I negate resolved – the appropriation of space by private entities is unjust

I value justice as the resolution asks us to determine whether private space appropriation is unjust

My value criterion is maximizing expected well being: Prefer

#### 1] Governments use my value criterion in the real word

Goodin states

[Robert Goodin, Fellow in Philosophy @ Australian National Defense University, THE UTILITARIAN RESPONSE]

My larger argument turns on the proposition that there is something special about the situation of public officials that makes utilitarianism more probable for them than private individuals. Before proceeding with the large argument, I must therefore say what it is that makes it so special about public officials and their situations that make it both more necessary and more desirable for them to adopt a more credible form of utilitarianism. Consider, first, the argument from necessity. Public officials are obliged to make their choices under uncertainty, and uncertainty of a very special sort at that. All choices – public and private alike – are made under some degree of uncertainty, of course. But in the nature of things, private individuals will usually have more complete information on the peculiarities of their own circumstances and on the ramifications that alternative possible choices might have for them. Public officials, in contrast, are relatively poorly informed as to the effects that their choices will have on individuals, one by one. What they typically do know are generalities: averages and aggregates. They know what will happen most often to most people as a result of their various possible choices, but that is all. That is enough to allow public policy-makers to use the utilitarian calculus – assuming they want to.

#### 2] Pain and pleasure are intrinsically valuable.

### C1: Mining

#### Private companies are set to mine in space – new tech and profit motives make space lucrative

Gilbert 21, (Alex Gilbert is a complex systems researcher and PhD student in Space Resources at the Colorado School of Mines, “Mining in Space is Coming”), 4-26-21, Milken Institute Review, https://www.milkenreview.org/articles/mining-in-space-is-coming // MNHS NL

Space exploration is back. after decades of disappointment, a combination of better technology, falling costs and a rush of competitive energy from the private sector has put space travel front and center. indeed, many analysts (even some with their feet on the ground) believe that commercial developments in the space industry may be on the cusp of starting the largest resource rush in history: mining on the Moon, Mars and asteroids. While this may sound fantastical, some baby steps toward the goal have already been taken. Last year, NASA awarded contracts to four companies to extract small amounts of lunar regolith by 2024, effectively beginning the [era of commercial space mining](https://payneinstitute.mines.edu/wp-content/uploads/sites/149/2020/09/Payne-Institute-Commentary-The-Era-of-Commercial-Space-Mining-Begins.pdf). Whether this proves to be the dawn of a gigantic adjunct to mining on earth — and more immediately, a key to unlocking cost-effective space travel — will turn on the answers to a host of questions ranging from what resources can be efficiently. As every fan of science fiction knows, the resources of the solar system appear virtually unlimited compared to those on Earth. There are whole other planets, dozens of moons, thousands of massive asteroids and millions of small ones that doubtless contain humungous quantities of materials that are scarce and very valuable (back on Earth). Visionaries including Jeff Bezos [imagine heavy industry moving to space](https://www.fastcompany.com/90347364/jeff-bezos-wants-to-save-earth-by-moving-industry-to-space) and Earth becoming a residential area. However, as entrepreneurs look to harness the riches beyond the atmosphere, access to space resources remains tangled in the realities of economics and governance. Start with the fact that space belongs to no country, complicating traditional methods of resource allocation, property rights and trade. With limited demand for materials in space itself and the need for huge amounts of energy to return materials to Earth, creating a viable industry will turn on major advances in technology, finance and business models. That said, there’s no grass growing under potential pioneers’ feet. Potential economic, scientific and even security benefits underlie an emerging geopolitical competition to pursue space mining. The United States is rapidly emerging as a front-runner, in part due to its ambitious Artemis Program to lead a multinational consortium back to the Moon. But it is also a leader in creating a legal infrastructure for mineral exploitation. The United States has adopted the world’s first spaceresources law, recognizing the property rights of private companies and individuals to materials gathered in space. However, the United States is hardly alone. Luxembourg and the United Arab Emirates (you read those right) are racing to codify space-resources laws of their own, hoping to attract investment to their entrepot nations with business-friendly legal frameworks. China reportedly views space-resource development as a national priority, part of a strategy to challenge U.S. economic and security primacy in space. Meanwhile, Russia, Japan, India and the European Space Agency all harbor space-mining ambitions of their own. Governing these emerging interests is an outdated treaty framework from the Cold War. Sooner rather than later, we’ll need [new agreements](https://issues.org/new-policies-needed-to-advance-space-mining/) to facilitate private investment and ensure international cooperation.

Back up for a moment. For the record, space is already being heavily exploited, because space resources include non-material assets such as orbital locations and abundant sunlight that enable satellites to provide services to Earth. Indeed, satellite-based telecommunications and global positioning systems have become indispensable infrastructure underpinning the modern economy. Mining space for materials, of course, is another matter. In the past several decades, planetary science has confirmed what has long been suspected: celestial bodies are potential sources for dozens of natural materials that, in the right time and place, are incredibly valuabl**e**. Of these, water may be the most attractive in the near-term, because — with assistance from solar energy or nuclear fission — H2O can be split into hydrogen and oxygen to make rocket propellant, facilitating in-space refueling. So-called “rare earth” metals are also potential targets of asteroid miners intending to service Earth markets. Consisting of 17 elements, including lanthanum, neodymium, and yttrium, these critical materials (most of which are today mined in China at great environmental cost) are required for electronics. And they loom as bottlenecks in making the transition from fossil fuels to renewables backed up by battery storage. The Moon is a prime space mining target. Boosted by NASA’s mining solicitation, it is likely the first location for commercial mining. The Moon has several advantages. It is relatively close, requiring a journey of only several days by rocket and creating communication lags of only a couple seconds — a delay small enough to allow remote operation of robots from Earth. Its low gravity implies that relatively little energy expenditure will be needed to deliver mined resources to Earth orbit. The Moon may look parched — and by comparison to Earth, it is. But recent probes have confirmed substantial amounts of water ice lurking in [permanently shadowed craters](http://lroc.sese.asu.edu/posts/1105) at the lunar poles. Further, it seems that solar winds have implanted significant deposits of helium-3 (a light stable isotope of helium) across the equatorial regions of the Moon. Helium-3 is a potential fuel source for second and third-generation fusion reactors that one hopes will be in service later in the century. The isotope is packed with energy (admittedly hard to unleash in a controlled manner) that might augment sunlight as a source of clean, safe energy on Earth or to power fast spaceships in this century. Between its water and helium-3 deposits, the Moon could be the resource stepping-stone for further solar system exploration. Asteroids are another near-term [mining target](https://foreignpolicy.com/2016/04/28/the-asteroid-miners-guide-to-the-galaxy-space-race-mining-asteroids-planetary-research-deep-space-industries/). There are all sorts of space rocks hurtling through the solar system, with varying amounts of water, rare earth metals and other materials on board. The asteroid belt between the orbits of Mars and Jupiter contains most of them, many of which are greater than a kilometer in diameter. Although the potential water and mineral wealth of the asteroid belt is vast, the long distance from Earth and requisite travel times and energy consumption rule them out as targets in the near term. The prospects for space mining are being driven by technological advances across the space industry. The rise of reusable rocket components and the now-widespread use of off-the-shelf parts are lowering both launch and operations costs. Once limited to government contract missions and the delivery of telecom satellites to orbit, private firms are now emerging as leaders in developing “NewSpace” activities — a catch-all term for endeavors including orbital tourism, orbital manufacturing and mini-satellites providing specialized services. The space sector, with a market capitalization of $400 billion, could grow to as much as $1 trillion by 2040 as private investment soars.

