## Util

#### The role of the ballot is maximizing expected wellbeing. Prefer:

#### 1] Theory first –

#### A] Ground – both debaters have ground underneath util because every action has a consequence that can be weighed fairly using different metrics under the framing – other frameworks flow exclusively to one side.

#### 2] Actor specificity:

#### A] Aggregation – governments only have access to averages and aggregates which are the basis of justification for their policies

#### B] No intent-foresight distinction – If we foresee a consequence, then it becomes part of our deliberation which makes it intrinsic to our action since we intend it to happen

#### 3] Parameters –

#### A. Reciprocity – non-utilitarian frameworks can’t be turned because they’re intent based or procedural – only util has equal offense and allows for rigorous testing which O/W’s because that the constitutive purpose of debate

#### B. Ground: we both have equal ground under util whereas more ethical fw’s flow one way or the other

## Mining da

#### We’re on the brink of runaway climate change – change needs to happen NOW

**Harvey 8-7**-2021 (Fiona Harvey, environment correspondent, The Guardian, “We’re on the brink of catastrophe, warns Tory climate chief”,” August 7 2021, <https://www.theguardian.com/environment/2021/aug/07/were-on-the-brink-of-catastrophe-warns-tory-climate-chief>) //neth

The world will soon face “catastrophe” from climate breakdown if urgent action is not taken, the British president of vital UN climate talks has warned. Alok Sharma, the UK minister in charge of the Cop26 talks to be held in Glasgow this November, told the Observer that the consequences of failure would be “catastrophic”: “I don’t think there’s any other word for it. You’re seeing on a daily basis what is happening across the world. Last year was the hottest on record, the last decade the hottest decade on record.” But Sharma also insisted the UK could carry on with fossil-fuel projects, in the face of mounting criticism of plans to license new oil and gas fields. He defended the government’s record on plans to reach net zero emissions by 2050, which have been heavily criticised by the UK’s independent Committee on Climate Change, and dismissed controversies over his travel schedule. The Intergovernmental Panel on Climate Change (IPCC), the world’s leading authority on climate science, will publish a comprehensive report on Monday showing how close humanity is to the brink of potentially irreversible disaster caused by extreme weather. “This is going to be the starkest warning yet that human behaviour is alarmingly accelerating global warming and this is why Cop26 has to be the moment we get this right. We can’t afford to wait two years, five years, 10 years – this is the moment,” Sharma warned, in his first major interview since taking charge of the climate talks. “I don’t think we’re out of time but I think we’re getting dangerously close to when we might be out of time. We will see [from the IPCC] a very, very clear warning that unless we act now, we will unfortunately be out of time.” The consequences of global heating were already evident, he said. “We’re seeing the impacts across the world – in the UK or the terrible flooding we’ve seen across Europe and China, or forest fires, the record temperatures that we’ve seen in North America. Every day you will see a new high being recorded in one way or another across the world.” This was not about abstract science but people’s lives, he added. “Ultimately this comes down to the very real human impact this is having across the world. I’ve visited communities that as a result of climate change have literally had to flee their homes and move because of a combination of drought and flooding.” Sharma spoke exclusively to the Observer on the eve of the IPCC report to urge governments, businesses and individuals around the world to take heed, and press for stronger action on greenhouse gas emissions at the Cop26 conference, which he said would be almost the last chance. “This [IPCC report] is going to be a wake-up call for anyone who hasn’t yet understood why this next decade has to be absolutely decisive in terms of climate action. We will also get a pretty clear understanding that human activity is driving climate change at alarming rates,” he said. Disaster was not yet inevitable, and actions now could save lives in the future, he added: “Every fraction of a degree rise [in temperature] makes a difference and that’s why countries have to act now.”

#### Private companies are necessary for collecting resources from space

**Helmore 2020** (Edward Helmore, “Nasa is looking for private companies to help mine the moon,” September 11, 2020, The Guardian, <https://www.theguardian.com/science/2020/sep/11/nasa-moon-mining-private-companies>) //neth

