# Lunar heritage

### T

#### Interp: The aff may not defend a specific type of appropriation

#### Generic resolutions cannot be affirmed by particular instances. Nebel 19:

[Jake **Nebel**, 8-12-20**19**, "Genericity on the Standardized Tests Resolution," VBIBriefly, (https://www.vbriefly.com/2019/08/12/genericity-on-the-standardized-tests-resolution/)//BWSLE]

Existential statements say that there exist some things that satisfy a certain property. For example, “Some bees don’t sting” is an existential statement. It is true because there are indeed some bees that don’t sting. Existential statements can be affirmed by pointing to particular examples—e.g., mason bees. Universal statements say that all things satisfy a certain property. For example, “All bees sting” is a universal statement. It is false because, as we just saw, some bees don’t sting—so it’s not the case that all of them do. Universal statements cannot be affirmed by pointing to particular examples, but they can be negated by pointing to particular counterexamples—again, e.g., mason bees. Generic generalizations are neither existential nor universal. **Generics are distinct from existential statements because they cannot be affirmed by particular instances. For example, “Birds swim” is a generic. It’s false even though there are some birds that do swim: namely, penguins. You can’t affirm that birds swim by observing that penguins swim** .Generics are distinct from universal statements because they can tolerate exceptions. For example, “Birds fly” is a generic. It’s true even though there are some birds that don’t fly: namely, penguins. You can’t negate that birds fly by observing that penguins don’t. Both distinctions are important. **Generic resolutions can’t be affirmed by specifying particular instances**. But, since generics tolerate exceptions, plan-inclusive counterplans (PICs) do not negate generic resolutions. “Colleges and universities” is a generic bare plural. I don’t think this claim should require any argument, when you think about it, but here are a few reasons. Second, “colleges and universities” fails the upward-entailment test for existential uses of bare plurals. Consider the sentence, “Lima beans are on my plate.” This sentence expresses an existential statement that is true just in case there are some lima beans on my plate. One test of this is that it entails the more general sentence, “Beans are on my plate.” Now consider the sentence, “Colleges and universities ought not consider the SAT.” (To isolate “colleges and universities,” I’ve eliminated the other bare plurals in the resolution; it cannot plausibly be generic in the isolated case but existential in the resolution.) This sentence does not entail the more general statement that educational institutions ought not consider the SAT. This shows that “colleges and universities” is generic, because it fails the upward-entailment test for existential bare plurals. Third, “colleges and universities” fails the adverb of quantification test for existential bare plurals. Consider the sentence, “Dogs are barking outside my window.” This sentence expresses an existential statement that is true just in case there are some dogs barking outside my window. One test of this appeals to the drastic change of meaning caused by inserting any adverb of quantification (e.g., always, sometimes, generally, often, seldom, never, ever). You cannot add any such adverb into the sentence without drastically changing its meaning. To apply this test to the resolution, let’s again isolate the bare plural subject: “Colleges and universities ought not consider the SAT.” Adding generally (“Colleges and universities generally ought not consider the SAT”) or ever (“Colleges and universities ought not ever consider the SAT”) result in comparatively minor changes of meaning. (Note that this test doesn’t require there to be no change of meaning and doesn’t have to work for every adverb of quantification.) This strongly suggests what we already know: that “colleges and universities” is generic rather than existential in the resolution. For present purposes, however, these subtle distinctions don’t matter, because the resolution says “ought not.” Why does this matter? Consider again “Unicycles have wheels.” This sentence means, roughly, that each unicycle has at least one wheel (“roughly” because I’m glossing over the distinction between generic and universal for simplicity). By contrast, consider “Unicycles don’t have wheels.” This sentence means, roughly, that each unicycle has no wheels. It’s not just the logical negation of the original proposition, which would be the following: it’s not the case that, for every unicycle, there’s a wheel that it has—i.e., that some unicycle lacks a wheel. This means that, if “standardized tests” is a dependent plural with respect to “colleges and universities,” the resolution means that colleges and universities not consider any standardized tests. Compare: if the resolution were “Unicycles don’t have wheels,” they would have to argue that unicycles don’t have any wheels, not just that there are some wheels unicycles don’t have (e.g., the wheels on my car). This is because the negation of an existential statement (“it’s not the case that some do”) is a universal statement (“all of them don’t”). This is the observation about quantifier scope I made about the Jan–Feb 2019 resolution, and it applies straightforwardly to the standardized tests topic because of the “ought not” wording. So, if “Colleges and universities ought to consider standardized tests” means roughly that colleges and universities ought to consider at least one standardized test, then the sentence “Colleges and universities ought not consider standardized tests” would mean roughly that colleges and universities ought to consider no standardized tests.

