I negate the resolved: The appropriation of outer space by private entities is unjust.

The highest value for today’s round is life. Saving lives must be the highest priority, as death is the worst outcome one can experience, it is irreversible, and it prevents any other positive outcomes from being experienced.

**More 2004**

ADAM MOORE [Department of Philosophy and Information School, University of Washington. “Values, Objectivity, and Relationalism” The Journal of Value Inquiry 38: 75–90, 2004.] “Understanding the distinction…better, and worse possible.”

Understanding the distinction between relational and non-relational value is difficult. In one sense, it would seem that all **value is relational because it must be linked to a living entity.** On this view living entities capable of **experiencing** differentstates of **the world [is]** would be **a necessary condition** forthe very existence **of value. If there were no living entities, then no values would exist. Externalists deny this** claim holding that value could exist absent the existence of living entities.23 **But if to value is to endorse** in some fashion**, such endorsement** would **necessitate[s]** theprior existence of **an endorser. We call a state** of the world **morally valuable because it promotes,** furthers, or sustains **and we call a state** of the world **disvaluable because it imperils,** stagnates, or destroys. On this account, **the existence of life is what makes the notions of good**, **[and] bad**, better, and worse **possible.**

My value criterion for today’s debate is utilitarianism. This is the best criterion to evaluate the value of life upon since it recognizes the contradictions of traditional justice and morality.

**Woller 97** [Gary Woller [BYU Prof., “An Overview by Gary Woller”, A Forum on the Role of Environmental Ethics, June 1997, pg. 10]

Moreover, virtually all public policies entail some redistribution of economic or political resources, such that one group's gains must come at another group's expense. Consequently, **public policies** in a democracy **must be justified to the public,** and especially to those who pay the costs of those policies. Such **[but] justification cannot simply be assumed** a priori **by** invoking some higher-order **moral principle.** Appeals to a priori moral principles, such as environmental preservation, also often fail to acknowledge that **public policies inevitably entail trade-offs** among competing values. Thus since policymakers cannot justify inherent value conflicts to the public in any philosophical sense, and since **[they]** public policies inherently **imply winners and losers, the policymakers' duty [is]** to the public interest requires them **to demonstrate** that the redistributive effects and value trade-offs implied by **their policies are somehow to the** overall **advantage of society.**

1

Companies moving energy production outside earth will be a necessity

Ursul & Ursul 20 continue in the near space future, mankind will have to massively ship the production of energy and materials outside the planet. The main reason for the relocation of the energy and some other industries outside the Earth is related to global warming and depletion of the world’s fossil fuel and energy resources. A fundamental conclusion about the need for the future to “split” production into terrestrial, mainly agricultural and space, mainly industrial. The strategic perspective of the global-space production split is the most natural and effective one and is understandable in terms of ensuring eco and geo-security of the civilization’s existence. Space technologies in the conditions of our planet in the coming decades can have a revolutionizing effect on the entire terrestrial mining industry.

NASA benefits from collaboration with private entities

The Planetary Society. Richter, F. (2020, June 8). *Infographic: Why SpaceX is a game changer for NASA*. Statista Infographics. Retrieved January 3, 2022, from https://www.statista.com/chart/21904/estimated-cost-per-seat-on-selected-spacecraft/

As well as removing America's dependence on Russia to send its astronauts into space, the SpaceX launch was significant for anothe key reason - its cost. NASA awarded both SpaceX and Boeing contracts worth $3.1 billion and $4.8 billion, respectively, under a program called Commercial Crew to develop a new spacecraft. It resulted in the cheapest spaceflight development effort in close to 60 years and a NASA audit carried out in 2019 found that the price per seat offered by SpaceX in particular is significantly more cost effective than previous programs and even the Soyuz.

The Apollo program had a cost per seat of $390 million when adjusted for inflation according to the Planetary Society while the figure for the Space Shuttle comes in at $170 million. The NASA audit estimated that the per-seat cost of the SpaceX Crew Dragon comes to $55 million while Boeing's Starliner adds up to $90 million. Not a bad deal for American taxpayers by any stretch. What about the Russian option? SpaceX is also considerably cheaper than the 12 trips NASA paid Russia for since 2017 that worked out at approximately $80 million per seat.

