

NEG CASE

I negate: The appropriation of outer space by private entities is unjust. I value justice, because the resolution concerns the justness of a state action. The criterion is maximizing well being, prefer because:

[1] Pleasure and pain are intrinsically valuable. People consistently regard pleasure and pain as good reasons for action. Moen 16 [Ole Martin Moen, Research Fellow in Philosophy at University of Oslo “An Argument for Hedonism” Journal of Value Inquiry (Springer), 50 (2) 2016: 267–281] GI

I think several things should be said in response to Moore's challenge to hedonists. First, I do not think the burden of proof lies on hedonists to explain why the additional values are not intrinsic values. If someone claims that X is intrinsically valuable, this is a substantive, positive claim, and it lies on him or her to explain why we should believe that X is in fact intrinsically valuable. Possibly, this could be done through thought experiments analogous to those employed in the previous section. Second, there is something peculiar about the list of **additional intrinsic values** that counts in hedonism's favor: the listed values have a strong **tendency to be well explained as things that help promote pleasure and avert pain.** To go through Frankena's list, **life** and **consciousness** are necessary presuppositions for pleasure; **activity**, health, and strength **bring about pleasure;** and happiness, beatitude, and contentment are regarded by Frankena himself as “pleasures and satisfactions.” The same is arguably true of beauty, harmony, and “proportion in objects contemplated,” and also of affection, friendship, harmony, and proportion in life, experiences of achievement, adventure and novelty, self-expression, good reputation, honor and esteem. Other things on Frankena's list, such as understanding, wisdom, freedom, peace, and security, although they are perhaps not themselves pleasurable, are important means to achieve a happy life, and as such, they are things that hedonists would value highly. Morally good dispositions and virtues, cooperation, and just distribution of goods and evils, moreover, are things that, on a collective level, contribute a happy society, and thus the traits that would be promoted and cultivated if this were something sought after. To a very large extent, the intrinsic values suggested by pluralists tend to be hedonic instrumental values. Indeed, pluralists' suggested intrinsic values all point toward pleasure, for while the other values are reasonably explainable as a means toward pleasure, pleasure itself is not reasonably explainable as a means toward the other values. Some have noticed this. Moore himself, for example, writes that though his pluralistic theory of intrinsic value is opposed to hedonism, its application would, in practice, look very much like hedonism's: “Hedonists,” he writes “do, in general, recommend a course of conduct which is very similar to that which I should recommend.”²⁴ Ross writes that “[i]t is quite certain that by promoting virtue and knowledge we shall inevitably produce much more pleasant consciousness. These are, by general agreement, among the surest sources of happiness for their possessors.”²⁵ Roger Crisp observes that “those goods cited by non-hedonists are goods we often, indeed usually, enjoy.”²⁶ What Moore and Ross do not seem to notice is that their observations give rise to two reasons to reject pluralism and endorse hedonism. The first reason is that “if the suggested non-hedonic intrinsic values are potentially explainable by appeal to just pleasure and pain (which, following my argument in the previous chapter, we should accept as intrinsically valuable and disvaluable), then—by appeal to Occam's razor—we have at least a pro tanto reason to resist the introduction of any further intrinsic values and disvalues. **It is ontologically more costly to posit a plurality of intrinsic values and disvalues, so in case all values admit of explanation by reference to a single intrinsic value and a single intrinsic disvalue, we have reason to reject more complicated accounts.**” The fact that suggested non-hedonic intrinsic values tend to be hedonistic instrumental values does not, however, count in favor of hedonism solely in virtue of being most elegantly explained by hedonism; it also does so in virtue of creating an explanatory challenge for pluralists. The challenge can be phrased as the following question: If the non-hedonic values suggested by pluralists are truly intrinsic values in their own right, then why do they tend to point toward pleasure and away from pain?²⁷

[2] Moral uncertainty means preventing extinction should be our highest priority. Bostrom 12 [(Nick Bostrom, Faculty of Philosophy & Oxford Martin School University of Oxford) “Existential Risk Prevention as Global Priority.” Global Policy, 2012] TDI

These **reflections on moral uncertainty** suggest an alternative, complementary way of looking at existential risk; they also suggest a new way of thinking about the ideal of sustainability. Let me elaborate. ¶ Our **present understanding** of axiology **might well be confused.** We may not now know — at least not in concrete detail — what outcomes would count as a big win for humanity; we might not even yet be able to imagine the best ends of our journey. If we are indeed profoundly **uncertain about our ultimate aims,** then we should **recognize that there is a great option value in preserving** — and ideally improving — our **ability to recognize value and to steer the future** accordingly. Ensuring that there will be a **future version of humanity** with great powers and a propensity to **use them wisely** is plausibly the best way available to us to increase the probability that the future will contain a lot of value. To do this, we must **prevent any existential catastrophe.**

Prefer-

1~ Bindingness— I could put my hand on a hot stove and I'd automatically pull it back before a signal is sent to my brain— Anything else fails to be morally binding because one could always ask "why not?"