#### OST defines appropriation as occupation, use, or any other means – the aff definitely links

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Based on the premise of ‘res communis’, the magna carta of space law, the OST, illustrates outer space as “the province of all mankind”.[l] Under Article I, States are free to explore and use outer space and to access all celestial bodies “on the basis of equality and in accordance with international law.”[li] Although the OST does not explicitly mention “mining” activities, under Article II, outer space including the Moon and other celestial bodies are “not subject to national appropriation by claim of sovereignty” through use, occupation or any other means.[lii] Furthermore, the Moon Agreement, 1979, not only defines outer space as “common heritage of mankind” but also proscribes commercial exploitation of planets and asteroids by States unless an international regime is established to govern such activities for “rational management,” “equitable sharing” and “expansion of opportunities” in the use of these resources.[liii]

#### Squo private companies are willing to invest, but the plan crosses a perception barrier which destroys investment

Shaw 13 - Lauren E, J.D. from Chapman University School of Law, ”Asteroids, the New Western Frontier: Applying Principles of the General Mining Law of 1872 to Incentive Asteroid Mining”, JOURNAL OF AIR LAW AND COMMERCE, Volume 78, Issue 1, Article 2, <https://scholar.smu.edu/cgi/viewcontent.cgi?article=1307&context=jalc> // recut MNHS NL

To some, the mining of asteroids might sound like the premise of a science fiction novel' or the solution to the heartwrenching, fictional scenario depicted in the film Armageddon.2 To others, it evokes a fantastical idea that may come to fruition in a distant reality. However, impressively funded companies have plans to send spacecraft to begin prospecting on asteroids within the next two years.' The issues associated with the mining of asteroids should be addressed before these plans are set in motion. Much has been written about the issues that might arise from allowing nations to own these space bodies and the minerals they contain; one such issue is the impact on international treaties.4 However, little has been written about the applicability of preexisting mining laws-which provide a basic property right scheme for the private sector-such as the General Mining Law of 1872 (Mining Law) to the management of asteroid mining.' The literature to date on how to legally address asteroid mining is minimal.' The articles that do address it propose the creation of different systems, such as a "property rights-based system that relies on the doctrine of first possession"7 or an international authority that would regulate mining operations.' Implementing a scheme that offers ownership of extracted resources without bestowing complete sovereignty is necessary to avoid an impending legal limbo-that is, an outer space "Wild West" equivalent where there is neither certainty nor security in who owns what.9 If private sector miners of asteroids know this right already exists, they will have more incentive to extract resources.' 0 This, in turn, would increase the chances of successful missions, resulting in numerous scientific and explorative benefits, along with the potential replenishment of key elements that are becoming increasingly depleted on Earth yet are still needed for modern industry. Scientists speculate that key elements needed for modern industry, including platinum, zinc, copper, phosphorus, lead, gold, and indium, could become depleted on Earth within the next fifty to sixty years." Many of these metals, such as platinum, are chemical elements that, unlike oil or diamonds, have no synthetic alternative.12 Once the reserves on Earth are mined to complete depletion, industries will be forced to recycle the existing supply of minerals, which will result in increased costs due to increased scarcity.' 3 However, evidence is accumulating that asteroids only a few hundred thousand miles away from Earth may be composed of an abundance of natural resources-including many of the minerals being mined to depletion on Earth-that could lead to vast profits." Most of the minerals being mined on Earth, including gold, iron, platinum, and palladium, originally came from the many asteroids that hit the Earth after the crust cooled during the planet's formation.'

#### Space mining is the only way to solve climate change

Duran 21, (Paloma Duran is a journalist and industry analyst at Mexico Business News, “Is Space Mining the Best Option to Face Climate Change?”), 11-03-21, Mexico Business News, https://mexicobusiness.news/mining/news/space-mining-best-option-face-climate-change // MNHS NL

Going to net zero means that more mining is needed. Experts have said that the current supply cannot support the necessary metals demand for the green transition. As a result, new mining alternatives have gained greater relevance, among them is space mining. Several countries, including Mexico, have shown their interest in this alternative, creating a new space race. “The solar system can support a billion times greater industry than we have on Earth. When you go to vastly larger scales of civilization, beyond the scale that a planet can support, then the types of things that civilization can do are incomprehensible to us … We would be able to promote healthy societies all over the world at the same time that we would be reducing the environmental burden on the Earth,” said Dr. Phil Metzger, Planetary Scientist at the University of Central Florida. Currently, there are several attempts to address global warming and transition to a net zero carbon economy. There has been an increasing interest in renewable energy and infrastructure, which has increased demand for various minerals, especially lithium, cobalt, nickel, copper and rare earth elements. However, according to experts, the world is close to entering a metals supercycle, where demand will exceed available supply, causing prices to skyrocket. Consequently, the mining industry has sought alternatives to achieve the required supply. Options include recycling and improved mine waste management, sea mining and space mining. The latter is considered one of the alternatives with the greatest potential. However, a regulatory framework is still lacking and there is almost no experience in this regard. Despite the lack of knowledge regarding space mining, it has become a very attractive option since the planet is running out of resources. While some people believe that land-based mining is cheaper than space mining, experts believe this may change in the long term. Furthermore, within the solar system there are countless bodies rich in minerals, ores and elements that will accelerate the fight against climate change. “There will come a point when there is nothing left to mine on the surface, prompting mines to reach even further below. But even those resources are destined to run out and so we will aim toward ocean mining, which already has specific technologies that are being developed. Nevertheless, even those mines are limited as well. The mine of the future, which today may seem unlikely, will no longer be on our planet. There will be a time when space mining will be as common as an open leach mine,” Eder Lugo, Minerals Head at Siemens, told MBN. More than 150 million asteroids measuring approximately 100m are believed to be in the inner solar system alone. In addition, astronomers have also identified abundant minerals near the Earth’s space and the Main Asteroid Belt. There are three main groups into which asteroids are divided: C- type, S- type, and M- type. The last two groups are the most abundant in minerals such as gold, platinum, cobalt, zinc, tin, lead, indium, silver, copper and rare earth metals. "Energy is limited here. Within just a few hundred years, you will have to cover all of the landmass of Earth in solar cells. So, what are you going to do? Well, what I think you are going to do is you are going to move out in space … all of our heavy industry will be moved off-planet and Earth will be zoned residential and light-industrial,” said Jeff Bezos, Founder of Amazon and the Space Launch Provider Blue Origin.

#### Anthropogenic warming causes extinction --- mitigation efforts now are key

Griffin, 2015 (David, Professor of Philosophy at Claremont, “The climate is ruined. So can civilization even survive?”, CNN, 4/14/2015, <http://www.cnn.com/2015/01/14/opinion/co2-crisis-griffin/> )