Nasa has announced it is looking for private companies to go to the moon and collect dust and rocks from the surface and bring them back to Earth. The American space agency would then buy the moon samples in amounts between 50 to 500 grams for between $15,000 to $25,000. The Nasa administrator, Jim Bridenstine, announced on Thursday that the moon material collection would become part of a technology development program that would help astronauts “live off the land” for crewed missions in the future to the moon or elsewhere. Bridenstine wrote that the agency “is buying lunar soil from a commercial provider. It’s time to establish the regulatory certainty to extract and trade space resources.” The collection is part of Nasa’s Artemis lunar exploration program established last year to land US astronauts, including the first woman and the next man, on the moon by 2024. The agency has indicated that missions further afield, to Mars for instance, will require the use of locally mined resources. “We will use what we learn on and around the moon to take the next giant leap – sending astronauts to Mars,” Bridenstine wrote. In a blogpost, Bridenstine said the effort would comply with the Outer Space Treaty of 1967, which says that no country may lay sovereign claim to the moon or other celestial bodies in much the same way that the Antarctic continent is off-limits for territorial conquest. In May, Nasa unveiled a legal framework that would govern the behavior of countries and companies in space and on the moon. The legal framework, known as the Artemis Accords, include the creation of “safety zones” around sites where mining and exploration would take place on the lunar surface. Nasa’s top administrator also told a forum held by the Secure World Foundation that the policies that will govern mining from celestial bodies would be much the same as those that currently exist for the world’s oceans. “We do believe we can extract and utilize the resources of the moon, just as we can extract and utilize tuna from the ocean,” he said, without referring to overfishing and pollution that is rapidly destroying fish stocks in many regions. Unlike fisheries, however, participating celestial mining companies would be required to provide imagery of the material and the location from which it was recovered. Nasa already has a separate program to contract companies to fly science experiments and cargo to the moon ahead of a human landing. Those include Astrobotic, SpaceX, Blue Origin, Sierra Nevada Corp and Lockheed Martin. Bridenstine said he anticipated some of those might also be interested in lunar mining. Casey Dreier, chief advocate & senior space policy adviser at the Planetary Society, wrote on Twitter that the importance of Nasa’s announcement is “not so much the financial incentive (which is tiny) but in establishing the legal precedent that private companies can collect and sell celestial materials (with the explicit blessing of NASA/U.S. gov)”.

#### Resource extraction from asteroids is being driven by private entities & it’s necessary for building tools to combat climate change

**Taylor 2019** (Chris Taylor, “The Asteroid Boom,” 2019, Mashable, <https://mashable.com/feature/asteroid-mining-space-economy>) //neth

Meanwhile, quietly, Earth’s scientists are laying the groundwork of research the space economy needs. Japan’s Hayabusa 2 spacecraft has been in orbit around asteroid Ryugu for the last year and a half, learning everything it can. (Ryugu, worth $30 billion according to Asterank, is the website's #1 most cost-effective target.) The craft dropped tiny hopping robot rovers and a small bomb on its target; pictures of the small crater that resulted were released afterwards. Officially, the mission is to help us figure out how the solar system formed. Unofficially, it will help us understand whether all those useful metals clump together at the heart of an asteroid, as some theorize. If so, it’s game on for asteroid prospectors. If not, we can still get at the metals with other techniques, such as optical mining (which basically involves sticking an asteroid in a bag and drilling with sunlight; sounds nuts to us, but NASA has proved it in the lab). It’ll just take more time. Effectively, we’ve just made our first mark at the base of the first space mineshaft. And there’s more to come in 2020 when Hayabusa 2 returns to Earth bearing samples. If its buckets of sand contain a modicum of gold dust, tiny chunks of platinum or pebbles of compressed carbon — aka diamonds — then the Duchy of Luxembourg won’t be the only deep-pocketed investor to sit up and take notice. The possibility of private missions to asteroids, with or without a human crew, is almost here. The next step in the process that takes us from here to where you are? Tell us an inspiring story about it, one that makes people believe, and start to imagine themselves mining in space. How would you explain the world-changing nature of the internet to 1945? How would you persuade them that there was gold to be mined in Vannevar Bush’s idea? You’d let the new economy and its benefits play out in the form of a novel. As Hayabusa dropped a bomb on Ryugu, Daniel Suarez was making the exact same asteroid the target of his fiction. Suarez is a tech consultant and developer turned New York Times bestselling author. His novels thus far have been techno-thrillers: his debut, Daemon, a novel of Silicon Valley’s worst nightmare, AI run rampant, made more than a million dollars. So it was a telling shift in cultural mood that Suarez’s latest thriller is also a very in-depth description of — and thinly-disguised advocacy for — asteroid mining. In Delta-v, published in April, a billionaire in the 2030s named Nathan Joyce recruits a team of adventurers who know nothing about space — a world-renowned cave-diver, a world-renowned mountaineer — for the first crewed asteroid mission. Elon Musk fans might expect this to be Joyce’s tale, but he soon fades into the background. The asteroid-nauts are the true heroes of Delta-v. Not only are they offered a massive payday — $6 million each for four years’ work — they also have agency in key decisions in the distant enterprise. Suarez deliberately based them on present-day heroes. 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[s] 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.”

