## **AC**

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

Value: Justice

**Some definitions:**

University, Santa Clara. “Justice and Fairness.” *Markkula Center for Applied Ethics*, https://www.scu.edu/ethics/ethics-resources/ethical-decision-making/justice-and-fairness/.

“Justice means giving each person what he or she deserves or, in more traditional terms, giving each person his or her due.”

**Monopoly:**

Mirriam-Webster. (N/A). *Monopoly.* Mirriam-Webster. https://www.merriam-webster.com/dictionary/monopoly

“a commodity controlled by one party”

**Appropriation is described by the Mirriam-Webster dictionary as,**

Mirriam-Webster. (N/A). *Appropriation.* Mirriam-Webster.

https://www.merriam-webster.com/dictionary/appropriation

**“**the act of taking or using something especially in a way that is illegal, unfair, etc”

Value Criteria: The veil of ignorance

Keep in mind that while explaining my framework, I will be using certain vocabulary terms to describe the state of the individual:

The term agent means people in their normal state of being

The term entity in the context of my framework is a blank slate who has not been assigned to a human body yet

The veil of ignorance is a philosophical concept where entities can change a society behind this veil in a way where they would be fine with living as any one of those agents.

Prefer this for 3 reasons:

1. We can never see from another person’s perspective so creating truths as an agent is wrong because it may not be the universal truth for every agent.
2. All moral entities act on their perception of good based on prior experiences which makes entities unable to act on the abstract concept of good. However, from the veil of ignorance, entities would be able to alter society in an abstractly good way since they don’t know what agent they are.
3. All agents act in a way that benefits them instead of what benefits humanity as a collective, but from the veil of ignorance, entities would not act in self interest because they have not been assigned a self to be interested in.

This is the only possible way to give each person their due. Reject all other frameworks because in order to be just, like the resolved requires, each person must be given their due despite implicit bias or self interest.

The affirmative burden is to prove that an entity behind the veil of ignorance would vote for the affirmative.

## **Contention 1: Monopolies**

**Private entities going into space will always lead to a monopoly.**

Davis, Griffin. (2021, May 29). *SpaceX's Competitors Claims Elon Musk Could Monopolize Space*. Tech Times. https://www.techtimes.com/articles/260823/20210529/spacexs-competitors-claims-elon-musk-monopolize-space-starlink-constellation-unsustainable.htm

“SpaceX is still working to finish its complete Starlink satellite constellation. Once the giant independent space agency is done with it, it is expected that the artificial constellation will consist of thousands of Starlink satellites. In this handout provided by the National Aeronautics and Space Administration (NASA), the SpaceX Falcon 9 rocket, with the Dragon spacecraft onboard, launches from pad 39A at NASA's Kennedy Space Center on June 3, 2017 in Cape Canaveral, Florida. Dragon is carrying almost 6,000 pounds of science research, crew supplies and hardware to the International Space Station in support of the Expedition 52 and 53 crew members. Because of this, SpaceX's competitors are now claiming that Elon Musk could start monopolizing space using its thousands of Starlink satellites. This idea was first announced by Stephane Israel, the CEO of Arianespace. Aside from him, there are also other competitors, including Amazon, who are not happy with the rumored SpaceX monopoly.”

**The resources in outer space are essential.**

Gilbert, Alex. “Mining in Space Is Coming.” *Milken Institute Review*, https://www.milkenreview.org/articles/mining-in-space-is-coming.

**“**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 humongous 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.”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 secondand 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.”

**If we let private companies appropriate resources, then they will gouge the price.**

**The Earth is currently facing a water shortage that will kill billions by 2025. According to the World Wildlife Federation,**

**World Wildlife Federation. (N/A). *Water Scarcity.* World Wildlife Federation. https://www.worldwildlife.org/threats/water-scarcity**

Water covers 70% of our planet, and it is easy to think that it will always be plentiful. However, freshwater—the stuff we drink, bathe in, irrigate our farm fields with—is incredibly rare. Only 3% of the world’s water is fresh water, and two-thirds of that is tucked away in frozen glaciers or otherwise unavailable for our use. As a result, some 1.1 billion people worldwide lack access to water, and a total of 2.7 billion find water scarce for at least one month of the year. Inadequate sanitation is also a problem for 2.4 billion people—they are exposed to diseases, such as cholera and typhoid fever, and other water-borne illnesses. Two million people, mostly children, die each year from diarrheal diseases alone. Many of the water systems that keep ecosystems thriving and feed a growing human population have become stressed. Rivers, lakes and aquifers are drying up or becoming too polluted to use. More than half the world’s wetlands have disappeared. Agriculture consumes more water than any other source and wastes much of that through inefficiencies. Climate change is altering patterns of weather and water around the world, causing shortages and droughts in some areas and floods in others. At the current consumption rate, this situation will only get worse. By 2025, two-thirds of the world’s population may face water shortages. And ecosystems around the world will suffer even more.

