### 1

#### Interpretation: The affirmative should only defend the hypothetical implementation of the resolution

#### Resolved means a legislative policy

Words and Phrases 64 Words and Phrases Permanent Edition. “Resolved”. 1964. ED

Definition of the word “resolve,” given by Webster is “to express an opinion or determination by resolution or vote; as ‘it was resolved by the legislature;” It is of similar force to the word “enact,” which is defined by Bouvier as meaning “to establish by law”.

#### Outer space means anything above Earth’s Karman line

Dunnett 21 (Oliver Tristan, lecturer in geography at Queen’s University Belfast). Earth, Cosmos and Culture: Geographies of Outer Space in Britain, 1900–2020 (1st ed.). Routledge. 2021. <https://doi.org/10.4324/9780815356301> EE

In such ways, this book argues that Britain became a home to rich discourses of outer space, both feeding from and contributing to iconic achievements in space exploration, while also embracing the cosmos in imaginative and philosophical ways.2

INSERT FOOTNOTE 2

2 This book primarily uses the term ‘outer space’ to describe the realm beyond the Earth’s atmosphere, conventionally accepted as beginning at the Kármán line of 100km above sea level. Other terms such as ‘interplanetary space’, ‘interstellar space’, ‘cosmos’, and ‘the heavens’ are used in specific contexts.

END FOOTNOTE 2

Cognisant of this spatial context, a central aim is to demonstrate how contemporary geographical enquiry can provide specific and valuable perspectives from which to understand outer space. This is an argument that was initiated by Denis Cosgrove, and his critique of Alexander von Humboldt’s seminal work Cosmos helped to demonstrate geography’s special relevance to thinking about outer space.3 The key thematic areas which provide the interface for this book’s research, therefore, are the cultural, political and scientific understandings of outer space; the context of the United Kingdom since the start of the last century; and the geographical underpinnings of their relationship.

#### In the context of space, “Appropriation” means to take as property

Leon 18 (Amanda M., Associate, Caplin & Drysdale, JD UVA Law) "Mining for Meaning: An Examination of the Legality of Property Rights in Space Resources." Virginia Law Review, vol. 104, no. 3, May 2018, p. 497-547. HeinOnline.

Appropriation. The term "appropriation" also remains ambiguous. Webster's defines the verb "appropriate" as "to take to oneself in exclusion of others; to claim or use as by an exclusive or pre-eminent right; as, let no man appropriate a common benefit."16 5 Similarly, Black's Law Dictionary describes "appropriate" as an act "[t]o make a thing one's own; to make a thing the subject of property; to exercise dominion over an object to the extent, and for the purpose, of making it subserve one's own proper use or pleasure."166 Oftentimes, appropriation refers to the setting aside of government funds, the taking of land for public purposes, or a tort of wrongfully taking another's property as one's own. The term appropriation is often used not only with respect to real property but also with water. According to U.S. case law, a person completes an appropriation of water by diversion of the water and an application of the water to beneficial use.167 This common use of the term "appropriation" with respect to water illustrates two key points: (1) the term applies to natural resources-e.g., water or minerals-not just real property, and (2) mining space resources and putting them to beneficial use-e.g., selling or manufacturing the mined resources could reasonably be interpreted as an "appropriation" of outer space. While the ordinary meaning of "appropriation" reasonably includes the taking of natural resources as well as land, whether the drafters and parties to the OST envisioned such a broad meaning of the term remains difficult to determine with any certainty. The prohibition against appropriation "by any other means" supports such a reading, though, by expanding the prohibition to other types not explicitly described.168

#### Private entity = majority nonstate

Warners 20 (Bill, JD Candidate, May 2021, at UIC John Marshall Law School) "Patents 254 Miles up: Jurisdictional Issues Onboard the International Space Station." UIC Review of Intellectual Property Law, vol. 19, no. 4, 2020, p. 365-380. HeinOnline.