Although most of us worry about other things, climate scientists have become increasingly worried about the survival of civilization. For example, Lonnie Thompson, who received the U.S. National Medal of Science in 2010, said that virtually all climatologists "are now convinced that global warming poses a clear and present danger to civilization." Informed journalists share this concern. The climate crisis "threatens the survival of our civilization," said Pulitzer Prize-winner Ross Gelbspan. Mark Hertsgaard agrees, saying that the continuation of global warming "would create planetary conditions all but certain to end civilization as we know it." These scientists and journalists, moreover, are worried not only about the distant future but about the condition of the planet for their own children and grandchildren. James Hansen, often considered the world's leading climate scientist, entitled his book "Storms of My Grandchildren." The threat to civilization comes primarily from the increase of the level of carbon dioxide (CO2) in the atmosphere, due largely to the burning of fossil fuels. Before the rise of the industrial age, CO2 constituted only 275 ppm (parts per million) of the atmosphere. But it is now above 400 and rising about 2.5 ppm per year. Because of the CO2 increase, the planet's average temperature has increased 0.85 degrees Celsius (1.5 degrees Fahrenheit). Although this increase may not seem much, it has already brought about serious changes. The idea that we will be safe from "dangerous climate change" if we do not exceed a temperature rise of 2C (3.6F) has been widely accepted. But many informed people have rejected this assumption. In the opinion of journalist-turned-activist Bill McKibben, "the one degree we've raised the temperature already has melted the Arctic, so we're fools to find out what two will do." His warning is supported by James Hansen, who declared that "a target of two degrees (Celsius) is actually a prescription for long-term disaster." The burning of coal, oil, and natural gas has made the planet warmer than it had been since the rise of civilization 10,000 years ago. Civilization was made possible by the emergence about 12,000 years ago of the "Holocene" epoch, which turned out to be the Goldilocks zone - not too hot, not too cold. But now, says physicist Stefan Rahmstorf, "We are catapulting ourselves way out of the Holocene." This catapult is dangerous, because we have no evidence civilization can long survive with significantly higher temperatures. And yet, the world is on a trajectory that would lead to an increase of 4C (7F) in this century. In the opinion of many scientists and the World Bank, this could happen as early as the 2060s. What would "a 4C world" be like? According to Kevin Anderson of the Tyndall Centre for Climate Change Research (at the University of East Anglia), "during New York's summer heat waves the warmest days would be around 10-12C (18-21.6F) hotter [than today's]." Moreover, he has said, above an increase of 4C only about 10% of the human population will survive. Believe it or not, some scientists consider Anderson overly optimistic. The main reason for pessimism is the fear that the planet's temperature may be close to a tipping point that would initiate a "low-end runaway greenhouse," involving "out-of-control amplifying feedbacks." This condition would result, says Hansen, if all fossil fuels are burned (which is the intention of all fossil-fuel corporations and many governments). This result "would make most of the planet uninhabitable by humans." Moreover, many scientists believe that runaway global warming could occur much more quickly, because the rising temperature caused by CO2 could release massive amounts of methane (CH4), which is, during its first 20 years, 86 times more powerful than CO2. Warmer weather induces this release from carbon that has been stored in methane hydrates, in which enormous amounts of carbon -- four times as much as that emitted from fossil fuels since 1850 -- has been frozen in the Arctic's permafrost. And yet now the Arctic's temperature is warmer than it had been for 120,000 years -- in other words, more than 10 times longer than civilization has existed. According to Joe Romm, a physicist who created the Climate Progress website, methane release from thawing permafrost in the Arctic "is the most dangerous amplifying feedback in the entire carbon cycle." The amplifying feedback works like this: The warmer temperature releases millions of tons of methane, which then further raise the temperature, which in turn releases more methane. The resulting threat of runaway global warming may not be merely theoretical. Scientists have long been convinced that methane was central to the fastest period of global warming in geological history, which occurred 55 million years ago. Now a group of scientists have accumulated evidence that methane was also central to the greatest extinction of life thus far: the end-Permian extinction about 252 million years ago. Worse yet, whereas it was previously thought that significant amounts of permafrost would not melt, releasing its methane, until the planet's temperature has risen several degrees Celsius, recent studies indicate that a rise of 1.5 degrees would be enough to start the melting. What can be done then? Given the failure of political leaders to deal with the CO2 problem, it is now too late to prevent terrible developments. But it may -- just may -- be possible to keep global warming from bringing about the destruction of civilization. To have a chance, we must, as Hansen says, do everything possible to "keep climate close to the Holocene range" -- which means, mobilize the whole world to replace dirty energy with clean as soon as possible.

### C2: Space Colonies

#### Space colonies are coming now, but private companies are key --- government-led programs must prioritize space-for-earth ventures

Weinzierl and Sarang 21

[Matt Weinzierl and Mehak Sarang, 2-12-2021, "The Commercial Space Age Is Here," Harvard Business Review, https://hbr.org/2021/02/the-commercial-space-age-is-here]

