missile defense interceptors with capability to reach all low earth orbiting satellites in the dozens in the 2020s, and in the hundreds by 2030.22

Discrimination

The consequences of interfering with a satellite may be vastly different depending on who is affected and how, and whether the satellite represents a legitimate military objective.

However, it will not always be clear who the owners and operators of a satellite are, and users of a satellite‘s services may be numerous and not public. Registration of satellites is incomplete23 and current ownership is not necessarily updated in a readily available repository. The identification of a satellite as military or civilian may be deliberately obscured. Or its value as a military asset may change over time; for example, the share of capacity of a commercial satellite used by military customers may wax and wane. A potential adversary‘s satellite may have different or additional missions that are more vital to that adversary than an outsider may perceive. An ASAT attack that creates persistent debris could result in significant collateral damage to a wide range of other actors; unlike terrestrial attacks, these consequences are not limited geographically, and could harm other users unpredictably.

In 2015, the Pentagon‘s annual wargame, or simulated conflict, involving space assets focused on a future regional conflict. The official report out24 warned that it was hard to keep the conflict contained geographically when using anti-satellite weapons:

As the wargame unfolded, a regional crisis quickly escalated, partly because of the interconnectedness of a multi-domain fight involving a capable adversary. The wargame participants emphasized the challenges in containing horizontal escalation once space control capabilities are employed to achieve limited national objectives.

Lack of shared understanding of consequences/proportionality

States have fairly similar understandings of the implications of military actions on the ground, in the air, and at sea, built over decades of experience. The United States and the Soviet Union/Russia have built some shared understanding of each other‘s strategic thinking on nuclear weapons, though this is less true for other states with nuclear weapons. But in the context of nuclear weapons, there is an arguable understanding about the crisis escalation based on the type of weapon (strategic or tactical) and the target (counterforce—against other nuclear targets, or countervalue—against civilian targets).

Because of a lack of experience in hostilities that target space-based capabilities, it is not entirely clear what the proper response to a space activity is and where the escalation thresholds or “red lines” lie. Exacerbating this is the asymmetry in space investments; not all actors will assign the same value to a given target or same escalatory nature to different weapons.

#### 8] Development of Chinese Anti-Satellite Weapons emboldens China to invade Taiwan – US draw in from alliance commitments and nuclear war.

Chow and Kelley 21 [(Brian G., policy analyst for the Institute of World Politics, Ph.D in physics from Case Western Reserve University, MBA and Ph.D in finance from the University of Michigan, and Brandon, graduate of Georgetown’s School of Foreign Service) “China’s Anti-Satellite Weapons Could Conquer Taiwan—Or Start a War,” National Interest, 8/21/2021] JL

If current trends hold, then China’s Strategic Support Force will be capable by the late 2020s of holding key U.S. space assets at risk. Chinese military doctrine, statements by senior officials, and past behavior all suggest that China may well believe threatening such assets to be an effective means of deterring U.S. intervention. If so, then the United States would face a type of “Sophie’s Choice”: decline to intervene, potentially leading allies to follow suit and Taiwan to succumb without a fight, thereby enabling Xi to achieve his goal of “peacefully” snuffing out Taiwanese independence; or start a war that would at best be long and bloody and might well even cross the nuclear threshold.

This emerging crisis has been three decades in the making. In 1991, China watched from afar as the United States used space-enabled capabilities to obliterate the Iraqi military from a distance in the first Gulf War. The People’s Liberation Army quickly set to work developing capabilities targeted at a perceived Achilles’ heel of this new American way of war: reliance on vulnerable space systems.

This project came to fruition with a direct ascent ASAT weapons test in 2007, but the test was limited in two key respects. First, it only reached low Earth orbit. Second, it generated thousands of pieces of long-lasting space junk, provoking immense international ire. This backlash appears to have taken China by surprise, driving it to seek new, more usable ASAT types with minimal debris production. Now, one such ASAT is nearing operational status: spacecraft capable of rendezvous and proximity operations (RPOs).

Such spacecraft are inevitable and cannot realistically be limited. The United States, European Union, China, and others are developing them to provide a range of satellite services essential to the new space economy, such as in situ repairs and refueling of satellites and active removal of space debris. But RPO capabilities are dual-use: if a satellite can grapple space objects for servicing, then it might well be capable of grappling an adversary’s satellite to move it out of its servicing orbit. Perhaps it could degrade or disable it by bending or disconnecting its solar panels and antennas all while producing minimal debris.

This is a serious threat, primarily because no international rules presently exist to limit close approaches in space. Left unaddressed, this lacuna in international law and space policy could enable a prospective attacker to pre-position, during peacetime, as many spacecraft as they wish as close as they wish to as many high-value targets as they wish. The result would be an ever-present possibility of sudden, bolt-from-the-blue attacks on vital space assets—and worse, on many of them at once.

China has conducted at least half a dozen tests of RPO capabilities in space since 2008, two of which went on for years. Influential space experts have noted that these tests have plausible peaceful purposes and are in many cases similar to those conducted by the United States. This, however, does not make it any less important to establish effective legal, policy, and technical counters to their offensive use. Even if it were certain that these capabilities are intended purely for peaceful applications—and it is not at all clear that that is the case—China (or any other country) could at any time decide to repurpose these capabilities for ASAT use.

There is still time to get out ahead of this threat, but likely not for much longer. China’s RPO capabilities have, thus far, lagged about five years behind those of the United States. There are reasons to believe this gap may close, but even assuming that it holds, we should expect to see China demonstrate an operational dual-use rendezvous spacecraft by around 2025. (The first instance of a U.S. commercial satellite docking with another satellite to change its orbit occurred in February 2020.)