#### It’s more environmentally friendly than mining the same materials on earth

**MIT Technology Review 2018** (“Asteroid mining might actually be better for the environment,” Massachusetts Institute of Technology – Technology Review, October 19, 2018, <https://www.technologyreview.com/2018/10/19/139664/asteroid-mining-might-actually-be-better-for-the-environment/>) //neth

Today, that changes thanks to the work of Andreas Hein and colleagues at the University of Paris-Saclay in France. These guys have calculated the greenhouse-gas emissions from asteroid-mining operations and compared them with the emissions from similar Earth-based activities. Their results provide some eyebrow-raising insights into the benefits that asteroid mining might provide. The calculations are relatively straightforward. Rocket launches release significant amounts of greenhouse gases into the atmosphere. The fuel on board the first stage of a rocket burns in Earth’s atmosphere to form carbon dioxide. For kerosene-burning rockets, one kilogram of fuel creates three kilograms of CO2. (The second and third stages operate outside the Earth’s atmosphere and so can be ignored.) Reentries are just as damaging. That’s because a significant mass of a re-entering vehicle ablates in the upper atmosphere, producing NOx such as nitrous oxide (N2O), a greenhouse gas that is about 300 times more potent than CO2. By one estimate, the space shuttle released about 20% of its mass in the form of N2O every time it returned to Earth. Hein and co use these numbers to calculate that a kilogram of platinum mined from an asteroid would release some 150 kilograms of CO2 into Earth’s atmosphere. However, economies of scale from large asteroid-mining operations could lower [emissions] this to about 60 kilograms of CO2 per kilogram of platinum. That needs to be compared with the emission from Earth-based mining. Here, platinum mining generates significant greenhouse gases, mostly from the energy it takes to remove this stuff from the ground. Indeed, the numbers are huge. The mining industry estimates that producing one kilogram of platinum on Earth releases around 40,000 kilograms of carbon dioxide. “The global warming effect of Earth-based mining is several orders of magnitude larger,” say Hein and co. The figures for water are also encouraging. In this case, the authors calculate the greenhouse-gas emissions from an asteroid-mining operation that returns water to anywhere within the moon’s orbit, a so-called cis-lunar orbit. They compare this to the emissions from sending the same volume of water from Earth into orbit. The big difference is that a water-carrying vehicle from Earth can haul only a small percentage of its mass as water. But an asteroid-mining spacecraft can transport a significant multiple of its mass as water to cis-lunar orbit. “Substantial savings in greenhouse gas emissions can be achieved,” say Hein and co.

#### Climate change disproportionately impacts marginalized communities – this creates cycles of inequality

**Woetzel 2020** (“Climate change hits the poor hardest. Here’s how to protect them,” Jonathan Woetzel, October 14, 2020, World Economic Forum, <https://www.weforum.org/agenda/2020/10/climate-change-poor-hardest-how-protect-them/>) //neth