To satisfy these three necessary requirements for a new patent regime, the ISS IGA must add an additional clause ("Clause 7") in Article 21 specifically establishing a patent regime for private nonstate third parties onboard the ISS. First, Clause 7 would define the term "private entity" as an individual, organization, or business which is primarily privately owned and/or managed by nonstate affiliates. Specifically defining the term "private entity" prevents confusion as to what entities qualify under the agreement and the difference between "public" and "private."99 This definition would also support the connection of Clause 1 in Article 21 to "Article 2 of the Convention Establishing the World Intellectual Property Organization." 100 A succinct definition also alleviates international concerns that the changes to the ISS IGA pushes out Partner State influence. 101 Some in the international community may still point out that Clause 7 still pushes towards a trend of outer space privatization. However, this argument fails to consider that private entities in outer space have operated in space almost as comprehensively as national organizations. 102

#### They violate—they gain offense from decolonizing space, theorizing repatriation, from their praxis

#### Standards:

#### 1] Competitive equity – 3 warrants:

#### A] Ground: they get to pick the topic ex post facto which incentivizes vague argumentation that’s not grounded in a consistent, stable mechanism – they’re playing dodgeball with hand grenades – caselists are concessionary, unpredictable, beaten by perms, and don’t justify their model.

#### B] Limits: their model has no resolutional bound and creates the possibility for literally an infinite number of 1ACs. Not debating the topic allows someone to specialize in one area of the library for 4 years giving them a huge edge over people who switch research focus ever 2 months. Cutting negs to every possible aff is a commitment even large squads can’t handle, let alone small schools like us. Counter-interpretations are arbitrary, unpredictable, and don’t solve the world of neg prep because there’s no grounding in the resolution

#### C] Causality: debating the resolution forces the affirmative to defend a cause and effect relationship, the state doing x results in y. Non topical affs establish their own barometer “I think x is good for me” that aren’t negatable which kill clash

#### D] Fairness is an impact – [1] it’s an intrinsic good – some level of competitive equity is necessary – if it didn’t exist, there wouldn’t be value to the game since judges could vote whatever way they wanted [2] probability – your ballot can’t solve their impacts but it can solve mine – debate can’t alter subjectivity, but can rectify skews [3] internal link turns every impact – a limited topic promotes in-depth research and engagement which is necessary to access all of their education [4] comes before substance – deciding any other argument in this debate cannot be disentangled from our inability to prepare for it – any argument you think they’re winning is a link, not a reason to vote for them, since it’s just as likely that they’re winning it because we weren’t able to effectively prepare to defeat it. This means they don’t get to weigh the aff.

#### 2] Switch-side debate –

#### Second is switch side and idea-testing --- only a limited topic that leaves a role for the negative allows contestation and second-order testing that overcomes polarization. Switching sides forces them to scrutinize their own beliefs, which is valuable for developing and defending their own convictions more robustly.

Poscher 16

Ralf Poscher, Diat the Institute for Staatswissenschaft and Philosophy of Law at the University of Freiburg “Why We Argue About the Law: An Agonistic Account of Legal Disagreement”, Metaphilosophy of Law, Tomasz Gizbert-Studnicki/Adam Dyrda/Pawel Banas (eds.), Hart Publishing. 2016.

Hegel’s dialectical thinking powerfully exploits the idea of negation. It is a central feature of spirit and consciousness that they have the power to negate. The spirit “is this power only by looking the negative in the face and tarrying with it. This […] is the magical power that converts it into being.”102 The tarrying with the negative is part of what Hegel calls the “labour of the negative”103. In a loose reference to this Hegelian notion Gerald Postema points to yet another feature of disagreements as a necessary ingredient of the process of practical reasoning. Only if our reasoning is exposed to contrary arguments can we test its merits. We must go through the “labor of the negative” to have trust in our deliberative processes.104

This also holds where we seem to be in agreement. Agreement without exposure to disagreement can be deceptive in various ways. The first phenomenon Postema draws attention to is the group polarization effect. When a group of like‐minded people deliberates an issue, informational and reputational cascades produce more extreme views in the process of their deliberations.105 The polarization and biases that are well documented for such groups106 can be countered at least in some settings by the inclusion of dissenting voices. In these scenarios, disagreement can be a cure for dysfunctional deliberative polarization and biases.107 A second deliberative dysfunction mitigated by disagreement is superficial agreement, which can even be manipulatively used in the sense of a “presumptuous ‘We’”108. Disagreement can help to police such distortions of deliberative processes by challenging superficial agreements. Disagreements may thus signal that a deliberative process is not contaminated with dysfunctional agreements stemming from polarization or superficiality. Protecting our discourse against such contaminations is valuable even if we do not come to terms. Each of the opposing positions will profit from the catharsis it received “by looking the negative in the face and tarrying with it”.