**Global warming continues to kill not only people, but our planet.**

World Health Organization. (N/A). *Climate change.* World Health Organization. https://www.who.int/heli/risks/climate/climatechange/en/

“Since 1988, the United Nations Intergovernmental Panel on Climate Change (IPCC) has reviewed scientific research, and provided governments with summaries and advice on climate problems. In its most recent report, the IPCC concludes that the average temperature of the earth's surface has risen by 0.6 °C since the late 1800s. It is expected to increase by another 1.4–5.8 °C by the year 2100 – a rapid and profound change. Even if the minimum predicted increase takes place, it will be larger than any century-long trend in the last 10 000 years. The principal reason for the global increase in temperatures is a century and a half of industrialization, with the burning of ever-greater quantities of oil, gasoline, and coal; the cutting of forests; and use of certain farming methods. Climatic changes already are estimated to cause over 150,000 deaths annually. That estimate includes deaths as a result of extreme weather conditions, which may be occurring with increased frequency. Changes in temperature and rainfall conditions also may influence transmission patterns for many diseases, including water-related diseases, such as diarrhea, and vector-borne infections, including malaria. Finally, climate change may affect patterns of food production, which in turn can have health impacts in terms of rates of malnutrition. There is further

**Monopolies increase prices for consumers, this means that these essential resources can not be accessed by everyone who needs it.**

Schmitz, James A. (2016, July 12). *The Costs of Monopoly: A New View.* Federal Reserve Bank of Minneapolis. https://www.minneapolisfed.org/article/2016/the-costs-of-monopoly-a-new-view

“In the standard theory of monopoly found in textbooks, the monopolist is a single seller of a good who increases his or her price above competitive levels, leading to reduced output. The key cost of monopoly is the restriction of industry production. Two basic assumptions, or tenets, underlie this theory.”

**The resources in outer space are essential and if we let private companies appropriate them, then they will gouge the price. This means that these essential resources will be too expensive for most people to have access to. And if the prices of Helium 3 are too high, companies will just revert back to oil and coal which is what got us to this deadly climate change position in the first place. Under the veil of ignorance, entities would obviously choose to not let billions of the worst off people die due to capitalist greed because they wouldn’t want to become one of those people.**

**Contention 2: War**

**The resources in space are likely to cause conflict.**

Hart 21 [Amalyah Hart is a science journalist based in Melbourne, Australia, Published: 11/19/2021, “New laws to prevent space wars?”, Cosmos Magazine, https://cosmosmagazine.com/people/society/space-law-to-prevent-space-war/] /Triumph Debate