There’s no shortage of hype surrounding the commercial space industry. But while tech leaders promise us moon bases and settlements on Mars, the space economy has thus far remained distinctly local — at least in a cosmic sense. Last year, however, we crossed an important threshold: For the first time in human history, humans accessed space via a vehicle built and owned not by any government, but by a private corporation with its sights set on affordable space settlement. It was the first significant step towards building an economy both in space and for space. The implications — for business, policy, and society at large — are hard to overstate. In 2019, [95%](https://brycetech.com/reports) of the estimated $366 billion in revenue earned in the space sector was from the space-for-earth economy: that is, goods or services produced in space for use on earth. The space-for-earth economy includes telecommunications and internet infrastructure, earth observation capabilities, national security satellites, and more. This economy is booming, and though [research shows](https://hbsp.harvard.edu/product/716037-PDF-ENG) that it faces the challenges of overcrowding and monopolization that tend to arise whenever companies compete for a scarce natural resource, [projections for its future](https://hbsp.harvard.edu/product/720027-PDF-ENG) are optimistic. Decreasing costs for launch and space hardware in general have enticed new entrants into this market, and companies in a variety of industries have already begun leveraging satellite technology and access to space to drive innovation and efficiency in their earthbound products and services. In contrast, the space-for-space economy — that is, goods and services produced in space for use in space, such as mining the Moon or asteroids for material with which to construct in-space habitats or supply refueling depots — has struggled to get off the ground. As far back as the 1970s, [research](https://ntrs.nasa.gov/citations/19780004167) commissioned by NASA predicted the rise of a space-based economy that would supply the demands of hundreds, thousands, even millions of humans living in space, dwarfing the space-for-earth economy (and, eventually, the entire terrestrial economy as well). The realization of such a vision would change how all of us do business, live our lives, and govern our societies — but to date, we’ve never even had more than [13 people](https://www.space.com/6503-population-space-historic-high-13.html) in space at one time, leaving that dream as little more than science fiction. Today, however, there is reason to think that we may finally be reaching the first stages of a true space-for-space economy. SpaceX’s [recent achievements](https://www.nasa.gov/press-release/nasa-s-spacex-crew-1-astronauts-headed-to-international-space-station/) (in cooperation with NASA), as well as upcoming efforts by [Boeing](https://www.nasa.gov/feature/boeing-s-starliner-makes-progress-ahead-of-flight-test-with-astronauts), [Blue Origin](https://www.blueorigin.com/news/nasa-selects-blue-origin-national-team-to-return-humans-to-the-moon), and [Virgin Galactic](https://spacenews.com/virgin-galactic-prepares-to-transition-to-operations) to put people in space sustainably and at scale, mark the opening of a new chapter of spaceflight led by private firms. These firms have both the intention and capability to bring private citizens to space as passengers, tourists, and — eventually — settlers, opening the door for businesses to start meeting the demand those people create over the next several decades with an array of space-for-space goods and services. Welcome to the (Commercial) Space Age In our [recent research](https://www.hbs.edu/faculty/Publication%20Files/jep.32.2.173_Space,%20the%20Final%20Economic%20Frontier_413bf24d-42e6-4cea-8cc5-a0d2f6fc6a70.pdf), we examined how the model of centralized, government-directed human space activity born in the 1960s has, over the last two decades, made way for a new model, in which public initiatives in space increasingly share the stage with private priorities. Centralized, government-led space programs will inevitably focus on space-for-earth activities that are in the public interest, such as national security, basic science, and national pride. This is only natural, as expenditures for these programs must be justified by demonstrating benefits for citizens — and the citizens these governments represent are (nearly) all on earth. In contrast to governments, the private sector is eager to put people in space to pursue their own personal interests, not the state’s — and then supply the demand they create. This is the vision driving SpaceX, which in its first twenty years has entirely upended the rocket launch industry, securing 60% of the global commercial launch market and building ever-larger spacecraft designed to ferry passengers not just to the International Space Station (ISS), but also to its own promised [settlement on Mars](https://www.spacex.com/media/making_life_multiplanetary_transcript_2017.pdf). Today, the space-for-space market is limited to supplying the people who are already in space: that is, the handful of astronauts employed by NASA and other government programs. While SpaceX has grand visions of supporting large numbers of private space travelers, their current space-for-space activities have all been in response to demand from government customers (i.e., NASA). But as decreasing launch costs enable companies like SpaceX to leverage economies of scale and put more people into space, growing private sector demand (that is, tourists and settlers, rather than government employees) could turn these proof-of-concept initiatives into a sustainable, large-scale industry. This model — of selling to NASA with the hopes of eventually creating and expanding into a larger private market — is exemplified by SpaceX, but the company is by no means the only player taking this approach. For instance, while SpaceX is focused on space-for-space transportation, another key component of this burgeoning industry will be manufacturing. [Made In Space, Inc.](https://madeinspace.us/capabilities-and-technology/archinaut/) has been at the forefront of manufacturing “in space, for space” since 2014, when it 3D-printed a wrench onboard the ISS. Today, the company is exploring other products, such as high-quality fiber-optic cable, that terrestrial customers may be willing to pay to have manufactured in zero-gravity. But the company also recently received a [$74 million contract](https://www.nasa.gov/press-release/nasa-funds-demo-of-3d-printed-spacecraft-parts-made-assembled-in-orbit) to 3D-print large metal beams in space for use on NASA spacecraft, and future private sector spacecraft will certainly have similar manufacturing needs which Made In Space hopes to be well-positioned to fulfill. Just as SpaceX has begun by supplying NASA but hopes to eventually serve a much larger, private-sector market, Made In Space’s current work with NASA could be the first step along a path towards supporting a variety of private-sector manufacturing applications for which the costs of manufacturing on earth and transporting into space would be prohibitive. Another major area of space-for-space investment is in building and operating space infrastructure such as habitats, laboratories, and factories. Axiom Space, a current leader in this field, recently [announced](https://www.theverge.com/2021/1/26/22250327/space-tourists-axiom-private-crew-iss-price) that it would be flying the “first fully private commercial mission to space” in 2022 onboard SpaceX’s Crew Dragon Capsule. Axiom was also [awarded](https://spacenews.com/nasa-selects-axiom-space-to-build-commercial-space-station-module/) a contract for exclusive access to a module of the ISS, facilitating its plans to develop modules for commercial activity on the station (and eventually, beyond it). This infrastructure is likely to spur investment in a wide array of complementary services to supply the demand of the people living and working within it. For example, in February 2020, Maxar Technologies was awarded a [$142 million contract](https://www.builtincolorado.com/2020/02/03/maxar-technologies-142m-nasa-contract) from NASA to develop a robotic construction tool that would be assembled in space for use on low-Earth orbit spacecraft. Private sector spacecraft or settlements will no doubt have need for a variety of similar construction and repair tools. And of course, the private sector isn’t just about industrial products. Creature comforts also promise to be an area of rapid growth, as companies endeavor to support the human side of life in the harsh environment of space. In 2015, for example, [Argotec and Lavazza](https://www.lavazza.com/en/about-us/media-centre/isspresso-successfully-completes-the-mission-coffee-in-space.html) collaborated to build an espresso machine that could function in the zero-gravity environment of the ISS, delivering a bit of everyday luxury to the crew. To be sure, people have dreamt of using the vacuum and weightlessness of space to source or make things that cannot be made on earth for half a century, and time and again the business case has failed to pan out. Skepticism is natural. Those failures, however, have been in space-for-earth applications. For example, two startups of the 2010s, [Planetary Resources, Inc.](https://store.hbr.org/product/planetary-resources-inc-property-rights-and-the-regulation-of-the-space-economy/717053) and [Deep Space Industries](https://spacenews.com/deep-space-industries-acquired-by-bradford-space/), recognized the potential of space mining early on. For both companies, however, the lack of a space-for-space economy meant that their near-term survival depended on selling mined material — precious metals or rare elements — to earthbound customers. When it became clear that demand was insufficient to justify the high costs, funding dried up, and both companies pivoted to other ventures. These were failures of space-for-earth business models — but the demand for in-space mining of raw building material, metals, and water will be enormous once humans are living in space (and are therefore far cheaper to supply). In other words, when people are living and working in space, we are likely to look back on these early asteroid mining companies less as failures and more as simply [ahead of their time](https://interestingengineering.com/asteroid-mining-to-shape-the-future-of-our-wealth). Seizing the Space-for-Space Opportunity The opportunity presented by the space-for-space economy is huge — but it could easily be missed. To seize this moment, policymakers must provide regulatory and institutional frameworks that will enable the risk-taking and innovation necessary for a decentralized, private-sector-driven space economy. There are three specific policy areas we believe will be especially important: 1. Enabling private individuals to take on greater risk than would be tolerable for government-employed astronauts. First, as part of a general shift to that more decentralized, market-oriented space sector, policymakers should consider allowing private space tourists and settlers to voluntarily take on more risk than states would tolerate for government-employed astronauts. In the long run, ensuring high safety levels will be essential to convince larger numbers of people to travel or live in space, but in the early years of exploration, too great an aversion to risk will stop progress before it starts. An instructive analogy can be found in how NASA works with its [contractors](https://arstechnica.com/science/2017/07/elon-musk-knows-whats-ailing-nasa-costly-contracting/): In the mid-2000s, NASA shifted from using cost-plus contracts (in which NASA shouldered all the economic risk of investing in space) to fixed-price contracts (in which risk was distributed between NASA and their contractors). Because of private companies’ greater tolerance for risk, this shift catalyzed a burst of activity in the sector — sometimes referred to as “[New Space](http://satellitemarkets.com/news-analysis/opportunities-emerging-new-space).” A similar shift in how we approach voluntary risk-taking by private-sector astronauts may be necessary in order to launch the space-for-space economy. 2. Judiciously implementing government regulation and support. Second, as with most markets, developing a stable space economy will depend on judicious government regulation and support. NASA and the U.S. Commerce and State Departments’ [recent recommitment](https://spacepolicyonline.com/news/space-council-gets-human-spaceflight-strategy-report/) to “create a regulatory environment in [low-Earth orbit] that enables American commercial activities to thrive” is a good sign that the government is on a path of continued collaboration with industry, but there’s still a long way to go. Governments should start by clarifying how property rights over limited resources such as water on Mars, ice on the Moon, or orbital slots (i.e., “parking spots” in space) will be governed. Recent steps — including NASA’s [offer](http://www.parabolicarc.com/2020/09/10/nasa-wants-to-buy-lunar-soil-samples-from-private-companies/) to purchase lunar soil and rocks, last April’s [Executive Order](https://www.whitehouse.gov/presidential-actions/executive-order-encouraging-international-support-recovery-use-space-resources/) on the governance of space resources, and the 2015 [Commercial Space Launch Competitiveness Act](https://www.congress.gov/bill/114th-congress/house-bill/2262/text) — indicate that the U.S. government is interested in establishing some form of regulatory framework to support the economic development of space. In 2017, Luxembourg became the first European country to [establish a legal framework](https://www.mining.com/luxembourg-becomes-first-european-country-pass-space-mining-law/) securing private rights over resources mined in space, and similar steps have been taken at the domestic level in [Japan](https://www.japantimes.co.jp/news/2020/11/06/national/science-health/japan-bill-space-samples/#:~:text=The%20bill%20calls%20for%20allowing,companies%20to%20enter%20the%20field.) and the [United Arab Emirates](https://spacewatch.global/2020/02/uae-space-law-details-announced-to-facilitate-space-sector-development/). Moreover, nine countries (though Russia and China are notably missing) have signed the [Artemis Accords](https://www.nasa.gov/specials/artemis-accords/index.html), which lay out a vision for the sustainable, international development of the Moon, Mars, and asteroids. These are important first steps, but they have yet to be clearly translated into comprehensive treaties that govern the fair use and allocation of scarce space resources among all major spacefaring nations. In addition, governments should continue to fill the financial gaps in the still-maturing space-for-space economic ecosystem by funding basic scientific research in support of sending humans to space, and by providing contracts to space startups. Similarly, while excessive regulation will stifle the industry, some government incentives, such as policies to reduce space debris, can help reduce the costs of operating in space for everyone in ways that would be difficult to coordinate independently. 3. Moving beyond geopolitical rivalries. Finally, the development of the space-for-space economy must not be undermined by earthly geopolitical rivalries, such as that between the United States and China. These conflicts will unavoidably extend into space at least to some extent, and military demand has long been an important source of funding for aerospace companies. But if not kept in check, such rivalries will not only distract attention and resources from borderless commercial pursuits but also create barriers and risks that hamper private investment. On earth, private economic activity has long tied together people whose states are at odds. The growing space-for-space economy offers exceptional potential to be such a force for unity — but it’s the job of the world’s governments [not to get in the way](https://www.theatlantic.com/technology/archive/2020/07/space-warfare-unregulated/614059/). A collaborative, international approach to establishing — and enforcing — the rule of law in space will be essential to encouraging a healthy space-for-space economy. Visions of a space-for-space economy have been around since the dawn of the Space Age in the 1960s. Thus far, those hopes have gone largely unmet — but this moment is different. For the first time in history, the private sector’s capital, risk tolerance, and profit motive are being channeled into putting people in space. If we seize this opportunity, we will look back on 2020 as the year when we started the truly transformational project of building an economy and a society in space, for space.