#### Violation: They spec a policy action.

#### A. Research Burdens - I have to research every aff, which explodes neg research burdens creating infinite out of round abuse for all debaters due to switch-side debate.

#### B. Clash- only the aff is prepared for their policy, making it a one sided discussion

#### C. Predictability- they’re always better prepped on case, allowing them to cherry pick policies that sidestep generics. Our interp solves – it establishes a clear bright-line for that gives the neg a chance to predict and prepare for every aff ahead of time.

#### D. - Ground – the Aff offense is already better since most studies as well as the majority of the public argue that LAWs are bad. Adding exceptions lets them solve their advantage AND escape the best neg offense.

#### A] Multiple TVA’s Solve – Read a whole res case with the plan as an advantage– this solves back for all of the standards and ensure that the neg’s access to generic ground is intact.

#### B] Ground controls the quality of the discussion – there is no guarantee that there is enough academic research to negate any given aff weapons system, which makes genuine clash on every aff impossible.

#### Fairness and education are voters

#### Education is the goal of debate.

#### The skills that we get from debate are rooted in the education that we get in the round.

#### The fairness of the round depends on the education that took place

#### Debate is a game and games must be fair.

#### DTD – only DTD deters future abuse; their entire advocacy is their argument

#### 4) No RVIs – you don’t win for proving that you meet the burden of being fair, and RVIs incentivize baiting theory and prepping it out which leads to maximum abuse

#### 5) Norms Setting – Evaluate the shell as a mechanism for norms setting in the activity, which means that even if there is minimal impact to the abuse in this round specifically, the negative model of debate is a justification for a neg ballot.

## 2 – Mining DA

#### Noble materials such as platinum are necessary for future survival, yet they are of limited abundance and require a lot of resources to extract on earth, while are abundant on asteroids.

Sun et al. 20 (Sun, Daoyuan, Dong, Longjun., Shu, W., & Li, Xibing (School of Resources and Safety Engineering, Central South University, Changsha, China), 3-2-2020, “Exploration: safe and clean mining on Earth and asteroids. Journal of Cleaner Production,” <https://www.sciencedirect.com/science/article/abs/pii/S095965262030946X> Accessed 7-13-21)

Some types of mineral resources are obligatory for an evolving future society, which have great differences in their abundances on Earth and asteroids (e.g., Elvis, 2014). For example, platinum, a noble metal with its total reserve of only about 14,000 tons on Earth, has been widely used in the fields of medicine (e.g., Barefoot, 2001), materials engineering and chemical engineering (e.g., Dong et al., 2015), while most of the platinum has been contained in the ultra-deep deposits as it has large density in the early stage of Earth formation (e.g., Holzheid et al., 2000). With the exhaustion of the limited platinum contained in the surface of Earth, we have to consume more energy and resources to extract the ultra-deep platinum. Hence, there is no doubt that the safe and clean extraction of the deep platinum will be an extremely difficult issue by utilizing current mining techniques and equipment. Meanwhile, it can be expected that the output of platinum on Earth will be scarce as its total reserve is short (Dong et al., 2015). However, the platinum is abundant in other asteroids such as the asteroid 2011 UW158, which was worth 5.4 trillion USD for the platinum that it contained (Gary, 2016). According to the surveys funded by NASA’s Near Earth Object (NEO) Observations Program, the total number of discovered near-Earth asteroids (NEAs) reached to 15,000 up to 13 October 2016 (NASA, 2016). As of January 2018, there were over 18,000 known NEOs, with an average discovery rate about 40 per week (NASA, 2018). Many of NEAs contain high concentrations of platinum group metals (PGMs) such as platinum, rhodium, iridium, and palladium, which are similar to the asteroid 2011 UW158 and can be classified as Metallic Asteroids (Blair, 2000). It can be inferred that the deposits of PGMs on the identified NEAs may exceed the total amount of that found on Earth. Evidently, offmining on asteroids provides new ways for the future society to access the rare and noble metals on Earth.