“The week before last, a UN panel approved the creation of a working group to discuss next-generation laws to prevent the militarisation of space. The move comes as space 2.0 seems to be going into hyper-drive, with countries and corporations racing to claim their stake in the final frontier. It’s timely, as the potential for friction is gathering by the day, with China, India, Russia and the US testing anti-satellite missiles on their own satellites and creating worrisome clouds of debris. This week’s destruction by Russia of its “dead” satellite, Cosmos 1408, underlined the issue. Meanwhile,the orbital space around Earth is becoming jammed with machinery; currently, there are 3,372 active satellites whizzing around Earth, but in one or two decades that number is set to leap to potentially 100,000 or more. And that’s ignoring the space stations, telescopes and spyware already in orbit as countries flex their aerospace muscles. It’s a cosmic fracas. And contested territory is prime fodder for international disputes, as we know. It’s these kinds of disputes the group of UK diplomats who proposed the UN motion want to prevent, by coming to an agreed-upon set of norms for behavior in space. The current international framework for law in space is the UN’s 1967 Outer Space Treaty (OST), which sets governing principles for the exploration of space, including that space should be free for use by all nations, that celestial bodies like the Moon should be used exclusively for peaceful purposes, and that outer space should not be subject to national appropriation. Under international law, any and all objects being launched into space must be registered to avoid collisions. On top of these global laws, each nation-state has its own legal framework around the registering and launching of objects into space. But as technology evolves and new opportunities arise, are these old laws equipped to govern new problems? “There exists an incredible amount of applicable law already, and it has served us really well,” says space law expert Steven Freeland, an emeritus professor at Western Sydney University and professorial fellow at Bond University. Freeland is vice-chair of a UN Committee on the Peaceful Uses of Outer Space (COPUOS) working group that is developing laws around the exploitation of resources in space. “There’s a lot of law at the multilateral level that then filters down to other layers of bilateral or ‘minilateral’ agreements and national laws. But clearly things move so quickly with technology, we’re doing so many more things in space that were beyond the contemplation of the drafters of the original treaties. Ideally we need more.” Freeland says there are myriad complex, [there are] interconnected issues in space that need tighter laws. These include the increasing militarisation of space; the proliferation of satellites, which can lead to overcrowding of “popular” orbits and increased demand for radio-wave spectra; ethical issues around human spaceflight; and the possible extraction of resources on celestial bodies like the Moon. It might sound like science fiction, but mining in outer space is looking increasingly likely in the not-too-distant future. In September 2020, NASA announced that it would award contracts to private companies for the extraction and purchase of lunar regolith (rock matter) from the surface of the Moon, which could be mined and then studied in situ by the company, before the data and rights are transferred to the space agency. The move heralds what our space-based future might look like, with private companies mining celestial bodies for their precious resources. In our solar system, composed of millions of celestial bodies both large and small, the opportunities for cashing in look potentially endless – provided technology advances to the level of practical spaceflight. “Most wars on Earth have historically been fought over a quest for resources,” says Freeland, “so it’s incredibly important [to have appropriate space laws].” Just last month, scientists announced the discovery of two extraordinarily metal-rich near-Earth asteroids (NEAs), comprised of roughly 85% metals like iron, nickel and cobalt, which are thought to exceed Earth’s entire known metallic reserves. These three highly valuable metals, often known as the “iron triad”, are particularly critical for the energy supply chain and a renewable energy future; they’re used to build lithium-ion batteries, electrochemical capacitors for storing energy, and nanocatalysts for use in the energy sector. Under the OST”