#### Colonies solve overcrowding

Bloomfield 06

[National Space Society, Book Review: The High Frontier: Human Colonies in Space, Masse Bloomfield, 2006, http://www.nss.org/resources/books/non\_fiction/review\_008\_highfrontier.html]

O'Neill's solution in 1976 was “We now have the technological ability to set up large communities in space — communities in which manufacturing, farming, and all other human activities could be carried out.” In a caption under the famous drawing of an O'Neill cylinder it says, “Human colonies in space — not a luxury, but a necessity. Earth is overcrowded, running out of raw materials, in desperate need of a growing energy supply, and being ecologically destroyed. The problems are worse with each passing day, and there are no solutions to be found on Earth itself. Mankind's destiny — its very survival — is in space.… But a commitment is needed, a decision to go for it and the determination to see it through.”

#### Overpopulation is the root cause to many problems

Paul **Ehrlich 18**, President, Center for Conservation Biology, Bing Professor of Population Studies, Stanford University, 3/24/18, quoted by Sputnik News, “Overconsumption, Inequity 'Lower Chances of Avoiding Global Collapse' – Scholar,” https://sputniknews.com/analysis/201803241062865525-overconsumption-inequity-global-collapse/

The **collapse of civilization** in the next few decades is imminent, and it could be triggered by a variety of factors, Paul Ehrlich told Sputnik. "It could be caused by a nuclear war, droughts and floods leading to mass starvation, a bursting of the debt bubble, political unrest from refugee flows or increasing economic inequity, trade wars, terrorism or synergizing combinations of these and other factors," the researcher said. The main reasons behind all these negative predictions are, according to the scientist, overpopulation and overconsumption. He is confident that these two factors will drive our civilization over the edge. "The basic problem is the wrecking of human life-support systems by growth in aggregate consumption — and that is a product of growth in population size and growth in per capita consumption. Various forms of inequity — gender, racial, religious could contribute by making it less likely that people will provide the cooperation required to give the chance of avoiding a collapse," the analyst argued. In Ehrlich's view, the situation has significantly worsened since he released a corresponding warning in his book "The Population Bomb" 50 years ago. "The population has doubled in size, climate disruption is now much more thoroughly understood and is already causing problems, there soon will be more weight of plastics in the oceans than fish; hormone-mimicking synthetic chemicals are now toxifying earth from pole to pole and are the likely cause of plunging sperm counts around the world; almost half of wildlife has been exterminated in the greatest mass extinction episode in the last 66 million years," the analyst said. According to him, the chances of a **global nuclear war** wiping out civilization are now also "higher than at any time during the Cold War except for the Cuban missile crisis." Although, there have been numerous warnings about the way humans are threatening life on earth, governments and the international community have so far failed to reduce this threat, and Ehrlich believes that there are several reasons for this. Among them are "the lack of education in basic science, especially among economists and politicians, who think economic growth is the cure for everything rather than what it is — the basic disease," the analyst said, adding that a key role is also being played by such negative traits if a human character as "greed, stupidity and arrogance." Answering the question about which measures he considers essential to change the situation for the better, the scientist said that, among other things, it's important to "supply everyone with modern contraception and backup abortion," "give women equal rights and opportunities with men," "end racial and religious discrimination so that all people are free to help solve the human dilemmas" and "redistribute wealth."

#### **Colonizing space is key to stimulate growth, protect the environment, and prevent resource wars**.

Collins & Autino 08

[Patrick Collins, Adrienne Autino. 7/7/08. Space Future Journal, What the Growth of a Space Tourism Industry Could Contribute to Employment, Economic Growth, Environmental Protection, Education, Culture and World Peace. http://www.spacefuturejournal.com/archive/what\_the\_growth\_of\_a\_space\_tourism\_industry\_could\_contribute\_to\_employment\_economic\_growth\_environmental\_protection\_education\_culture\_and\_world\_peace.shtml]

Vehicles capable of supplying low-priced sub-orbital passenger space travel services could have been produced as early as 1950 if German rocket technology had not been used solely for military purposes by the USA and USSR. If that had happened, orbital passenger flight services could have started during the 1960s. In this case passenger space travel could have grown into a major industry by today. In growing to large scale, space travel would also have reduced the cost of space travel far below that of the expendable rockets still in use today, of which the first orbital vehicle, the R-7 / Soyuz, is still the cheapest and most reliable 50 years later. Several decades of growth of space travel and related space activities could have had a major beneficial influence on the modern world. The paper discusses the scope for new employment, stimulating economic growth, reducing environmental damage, encouraging education particularly in the sciences, stimulating cultural growth, and preserving peace by eliminating any need for "resource wars".

### Case

#### 1] Death outweighs and turns the affirmative, makes equality violations inevitable because certain groups have access to less resources

#### 2] Degrees of wrongness – their framework provides no way to weigh between tradeoffs in equality under the veil: the only way to do so is through util. Outweighs because a framework needs to be able to justify which action is most beneficial in any given situation, and actions that solve 100% of inequality are utopian

#### 3] Their framework is impossible for governments to use – even if equality is good for individuals and society in the abstract, many policy actions have either little to no effect on equality but are still necessary – i.e. arms control

#### 4] Framework is nonsensical – for example, giving nuclear weapons to rogue actors may promote “equality” because it allows them to get on the same playing field as large states like the United States but that would risk great power war and extinction

#### 7] Collapses to utilitarianism – Equality means util- only an impartial consequentialist theory can treat everyone’s pain and pleasure equally- anything else arbitrarily prioritizes one over another

**Ratner 84** [Leonard G. Ratner, professor of law at USC, Hofstra Law Journal, 12 Hofstra L. Rev. 723, spring, 1984] Recut VM