These advantages of disagreement in collective deliberations are mirrored on the individual level. Even if the probability of reaching a consensus with our opponents is very low from the beginning, as might be the case in deeply entrenched conflicts, entering into an exchange of arguments can still serve to test and improve our position. We have to do the “labor of the negative” for ourselves. Even if we cannot come up with a line of argument that coheres well with everybody else’s beliefs, attitudes and dispositions, we can still come up with a line of argument that achieves this goal for our own personal beliefs, attitudes and dispositions. To provide ourselves with the most coherent system of our own beliefs, attitudes and dispositions is – at least in important issues – an aspect of personal integrity – to borrow one of Dworkin’s favorite expressions for a less aspirational idea.

In hard cases we must – in some way – lay out the argument for ourselves to figure out what we believe to be the right answer. We might not know what we believe ourselves in questions of abortion, the death penalty, torture, and stem cell research, until we have developed a line of argument against the background of our subjective beliefs, attitudes and dispositions. In these cases it might be rational to discuss the issue with someone unlikely to share some of our more fundamental convictions or who opposes the view towards which we lean. This might even be the most helpful way of corroborating a view, because we know that our adversary is much more motivated to find a potential flaw in our argument than someone with whom we know we are in agreement. It might be more helpful to discuss a liberal position with Scalia than with Breyer if we want to make sure that we have not overlooked some counter‐argument to our case.

It would be too narrow an understanding of our practice of legal disagreement and argumentation if we restricted its purpose to persuading an adversary in the case at hand and inferred from this narrow understanding the irrationality of argumentation in hard cases, in which we know beforehand that we will not be able to persuade. Rational argumentation is a much more complex practice in a more complex social framework. Argumentation with an adversary can have purposes beyond persuading him: to test one’s own convictions, to engage our opponent in inferential commitments and to persuade third parties are only some of these; to rally our troops or express our convictions might be others. To make our peace with Kant we could say that “there must be a hope of coming to terms” with someone though not necessarily with our opponent, but maybe only a third party or even just ourselves and not necessarily only on the issue at hand, but maybe through inferential commitments in a different arena.

f) The Advantage Over Non‐Argumentative Alternatives

It goes without saying that in real world legal disagreements, all of the reasons listed above usually play in concert and will typically hold true to different degrees relative to different participants in the debate: There will be some participants for whom our hope of coming to terms might still be justified and others for whom only some of the other reasons hold and some for whom it is a mixture of all of the reasons in shifting degrees as our disagreements evolve. It is also apparent that, with the exception of the first reason, the rationality of our disagreements is of a secondary nature. The rational does not lie in the discovery of a single right answer to the topic of debate, since in hard cases there are no single right answers. Instead, our disagreements are instrumental to rationales which lie beyond the topic at hand, like the exploration of our communalities or of our inferential commitments. Since these reasons are of this secondary nature, they must stand up to alternative ways of settling irreconcilable disagreements that have other secondary reasons in their favor – like swiftness of decision making or using fewer resources. Why does our legal practice require lengthy arguments and discursive efforts even in appellate or supreme court cases of irreconcilable legal disagreements? The closure has to come by some non‐argumentative mean and courts have always relied on them. For the medieval courts of the Germanic tradition it is bequeathed that judges had to fight it out literally if they disagreed on a question of law – though the king allowed them to pick surrogate fighters.109 It is understandable that the process of civilization has led us to non‐violent non‐ argumentative means to determine the law. But what was wrong with District Judge Currin of Umatilla County in Oregon, who – in his late days – decided inconclusive traffic violations by publicly flipping a coin?110 If we are counting heads at the end of our lengthy argumentative proceedings anyway, why not decide hard cases by gut voting at the outset and spare everybody the cost of developing elaborate arguments on questions, where there is not fact of the matter to be discovered?