#### Asteroid mining enables solar power satellites – which solves climate change

**Taylor 19** Chris Taylor is a veteran journalist. Previously senior news writer for Time.com a year later. In 2000, he was named San Francisco bureau chief for Time magazine. He has served as senior editor for Business 2.0, West Coast editor for Fortune Small Business and West Coast web editor for Fast Company. Chris is a graduate of Merton College, Oxford and the Columbia University Graduate School of Journalism. "How asteroid mining will save the Earth — and mint trillionaires." Mashable, 2019, mashable.com/feature/asteroid-mining-space-economy. [Quality Control]

The mission is essential, Joyce declares, to save Earth from its **major problems**. First of all, the fictional billionaire wheels in a fictional Nobel economist to demonstrate the actual truth that the entire global economy is sitting on a **mountain of debt**. It has to keep growing or it will **implode**, so we might as well take the majority of the **industrial growth off-world where it can’t do any more harm to the biosphere.**

Secondly, there’s the **climate change fix**. Suarez sees asteroid mining as the only way we’re going to build **solar power satellites.** Which, as you probably know, is a form of uninterrupted solar power collection that is theoretically more effective, inch for inch, than any solar panels on Earth at high noon, but operating 24/7. (In space, basically, **it’s always double high noon).**

The power collected is beamed back to large receptors on Earth with large, low-power microwaves, which researchers think will be harmless enough to let humans and animals pass through the beam. A space solar power array like the one China is said to be working on could reliably supply 2,000 gigawatts — or **over 1,000 times more power than the largest solar farm currently in existence.**

“We're looking at a 20-year window to **completely replace** human civilization's **power infrastructure,**” Suarez told me, citing the report of the Intergovernmental Panel on Climate Change on the coming catastrophe. Solar satellite technology “has existed since the 1970s. What we were missing is **millions of tons of construction materials** in orbit. **Asteroid mining can place it there.”**

The Earth-centric early 21st century can’t really wrap its brain around this, but the idea is not to bring all that building material and precious metals down into our gravity well. Far better to create a whole new commodities exchange in space. You mine the useful stuff of asteroids both near to Earth and far, thousands of them taking less energy to reach than the moon. That’s something else we’re still grasping, how relatively easy it is to ship stuff in zero-G environments.

#### Off- Earth mining reduces emissions.

Dallas, et al. 19 (Dallas, J.A. (Australian Centre for Space Engineering Research, School of Minerals and Energy Resources Engineering, Sydney, Australia) et al. November 2, 2019, "Mining beyond earth for sustainable development: Will humanity benefit from resource extraction in outer space?," *Acta Astronautica*, <https://www.sciencedirect.com/science/article/abs/pii/S0094576519313839>. Accessed 7-12-21)

Off-Earth mining has been hailed by some as the answer to many of the environmental issues associated with mining on Earth (e.g., MacWhorter, 2015), based on the idea that much of the mining that is carried out on Earth 2 could instead be done in space in a bid to reduce pressure on Earth’s environment. In a preliminary study comparing the greenhouse gas emissions resulting from mining platinum (Pt) on Earth compared to asteroids, Hein et al. (2018) found that mining Pt in space produced considerably less greenhouse gas emissions relative to Earth-based mining. However, this study compared greenhouse gas emissions resulting from 1 kg of mined Pt, and did not compare the impact on other areas of the environment. If asteroids were to supply Earth with all, or even most of the demand for Pt, the assumption can be made that this would require a number of space vehicles carrying materials required for mining infrastructure. While the greenhouse gas emissions associated with space launches may be relatively less than Pt mining on Earth, the cumulative impact of frequent space launches on other areas of the environment is likely to be considerable. Numerous studies have documented the environmental impact of space launches (e.g., Madsen, 1981; Malkin, 1978; Murray et al., 2013; NASA, 1983; Nauryzbaev et al., 2005; Ross et al., 2010), and of particular concern when discussing cumulative launches is depletion of the stratospheric ozone layer. Space rocket launches are the only source of ozone depleting substances deposited directly into Earth’s ozone layer, causing concern that an increase in the frequency of launches could have dire consequences for the ozone layer (Ross et al., 2009). Aside from global environmental concerns, both Earth-based mining and space launches impact the local environment, with both being associated with emissions to soil, air, and water. However, the scale of emissions from mining is much greater than those associated with space launches, and this would likely remain the case even with a large increase in the frequency of space launches. While more work is needed to quantify the local environmental impact of the Earth-based mining as well as the space launches associated with off-Earth mining, preliminary evidence suggests that space launches result in environmental impacts of a much smaller magnitude (e.g., Hein et al., 2018). MacWhorter (2015) suggests that the environmental benefits to Earth of moving mining for resources used on Earth to other celestial bodies will be so large that off-Earth mining should be incentivized through a legal framework that grants property rights in extracted minerals on a “first-in-time, first-in-right” basis