John Rawls derives an equality principle from individual autonomy by presuming that "in the original position," i.e., in a "state of nature", where a "veil of ignorance" cloaks prospective resource distributions, everyone (1) would be reluctant to risk impoverishment for a chance at abundance, and, consequently, (2) would agree to equal distribution generally, but (3) would allow above-average distributions for productivity incentives that increase resources sufficiently to reimburse those with below-average distributions. [164](http://www.lexis.com/research/retrieve?_m=754140ea250c3e13cdfa30aef4da39a8&csvc=bl&cform=bool&_fmtstr=FULL&docnum=1&_startdoc=1&wchp=dGLbVzz-zSkAA&_md5=031548f35fa80bab5596b0fd0b35fe07" \l "n164" \t "_self) Similar agreement on voting equality (which is the essential  [\*760]  procedural norm for majoritarian choice) [165](http://www.lexis.com/research/retrieve?_m=754140ea250c3e13cdfa30aef4da39a8&csvc=bl&cform=bool&_fmtstr=FULL&docnum=1&_startdoc=1&wchp=dGLbVzz-zSkAA&_md5=031548f35fa80bab5596b0fd0b35fe07" \l "n165" \t "_self) and on such "basic liberties" as "freedom of speech . . . conscience . . . thought . . . person . . . property [ownership] . . . and freedom from arbitrary arrest" [166](http://www.lexis.com/research/retrieve?_m=754140ea250c3e13cdfa30aef4da39a8&csvc=bl&cform=bool&_fmtstr=FULL&docnum=1&_startdoc=1&wchp=dGLbVzz-zSkAA&_md5=031548f35fa80bab5596b0fd0b35fe07" \l "n166" \t "_self) is premised on a general awareness that the "quality of civilization" [167](http://www.lexis.com/research/retrieve?_m=754140ea250c3e13cdfa30aef4da39a8&csvc=bl&cform=bool&_fmtstr=FULL&docnum=1&_startdoc=1&wchp=dGLbVzz-zSkAA&_md5=031548f35fa80bab5596b0fd0b35fe07" \l "n167" \t "_self) will be enhanced by "the most extensive liberty [for each] compatible with a like liberty for all," [168](http://www.lexis.com/research/retrieve?_m=754140ea250c3e13cdfa30aef4da39a8&csvc=bl&cform=bool&_fmtstr=FULL&docnum=1&_startdoc=1&wchp=dGLbVzz-zSkAA&_md5=031548f35fa80bab5596b0fd0b35fe07" \l "n168" \t "_self) i.e., by equal liberty "unless an unequal distribution . . . is to everyone's advantage." [169](http://www.lexis.com/research/retrieve?_m=754140ea250c3e13cdfa30aef4da39a8&csvc=bl&cform=bool&_fmtstr=FULL&docnum=1&_startdoc=1&wchp=dGLbVzz-zSkAA&_md5=031548f35fa80bab5596b0fd0b35fe07" \l "n169" \t "_self) This concept, offered as "an alternative to utilitarian thought," is rested ultimately on "a sense of justice," derived from an inherent "moral capacity," "considered judgments," "intuitively appealing" presumptions, and a "reflective equilibrium" reached after weighing competing moral positions. But the intuitive conclusion suggests utilitarian perceptions**.** The presumed majoritarian preference for *assured* need fulfillment rather than *possible* need-plus-want fulfillment; the productivity-incentive corollary; and the voting-equality, basic-liberties postulate imply: a long-run survival goal; the diminishing marginal utility of resources; [172](http://www.lexis.com/research/retrieve?_m=754140ea250c3e13cdfa30aef4da39a8&csvc=bl&cform=bool&_fmtstr=FULL&docnum=1&_startdoc=1&wchp=dGLbVzz-zSkAA&_md5=031548f35fa80bab5596b0fd0b35fe07" \l "n172" \t "_self) the priority of need fulfillment over want fulfillment; [173](http://www.lexis.com/research/retrieve?_m=754140ea250c3e13cdfa30aef4da39a8&csvc=bl&cform=bool&_fmtstr=FULL&docnum=1&_startdoc=1&wchp=dGLbVzz-zSkAA&_md5=031548f35fa80bab5596b0fd0b35fe07" \l "n173" \t "_self) the need-fulfilling consequences of productivity incentives; the needimpairing, counterproductive effect of minority discontent, majority insecurity, inhibited thought, disrupted communication, and arbitrarily constrained movement; the enhancement of per capita need/want fulfillment by avoidance of need-impairing allocations; and the contributions of both individual autonomy and majoritarian choice to such fulfillment. The accuracy of these propositions in fact turns on empirically verifiable information about the world as it is, not on intuitively appealing presumptions about a fictitious state of nature. Despite his explicit rejection of utilitarian thought, Rawls intimates a utilitarian foundation for his equal-treatment conclusions by noting that a sense of justice, moral feelings, and altruistic reciprocity may have evolutionary origins and by designating scarce resources, conflicting resource claims, and resulting collaborative arrangements as "circumstances of justice." [176](http://www.lexis.com/research/retrieve?_m=754140ea250c3e13cdfa30aef4da39a8&csvc=bl&cform=bool&_fmtstr=FULL&docnum=1&_startdoc=1&wchp=dGLbVzz-zSkAA&_md5=031548f35fa80bab5596b0fd0b35fe07" \l "n176" \t "_self) His environmental paradigm, however, is not an epochal struggle to survive but "the original position," and his rationale is not long-run survival, but innate moral intuition.

#### 8] Consequences would still matter from under the veil because they are impartial to individual bias – absent any state of affairs, we would default to intuitive understandings of pain and pleasure

#### 9] People in the original position will maximize average utility since they could be anybody.

**Harsanyi, 77** – Nobel Prize winning Hungarian-American economist. He is best known for his contributions to the study of game theory and its application to economics [John C. Harsanyi, “Morality and the Theory of Rational Behaviour”, Social Research Vol. 44, No. 4, Rationality, Choice, and Morality (WINTER 1977), pp. 623-656] \*\* brackets for gendered language Recut VM

**Any moral value judgement is a judgement of preference, but it is a judgement of preference of a very special kind**. Suppose somebody tells us: ‘I much prefer our capitalist system over any socialist system because under our capitalist system I happen to be a millionaire and have a very satisfying life, whereas under a socialist system I would be in all probabil- ity at best a badly paid minor government official.’ This may be a very reasonable judgement of personal preference from his own individual point of view. But nobody would call it a moral value judgement because it would he obviously a judgement based primarily on self-interest. Compare this with a situation where somebody would express a preference for the capitalist system as against 'the socialist system without knowing in advance what particular social position he would occupy under either system. To make it more precise, let us assume that he [they] would choose between the two systems under the assumption that, in either system, he [they] would have the same probability of occupying any one of the available social positions. In this case, we could be sure that his choice would be independent of morally irrelevant selfish considerations. There- fore his choice (or his judgement of preference) between the two systems would now become a genuine moral value judgemen**t**. Of course, it is not really necessary that a person who wants to make a moral assessment of the relative merits of capitalism and of socialism should be literally ignorant of the actual social position that he does occupy or would occupy under each system. But **it is necessary that he should at least try his best to disregard this morally irrelevant piece of information when he is making his moral assessment**. Otherwise his assessment will not be a genuine moral value judgement but rather will be merely a judgement of personal preference. For short reference, the fictitious assumption of having the same proba- bility of occupying any possible social position will be called the equipm- bability postulate, whereas the entire preceding decision model based on this assumption will be called the equiprobability model of moral value judgments. We can better understand the implications of this model if we subject it to decision-theoretical analysis. Suppose the society we are considering consists of n individuals, numbered as individual 1, 2, . . . , n, according to whether they would occupy the lst (highest), 2nd (second highest), nth (lowest) social position under a given social system. Let U ,, U2, U”, denote the utility levels that individuals 1, 2, . . . , n would enjoy under this system. The individual who wants to make a moral value judgement about the relative merits of capitalism and of socialism will be called individual i. By the equiprobability postulate, individual i will act in such a way as if he assigned the same probability l/n to his occupying any particular social position and, therefore, to his utility reaching any one of the utility levels U1, U2, . . . , Um Now, under the assumed conditions, according to Bayesian decision theory, **a rational individual will always choose that particular social system that would maximise his expected utility, that is,** the quantity Wi = 1/n [summation from j=1 to n] Uj, representing **the arithmetic mean of all individual utility levels in society. We can express this conclusion also by saying that a rational individual will always use this mean utility as his social welfare function; or that he [they] will be a utilitarian, Who defines social utility as the mean of individual utilities** (rather than as their sum, as many utilitarians have done).12 Of course, this conclusion makes sense only if we assume that it is mathematically admissible to add the utilities of different individuals, that is, if we assume that interpersonal comparisons of utility represent a meaningful intellectual operation. I will try to show that this is in fact the case. In describing this equiprobability model, I have assumed that individual i, who is making a moral value judgement on the merits of the two alternative social systems, is one of the n members of the society in question. But exactly the same reasoning would apply if he were an interested outsider rather than a member. Indeed, for some purposes it is often heuristically preferable to restate the model under this alternative assumption. Yet, once we do this, our model becomes a modern restate- ment of Adam Smith’s theory of an impartially sympathetic observer. His impartiality requirement corresponds to my equiprobability postulate, whereas his sympathy requirement corresponds to my assumption that individual i will make his choice in terms of interpersonal utility compar- isons based on empathy with various individual members of society (see section 5). **This equiprobability model of moral value judgements gives us both a powerful analytical criterion and a very convenient heuristic criterion for deciding practical moral problems. If we want to decide between two alternative moral standards A and B, all we have to do is ask ourselves the question, ‘Would I prefer to live in a society conforming to standard A or in a society conforming to standard B? - assuming I would not know in advance what my actual social position would be in either society but rather would have to assume to have an equal chance of ending up in any one of the possible positions**.’ Admittedly, this criterion - or any conceivable moral criterion - will still leave each of us with the great moral responsibility, and the often very difficult intellectual task, of acrually choosing between these two alterna- tive moral standards in terms of this criterion. But by using this criterion we will know at least what the actual intellectual problem is that we are trying to solvein choosing between them. My equiprobability model was first published in 1953, and was ex- tended in 195 5.13 Vickrey had suggested a similar idea,“ but my work was independent of his. Later **John Rawls again independently proposed a very similar model, which he called the ‘original position’**, based on the ‘veil of ignorance’.'5 But while my own model served as a basis for a utilitarian theory, Rawls derived very nonutilitarian conclusions from his own. Yet the difference does not lie in the nature of **the two models**, which **are based on almost identical qualitative assumptions**. Rather, the difference lies in the decision-theoretical analysis applied to the two models. One difference is that Rawls avoids any use of numerical probabilities. But the main difference is that Rawls makes the technical mistake of basing his analysis on a highly irrational decision rule, the maximin principle, which was fairly fashionable thirty years ago but which lost its attraction a few years later when its absurd practical implications were realised."5 Our model of moral value judgements can also be described as follows. Each individual has two very different sets of preferences. On the one hand, he has his personal preferences, which guide his everyday behaviour and which are expressed in his utility function U,. Most peeple’s personal preferences will not be completely selfish. But they will assign higher weights to their own interests and to the interests of their family, their friends, and other personal associates than they will assign to the interests of complete strangers. On the other hand, each individual will. also have moral preferences which may or may not have much influence on his everyday behaviour but which will guide his thinking in those - possibly very rare - moments when he forces a special impersonal and impartial attitude, that is, a moral attitude, upon himself. His **moral preferences, un- like his personal preferences, will by definition always assign the same weight to all individuals’ interests**, including his own. These moral pref- erences will be expressed by his social-Welfare function W,. Typically, dif- ferent individuals will have very different utility functions U,- but, as can be seen from Equation (1) above, in theory they will tend to have identical social-welfare functions - but only if they agree in their factual assump- tions on the nature of the individual utility functions U,- and on the con- version ratios between different individuals’ utilities (as decided by inter- personal utility comparisons) - which, of course, may not be the case.