**With private entities able to appropriate areas in outer space, we find greater likelihood that they collaborate technologically with public organizations due to the mutually beneficial nature of the relationship.**

NASA’s technology and resources help solve the climate crisis

Smith, H. (2019). *NASA turns technology back toward Earth to focus on climate change*. Phys.org. Retrieved January 4, 2022, from https://phys.org/news/2021-10-nasa-technology-earth-focus-climate.html

NASA is turning its technology back toward Earth to study the effects of drought, fire and climate change on the Blue Planet. At the Jet Propulsion Laboratory in La Cañada Flintridge earlier this month, scientists and state officials gathered to discuss how satellite data, 3-D imaging and new radar and laser technologies can provide invaluable insights into Earth’s rapidly changing systems. Some said the meeting marked a sea change for previously siloed agencies, and underscored the need to work together to solve the climate crisis. "I don't want to be overly dramatic, but in truth, this discussion is about saving our planet," NASA Administrator Bill Nelson told the group of attendees, which included Earth and space scientists from NASA and JPL, local congressional representatives and California environmental secretaries Wade Crowfoot and Jared Blumenfeld.Upcoming Earth-centric missions will provide a more precise look than ever before at "everything that's happening" with the oceans, the land and the atmosphere, NASA Administrator Bill Nelson said. Among the big-ticket items were new tools to measure snowpack and groundwater, satellites to monitor methane emissions and remote sensing assets to assess the impact of hazards such as wildfires, earthquakes and mudslides. "We're facing an existential crisis on this planet," said Crowfoot, the state's natural resources secretary. "These challenges are intense. ... But there's no better place than California to do this work, because we understand the gravity of the threat." The meeting between California and federal officials was a far cry from 2018, when — frustrated by the Trump administration's efforts to scuttle climate research — then-Gov. Jerry Brown insisted that California would launch "our own damn satellite, to figure out where the pollution is and how are we going to end it." Now, three years later, Californians need only look out their windows to get a sense of what scientists can observe from above. Wildfires are burning record acreage across the West, while worsening drought is draining the region’s water supplies to unseen levels. The state also recorded its hottest summer ever in 2021. Many at the meeting hoped NASA and JPL's findings would help combat global warming by informing decision-makers as they determine the best paths forward. "It's really a game-changer to be able to have this data," NASA Deputy Administrator Pam Melroy said, noting that the U.S. can also lead the rest of the world in utilizing the same tools. "Because we'll never solve climate until everybody is a participant."

**NASA reaping financial benefits from the appropriation of outer space since they can ultimately direct more money to their own areas of focus.**

Subpoint d. The impact is climate disaster

Adrian Parr, 2013. Associate Professor of Philosophy and Environmental Studies at the University of Cincinnati. *The Wrath of Capital: Neoliberalism and Climate Change Politics*. Columbia University Press. 145-7.

A quick snapshot of the twenty-first century so far: an economic meltdown; a frantic sell-off of public land to the energy business as President George W Bush exited the White House; a prolonged, costly, and unjustified war in Iraq; the Greek economy in ruins; an escalation of global food prices; bee colonies in global extinction; 925 million hungry reported in 2010; as of 2005, the world's five hundred richest individuals with a combined income greater than that of the poorest 416 million people, the richest 10 percent accounting for 54 percent of global income; a planet on the verge of boiling point; melting ice caps; increases in extreme weather conditions; and the list goes on and on and on.2 Sounds like **a ticking time bomb**, doesn't it? Well it is.

It is shameful to think that massive die-outs of future generations will put to pale comparison the 6 million murdered during the Holocaust; the millions killed in two world wars; the genocides in the former Yugoslavia, Rwanda, and Darfur; the 1 million left homeless and the 316,000 killed by the 2010 earthquake in Haiti. The time has come to wake up to the warning signs.3

The real issue climate change poses is that we do not enjoy the luxury of incremental change anymore. We are in the **last decade** where we can do something about the situation. Paul Gilding, the former head of Greenpeace International and a core faculty member of Cambridge University's Programme for Sustainability, explains that "two degrees of warming is an inadequate goal and a plan for failure;' adding that "returning to below one degree of warming . . . is the solution to the problem:'4 Once we move higher than 2°C of warming, which is what is projected to occur by 2050, **positive feedback mechanisms** will begin to kick in, and then we will be at the **point of no return.**

**2**

#### **Private corporations are currently more effective at space mining R&D than public organizations.**

**Cristea 16 [Emil Cristea, US Air Force, “Planetary Defense,” Air Command and Staff College,** [**https://apps.dtic.mil/sti/pdfs/AD1031581.pdf**](https://apps.dtic.mil/sti/pdfs/AD1031581.pdf)**] /Triumph Debate**

**The development of space technologies for other purpose than planetary defense such as asteroid mining is very important because, indirectly, those technologies can be used in deflecting or destroying asteroids. A high financial return constitutes a good incentive for governments and especially for private business. Because the main goal of private companies is profit, the speed of developing and testing space related technologies could be significantly higher than a governmental led program and is very likely that they may develop a solution for planetary defense. United States is leading in space private investments**