**Private companies trying to extract moon resources will lead to conflict.**

Smith 20 [Adam Smith is a science and technology reporter, 11/24/2020, “FIGHT FOR MOON’S LIMITED RESOURCES COULD LEAD TO ‘CONFLICT’ BETWEEN GOVERNMENTS AND PRIVATE COMPANIES, SCIENTISTS FEAR” Independent, https://www.independent.co.uk/life-style/gadgets-and-tech/moongovernment-companies-resources-conflicts-b1761170.html] /Triumph Debate

“Scientists fear that the Moon might be plundered too quickly by private companies hoping to extract its valuable resources, new research has hypothesized. A lack of international policies and agreements could result in tensions, overcrowding, and a rapid expansion of moon mining projects, the Center for Astrophysics | Harvard & Smithsonian says in a new paper. Water and iron are particularly valuable resources that could be collected from the Moon, which would help companies construct infrastructure and develop agriculture as well as letting them avoid the vast expense of transporting such materials from the Earth. "A lot of people think of space as a place of peace and harmony between nations. The problem is there's no law to regulate who gets to use the resources, and there are a significant number of space agencies and others in the private sector that aim to land on the moon within the next five years," said Martin Elvis, astronomer at the Center for Astrophysics | Harvard & Smithsonian and the lead author on the paper, which has been published in Philosophical Transactions of the Royal Society A. "We looked at all the maps of the Moon we could find and found that not very many places had resources of interest, and those that did were very small. That creates a lot of room for conflict over certain resources." The treaties that do exist, such as the 1967 Outer Space Treaty, do not offer staunch protection of celestial bodies from companies. The Outer Space Treaty declares that “the moon and other celestial bodies shall be used by all states parties to the treaty exclusively for peaceful purposes”, but is not exclusive to governments. The United States insisted on a clause that allowed commercial companies to explore space as long as they “require authorisation and continuing supervision” of the government, as opposed to the Russian view that space exploration should be limited to governments. A following treaty, the 1979 Moon Treaty, has not been ratified by any state that engages in self-launched spaceflight such as the US, Russia, China, Japan, or members of the European Space Agency. "It tries to address the ownership of resources obtained from outer space, and really it was pretty much rejected by the international community”, Dr Jill Stuart, head of space policy at the London School of Economics, previously told The Independent. In 2020 the Artemis Accords were announced, which are a set of agreements that requires countries working with the US to return to the moon to commit to transparency about their work, to only explore space for “peaceful purposes”, and to guarantee they would work together to save any astronauts that came into danger during a mission. However, this still does not protect celestial bodies from being overly exploited for resources. "The biggest problem is that everyone is targeting the same sites and resources: states, private companies, everyone. But they are limited sites and resources. We don't have a second moon to move on to. This is all we have to work with." Alanna Krolikowski, assistant professor of science and technology policy at Missouri University of Science and Technology, and a co-author on the paper, said in a statement. "While a comprehensive international legal regime to manage space resources remains a distant prospect, important conceptual foundations already exist and we can start implementing, or at least deliberating, concrete, local measures to address anticipated problems at specific sites today." Governments should also identify worse-case outcomes, such as overcrowding and interference at each site, and use those as a basis for legislation, Krolikowski added. Existing laws which protect common-pool resources, such as the oceans or local lakes on Earth, could be used as a baseline for these regulations, but policymakers need to decide how these resources will be classified. "Are these resources, say, areas of real estate at the high-value Peaks of Eternal Light, where the sun shines almost continuously, or are they units of energy to be generated from solar panels installed there? At what level can they can realistically be exploited? How should the benefits from those activities be distributed? Developing agreement on those questions is a likely precondition to the successful coordination of activities at these uniquely attractive lunar sites", Krolikowski said.”