#### Emissions lead to extinction.

**Spratt and Dunlop 19**, David Spratt [Research Director for Breakthrough National Centre for Climate Restoration, Melbourne, and co-author of Climate Code Red: The case for emergency action] & Ian Dunlop [member of the Club of Rome. Formerly an international oil, gas and coal industry executive, chairman of the Australian Coal Association, chief executive of the Australian Institute of Company Directors, and chair of the Australian Greenhouse Office Experts Group on Emissions Trading 1998-2000], “Existential climate-related security risk: A scenario approach,” Breakthrough - National Centre for Climate Restoration, May 2019, pg. 8-10, beckert. Brackets in original text

2020–2030: Policy-makers fail to act on evidence that the current ​Paris Agreement path — in which global human-caused greenhouse emissions do not peak until 2030 — will lock in at least 3°C of warming. The case for a global, climate-emergency mobilisation of labour and resources to build a zero-emission economy and carbon drawdown in order to have a realistic chance of keeping warming well below 2°C is politely ignored. As projected by Xu and Ramanathan, by 2030 carbon dioxide levels have reached 437 parts per million — which is unprecedented in the last 20 million years — and warming reaches 1.6°C.18 2030–2050: Emissions peak in 2030, and start to fall consistent with an 80 percent reduction in fossil-fuel energy intensity by 2100 compared to 2010 energy intensity. This leads to warming of 2.4°C by 2050, consistent with the Xu and Ramanathan “baseline-fast” scenario.19 However, another 0.6°C of warming occurs — taking the total to 3°C by 2050 — due to the activation of a number of carbon-cycle feedbacks and higher levels of ice albedo and cloud feedbacks than current models assume. [It should be noted that this is far from an extreme scenario: the low-probability, high-impact warming (five percent probability) can exceed 3.5–4°C by 2050 in the Xu and Ramanathan scheme.] 2050: By 2050, there is broad scientific acceptance that system tipping-points for the West Antarctic Ice Sheet and a sea-ice-free Arctic summer were passed well before 1.5°C of warming, for the Greenland Ice Sheet well before 2°C, and for widespread permafrost loss and large-scale Amazon drought and dieback by 2.5°C. The “**hothouse Earth**” scenario has been realised, and Earth is headed for another degree or more of warming, especially since human greenhouse emissions are still significant.20 While sea levels have risen 0.5 metres by 2050, the increase may be 2–3 metres by 2100, and it is understood from historical analogues that seas may eventually rise by more than 25 metres. Thirty-five percent of the global land area, and 55 percent of the global population, are subject to more than 20 days a year of **lethal heat** conditions, beyond the threshold of human survivability. The destabilisation of the Jet Stream has very significantly affected the intensity and geographical distribution of the Asian and West African monsoons and, together with the further slowing of the Gulf Stream, is impinging on life support systems in Europe. North America suffers from devastating weather extremes including wildfires, heatwaves, drought and inundation. The summer monsoons in China have failed, and water flows into the great rivers of Asia are severely reduced by the loss of more than one-third of the Himalayan ice sheet. Glacial loss reaches 70 percent in the Andes, and rainfall in Mexico and central America falls by half. Semi-permanent El Nino conditions prevail. Aridification emerges over more than 30 percent of the world’s land surface. Desertification is severe in southern Africa, the southern Mediterranean, west Asia, the Middle East, inland Australia and across the south-western United States. Impacts: A number of **ecosystems collapse**, including coral reef systems, the Amazon rainforest and in the Arctic. Some poorer nations and regions, which lack capacity to provide artificially-cooled environments for their populations, **become unviable**. Deadly heat conditions persist for more than 100 days per year in West Africa, tropical South America, the Middle East and South-East Asia, contributing to **more than a billion people being displaced** from the tropical zone. **Water availability decreases sharply** in