2~Degrees of wrongness – only consequentialism can explain why breaking a promise to take someone to the hospital is worse than breaking a promise to play video games – absolutist frameworks fail because you can't weigh between violations of framework That outweighs:

3~ Extinction first under any framework

A~ Future lives — trillions of future lives are lost. They are just as valuable as current ones – anything else says some lives are worth less than others which is genocidal rhetoric

B~ Reversibility — extinction forecloses future improvement; prefer — if we're unsure about which interpretation of the world is true, we should preserve it to figure things out.

Innovation

Commercialization is driving innovation now - Weeden 15

<https://spacenews.com/op-ed-american-leadership-in-space-2-0/>

The main driver for this new leadership is the commercial space sector, not the U.S. government. Instead of attempting to recapture "Space 1.0" leadership by focusing purely on stronger U.S. government space programs, another possible strategy is to develop a "Space 2.0" approach and focus on encouraging, shaping and leveraging the commercial space sector to help propel it into the future.

This new leadership approach is possible because we are currently in the beginnings of a revolution in commercial space activities. The revolution is based on a potent combination of Moore's Law, spin-in technologies from the information technology (IT) sector, and cloud computing, that has enabled small-satellite technology to change the price/performance ratio, fueled by a significant infusion of private venture capital. These drivers have spurred the creation of dozens of new American space companies and a rekindling of competitive spirit in many legacy companies. The end result has been an infusion of fresh ideas, new approaches, increased innovation and new excitement in the space world. Although it's uncertain which commercial space companies will emerge from the competition and actually make it to space, we know for certain that humanity as a whole will benefit. The commercial revolution in space is radically reducing the costs of accessing data and services from satellites. While simultaneously increasing the amount, frequency and quality of information gathered. At the same time, improved analytics are being developed to turn the raw data into useful information and increasing accessibility to a wider number of users. That in turn leads to more "eyeballs" examining and investigating data, which leads to more [and] new insights and applications that no one else thought of. The end result

is going to be vastly more knowledge about the world we live in and socioeconomic benefits we cannot even dream of today....It should be obvious that

stopping, or even controlling, the commercial space revolution is not a useful public policy option. Most of the technology driving the revolution comes from smartphones, cloud computing and the broader IT sector. That technology is already globalized, and Cold War technology transfer restrictions are increasingly ineffective in controlling space technology.

Putting in place stricter policy restrictions or prohibitions on what commercial companies can do in space will only create greater incentives for the companies to relocate to other countries that might have more attractive policies. The end result would be the same global access to the capabilities, even less U.S. government ability to control them, and the loss of the economic benefits from a robust domestic industry. Of all the countries in the world, the United States is best placed to be able to fully leverage the benefits from a robust commercial space sector. It was the birthplace of the computer revolution, and is the global leader in information technology. It has a strong legal system for protecting intellectual property rights while simultaneously encouraging robust competition. It is the U.S. commercial space industry, not government space programs, that will truly play to America's strengths in a more competitive environment. There are agencies within the U.S. government that have already embraced this approach. One standout is the National Geospatial-Intelligence Agency (NGA). Under the leadership of Robert Cardillo, NGA is implementing a new strategy to find and exploit the innovations of the private sector, and increase the data and products it releases publicly. NGA understands that the only way it can succeed in a more complex and dynamic world is by staying ahead of technology

trends, which in turn means embracing private-sector innovation. The rest of the U.S. government should follow NGA's lead and continue to implement the elements of the Obama administration's 2010 National Space Policy that encourage, foster and leverage the commercial space revolution. The focus should be on putting in place policies that will enabl[ing] the U.S. commercial sector to innovate even faster, ensuring that it will continue to outpace foreign competition and foreign government programs. Where necessary, the U.S. government should be funding basic research and development R&D, incentivizing industrial R&D, and helping new technologies move through the "valley of death" from basic research toward commercialization. It should be looking at how commercial products and services can complement, or even replace, government-only programs. And at the same time it should be watching out for the public good and putting in place minimal oversight functions to ensure a sustainable, reliable and predictable space environment that allows private investment to flourish.