**Wars over these resources would be devastating.**

Klare et. al 11 [Michael T. Klare, PhD, Barry S. Levy, MD, MPH, corresponding author and Victor W. Sidel, MD, 09/2011, “The Public Health Implications of Resource Wars” NCBI, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3154227/] /Triumph Debate

“Resource wars are violent conflicts that are largely driven by competition for control over vital or valuable natural materials, such as oil, water, land, timber, animals (or animal products), gold, silver, gems, and other key minerals. Resource wars can occur between states as (1) wars of conquest, in which a state or empire employs force to acquire resource-rich territories or colonies; (2) territorial disputes, in which 2 or more states fight over a border region or offshore territory with valuable resource deposits; or (3) access wars, in which a state fights to gain access to a critical resource deposit in another country. Resource wars can also occur within states, when groups fight for control over key sources of raw materials or over the allocation of the fees and royalties (or “rents”) obtained by governments from private entities that extract resources from areas owned or controlled by the state. A desire to gain control over a valuable resource supply or the wealth it generates is a dominant factor leading to war; however, conflicts over resources are usually driven by other factors as well, such as ethnic animosities and historical grievances.4,5 In the current article, we examine what makes resource wars distinctive and an important issue for public health, and we outline ways in which public health workers and the organizations and professional associations with which they are affiliated can minimize the consequences of these wars and contribute to their prevention. Much of this article is focused on wars fought over petroleum; in a recent commentary we examined armed conflicts over water and what public health workers can do to address them.6 Go to: WHY RESOURCE WARS ARE RELEVANT TO PUBLIC HEALTH We believe that resource wars are relevant to public health because of their profound consequences for public health and because public health workers have potential roles and responsibilities to minimize these consequences and to help prevent resource wars. Public health has been defined as what we, as a society, do collectively “to assure the conditions in which people can be healthy.”7 Resource wars threaten the conditions in which people can be healthy. Although public health is a societal function, it is a function performed mainly by public health workers in government agencies, academic institutions, nongovernmental organizations, and private-sector entities who work to assure the conditions in which people can be healthy. Although most public health workers do not address resource wars, some have the opportunity—and the responsibility—to help document the health consequences of resource wars, to raise awareness of these consequences, and to advocate for policies and programs for minimizing these consequences and for helping to prevent resource wars. Public health has a responsibility to address the fundamental causes of disease and to prevent adverse health outcomes.8 War is a major cause of disease, disability, and death; thus, war is a major public health problem.1,9 The Public Health Oath, which some public health students recite at orientation and graduation, includes the declaration: I will work to ensure that people have the chance to live full and productive lives, free from avoidable disease and disability.10 Resource wars threaten people's ability to live full and productive lives; they also provide opportunities for public health workers to help prevent avoidable disease, disability, and death. Go to: HISTORICAL CONTEXT Competition for control over vital, valuable raw materials has been a source of violent conflict since prehistoric times.11 Conflict over resources, such as gold, silver, spices, furs, timber, and slaves, was especially prominent and violent in the colonial wars and interimperial clashes that culminated in World War I. However, during World War II and the Cold War, conflict over resources was rarely a central issue. With the end of the Cold War, resource conflicts have again become prominent. Some of these wars, similar to those of the past, have involved efforts by the major powers to dominate sources of energy and safeguard the flow of oil, such as the interventions by the United States in the Persian Gulf area. Others have involved internal conflicts. For example, the ongoing conflict in the Democratic Republic of the Congo—perhaps the most lethal conflict of the post–Cold War era, with approximately 4 million people dead—has largely been fueled by competition for control of valuable mines in the eastern part of the country.12 The fighting between northern and southern Sudan, another notably lethal conflict, has been driven in part by a struggle for control over valuable oil fields.13 The future of this struggle is unclear, given the recent separation of Sudan into 2 countries. Go to: RESOURCE WARS ARE DISTINCTIVE Resource wars have some distinctive features of relevance to public health: They are often extremely intense because they frequently result from both ethnic animosities (or historical grievances) and disputes over distribution of or access to vital—and often commercially valuable—materials. This intensity may lead to the conflict having adverse consequences for human health and the environment that are more widespread and more serious than are those resulting from wars fought for other purposes. They occur in remote, forbidding areas occupied largely by poor and indigenous people. Today, most oil production is concentrated in areas largely avoided by advanced cultures, such as deserts, tropical forests, steep mountainsides, and polar or near-polar regions. These areas, however, are often inhabited by indigenous peoples and those too poor to live elsewhere. Governments often allow the use of extractive practices in these areas—such as unsafe mining and environmentally insensitive oil extraction—that would not be permitted elsewhere. In the Niger Delta region of Nigeria, for example, lax government oversight of oil drilling has led to widespread contamination of local fields and fishing grounds, further harming the health and livelihoods of the already impoverished inhabitants, who have revolted against the oil companies and the federal government.14 The invasion of remote areas to secure access to fresh supplies of vital resources also threatens the modes of living of the few remaining indigenous peoples who still practice their traditional ways of life. Such invasions threaten not only indigenous peoples’ ability to survive as distinct cultures but also their physical and psychological health, as adaptive communal lifestyles give way to rootless urban or reservation life. This pattern is painfully evident in the history of Native Americans, Canadian First Nations peoples, and Australian Aborigines, all of whom have suffered from widespread alcoholism, depression, and inadequate health care after being driven from their ancestral lands. A similar pattern is being repeated today as oil and mining firms penetrate into the Amazonian heartland, central Africa, New Guinea, Borneo, the Arctic, and other areas previously exempted from large-scale development.15 Resource wars often target noncombatant civilians and violate their human rights through slavery, child labor, rape, kidnapping, and other inhumane practices that cause injury, illness, and death. Many recent wars in Africa, areas of South America, and Southeast Asia have been driven by warlords and rogue government officials trying to maintain or gain control over a valuable resource. Lacking funds or structural capacity to recruit and build professional armies, they typically force boys and young men into their ragtag militias, usually at gunpoint, paying them with drugs and the services of female sexual slaves kidnapped from nearby villages, while impressing poor men, women, and children to work in their mines (and paying them little, if anything).16,17 This scenario is particularly evident in northeastern Congo, where the militia of the Democratic Forces for the Liberation of Rwanda employs a vast slave army to mine gold and coltan (columbite and tantalite, the source of the lightweight metals used in most cell phones and other handheld electronic devices).18 This militia and other similar groups also employ mass rape as a tactic of intimidation and coercion.19,20 Aside from the physical harm and psychological trauma they cause, these tactics contribute to the spread of HIV/AIDS in Africa. In resource wars, military or insurgent forces sometimes target resources or related infrastructure over which these conflicts are fought, often with significant public health consequences. In the Persian Gulf War of 1990–1991, for example, retreating Iraqi military forces set fire to more than 600 oil wells in Kuwait; the fires burned for weeks, causing respiratory disorders and environmental damage.21 Many wars in which the control of oil or oil rents is a significant factor involve attacks on oil pipelines, refineries, and other infrastructure, often producing fires and oil spills that adversely affect civilian populations. The rebels in Colombia, for example, often sabotage the country's oil pipelines, causing oil spills that contaminate local water supplies.”