But lower-income economies and populations may face the biggest impacts. This is because they often depend on outdoor work like in agriculture, or rely on natural capital, both of which are vulnerable to a changing climate. And with less financial means to adapt, the poor could be left far more exposed—a trend true within both developing and developed countries. Three examples illustrate the regressive nature of climate risk: 1. Extreme heat and humidity in India and other emerging markets Climate science predicts that India may become one of the first places to experience heat waves that cross the survivability threshold for a healthy human being resting in the shade. The already vulnerable parts of the population could be the most affected. Under a higher emissions scenario, some 160 to 200 million people in India are expected to live in areas that could experience such lethal heatwaves by 2030, with estimates suggesting more than half of that population will be living without air conditioning in 2030. Outdoor work, which accounts for about half of India’s GDP today, could also be limited as heat and humidity levels increase. Workers will tire more easily and need to take more frequent breaks, affecting labour productivity. As a result, by 2050, some parts of India could effectively lose nearly 30% of annual daylight working hours. Those without access to cooling systems and those engaged in outdoor and manual activities – among the poorest in the country – will be disproportionately affected. It is not just India. Countries across the world are expected to lose working hours due to rising heat and humidity levels. In the richest countries (based on GDP per capita), share of hours lost could be 1 to 3 percentage points higher in 2050 compared to today; and in the poorest countries, 5 to 10 percentage points higher. Global average temperatures are expected to increase between 1.5 and 5 degrees celsius relative to today in many locations by 2050. 2. Increased volatility of agricultural yields With a changing climate, crop volatility is expected to increase, increasing the likelihood of years with unusually low global production as well as those with bumper yields. Consider yield declines. Climate change could trigger harvest failure in multiple breadbasket locations. Given current high grain stocks, the world would not run out of grain, though incomes for poor farmers reliant on these yearly yields could be affected. Moreover, historical precedent suggests that prices could increase. This would hurt the world’s poorest communities in particular, including the 750 million people living below the international poverty line. On the other hand, bumper yields could negatively affect food prices, affecting incomes of farmers. By 2050, the annual probability of yield falling by more than 10% in a given year is expected to increase from 6% to about 20%; while the probability of yield increasing by more than 10% in a given year is expected to increase from 0 to 6%. Impacts could also vary by region; countries like Canada could see an increased overall likelihood of bumper years, while other (often poorer) parts of the world like India could see an overall increased likelihood of yield declines. 3. Rising flood risk for vulnerable populations Climate change is increasing the destructive power of flooding, which, in addition to often devastating human costs, destroys real estate and disrupts infrastructure services. We examined the impacts of flooding on Ho Chi Minh City, home to nearly 9 million people and 2 million migrant workers. While flooding there is common, climate change could substantially increase damages. We estimate that direct infrastructure asset damage from a 100-year flood today could total up to $300 million, rising to $500 million to $1 billion by 2050, without adaptation. Knock-on costs in terms of disrupted economic activity could be substantial, rising from between $100 million and $400 million today to $1.5 billion to $8.5 billion in 2050. Those who have the least often lose the most. In 2050, estimates suggest that about 85% of the city’s poor urban areas may expect to be exposed to flood risk, compared with roughly 60% of the urban area as a whole. Because poorer areas typically have lower quality, unregulated housing coupled with limited financial reserves and insurance, they are more likely to struggle to recover. These effects are not just seen in emerging markets. In Florida, home prices could devalue as climate risk is priced into buying decisions. Based on historical trends on the impacts of tidal flooding, devaluation of exposed homes could be $30 billion to $80 billion by 2050, all else being equal – a 15 to 35% impact. Impacts could be significantly larger if, for example, mortgage financing, or the price and availability of insurance, are affected. The capacity to spend on flooding mitigation and recovery will be markedly different across communities. Home owners’ decisions to rebuild or relocate will be limited by the availability of recovery money as well as the viability of getting a new mortgage elsewhere.

## **cp**

#### CP text: spacefaring nations should consult Indigenous scholars who engage with outer space in order to create post-colonial space programs

1 – solves the entirety of your aff

2 – better under your ROB because it forefronts Indigenous voices who want outer space exploration – your aff ignores those voices

3 – creates possibilities for minorities to engage with each other outside of colonial midnsets – your aff forecloses on that potential

**Smiles 2020** [Deondre Smiles, Assistant professor of Geography at University of Victoria in British Columbia, Canada, “The Settler Logics of (Outer) Space,” October 26, 2020, Society and Space, <https://www.societyandspace.org/articles/the-settler-logics-of-outer-space>] //neth