Appropriation is key to sustained investment in the space economy- Brehm '15

<https://uwlax-omeka.s3.us-east-2.amazonaws.com/original/85c099453455f8163454cd946f8762427c1a910f.pdf>

Wayne White's treaty proposal creates a strong foundation for international discussion of the increasingly important issue of private property acquisition in outer space. White's well-crafted treaty proposal seeks to advance private exploration of outer space within the regulatory framework of the Outer Space Treaty and existing international space law. By creating a system in which private entities can establish real property rights in their space objects and a surrounding safety zone, the proposal incentivizes private investment of large sums into space exploration programs. Provisions which authorize the right to exclude, the right to be free from interference, the exclusive right to appropriate resources within an established safety zone, and the right to sell real property further encourage private space exploration and create strong associated incentives.⁷ Private space exploration and resource extraction entities allocate substantial investments in furtherance of their space programs.⁸ Allowing such entities to mine valuable platinum group resources, as well as water and hydrogen in celestial bodies that can be used to propel deeper space exploration, not only provides a robust safety net for current space exploration entities, and but also creates a system that encourages new entities to enter into the field of private space exploration. Increased space exploration across the board would have nearly unlimited benefits in terms of societal, economical, and technological advancement.⁹ ... Ultimately, a combination of an international agreement that establishes a responsible system of private property acquisition in outer space and domestic legislation that recognizes such private property rights provides a meaningful framework to encourage and facilitate the future of space exploration. Such a system would give way to further space exploration and vast economic, technological, and societal improvements. Ultimately, establishing a system of private property rights in outer space through international agreement and domestic legislation would lead to a world in which the final frontier is no longer restricted to the use and exploration of only the most technologically advanced nations. Essentially, such a system would allow for free space exploration and use by all. V. CO

Space innovation is key to solving climate change.

Greg Autry, Professor of Space Leadership at Thunderbird School of Global Management, writes in 2019:

Greg **Autry 19** (Greg Autry, Clinical Professor of Space Leadership, Policy and Business at Thunderbird School of Global Management, Tech startup founder, Researcher on entrepreneurship, commercial space and economics. Former NASA Presidential Appointee. Writer & regular Forbes contributor, 2021 Space Advocate of the Year.) Space Research Can Save the Planet—Again 7-20-2019 Foreign Policy
<https://foreignpolicy.com/2019/07/20/space-research-can-save-the-planet-again-climate-change-environment/> //DebateDrills TJ

Indeed, understanding the evolution of other planets' climates is essential for modeling possible outcomes on Earth. NASA probes revealed how, roughly 4 billion years ago, a runaway greenhouse gas syndrome turned Venus into a hot, hellish, and uninhabitable planet of acid rain. Orbiters, landers, and rovers continue to unravel the processes that transformed a once warm and wet Mars into a frigid, dry dust ball—and scientists even to conceive of future scenarios that might terraform it back into a livable planet. Discovering other worlds' history and imagining their future offers important visions for climate change mitigation strategies on Earth, such as mining helium from the moon itself for future clean energy.

Spinoff technologies from space research, from GPS to semiconductor solar cells, are already helping to reduce emissions; the efficiency gains of GPS-guided navigation **shrink fuel expenditures on sea, land, and air by between 15 and 21 percent**—a greater reduction than better engines or fuel changes have so far provided. Modern solar photovoltaic power also owes its existence to space. The first real customer for solar energy was the U.S. space program; applications such as the giant solar wings that power the International Space Station have continually driven improvements in solar cell performance, and NASA first demonstrated the value of the sun for powering communities on Earth by using solar in its own facilities.

Promisingly, **space-based solar power stations could overcome the inconvenient truth that wind and solar will never get us anywhere near zero emissions because their output is inherently intermittent and there is, so far, no environmentally acceptable way to store their power at a global scale, even for one night.** **Orbital solar power stations, on the other hand, would continually face the sun, beaming clean power back through targeted radiation to Earth day or night, regardless of weather.** They would also be free from clouds and atmospheric interference and therefore operate with many times the efficiency of current solar technology. **Moving solar power generation away from Earth—already possible but held back by the current steep costs of lifting the materials into space—would preserve land and cultural resources from the blight of huge panel farms and save landfills from the growing problem of discarded old solar panels.**

Sustainable energy advocates in the U.S. military and the Chinese government are actively pursuing space-based solar power, but **just making solar cells damages the environment due to the caustic chemicals employed. Space technology offers the possibility of freeing the Earth's fragile biosphere and culturally important sites from the otherwise unavoidable damage caused by manufacturing and mining.**

The U.S. start-up Made in Space is currently taking the first steps toward manufacturing in orbit. The company's fiber-optic cable, produced by machinery on the International Space Station, is orders of magnitude more efficient than anything made on Earth, where the heavy gravity creates tiny flaws in the material. Made in Space and others are eventually planning to build large structures, such as solar power stations, in space. **As these technologies develop, they will augment each other, bringing costs down dramatically; space manufacturing, for instance, slashes the cost of solar installations in space.**

Strong Innovation solves Extinction.