#### 10] The mandates of the ideal agent in the hypothetical pre-empirical world cannot form reasons for us to act in the empirical world. I can always ask why I should follow what the idealized agent says I ought to do and nothing can answer that except that it appeals to my fundamental interests. But that is a prudential reason, not a moral one. Joyce[[1]](#footnote-1):

Moral inescapability is an elusive notion. **Imagine the child asking why he mustn’t pinch his play mate. The parent replies “Because it’s wrong.” The child continues “But why mustn’t I do what’s wrong?”** The parent might give an exasperated “Because you mustn’t!” It is the attempt to clarify the inadequate parental response that is the task of this chapter. Of course, **there are all sorts of kinds of reasons that the parent might give: “If you pinch** Violet Elizabeth **[Jane], then she might pinch you back” or “... then she won’t play with you” or “... then you’ll be sent to your room.” All good** (and possibly effective) **prudential reasons. But prudence,** I shall argue, **is not what underwrites moral prescriptivity. Regarding any type of prescription which can be justified on prudential grounds, we can always imagine an unusually situated or unusually constituted agent who “escapes” the prescription. Perhaps the child doesn’t want** Violet Elizabeth **[Jane] as his friend, perhaps he doesn’t mind being pinched or being sent to his room.** Or perhaps these costly consequences are things he has the power to avoid. **In such a case what becomes of the injunction against pinching? On prudential grounds, it must evaporate. But moral proscriptions do not evaporate, regardless of how we imagine the agent situated. If it is** not pinching, but **torturing that is at stake, then there is no escaping. But the thought that torturing is always proscribed on prudential grounds is just silly.** That it always is as a matter of fact is a case that might be made – but that it must be, even in situations where the philosopher gets to stipulate the costs and benefits (let’s say without breaking any laws of nature) is nothing but groundless optimism. (Morality as a kind of prudence is discussed further in later chapters:

#### 11] There is no such thing as a reason without a desire so the veil of ignorance is impossible. For something to be a reason requires that it adheres to our desires, otherwise it is merely a descriptive sentence, not a normative reason. Joyce[[2]](#footnote-2): *[tapu is a translation of term used by certain African tribes to denote something similar to a taboo]*

Back to the external reason. **Suppose** it were claimed, instead, **that I have a reason to refrain from drinking the coffee because it is tapu** and must not be touched. This reason claim will be urged regardless of what I may say about my indifference to tapu, or my citing of nihilistic desires to tempt the hand of fate. **Regardless of my desires** (it is claimed) **I ought not drink – I have a reason not to drink. But how could that reason ever explain any action of mine?** Could the external reason even explain my refraining from drinking? Clearly, **in order to explain it the external reason must have some causally efficacious role among the antecedents of the action** (in this case, an omission) – **I must have,** in some manner, **“internalized” it.** The only possibility, it would seem, consistent with its being an external reason, is that I believe the external reason claim: I believe that the coffee is tapu. There’s no doubting that such a belief can play a role in explaining actions – including my refraining from drinking the coffee. The question is whether the belief alone can produce action, to which the correct answer is “No.” A very familiar and eminently sensible view says **that in order to explain an action the belief must couple with desires** (such that those same desires had in the absence of the belief would not have resulted in the action). And this seems correct: **if I believe that the coffee is tapu but really just don’t care about that, then I will not refrain from drinking it. So in order for the belief to explain action it must couple with desiderative elements – but in that case the putative external reason collapses into an internal one.**

#### Nothing is collectively owned – it is arbitrary and impractical

**Feser 5 [**Edward Feser (associate professor of philosophy at Pasadena City College). “There is no such thing as unjust initial acquisition.” Jan 2005. Social Philosophy and Policy. <https://doi.org/10.1017/S0265052505041038>**]**

Of course, this raises the question of how exactly we come collectively to own all resources, which leads us to the second point. Those who object to Nozick’s assumption that resources start out unowned8 typically rest content with noting that there are alternative possibilities, especially the possibility that resources start out commonly owned, as if the mere existence of this alternative casts doubt on Nozick’s assumption—indeed, as if merely noting the possibility of common ownership were enough to establish its actuality. But why is the assumption of common ownership of resources any less in need of justification than the assumption that resources are unowned? Why should we regard the former assumption, and not the latter, as the default assumption to make?

Surely the reverse is true: the claim that we all own everything is more in need of justification than the claim that no one initially owns anything. Surely such a claim is not merely unjustified, but counterintuitive, even mysterious. Consider the following: a pebble resting uneasily on the surface of the asteroid Eros as it orbits the sun, a cubic foot of molten lava churning a mile below the surface of the earth, one of the polar icecaps on Mars, an ant floating on a leaf somewhere in the mid-Pacific, or the Andromeda galaxy. It would seem odd in the extreme to claim that any particular individual owns any of these things: In what sense could Smith, for example, who like most of the rest of us has never left the surface of the earth or even sent a robotic spacecraft to Eros, be said to own the pebble resting on its surface? But is it any less odd to claim we all own the pebble or these other things? Yet the entire universe of external resources is like these things, or at least (in the case of resources that are now owned) started out like them—started out, that is to say, as just a bunch of stuff that no human being had ever had any impact on. So what transforms it into stuff we all commonly own? Our mere existence? How so? Are we to suppose that it was all initially unowned, but only until a group of Homo sapiens finally evolved on our planet, at which point the entire universe suddenly became our collective property? (How exactly did that process work?) Or was it just the earth that became our collective property? Why only that? Does something become collective property only when we are capable of directly affecting it? But why does everyone share in ownership in that case—why not only those specific individuals who are capable of affecting it: for example, explorers, astronauts, or entrepreneurs? It is, after all, never literally “we” collectively who discover Antarctica, strike oil, or go to the moon, but only particular individuals, together perhaps with technical assistance and financial backing provided by other particular individuals. Smith’s being the first to reach some distant island and build a hut on it at least makes it comprehensible how he might claim—plausibly or implausibly—to own it. This fact about Smith gives some meaning to the claim that he has come to own it. But it is not at all clear how this fact would give meaning to the claim that Jones, whom Smith has never met or even heard of, who has had no involvement in or influence on Smith’s journey and homesteading, and who lives thousands of miles away (or even years in the future), has also now come to own it. Still less intelligible is the claim that Smith’s act has given all of us—the human race collectively, throughout all generations—a claim to the island.