the most affected regions at lower latitudes (dry tropics and subtropics), affecting about **two billion** people worldwide. Agriculture becomes nonviable in the dry subtropics. Most regions in the world see a significant drop in food production and increasing numbers of extreme weather events, including heat waves, floods and storms. Food production is inadequate to feed the global population and food prices skyrocket, as a consequence of a one-fifth decline in crop yields, a decline in the nutrition content of food crops, a catastrophic decline in insect populations, desertification, monsoon failure and chronic water shortages, and conditions too hot for human habitation in significant food-growing regions. The lower reaches of the agriculturally-important river deltas such as the Mekong, Ganges and Nile are inundated, and significant sectors of some of the world’s most populous cities — including Chennai, Mumbai, Jakarta, Guangzhou, Tianjin, Hong Kong, Ho Chi Minh City, Shanghai, Lagos, Bangkok and Manila — are abandoned. Some small islands become uninhabitable. Ten percent of Bangladesh is inundated, displacing 15 million people. Even for 2°C of warming, more than a billion people may need to be relocated and In high-end scenarios, the scale of destruction is beyond our capacity to model, with a **high likelihood of human civilisation coming to an end**.21 National security consequences: For pragmatic reasons associated with providing only a sketch of this scenario, we take the conclusion of the ​Age of Consequences ‘Severe’ 3°C scenario developed by a group of senior US national-security figures in 2007 as appropriate for our scenario too: Massive nonlinear events in the global environment give rise to ​massive nonlinear societal events.​ In this scenario, nations around the world will be ​overwhelmed by the scale of change and pernicious challenges, such as pandemic disease. The internal cohesion of nations will be under great stress, **including in the United States**, both as a result of a dramatic rise in migration and changes in agricultural patterns and water availability. The flooding of coastal communities around the world, especially in the Netherlands, the United States, South Asia, and China, has the potential to challenge regional and even national identities.​ **Armed conflict** between nations over resources, such as the Nile and its tributaries, is likely and **nuclear war** is possible. The social consequences range from increased religious fervor to ​outright chaos.​ In this scenario, climate change provokes ​a permanent shift in the relationship of humankind to nature​’.22 (emphasis added) DISCUSSION This scenario provides a glimpse into a world of “outright chaos” on a path to the end of human civilisation and modern society as we have known it, in which the challenges to global security are simply overwhelming and political panic becomes the norm. Yet the world is currently completely unprepared to envisage, and even less deal with, the consequences of catastrophic climate change.23 What can be done to avoid such a probable but catastrophic future? It is clear from our preliminary scenario that dramatic action is required this decade if the “hothouse Earth” scenario is to be avoided. To reduce this risk and protect human civilisation, a massive global mobilisation of resources is needed in the coming decade to build a zero-emissions industrial system and set in train the restoration of a safe climate. This would be akin in scale to the World War II emergency mobilisation. There is an increasing awareness that such a response is now necessary. Prof. Kevin Anderson makes the case for a Marshall Plan-style construction of zero-carbon-dioxide energy supply and major electrification to build a zero-carbon industrial strategy by “a shift in productive capacity of society akin to that in World War II”.24 Others have warned that “**only a drastic, economy-wide makeover within the next decade**, consistent with limiting warming to 1.5°C”, would avoid the transition of the Earth System to the Pliocene-like conditions that prevailed 3-3.3 million years ago, when temperatures were ~3°C and sea levels 25 metres higher.25 It should be noted here that the 1.5° goal is not safe for a number of Earth System elements, including Arctic sea-ice, West Antarctica and coral reefs.