Matthews 18 Dylan Matthews 10-26-2018 “How to help people millions of years from now”

<https://www.vox.com/future-perfect/2018/10/26/18023366/far-future-effective-altruism-existential-risk-doing-good> (Co-founder of Vox, citing Nick Beckstead @ Rutgers University)//Re-cut by Elmer

If you care about improving human lives, you should overwhelmingly care about those quadrillions of lives rather than the comparatively small number of people alive today. **The 7.6 billion people now living**, after all, **amount to less than 0.003 percent of the population that will live in the future**. It's reasonable to suggest that those **quadrillions of future people have**, accordingly, **hundreds of thousands of times more moral weight than those of us living here today do**. That's the basic argument behind Nick Beckstead's 2013 Rutgers philosophy dissertation, “On the overwhelming importance of shaping the far future.” It's a glorious mindfuck of a thesis, not least because Beckstead shows very convincingly that this is a conclusion any plausible moral view would reach. It's not just something that weird utilitarians have to deal with. And Beckstead, to his considerable credit, walks the walk on this. He works at the Open Philanthropy Project on grants relating to the far future and runs a charitable fund for donors who want to prioritize the far future. And arguments from him and others have turned “long-termism” into a very vibrant, important strand of the effective altruism community. But what does prioritizing the far future even mean? **The most literal thing it could mean is preventing human extinction**, to ensure that the species persists as long as possible. For the long-term-focused effective altruists I know, that typically means identifying concrete threats to humanity's continued existence — like unfriendly artificial intelligence, or a pandemic, or global warming/out of control geoengineering — and engaging in activities to prevent that specific eventuality. **But** in a set of slides he made in 2013, Beckstead makes a compelling case that **while that's certainly part of what caring about the far future entails, approaches that address specific threats to humanity** (which he calls “**targeted**” approaches to the far future) **have to complement “broad” approaches, where instead of trying to predict what's going to kill us all, you just generally try to keep civilization running as best it can, so that it is, as a whole, well-equipped to deal with potential extinction events in the future**, not just in 2030 or 2040 but in 3500 or 95000 or even 37 million. **In other words, caring about the far future doesn't mean just paying attention to low-probability risks of total annihilation; it also means acting on pressing needs now**. For example: **We're going to be better prepared to prevent extinction from AI or a supervirus or global warming if society as a whole makes a lot of scientific progress**. And a **significant bottleneck there is that the vast majority of humanity doesn't get high-enough-quality education to engage in scientific research**, if they want to, which **reduces the odds that we have enough trained scientists to come up with the breakthroughs we need as a civilization to survive and thrive**. **So maybe one of the best things we can do for the far future is to improve school systems — here and now — to harness the group economist Raj Chetty calls “lost Einsteins” (potential innovators who are thwarted by poverty and inequality in rich countries) and, more importantly, the hundreds of millions of kids in developing countries dealing with even worse education systems than those in depressed communities in the rich world**. What if living ethically for the far future means living ethically now? Beckstead mentions some other broad, or very broad, ideas (these are all his descriptions): Help make computers faster so that people everywhere can work more efficiently Change intellectual property law so that technological innovation can happen more quickly Advocate for open borders so that people from poorly governed countries can move to better-governed countries and be more productive Meta-research: **improve incentives and norms in academic work** to better advance human knowledge Improve education Advocate for political party X to make future people have values more like political party X “If you look at these areas (economic growth and technological progress, access to information, individual capability, social coordination, motives) a lot of everyday good works contribute,” Beckstead writes. “An implication of this is that a lot of everyday good works are good from a broad perspective, even though hardly anyone thinks explicitly in terms of far future standards.” Look at those examples again: It's just a list of what normal altruistically motivated people, not effective altruism folks, generally do. Charities in the US love talking about the lost opportunities for innovation that poverty creates. Lots of smart people who want to make a difference become scientists, or try to work as teachers or on improving education policy, and lord knows there are plenty of people who become political party operatives out of a conviction that the moral consequences of the party's platform are good. All of which is to say: Maybe effective altruists aren't that special, or at least maybe we don't have access to that many specific and weird conclusions about how best to help the world. **If the far future is what matters, and generally trying to make the world work better is among the best ways to help the far future, then effective altruism just becomes plain ol' do-goodery.**