**Rare earth metals are abundantly available via asteroid mining**

**MN. (2020,** January 31)**. *Asteroid mining could solve rare metal shortage*. Manufacturing.net. Retrieved January 18, 2022, from https://www.manufacturing.net/technology/blog/21113380/asteroid-mining-could-solve-rare-metal-shortage#:~:text=Metallic%20asteroids%20are%20primarily%20iron%20and%20nickel%2C%20but,times%20higher%20than%20what%20is%20found%20on%20Earth.**

**The world demand for rare and precious metals is growing, and** a mix of political turmoil and natural scarcity are contributing to fears that the [**global supply will be unable to keep up.**](http://tracking.vuelio.co.uk/tracking/click?d=3Fwrw5dNGXhiTKV7j1N-VsX8Jmt4HMhvn1bjd_NKnMhonrRR2S6HgDBGxyt7L6poeZ8pX9hI7Z3jL3Kc3SMwpw7vX_4PZqS0JfF9JTJYl9U9f_sk8Txvdvwvm8Gw5hHFLXarAqesC9DRrlwej9PILivBCcDRo5DfKgN1-NB0nZrb0) **As supplies dwindle, demand grows, and prices rise, the new private company-based space race might offer a solution to the shortage. Asteroid mining would require major investments in new technologies, but there has been enough interest that companies have been formed to prospect for asteroids to harvest. Asteroids can be grouped broadly into those that are primarily carbonaceous, silicates, or metallic. Metallic asteroids** are primarily iron and nickel, bu**can contain rare metals like platinum, gold, iridium, palladium, osmium, ruthenium and rhodium at concentration several times higher than what is found on Earth.** A .single asteroid could be worth hundreds of millions of dollars, or more, if humans could overcome the formidable challenge of harvesting it.

**Rare earth metal extraction on Earth catalyzes the climate crisis**

**EO**. (**2020**, July 14). *How rare-earth mining has devastated China's environment: Earth.org - past: Present: Future*. Earth.Org - Past | Present | Future. Retrieved January 18, 2022, from https://earth.org/rare-earth-mining-has-devastated-chinas-environment/

It’s challenging **to mine and process rare earths** without harming the environment. The problems are related to the two primary extraction methods.The first **involves removing the topsoil, transporting it to a leaching pond, and adding chemicals (such as ammonium sulfate and ammonium chloride) to separate out the metals. The chemicals used in this separation process can create air pollution, cause erosion, and leach into groundwater. The second processing method involves drilling holes into the ground**, inserting PVC pipes and rubber hoses and pumping chemicals to flush out earth. The resulting slurry is then pumped into leaching ponds to separate out the rare-earth metal. This method creates the same problems as with topsoil removal with the addition of the PVC pipes, rubber hoses and other sundry used by mining crews remaining littered in the mines. **Abandoned mines pose ongoing environmental hazards. Remaining chemicals can continue to leach into groundwater. Mines may also contain pools of wastewater that can potentially pour into local waterways**. For example, in its 2016 report, China Water Risk highlighted an abandoned mine in Ganzhou where untreated chemicals flow from leaching ponds when it rains. Problems in China: **The pollution resulting from rare-earth mining has created soil incapable of supporting crops and water supplies have been contaminated.**

**Resources are abundant on asteroids: solves resource depletion**

***Pelton 17*—(Director Emeritus of the Space and Advanced Communications Research Institute at George Washington University, PHD in IR from Georgetown).. Pelton, Joseph N. 2017. The New Gold Rush: The Riches of Space Beckon! Springer.**

**Near-Earth asteroids largely composed of platinum and rare earth metals have an incredible value. Helium-3 isotopes accessible in outer space could provide clean and abundant energy. There is far more water in outer space than is in our oceans. In the pages that follow we will explain the potential for a cosmic shift in our global economy, our ecology, and our commercial and legal systems. These can take place by the end of this century. And if these changes do not take place we will be in trouble. Our conventional petro-chemical energy systems will fail us economically and eventually blanket us with a hydrocarbon haze of smog that will threaten our health and our very survival. Our rare precious metals that we need for modern electronic appliances will skyrocket in price, and the struggle between “haves” and “have nots” will grow increasingly ugly. A lack of affordable and readily available water, natural resources, food, health care and medical supplies, plus systematic threats to urban security and systemic warfare are the alternatives to astral abundance. The choices between astral abundance and a downward spiral in global standards of living are stark. Within the next few decades these problems will be increasingly real. By then the world may almost be begging for new, out of- the-box thinking. International peace and security will be an indispensable prerequisite for exploitation of astral abundance, as will good government for all. No one nation can be rich and secure when everyone else is poor and insecure. In short, global space security and strategic space defense, mediated by global space agreements, are part of this new pathway to the future.**