#### B] topical version of the aff solves – they can still have all their advantages under TVA <INSERT TVA>

#### C] Vote negative – A] this procedurally evaluates whether their model is good, which is a prior question B] they can’t get offense: we don’t exclude them, only persuade you that our methodology is best. Every debate requires a winner and loser, so voting negative doesn’t reject them from debate, it just says they should make a better argument next time.

### 2

**We endorse the entirety of the affirmative except for their description of US Empire as a war machine. It’s a trivializing war metaphor that abstracts from war as large-scale conflict which delegitimizes our ability to understand global war.**

--this is the byrd evidence (last card in the aff)

**Chandler** **09** (David Chandler, Professor of International Relations at the Department of Politics and International Relations, University of Westminster, War Without End(s): Grounding the Discourse of `Global War', Security Dialogue 2009; 40; 243)

For many critical post-structuralist theorists, the ‘global war on terror’ reveals the essence of liberal modernity and fully reveals the limits of its universalist ontology of peace and progress, where the reality of Kant’s ‘perpetual peace’ is revealed to be perpetual war (Reid, 2006: 18). Perhaps the most radical abstract framing of global war is that of Giorgio Agamben. In his seminal work Homo Sacer, he reframed Foucault’s understanding of biopower in terms of the totalizing control over bare life, arguing that the ‘exemplary places of modern biopolitics [were] the concentration camp and the structure of the great totalitarian states of the twentieth century’ (Agamben, 1998: 4; see also Chandler, 2009a). Agamben’s view of liberal power is that of the concentration camp writ globally, where we are all merely objects of power, ‘we are all virtually homines sacri’ (Agamben, 1998: 115). ¶ In focusing on biopower as a means of critiquing universalist policy discourses of global security, critical theorists of global war from diverse fields such as security studies (Jabri, 2007), development (**Duffield**, 2007) or critical legal theory (Douzinas, 2007) are in danger of **reducing their critique of war to abstract statements instrumentalizing war as a technique of global power.** These are abstract critiques because **the political stakes are never in question**: instrumentality and the desire for regulation and control are assumed from the outset. In effect, the critical aspect is merely in the reproduction of the framework of Foucault – that liberal discourses can be deconstructed as an exercise of regulatory power. Without deconstructing the dominant framings of global security threats, critical theorists are in danger of reproducing Foucault’s framework of biopower as an ahistorical abstraction. Foucault (2007: 1) himself stated that his analysis of biopower was ‘not in any way a general theory of what power is. It is not a part or even the start of such a theory’, merely the study of the effects of liberal governance practices, which posit as their goal the interests of society – the population – rather than government.¶ In his recent attempt at a ground-clearing critique of Foucauldian international relations theorizing, Jan Selby (2007) poses the question of the problem of the translation of Foucault from a domestic to an international context. He argues that recasting the international sphere in terms of global liberal regimes of regulation is an accidental product of this move. This fails to appreciate the fact that many critical theorists appear to be drawn to Foucault precisely because drawing on his work enables them to critique the international order in these terms. Ironically, this ‘Foucauldian’ critique of ‘global wars’ has little to do with Foucault’s understanding or concerns, which revolved around extending Marx’s critique of the ‘freedoms’ of liberal modernity. In effect, the post-Foucauldians have a different goal: they desire to understand and to critique war and military intervention as a product of the regulatory coercive nature of liberalism. This project owes much to the work of Agamben and his focus on the regulation of ‘bare life’, where the concentration camp, the totalitarian state and (by extension) Guantánamo Bay are held to constitute a moral and political indictment of liberalism (Agamben, 1998: 4).¶ In these critical frameworks, global war is understood as the exercise of global aspirations for control, no longer mediated by the interstate competition that was central to traditional ‘realist’ framings of international relations. This less-mediated framework understands the interests and instrumental techniques of power in global terms. As power becomes understood in globalized terms, it becomes **increasingly abstracted from any analysis of contemporary social relations**: viewed in terms of neoliberal governance, liberal power or biopolitical domination. In this context, **global war becomes little more than a metaphor** for the operation of power. This war is a global one because, without clearly demarcated political subjects, the unmediated operation of regulatory power is held to construct a world that becomes, literally, one large concentration camp (Agamben, 1998: 171) where instrumental techniques of power can be exercised regardless of frameworks of rights or international law (Agamben, 2005: 87). For Julian Reid (2006: 124), the ‘global war on terror’ can be understood as an inevitable response to any forms of life that exist outside – and are therefore threatening to – liberal modernity, revealing liberal modernity itself to be ultimately a ‘terrorising project’ arraigned against the vitality of life itself. For Jabri, and other Foucauldian critics, the liberal peace can only mean ‘unending war’ to pacify, discipline and reconstruct the liberal subject:

**Adhere to the war/non-war divide. Anything else is willfully ignorant and locks in catastrophic global conflict.**

**LeBlanc 20** (Steven A. LeBlanc is an American archaeologist and former director of collections at the Peabody Museum of Archaeology and Ethnology at Harvard University's Peabody Museum. He is the author a number of books about Southwest archeology and prehistoric warfare. “The Origins of Warfare and Violence”. March 13, 2020.)

Human violence can take many forms from intra-family domestic violence to battles lasting days or months and involving tens of thousands of individuals. **In order to understand when and where** such **violence occurred** in the past, much less the reasons for it, **it is necessary to examine it in specific detail and depth.** That is, **we need** to have **a** more **fine-grained understanding** before we try to formulate sweeping generalities. **To** **lump together an intra-village club fight with the battle of Verdun would** seem to be **folly** at **our** present level of **understanding of either type of violence.** Perhaps **the most important distinction** with the broadest implications that we can make is **that between warfare and intra-societal violence**. **By ‘warfare’ I,** and many others who study it, generally **mean socially sanctioned conflict between independent polities**

**;** that is, collective action by one group against another, without there being a larger overarching political entity, the membership of which includes both groups. This concept of warfare allows one to jointly consider forager raiding parties and pitched battles between chiefdoms and states as manifestations of the same general behaviour. This approach gets beyond the often held distinction between ‘raiding’ and ‘true warfare’, a false distinction which has hindered rather than enhanced our understanding of the topic. Raiding was every bit as deadly as ‘true warfare’ and had just as great an impact on people’s lives for millennia over much of the world. **Intra-societal violence can include personal violence**, such as murder, or less lethal acts perpetrated on members of one’s own group. As discussed below, the complication is what is ‘one’s group’? It can be one’s close kin, or it can be all those people who come together for common defence and may number in the thousands. In the recent past, including the so-called ‘ethnographic present’, we can define social groups with some notable exceptions. For example, some forager societies have such broad kin networks that it is possible to see all fighting as **intra-personal** feuding and settling personal **disagreement**s within a social group. At the other extreme in terms of social complexity, in parts of historic Peru communities engaged in almost ritual warfare, with at least the implicit acceptance of the ruling state. **Is** the social group the community or the state? However, in **essentially** all these **ambiguous** instances, strong social sanctions were in place to limit deaths and injuries to members of the social group. A wound would settle a score; a death was not required or often not even allowed. In some instances, such as in the South Pacific, inter-village brawls were carefully managed by the elites. One could throw rocks but could not use a machete. A lot of people could get hurt, but no one was supposed to get killed. Once we move into the past, such distinctions about social groups and intra-group rules of behaviour are much harder to find and evaluate. Because intra-societal or intra-personal violence covers a vast range of behaviours, **and** most are very **hard to tease out of the archaeological record**, such violence is not the central focus here and is considered only briefly. **Warfare is different**. While there were often conventions governing how wars were to be fought, for most of human history there were few constraints on individual behaviour. In some places, areas were set aside for trade with no conflict allowed, or universally accepted tokens proclaiming peaceful intent were used by people transiting hostile territory. Such conventions were relatively minor and few, and if an individual or group broke them, there was little recourse, so rogue behaviour was hard to control and a threat even in situations deemed peaceful. Our present concerns about killing prisoners and outlawing certain weapons are developments of the last several centuries. **For the most part, warfare has been anarchic.** Anything goes: treachery, killing helpless captives, taking captives and killing a few at a time as you retreat so the enemy is discouraged from following you, torturing and mutilating captives, displaying body part trophies so all know how well you fight, killing the children of women you capture, and other such very unpleasant behaviours are known from archaeology and historic accounts. And killing is the goal, along with the capture of women, territory and treasure. Moreover, there are numerous lines of evidence that show how much warfare existed in the past. **Warfare can be defined, and it can be studied archaeologically.** Like many topics in archaeology, it is not easy to study, but it can be and has been done successfully.