CLASH-

Extinction is a form of structural violence

- 1) extinction IS structural violence – per the aff, minorities/the oppressed are the first to go meaning preventing extinction solve structural violence
- 2) extinction turns ethic of care – disregarding extinction means we no longer respect the minorities the aff is striving to help – ALL forms of life die when
- 3) Extinction is irreversible and forecloses future improvement – which means its impossible to rectify structural skews if we are dead
- 4) Structural violence as a value criterion/FW causes you judge to have to weigh which forms of oppression are worse,

Meaning preventing extinciton should b our highest priority now onto the aff
On their first contention

Asteroid mining solves climate change, resource shortages, and environmental degradation Hlimi 14 [Tina Hlimi, Canadian lawyer with a Bachelors and Masters Degrees in Environmental Sciences from McGill University, 2014, "THE NEXT FRONTIER: AN OVERVIEW OF THE LEGAL AND ENVIRONMENTAL IMPLICATIONS OF NEAR-EARTH ASTEROID MINING," ANNALS OF AIR AND SPACE LAW, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2546924]/Kankee

THE ENVIRONMENTAL BENEFITS OF NEAR EARTH ASTEROID HARVESTING Let us recapitulate what we have already found. Shortage of resources is not a fact; it is an illusion born of ignorance. Scientifically and technically feasible improvements in launch vehicles will make departure from Earth easy and inexpensive. Once we have a foothold in space, the mass of the asteroid belt will be at our disposal, permitting us to provide for the material needs of a million times as many people as Earth can hold. Solar power can provide all the energy needs of this vast civilisation (10,000,000 billion people) from now until the Sun expires. Using less than one percent of the helium-3 energy resources of Uranus and Neptune for fusion propulsion, we could send a billion interstellar arks, each containing a billion people, to the stars. There are about a billion Sun-like stars in our galaxy. We have the resources to colonise the entire Milky Way. 122 In addition to demystifying the legal doctrine governing outer space natural resource appropriation it is also necessary to weigh the benefits and detriments of space-faring activities. Foremost, States around the world are developing at unprecedented rates and the human population is mounting in conjunction with demand for natural resources to sustain the current and newly established western standard of living. One of the fastest growing nations, China, is experiencing unhindered growth facilitated by fossil fuel use from coal and extensive mining. This has caused substantial water, soil and air degradation. In the face of these troubles, NEA mining could be the key to preserving the Earth's bounty and replenishing contaminated water supplies. The influx of natural resources could thwart the burning of dirty coal and fossil fuels, thereby mitigating the effects of climate change, such as, rising sea level, atmospheric pollution, melting of sea ice and rising temperatures. NEA harvesting could also protect the ocean and the fragile and largely unexplored deep seabeds 123 from oil and gas drilling. It could furthermore protect ecosystems from rare-earth mineral mining predominantly used to fuel the electronics sector. 124 NEA mining is especially pertinent as China restricted its global exports of rare-earth minerals in 2009, incongruously citing the need to protect the environment. Unfortunately, the supply cuts have forced dependent States like Japan, the United States and South Korea to heighten rare-Earth mineral exploration. This accordingly led to Japan's 2011 discovery of rare-earth minerals in the ocean-bed deposits of the Pacific Exclusive Economic Zone (PEEZ) thereby necessitating risky, deep-sea mining techniques, which may result in marine pollution if not carefully designed and developed. Other States, which have joined the environmentally destructive rare-earth mineral exploration movement include India, Canada, Tanzania, Australia, Brazil and Vietnam., There is accordingly much competition and exploration for rare-earth minerals which could result in significant exploitation of untouched areas like the PEEZ seabed and Mongolia.125 Other regions which may soon be targeted for mineral and hydrological resources include Antarctica and the Arctic. With the advent of technological advances, environmentally destructive practices such as refining may soon occur in outer space, sparing the Earth of pollution. 126 Accordingly, NEA mining is a viable technology for preserving the Earth's environment by curbing atmospheric and marine pollution, enhancing water supply and quality and mitigating the effects of climate change; all while allowing humankind to maintain and even improve their standard of living through increased technologies, consumption and population growth. B. THE ENVIRONMENTAL CONSEQUENCES OF NEAR EARTH ASTEROID MINING

2NR-

you are voting negative because we will _____ which outweighs and turns the aff case because extinction comes first but just