## CP

**Counterplan: I agree that lunar heritage sites need special control and advocate that they be controlled by UNESCO, a private entity that currently has the recognized ability to preserve common heritage sites on Earth.**

**This is better than having any government be in control, which will just engender conflict and sovereign interference.**

**UNESCO IS NOT A GOVERNMENT ENTITY ITSELF, but one that works with governments and NGOs.**

Unesco: <https://en.unesco.org/node/336733>

the adoption of its Constitution, UNESCO has sought to collaborate with civil society partners such as NGOs for the implementation of its activities and programmes. Over the years, UNESCO has built up a valuable network of cooperation with NGOs having an expertise in its fields of competence, i.e. education, natural science, social and human sciences, culture, communication and information.Non-governmental organizations with their specialized knowledge and capacity to act swiftly at global, regional and local levels, and to offer platforms for strong civil engagement, remain critically important partners for UNESCO. Today’s global challenges are too great for any organization to tackle alone.In order to foster and recognize such collaborations, **the Organization has established Directives concerning UNESCO’s partnership with non-governmental organizations (36 C/Res. 108), which allow formal relationships with NGOs. Currently, UNESCO enjoys official partnerships with 401 NGOs.** In addition to these formal partnership arrangements, the Organization has also been carrying out a diverse range of activities hand in hand with other non-governmental organizations on an ad hoc basis, at international, regional and national levels.

#### Control by UNESCO is currently the best way to fulfill common heritage

**Reinstein 99**

Ezra J. Reinstein (JD, Associate at Kirkland & Ellis), Owning Outer Space, 20 Nw. J. Int'l L. & Bus. 59 (1999). JDN. https://scholarlycommons.law.northwestern.edu/njilb/vol20/iss1/7

A. Three Arguments for Ownership

**Space is** an international zone, **and** so is, in a sense, the **heritage of all humanity**. We must not forget, when considering the governance of outer space, that **the rules should** first and foremost attempt to **maximize the benefit to all humankind**. So, ideally, **celestial bodies should be put to the uses most beneficial to humanity**. This is **guaranteed** by **a system that puts land in the hands of those for whom the territory is most profitable.** It is **a matter of elementary economic theory**. Whoever can use a site to humanity's greatest benefit will be the one who can profit most from the site; whoever can profit most from the site will be the one for whom the site is most valuable. Thus **the person who can put a site to humanity's greatest benefit will be the one willing to spend the most to own the site.**84 This is the bargain theory of economics, and will form the basis for all that follows.

**UNESCO works with several NGOs now that are crucial to the implementation of UNESCO policies. UNESCO 2022.**

**UNESCO. “NGOs and Foundations.” 2022. Retrieved from:** [**https://en.unesco.org/node/336733**](https://en.unesco.org/node/336733) **on 2/19/22.**

**Since the adoption of its Constitution, UNESCO has sought to collaborate with civil society partners such as NGOs for the implementation of its activities and programmes. Over the years, UNESCO has built up a valuable network of cooperation with NGOs having an expertise in its fields of competence, i.e. education, natural science, social and human sciences, culture, communication and information. Non-governmental organizations with their specialized knowledge and capacity to act swiftly at global, regional and local levels, and to offer platforms for strong civil engagement, remain critically important partners for UNESCO. Today’s global challenges are too great for any organization to tackle alone. In order to foster and recognize such collaborations, the Organization has established Directives concerning UNESCO’s partnership with non-governmental organizations (36 C/Res. 108), which allow formal relationships with NGOs. Currently, UNESCO enjoys official partnerships with 401 NGOs. In addition to these formal partnership arrangements, the Organization has also been carrying out a diverse range of activities hand in hand with other non-governmental organizations on an ad hoc basis, at international, regional and national levels.**

**Their own case explains why competition over space is bad and has the potential for fueling conflicts. I agree that having battles between Apple and Microsoft and Amazon over lunar heritage sites is bad. But it is equally bad (if not worse) to have the US China and Russia battling over control of lunar heritage sites (especially since they have nukes). The only proven agent that has worked on Earth is through UNESCO. While UNESCO has the support of governments and has many government members, it itself is NOT a government but a private entity. And while not perfect, it can be improved and is the only known option that works. That proves that PRIVATE appropriation is not bad.. as long as we specify the right private entity.**

**Thus, this is AN ADDITIONAL REASON To NEGATE.**

## AFF

#### Outer Space Laws are unclear – private entities can circumvent due to loopholes in the plan.

**Green and Stark 17** [Christopher and Eda, “Outer Space Treaty and Beyond: Do Existing Space Laws Put an Astronomical Barrier to Private IP Rights in Space?”, JDSUPRA. 8 September 2020 https://www.jdsupra.com/legalnews/outer-space-treaty-beyond-do-existing-44028/] //DebateDrills LC