I want to now turn our attention towards the possibilities that exist regarding Indigenous engagement with outer space. After all, the timing could not be more urgent to do so—we are now at a point where after generations and generations of building the myth that America was built out of nothing, we are now ready to resume the project of extending the reach of American military and economic might in space. To be fair, there are plenty of advances that can be made scientifically with a renewed focus on space exploration. However, history shows us that space exploration has been historically tied to military hegemony, and there is nothing in Mr. Trump’s temperament or attitude towards a re-engagement with space that suggest that his push toward the stars will be anything different. A sustained conversation needs to be had—will this exploration be ethical and beneficial to all Americans? One potential avenue of Indigenous involvement comes through the active involvement of Indigenous peoples and Indigenous perspectives in space exploration, of course. This involvement can be possible through viewing outer space through a ‘decolonial’ lens, for instance. Astronomers such as Prescod-Weinstein and Walkowicz have spoken about the need to avoid replicating colonial frameworks of occupation and use of space when exploring places such as Mars, for example (Mandelbaum, 2018). The rise of logics of resource extraction in outer-space bodies have led to engagements by other academics such as Alice Gorman on the agency and personhood of the Moon. Collaborations between Indigenous people and space agencies such as NASA help provide the Indigenous perspective inside space exploration and the information that is gleaned from it, with implications both in space and on a Earth that is dealing with climate crisis (Bean, 2018; Bartels, 2019). Another potential avenue of engagement with Indigenous methodologies and epistemologies related to space comes with engaging with Indigenous thinkers who are already deeply immersed into explorations of Indigenous ‘space’ here on Earth—the recent works of Indigenous thinkers such as Waziyatawin (2008) Leanne Betasamosake Simpson (2017), Natchee Blu Barnd (2018) and others provide a unique viewpoint into the ways that Indigenous peoples make and remake space—perhaps this can provide another blueprint for how we might engage with space beyond Earth. And that is just the work that exists within the academic canon. Indigenous people have always been engaged with the worlds beyond the Earth, in ways that often stood counter to accepted ‘settler’ conventions of space exploration (Young, 1987). In one example, when asked about the Moon landings, several Inuit said, "We didn't know this was the first time you white people had been to the moon. Our shamans have been going for years. They go all the time...We do go to visit the moon and moon people all the time. The issue is not whether we go to visit our relatives, but how we treat them and their homeland when we go (Young, 1987: 272).” In another example, turning to my own people, the Ojibwe, we have long standing cultural connections to the stars that influence storytelling, governance, and religious tenets (CHIN, 2003). This engagement continues through to the present day, and points to a promising future. A new generation of Indigenous artists, filmmakers, and writers are beginning to create works that place the Indigenous individual themselves into narratives of space travel and futurity, unsettling existing settler notions of what our future in space might look like. As Leo Cornum (2015) writes, “Outer space, perhaps because of its appeal to our sense of endless possibility, has become the imaginative site for re-envisioning how black, indigenous and other oppressed people can relate to each other outside of and despite the colonial gaze.” These previous examples should serve as a reminder that the historical underpinnings of our great national myth are built upon shaky intellectual ground—we need to be honest about this. America did not just spring forth out of nothing; it came from the brutal occupation and control of Native lands. Despite the best efforts of the settler state, Native people are still here, we still exist and make vital contributions to both our tribal communities and science. We cannot expect Donald Trump to turn his back on the national myth of what made the United States the United States—in his mind, this is the glorious history of what made America great in the past. And it should serve as no surprise that Trump and others wish to extend this history into outer space. Even when Trump’s days in the White House are over, the settler colonial logics that underpin our engagement with land on Earth will still loom large over the ways that we may potentially engage with outer space. But for those of us who do work in Indigenous geographies and Indigenous studies, it becomes even more vital that we heed the calls of Indigenous thinkers inside and outside formal academic structures, validate Indigenous histories, and push to deconstruct the American settler myth and to provide a new way of looking at the stars, especially at a crucial moment where the settler state turns its gaze towards the same.

#### No perms

#### 1—the cp is about expanding private appropriation of outer space—so any perm is severance from the aff

#### 2—perms increase neg burden by reducing the neg’s possible offense—results in unnegatability

## Case

1 — they dont meet their ROB — praxis implies doing something to decolonize — no proof that debate decolonizes

2—they don’t even have an advocacy—just saying private appropriation is unjust doent do anything or decolonize

3—presume neg + err neg on fw — people have read setcol affs b4 and indigenous ppl still face colonization

4 — non indigenous people reading setcol ontology FW is an independent voter — theyre making ontological claims ab a group they aren’t part of — encourages speaking for others and commodifying

5 — the systems of knowledge card is non unique — their aff also engages in systems of knowledge bc it follows the form of debate, reads a ROB, etc. those norms were create by established systems of knowledge

6 — indigenous ppl also have systems of knowledge so this makes no sense

7—presumption—they cant solve broader structures of anti indigenous violence

8—competition debate is the wrong forum for change and competition moots any ethical value of the aff. Winning rounds just makes it seem like you want to win and a loss is internalized as a technical mistake

9-- in-round discourse does nothing to alter conditions. All you do is encourage teams to write better framework blocks.