### 3

#### We endorse the affirmative in all instances except for Low Earth Orbit Satellite constellations.

#### Private entities ought to appropriate outer space only for the deployment and maintenance of LEO Sats. Governments ought to regulate the size and number of these commercial satellites to avoid light pollution

#### Solves broadband internet access which is key for Native communities.

**Venkatesan et al 20** (Aparna Venkatesan is a Professor in the Department of Physics and Astronomy at the University of San Francisco. James Lowenthal is a professor of Astronomy at Smith College. Parvathy Prem is a Planetary Scientist specializing in Planetary research at Johns Hopkins University Applied Physics Laboratory. Monica Vidaurri works as a research scientist at NASA Goddard Space Flight Center, specializing in astrobiology, policy, and ethics. “The impact of satellite constellations on space as an ancestral global commons”. November 06, 2020.)

**Satellite constellations could greatly improve** communications and ongoing **monitoring of** Earth **phenomena ranging from** weather and **climate to disaster management. Such large constellations also** have the potential to **offer global connectivity through** low-cost high-speed **broadband** internet. In principle, **this could be the critical leap needed to bridge the very real digital divide**2, **especially for** the world’s most minoritized populations, including **Indigenous communities.** This divide has been exposed as a chasm during this pandemic year, affecting many millions of students and low-income workers. **Broadband internet has become essential for daily life**, especially **during a pandemic** year when remote forms of learning, teaching, work and even health (for example, telemedicine) have become the norm. In 2019, the FCC offered US$20 billion in subsidies over ten years to address the digital divide in rural communities in the United States, which was quickly followed by a number of filings for LEOsats. **LEOsat broadband may benefit rural communities** more than urban areas—these ‘last mile’ connections are still challenging to complete relative to concentrated (urban) populations where ground-based cable/fibre internet infrastructure is cheaper. **Large satellite constellations thus have the potential to bridge the digital chasm**, but time will tell whether the promise of low-cost high-speed internet worldwide is achieved, **and** what the financial costs to customers are. **This potential democratization of space is worth noting, even if it may not lead to fair participation in space.**

### 4

#### Counterplan: We endorse the affirmative in all instances except property rights for asteroids should be governed by the doctrine of appropriation.

#### Asteroid mining is an unqualified good – it’s essential to advanced asteroid deflection, deep space travel, and fighting climate change

Heise 18 -- Jack Heise (Judicial Law Clerk at U.S. Courts of Appeals), Space, the Final Frontier of Enterprise: Incentivizing Asteroid Mining Under a Revised International Framework, 40 Mich. J. Int'l L. 189 (2018). https://repository.law.umich.edu/mjil/vol40/iss1/5 WJ

Asteroid mining has the potential to facilitate space travel, an outcome the OST holds to be in the interest of humanity as a whole.39 The potential of asteroid mining to reduce the cost of spaceflight, moreover, could facilitate the growth of the space economy. Asteroid mining thus aligns with another stated purposes of the OST in the sense that an expanded space econ- omy could provide substantial benefits to all mankind.40 First, in seeking to face the challenges posed by space travel, the public sector space race gave rise to numerous technological innovations, ranging from LEDs to emergency blankets to memory foam.41 It seems likely that the private space race would result in a similar degree of innovation, the products of which could benefit people across the globe.

Second, a successful mission to Mars could provide benefits beyond a mere sense of interplanetary accomplishment. NASA suggests that, given the parallels between the formation and evolution of Mars and Earth, a voyage there could help “us learn more about our own planet’s history and future.”42 The scientific advancements from such a mission cannot currently be anticipated and are difficult to predict, but “expand[ing] the frontiers of knowledge” in this manner could well bring benefits to all mankind.43

Third, the development of asteroid mining technology could also help advance asteroid diversion tactics. The development of the technology required to conduct successful asteroid mining operations could “help us to divert any incoming asteroids.”44 This is of great importance since NASA recently eliminated its Asteroid Redirect Mission due to funding cuts;45 NASA’s project was hailed by some scientists as a “critical step in demonstrating we can protect our planet from a future asteroid impact . . . .”46 Asteroid mining could step in and fill an important void. While the probability of an Armageddon-causing impact is low, the effects of an impact would be extremely severe.47 Even some mitigation of this risk as a byproduct of as- teroid mining would be a benefit to humanity as a whole.