Whatever objections one might raise against Locke’s “labor-mixing” theory of property,9 it at least provides the beginnings of a story that makes it clear how anyone can come to own something. Locke’s initial acquirer does, after all, do something to a specific resource, and does it with something he already owns (his labor), so that it is at least not mysterious why one might suppose he comes to own the resource, whether or not one thinks that this supposition is ultimately defensible. The common-ownership assumption, by contrast, appears to suppose that we can, all together, simply and peremptorily come to own everything without having to lift a finger— or worse, that we don’t come to own it at all, but just do own it—the pebble on Eros, Andromeda, and all the rest. Surely it is the common-ownership advocate who has the greater burden of proof!

There is another problem with the common-ownership assumption besides its lack of support, namely, that it seems irremediably indeterminate. Indeed, at first sight it appears vacuous. If everyone has an equal right to every part of the world, how does this differ exactly from Nozick’s assumption that everything is initially unowned—an assumption on which, too, everyone has an equal right to everything (since no one, at the start anyway, has any right to anything in particular at all)? Ownership, that is to say, seems to imply exclusion. Your (or even our) owning something implies that there are others who do not own it; thus, it appears that we cannot intelligibly all own something, much less everything. This is no doubt (part of ) why Locke, though he held that God initially gave the world to mankind in common, also held that individuals can acquire portions of it for their exclusive use. Initial common “ownership” in the Lockean sense entails only that the various resources constituting the world are initially “up for grabs”; for these resources truly to become anyone’s property in any meaningful sense, specific individuals actually have to go out and do something with them.

The problem, then, is that if everyone owns everything, no one owns anything. This remains true if we take not a Lockean construal of common ownership, but a construal on which one must get the permission of every other human being, as co-owners of the world, to use any part of the world—what Cohen calls the “joint ownership” interpretation of common ownership.10 In what sense do you own something if no one is in principle excluded from it, if everyone has a say over everything and anything you seek to do with it? 11 One’s “ownership” becomes purely formal and practically useless. This joint-ownership construal also has the difficulty that it is incompatible with any substantial (as opposed to formal) form of self-ownership, since, given that I cannot so much as move without using parts of the external world, it entails that I cannot do anything with my self-owned powers without the permission of everyone else.12 And it is, of course, for this reason wildly impractical. These considerations would seem to tell decisively against the assumption that resources are initially commonly owned (in the joint-ownership sense at least), even if there were some reason to believe this assumption, which (as I have suggested) there is not.

#### Private appropriation doesn’t disadvantage developing nations and the alt is worse.

**Reinstein, 99** -- JD, Associate, Kirkland & Ellis  [Ezra J., Owning Outer Space, 20 Nw. J. Int'l L. & Bus. 59, 1999, <https://scholarlycommons.law.northwestern.edu/njilb/vol20/iss1/7>, accessed 7-10-21]

B. Problem: What about the concerns of **developing nations**?

Developing nations have reason to oppose incorporating rights of ownership into the property regimes governing international zones. First, developing nations do not want to be permanently disadvantaged just because they lag in space-capability right now. This is an extremely potent critique, and will be discussed momentarily. The second rationale is more historical. It is a deep-seated distrust of colonial imperialist doctrine such as that which the world faced in previous centuries. It is a readily understandable distrust: most, if not all developing nations were harmed by European nations who treated the non-European lands as theirs for the taking. The difference here, however, is that there are no (known) occupants native to outer space.92 The colonialist "right of grab" policy was morally objectionable because it ignored the property rights (and other rights) of those already occupying the "discovered" lands.93 In the absence of prior existing property rights, however, there seems to be nothing inherently immoral about a right of grab. Except, perhaps, that it may severely disadvantage the lower-tech nations in future. Developing nations fear that by the time they gain the wealth and technology necessary to become players in the space game, the most readily available resources will have already been claimed as private property and be under sovereign control of other nations. The developing nations argue that they will again be left in the economic lurch. This argument against a right-of-grab-based system gains salience when one considers that the reason the developing nations are not yet space-capable may well be attributable to past wrongs the developed nations inflicted on them. The perpetuation of past wrongs thus makes the right of grab doubly objectionable in the eyes of developing nations. There are two short answers to this concern. First, the universe, for practical purposes, is **not finite**. Whenever developing nations become space-capable, there will be **plenty of available unused space real estate**. Second, corporations based in space-incapable nations could, of course, **contract** out to a space launch company from a **space-capable nation**. Developing nations can **take advantage of space development** without **themselves** being **space-capable**. Perhaps less straightforward is the notion that ownership rights, by **incentivizing the development of outer space**, would **fund intense R&D of launch technology**. Launches would become more **reliable** and **cheaper**. In this way, ownership rights might **hasten the day** that developing nations are able to afford hiring a launch company, or even to have **their own space programs** (see infra section VII (b)). Nevertheless, developing nations will likely continue to oppose rights of ownership in space. This is a political problem, and requires a political solution. For further discussion on this point, see section VII, infra. We can learn how not to solve the problem from the legal and diplomatic wrangling that has been going on regarding mining of Earth's deep seabed. Exploitation of the deep seabed, like exploitation of space, is a **very risky and expensive proposition**. And the deep seabed, like space, is considered an international zone. In December, 1982, 120 nations signed the LOS.94 The LOS establishes an "Authority" and an "Enterprise." 95 Mining companies must receive approval from the Authority. Approval, in the form of a license, is only granted if the applicant company satisfies a set of rigorous conditions. The applicant must present two sites of equal value, one of which will be reserved by the Authority for development by the Enterprise.96 The applicant must fully disclose information regarding mining equipment, methods, and technology.97 The applicant must pay an initial sum of $500,000, an annual fee of $1 million until production begins, and (once mining has begun) either $1 million or a percentage of the market value of recovered materials, whichever is greater.9 Finally, and in addition to any domestic taxes incurred, the Authority levies 35 to 70 percent of the net profits.99 The United States, along with several other industrialized nations including the Federal Republic of Germany, France, Great Britain, Japan, and the Soviet Union, refused to ratify the LOS because of the deep seabed mining provisions.'0° There was a strong perception that the treaty's harsh regulations were an attempt to ruin commercial mining projects that would be in potential competition with the dry-land mines of developing nations. As Marne A. Dubs, spokesperson on seabed mining for the American Mining Congress, saw it, if the LOS was enforced "there will be no U.S. ocean mining industry."'O' Instead, the United States passed a domestic law, the Deep Seabed Hard Mineral Resources Act, which recognized the rights of U.S. mining ventures to the **full profits of their labors**. 02 If space law follows the LOS's lead and asks developed nations to make similarly-excessive sacrifices for the benefit of developing nations, the same political impasse with the **resultant disparate** and **incoherent legal regimes** will no doubt reoccur.

AND

#### Aff doesn’t solve – there’s still inequality in the status quo, it’s not functionally different if bezos has 100 billion or 1 trillion, at least we provide the possibility of making everyone’s lives better.

1. Joyce, Richard. Myth of Morality. Port Chester, NY, USA: Cambridge University Press, 2002. p 31. [↑](#footnote-ref-1)
2. Joyce, Richard. Myth of Morality. Port Chester, NY, USA: Cambridge University Press, 2002. p 109-110. [↑](#footnote-ref-2)