At the same time, China is expanding its capacity for rapid spacecraft manufacturing. The Global Times reported in January that China’s first intelligent mass production line is set to produce 240 small satellites per year. In April, Andrew Jones at SpaceNews reported that China is developing plans to quickly produce and loft a thirteen thousand-satellite national internet megaconstellation. It is not unreasonable to assume that China could manufacture two hundred small rendezvous ASAT spacecraft by 2029, possibly more.

If this happens, and Beijing was to decide in 2029 to launch these two hundred small RPO spacecraft and position them in close proximity to strategically vital assets, then China would be able to simultaneously threaten disablement of the entire constellations of U.S. satellites for missile early warning (about a dozen satellites with spares included); communications in a nuclear-disrupted environment (about a dozen); and positioning, navigation, and timing (about three dozen); along with several dozen key communications, imagery, and meteorology satellites. Losing these assets would severely degrade U.S. deterrence and warfighting capabilities, yet once close pre-positioning has occurred such losses become almost impossible to prevent. For this reason, such pre-positioning could conceivably deter the United States from coming to Taiwan’s aid due to the prospect that intervention would spur China to disable these critical space systems. Without their support, the war would be much bloodier and costlier—a daunting proposition for any president.

Should the United States fail to intervene, the consequences would be disastrous for both Washington and its allies in East Asia, and potentially the credibility of U.S. defense commitments around the globe. Worse yet, however, might be what could happen if China believes that such a threat will succeed but proves to be wrong. History is rife with examples of major wars arising from miscalculations such as this, and there are many pathways by which such a situation could easily escalate out of control to a full-scale conventional conflict or even to nuclear use.

#### 8] Nuclear war causes extinction – famine and climate change

Starr 15 [(Steven, Director of the University of Missouri’s Clinical Laboratory Science Program and a senior scientist at the Physicians for Social Responsibility) “Nuclear War, Nuclear Winter, and Human Extinction,” Federation of American Scientists, 10/14/2015] DD

While it is impossible to precisely predict all the human impacts that would result from a nuclear winter, it is relatively simple to predict those which would be most profound. That is, a nuclear winter would cause most humans and large animals to die from nuclear famine in a mass extinction event similar to the one that wiped out the dinosaurs.

Following the detonation (in conflict) of US and/or Russian launch-ready strategic nuclear weapons, nuclear firestorms would burn simultaneously over a total land surface area of many thousands or tens of thousands of square miles. These mass fires, many of which would rage over large cities and industrial areas, would release many tens of millions of tons of black carbon soot and smoke (up to 180 million tons, according to peer-reviewed studies), which would rise rapidly above cloud level and into the stratosphere. [For an explanation of the calculation of smoke emissions, see Atmospheric effects & societal consequences of regional scale nuclear conflicts.]

The scientists who completed the most recent peer-reviewed studies on nuclear winter discovered that the sunlight would heat the smoke, producing a self-lofting effect that would not only aid the rise of the smoke into the stratosphere (above cloud level, where it could not be rained out), but act to keep the smoke in the stratosphere for 10 years or more. The longevity of the smoke layer would act to greatly increase the severity of its effects upon the biosphere.

Once in the stratosphere, the smoke (predicted to be produced by a range of strategic nuclear wars) would rapidly engulf the Earth and form a dense stratospheric smoke layer. The smoke from a war fought with strategic nuclear weapons would quickly prevent up to 70% of sunlight from reaching the surface of the Northern Hemisphere and 35% of sunlight from reaching the surface of the Southern Hemisphere. Such an enormous loss of warming sunlight would produce Ice Age weather conditions on Earth in a matter of weeks. For a period of 1-3 years following the war, temperatures would fall below freezing every day in the central agricultural zones of North America and Eurasia. [For an explanation of nuclear winter, see Nuclear winter revisited with a modern climate model and current nuclear arsenals: Still catastrophic consequences.]

Nuclear winter would cause average global surface temperatures to become colder than they were at the height of the last Ice Age. Such extreme cold would eliminate growing seasons for many years, probably for a decade or longer. Can you imagine a winter that lasts for ten years?

The results of such a scenario are obvious. Temperatures would be much too cold to grow food, and they would remain this way long enough to cause most humans and animals to starve to death.

Global nuclear famine would ensue in a setting in which the infrastructure of the combatant nations has been totally destroyed, resulting in massive amounts of chemical and radioactive toxins being released into the biosphere. We don’t need a sophisticated study to tell us that no food and Ice Age temperatures for a decade would kill most people and animals on the planet.  Would the few remaining survivors be able to survive in a radioactive, toxic environment?

### 1AC – UV

#### [1] 1ar theory since the neg can do infinite bad things and I can’t check. It’s drop the debater since the 1ar is too short to win both layers. No RVI since they’d dump on it for 6 minutes. CI since reasonability is arbitrary and bites intervention.

#### [2] Permissibility and presumption substantively affirm: a) Statements are true before false since if I told you my name, you’d believe me b) Epistemics – we wouldn’t be able to start a strand of reasoning since we’d have to question that reason. c) If anything is permissible, then definitionally so is the aff since there is nothing that prevents us from doing it

#### [3] The neg may not read nibs a) you can uplayer for 7 minutes that I have to answer before I even have access to offense b) inf neg abuse since you would just read 7 mins of auto-negate arguments.

#### [4] RVI on NC theory – you can read arguments such as T that are exclusively neg so I need them to compensate

#### [5] No 2N theory – massive 2ar clarification burden 3 minutes isn’t enough for both substance and theory

#### [6] No omissions: All neg theory violations and kritik links must come from the text of the AC, not the absence of specification a) I have a limited time to speak so it’s an infinite aff burden b) Race to bottom – incentivizes people to not engage the aff and make a bunch spec argument to preclude