#### Asteroid mining will actually help Global South countries resist neo-colonialism.

Smedile, **Vincent.** “Space...The Cure For Neo-Colonialism?.” Planetary Praxis. September 13,

2019. Web. December 11, **2021.**

<https://sites.psu.edu/tovarishspeakspolicy/2019/09/13/space-the-cure-for-neo-

colonialism/>. SJ

For many nations in the Global South, dependence on larger, often western, capitalist powers is the norm. This is nothing new, as the west has been using less developed nations for economic gain since the start of colonization and the era of rapid African Imperialism. While nations are no longer controlled by direct military intervention or colonial governments (usually), many of these former colonies experience the phenomena of Neo-Colonialism. Kwame Nkrumah best described this phenomenon as: “The result of neo-colonialism is that foreign capital is used for exploitation rather than for the development of the less developed parts of the world. Investment under neo-colonialism increases rather than decreases the gap between the rich and the poor countries of the world. The struggle against neo-colonialism is not aimed at excluding the capital of the developed world from operating in less developed countries. It is aimed at preventing the financial power of the developed countries being used in such a way as to impoverish the less developed.” The Global South thus finds itself inextricably sucked into a relationship where they are leeched off of and used as nothing more than sources of cheap labor and resources, all by economically and politically tieing these nations to their former colonial masters through economics. They can try to get out of this relationship, often by electing someone who defies this relationship. However, this often ends in either military intervention or extreme and punitive economic sanctions. How can these nations then worm their way out of these relationships and achieve national liberation from foreign capital? Now in a perfect world, they’d conduct a socialist revolution and install a strong people’s state capable of withstanding western intervention, such as Cuba, which has stood up to US sanctions and coup attempts all while a few miles offshore. However, the nearly worldwide presence of western military dominance nowadays makes this very difficult, as numerous attempts at popular mass movements often get hijacked or defeated with the help of the western military. In order to help nations experience greater economic development and independence from the west, and to help foster and strengthen anti-imperialist national liberation movements, these nations need to gain resources and develop scientifically. The best place for technological and scientific development, especially one that helps generate respect and quick attention, is space exploration and mining. Right now, space exploration and asteroid mining are some of the biggest targets for corporations and governments alike. Astroids stand to have resources such as rare metals, water, and building materials, often in larger quantities than on Earth, thus making them prime targets for profit. But why give these resources to Bezos and Musk, men who make more in a year than the GDP of some nations? Why not give it to the nations lacking in resources needed for economic growth and economic independence? Helping to develop space programs in the neo-colonialized global south could not only help them gain access to resources they’d need to jumpstart their final breaks from neo-colony status, but alsoallow them to sustain further scientific and economic development. Space exploration has numerous benefits that can help a nation rise to economic prominence. China and India’s rapidly growing space and science fields have allowed it to rise to its global position of economic dominance today, for example. Likewise, if once-colonized and neo-colonialized nations like China and India can use this as an avenue to economic prosperity, so too can the global south.

#### Space exploration isn’t inherently colonial- indigenous perspectives can be inserted into it

**Smiles 20** (Deondre Smiles, October 26, 2020, The Settler Logics of (Outer) Space, <https://www.societyandspace.org/articles/the-settler-logics-of-outer-space>) SJ

One potential avenue of Indigenous involvement comes through the active involvement of Indigenous peoples and Indigenous perspectives in space exploration, of course. This involvement can be possible through viewing outer space through a ‘decolonial’ lens, for instance. Astronomers such as Prescod-Weinstein and Walkowicz have spoken about the need to avoid replicating colonial frameworks of occupation and use of space when exploring places such as Mars, for example (Mandelbaum, 2018). The rise of logics of resource extraction in outer-space bodies have led to engagements by other academics such as Alice Gorman on the agency and personhood of the Moon. Collaborations between Indigenous people and space agencies such as NASA help provide the Indigenous perspective inside space exploration and the information that is gleaned from it, with implications both in space and on a Earth that is dealing with climate crisis (Bean, 2018; Bartels, 2019).