Our **limited body of space law provides little guidance**. The first international treaty, the “Outer Space Treaty,” was signed by the U.S., Russia, and the U.K. in 1967, quickly followed by the Rescue Agreement. Over the next two decades, three other treaties—the Liability Convention, the Registration Convention, and the Moon Agreement—were also signed by these nations, with most countries following in their footsteps.[3] But after that rapid succession of international treaties, there have since been few others. These five documents form the basis of the international space law we have today, but **none address the issue of**[**intellectual property rights in space**](https://www.fr.com/fish-litigation/ip-rights-outer-space/). Rather, upon inspection, it appears that **the stated purpose of these treaties may be antithetical to intellectual property protection.**

The “Outer Space Treaty” espouses communal themes in characterizing space as the “province of all mankind,” the “common heritage of mankind” and to the “benefit of all countries.”[4] Unsurprisingly, Article II of the Outer Space Treaty prohibits any appropriation of areas in space, keeping in line with its principle of communal property.[5] On the other hand, **patents are fundamentally territorial and grant monopoly rights for a period of time. Applied to space, it is unclear just what is open for patent protections.**

For example, **can private companies patent orbital patterns of satellites**? Currently, companies may patent the technology or design of satellites that stay in a particular orbit, even if not the orbital pattern itself.[6] The practical implications of this are significant, especially with the advent of satellite constellations. If particular satellite technologies, and, indirectly, their orbital patterns, are patentable, then a significant portion of space may be occupied by one satellite constellation, i.e. one company alone.[7] Does this private apportionment of space run counter to our notions of sharing space? Some argue that **the Outer Space Treaty only bans sovereign appropriation and does not limit private entities from exerting claims**. Others counter that private property rights flow from sovereign property claims, so the former is meaningless without the latter.[8] So the question remains, **can the stated goals of sharing outer space be reconciled with the proprietary nature of patents**?

**Our current corpus of space treaties comes from a period of history when space exploration was undertaken primarily by governments** rather than private actors. The cooperative goals were likely a reaction to the time, as the world was coming out of a charged space race. **The silence of these space treaties on intellectual property rights presents an opportunity for modern-day agreements to provide patent protections for private companies**. Without robust international agreement on patents for space, we may even see less international cooperation as companies refuse to divulge their discoveries.[9] Now, as more and more private companies enter space exploration and carry the torch of innovation, **it is more important than ever to strike a balance between sharing our “common heritage” and providing patent protections that incentivize invention.**[10]

#### The affirmative has no enforcement mechanism – private corporations can just circumvent since they have the funding to launch rockets on their own.

**Sheetz 21** [Michael, “Elon Musk’s SpaceX raised about $850 million, jumping valuation to about $74 billion”, CNBC. 16 February 2021. https://www.cnbc.com/2021/02/16/elon-musks-spacex-raised-850-million-at-419point99-a-share.html] //DebateDrills LC

**SpaceX completed another monster equity funding round of $850 million last week**, people familiar with the financing told CNBC, sending **the company’s valuation skyrocketing to about $74 billion.**

**The company raised the new funds at $419.99 a share**, those people said — or just 1 cent below the $420 price that [Elon Musk](https://www.cnbc.com/elon-musk/) [made infamous in 2018](https://www.cnbc.com/2018/09/28/sec-says-elon-musk-at-tesla-chose-420-price-as-pot-reference.html) when he declared **he had “funding secured” to take**[**Tesla**](https://www.cnbc.com/quotes/TSLA)**private** at that price.

The latest round also represents **a jump of about 60% in the company’s valuation** from its previous round in August, when [S**paceX raised near $2 billion at a $46 billion valuation**](https://www.cnbc.com/2020/10/14/tesla-investor-ron-baron-spacex-has-a-chance-to-be-just-as-large.html).

SpaceX did not immediately respond to CNBC’s request for comment. In addition to SpaceX further building a war chest for its ambitious plans, **company insiders and existing investors were able to sell $750 million in a secondary transaction**, one of the people said.

The people spoke on condition of anonymity because SpaceX is not a publicly traded company and the fundraising talks were private. SpaceX raised only a portion of the funding available in the marketplace, with one person telling CNBC that **the company received “insane demand” of about $6 billion in offers over the course of just three days**.