**Climate action must be taken now or we risk extinction and global catastrophe**

**Maslin, M. (2021, November 15). *Climate change: How bad could the future be if we do nothing?* The Conversation. Retrieved January 24, 2022, from https://theconversation.com/climate-change-how-bad-could-the-future-be-if-we-do-nothing-159665**

**If the 21st century draws to a close without drastic action having been taken to prevent climate change, here is what we’re looking at: Global temperatures have risen by over 4°C. In many countries, summer temperatures persistently stay above 40°C. Heatwaves with temperatures as high as 50°C have become common in tropical countries.Air pollution has a new major cause outside the traffic-choked cities: dust whipped up from now-barren farmland. The Arctic is free of sea ice every summer. Average temperatures in the far north have risen by over 8°C as a result. The Greenland and Western Antarctic ice sheets have started to melt, releasing a huge amount of freshwater into the oceans.Most mountain glaciers have completely melted. Skiing is now a predominantly indoor sport which takes place on giant artificial slopes.** Most of the Himalayan plateau’s ice has disappeared, reducing the flows of the Indus, Ganges, Brahmaputra and Yamuna rivers which over 600 million people rely on for plentiful water.The extra heat in the ocean has caused it to expand. Combined with water from melting ice sheets, sea levels have risen by more than one meter. Many major cities, including Hong Kong, Rio de Janeiro and Miami, are already flooded and uninhabitable. The Maldives, the Marshall Islands, Tuvalu and many other small island nations have been abandoned.Food and water insecurity has increased around the world, threatening the health and wellbeing of billions of people. Extreme heat and humidity in the tropics and subtropics has increased the number of days that it is impossible to work outside tenfold – slashing farm productivity. Extreme weather in temperate regions like Europe has made food production highly unpredictable. Half of the land devoted to agriculture in the past is now unusable, and the capacity of the rest to grow food differs widely from season to season. Crop yields are at their lowest levels since the middle of the 20th century.Fish stocks have collapsed. The aci**dity of the ocean has increased by 125%. The ocean food chain has collapsed in some regions as the small marine organisms that form its base struggle to make calcium carbonate shells and so survive in the more acidic watersDespite advances in medical sciences, deaths from tuberculosis, malaria, cholera, and respiratory illnesses are at their highest levels in human history. Extreme weather events – from heat waves and droughts to storms and floods – are causing large loss of life and leaving millions of people homeless. Disease epidemics have plagued the century, spreading among populations beleaguered by widespread poverty and vulnerability.**

**Spratt and Dunlop, 19 David Spratt is a Research Director for Breakthrough National Centre for Climate Restoration, Melbourne, and co-author of Climate Code Red: The case for emergency action. Ian T. Dunlop is a member of the Club of Rome. Formerly an international oil, gas and coal industry executive, chairman of the Australian Coal Association, chief executive of the Australian Institute of Company Directors, and chair of the Australian Greenhouse Office Experts Group on Emissions Trading 1998-2000. “Existential climate-related security risk: A Scenario Approach” Breakthrough - National Centre for Climate Restoration May 2019 https://docs.wixstatic.com/ugd/148cb0\_b2c0c79dc4344b279bcf2365336ff23b.pdf**

An existential risk to civilisation is one posing permanent large negative consequences to humanity which may never be undone, either annihilating intelligent life or permanently and drastically curtailing its potential. With the commitments by nations to the 2015 Paris Agreement, the current path of warming is 3°C or more by 2100. But this figure does not include “long-term” carbon-cycle feedbacks, which are materially relevant now and in the near future due to the unprecedented rate at which human activity is perturbing the climate system. Taking these into account, the Paris path would lead to around 5°C of warming by 2100. 7 **Scientists warn that warming of 4°C is incompatible with an organised global community, is devastating to the majority of ecosystems, and has a high probability of not being stable. The World Bank says it may be “beyond adaptation”. But an existential threat may 8 also exist for many peoples and regions at a significantly lower level of warming. In 2017, 3°C of warming was categorised as “catastrophic” with a warning that, on a path of unchecked emissions, low-probability, high-impact warming could be catastrophic by 2050. 9 The Emeritus Director of the Potsdam Institute, Prof. Hans Joachim Schellnhuber, warns that “climate change is now reaching the end-game, where very soon humanity must choose between taking unprecedented action, or accepting that it has been left too late and bear the consequences.**” He says 10 that if we continue down the present path “there is a very big risk that we will just end our civilization. The human species will survive somehow but we will destroy almost everything we have built up over the last two thousand years.”