#### Aff fails – nobody to administer

**Mirzaee 2017** (Siavash Mirzaee, “Outer Space and Common Heritage of Mankind: Challenges and Solutions,” RUDN Journal of Law – December 2017, <https://www.researchgate.net/publication/317121083_Outer_Space_and_Common_Heritage_of_Mankind_Challenges_and_Solutions> | DOI: 10.22363/2313-2337-2017-21-1-102-114) //neth

Given that common heritage of mankind resources belongs to the international community as a whole, the second common heritage of mankind element is an inter- national management regime incorporating “representatives from all nations”. Because developed states often have greater access to common heritage of mankind resources, international management is intended to provide developing states with a measure of control over exploitation [18. P. 231]. At the present time, there is no international entity to administer the legal status of outer space strongly or dispute settlements among States. Disagreement of developed countries' and inefficiency of current entities are the main reasons for this shortage in outer space.

#### Privatization is inevitable – 75% of space is already privatized

**Urrutia 2018** (Doris Elin Urrutia, October 12, 2018, “How Will Private Space Travel Transform NASA's Next 60 Years?” <https://www.space.com/42113-nasa-future-private-spaceflight.html>) //neth

First, people should understand that about 75 percent of the worldwide space enterprise is already commercial, said Scott Hubbard, an adjunct professor in the Department of Aeronautics and Astronautics at Stanford University. This includes the satellites belonging to DirecTV and Sirius XM radio. What's news is the extension of that into the human realm," said Hubbard, who also previously directed NASA's Ames Research Center in Silicon Valley. He served as the agency's "Mars czar," restructuring NASA's robotic Red Planet-exploration program after it suffered several failures in the 1990s. And if private companies can get the price of a suborbital flight down to about $50,000, "you get a lot of interest," Hubbard told Space.com. The highest-profile program currently in the works between NASA and the private sector is the agency's Commercial Crew Program, said Eric Stallmer, president of the nonprofit Commercial Spaceflight Federation. Commercial Crew is encouraging the development of U.S. spacecraft that will carry astronauts to and from the International Space Station (ISS). Toward this end, NASA has awarded multibillion-dollar contracts to both SpaceX and Boeing, which are building capsules called Crew Dragon and CST-100 Starliner, respectively. These craft are currently scheduled to start flying astronauts sometime next year. There's also the maturing commercial cargo program, which has given contracts to SpaceX and Northrop Grumman Corp. to fly robotic cargo missions to the ISS. Both of these companies have already completed numerous such flights. Both Hubbard and Stallmer said that NASA wins by relying on private industry to provide such services in low Earth orbit. Hubbard argued that this strategy allows the space agency to continue "exploring the fringe where there really is no business case."

## Ptd t

#### Interpretation: the affirmative must only garner offense from PTD

#### Violation: they garner offense from no solvency advocate

#### PTD is the simplest method + solves the majority of impacts

**Babcock 2019** (Hope M. Babcock, “The Public Trust Doctrine, Outer Space, and the Global Commons: Time to Call Home ET,” Syracuse Law Review, Vol. 69, No. 2, 2019, <https://scholarship.law.georgetown.edu/cgi/viewcontent.cgi?article=3219&context=facpub>) //neth

The doctrine also appears to be infinitely malleable. Original uses of the doctrine were restricted to only that “aspect of the public domain below the low-water mark on the margin of the sea and the great lakes, the waters over those lands, and the waters within rivers and streams of any consequence,”520 and covered only traditional uses of those lands, like fishing and navigation.521 Over time, the scope and application of the doctrine broadened to protect more public resources and different uses.522 Thus, the doctrine expanded to protect new trust resources, such as dry sand beaches, inland lakes, groundwater, dry riverbeds, and wildlife,523 and passive uses of those resources, like scientific study.524 The original link to navigable water and tidelands disappeared.525 Supporters of the doctrine successfully advocated that it be applied to “wildlife, parks, cemeteries, and even works of fine art,”526 while arguing more recently its application to the atmosphere.527 A doctrine that imposes a perpetual duty on the sovereign to preserve trust resources, prevents their alienation for private benefit, assures public access to them, and can be invoked by anyone seems particularly useful as a management tool in outer space.528 The fact that public access to trust resources is so central to the doctrine makes it reflective, not contradictory, of international space law’s bar against appropriation of outer space and of the principle of space being the “province of all mankind.”529 It avoids the problems of alienation and exclusion associated with any of the management approaches associated with some form of private property and requires neither the creation of a new administrative authority nor the presence of a close-knit group of like-minded people.530 Members of the public, both rich and poor, can invoke and enforce the doctrine as easily as the sovereign.531 It is cost effective to the extent that no separate apparatus is required to implement it, and the doctrine has shown itself to be highly adaptable and innovative as different needs arise.532 It could also fill the gap in international law with respect to managing celestial property. Therefore, of all the management approaches studied here, the PTD seems the most suited to keep order in space until a regulatory regime is imposed. However, the doctrine provides no incentives for development of trust resources; rather, it might be used to limit or curtail that development, making it an imperfect, perhaps even counter-productive solution by itself to the extent that such development might be beneficial.533 Modifying the doctrine to allow limited use of private property management approaches, like tradable development claims, might buffer that effect—a form of overlapping hybridity between one type of property, a commons, and a management regime from another, private property, enabled by application of the PTD. CONCLUSION “Only a legal system that accommodates both the human need for resources and the necessary preservation of mankind’s common heritage can fulfill these criteria.”534 The future is now with regard to the development of outer space and its resources—it is no longer a question of whether humans will engage in these activities, but how soon they will. Technically advanced countries and private commercial enterprises are probing outer space and preparing for landing on an asteroid or the moon to extract their resources.535 Speculators are selling deeds to the moon’s surface and preparing to exploit the tourism potential that space offers.536 But, the legal framework for managing these initiatives is almost nonexistent.537 International treaties came into being before all this activity began in earnest and national laws that might apply are stunted by jurisdictional quandaries like the absence of national boundaries in outer space.538 Thus, there is an urgency to figure out how to control what happens in outer space before its resources are irreparably damaged or permanently monopolized by powerful countries and individuals. In the absence of regulation, much of the current debate centers on what property regime should be applied in outer space.539 The assumption is that by only allowing private property rights in space, countries and commercial enterprises will undertake the risks and costs of space development.540 However, unless international space law changes, it may prevent this from happening. If it changes, strong management controls will be necessary to prevent destruction or over-consumption of celestial resources, as well as monopolization and competitive behavior by participants, which could lead to hostilities and inequities. This Article examines various private property regimes, including those of less than full fee ownership, to see if any would avoid the conflict with the international prohibition on appropriation of outer space and its resources. It concludes that none will because each retains the right to exclude and each is insensitive to the treaties’ equity concerns. In contrast, considering outer space to be common is consistent with international space law in both respects. Hypothesizing that private property in outer space may yet prevail, this Article investigates different private property management approaches, such as the right of first possession, lotteries, and tradable development rights, to see if any would be cost effective, easy to implement and equitable, and would also prevent over-consumption, monopolization or the slide into rivalrous behavior. The Article concludes that each comes up short in some respect. Social norms as a management tool for property held in common, although compliant with international law, are also not up to the task. Instead, although ancient, the PTD, with its malleability, easy and cost-effective implementation and enforcement, non-consumption principle, and consistency with the goals that animate international space treaties, seems best suited to the task of protecting the public’s interests in the global commons that is outer space as it has done for centuries in Earth-bound commons. But, as its principal terrestrial use has been to protect trust resources from development, the doctrine needs some modification to encourage development of celestial resources. Hence, this Article suggests that modifying the PTD to allow the application of private property management tools, like tradable development rights, will not only allow development, but also will assure that when it happens, it will not be just profitable for a few, but will also be sustainable and equitable.

#### Standards

#### 1 – limits – there are infinite definitions of what private appropriations of outer space could. Your model justifies infinite affs and kills the neg’s ability to engage – we can’t be expected to prep for each of these affs – kills fairness bc big schools will always have access to more prep and kills education bc we wont be able to have substantive discussions on the aff.

#### 2 – predictability – PTD was a core aff when college policy debated a similar topic – proves that it’s at the core of the topic AND it’s what most debaters will prep against – teams use past instances of similar topics as a starting point for prep. And our model is better for small schools bc it means there’s already answers to the aff disclosed on the college policy wiki

#### Voters –

#### 1 -- Fairness – you need fairness to evaluate debate rounds – the judge needs to vote for the better debater not the better cheater. Unfair advantages in debate rounds make decisions illegitimate and hurt our ability to access real world skills.

#### Paradigm issues –

#### 1 – No RVIs

#### a] logic – you don’t get to win just for proving you’re topical

#### b] chilling effect – rvis disincentivize debaters from checking abuse

#### 2 – competing interpretations over reasonability

#### b] brightlines mean competing interps – it becomes a debate of whose brightline is best which is the same thing as competing interps – you’re debating about whose model is best

#### 3 – drop the debater

#### a] logic – drop the argument doesn’t make sense – the shell indics their entire advocacy