Finally, reduced launch costs could facilitate measures to combat global climate change.

One proposed solution for canceling out predicted increases in average worldwide temperature is to “prevent[] . . . about 1% of incoming solar radiation—insolation—from reaching the Earth. This could be done by scattering into space from the vicinity of Earth an appropriately small frac- tion of total insolation.”48 Asteroid mining could facilitate such measures in that “[t]echnologies that could greatly decrease the cost of space-launch could make a telling difference in the practicality of all types of space- deployed scattering systems of scales appropriate to insolation modulation.”49 There are certainly intermediate measures to combat climate change that ought to be taken first, but asteroid mining would facilitate this expedited solution. While some of the benefits of asteroid mining would doubtless accrue primarily to those nations with asteroid mining companies within their borders, the benefits noted in this section—space exploration as a gen- eral proposition, technological and scientific development, improvement of asteroid diversion technology, and facilitated means of swiftly countering climate change—would inure substantially to the benefit of all mankind.

#### Warming causes extinction

Yangyang Xu 17, Assistant Professor of Atmospheric Sciences at Texas A&M University; and Veerabhadran Ramanathan, Distinguished Professor of Atmospheric and Climate Sciences at the Scripps Institution of Oceanography, University of California, San Diego, 9/26/17, “Well below 2 °C: Mitigation strategies for avoiding dangerous to catastrophic climate changes,” Proceedings of the National Academy of Sciences of the United States of America, Vol. 114, No. 39, p. 10315-10323

We are proposing the following extension to the DAI risk categorization: warming greater than 1.5 °C as “dangerous”; warming greater than 3 °C as “catastrophic?”; and warming in excess of 5 °C as “unknown??,” with the understanding that changes of this magnitude, not experienced in the last 20+ million years, pose existential threats to a majority of the population. The question mark denotes the subjective nature of our deduction and the fact that catastrophe can strike at even lower warming levels. The justifications for the proposed extension to risk categorization are given below.

From the IPCC burning embers diagram and from the language of the Paris Agreement, we infer that the DAI begins at warming greater than 1.5 °C. Our criteria for extending the risk category beyond DAI include the potential risks of climate change to the physical climate system, the ecosystem, human health, and species extinction. Let us first consider the category of catastrophic (3 to 5 °C warming). The first major concern is the issue of tipping points. Several studies (48, 49) have concluded that 3 to 5 °C global warming is likely to be the threshold for tipping points such as the collapse of the western Antarctic ice sheet, shutdown of deep water circulation in the North Atlantic, dieback of Amazon rainforests as well as boreal forests, and collapse of the West African monsoon, among others. While natural scientists refer to these as abrupt and irreversible climate changes, economists refer to them as catastrophic events (49).

Warming of such magnitudes also has catastrophic human health effects. Many recent studies (50, 51) have focused on the direct influence of extreme events such as heat waves on public health by evaluating exposure to heat stress and hyperthermia. It has been estimated that the likelihood of extreme events (defined as 3-sigma events), including heat waves, has increased 10-fold in the recent decades (52). Human beings are extremely sensitive to heat stress. For example, the 2013 European heat wave led to about 70,000 premature mortalities (53). The major finding of a recent study (51) is that, currently, about 13.6% of land area with a population of 30.6% is exposed to deadly heat. The authors of that study defined deadly heat as exceeding a threshold of temperature as well as humidity. The thresholds were determined from numerous heat wave events and data for mortalities attributed to heat waves. According to this study, a 2 °C warming would double the land area subject to deadly heat and expose 48% of the population. A 4 °C warming by 2100 would subject 47% of the land area and almost 74% of the world population to deadly heat, which could pose existential risks to humans and mammals alike unless massive adaptation measures are implemented, such as providing air conditioning to the entire population or a massive relocation of most of the population to safer climates.

Climate risks can vary markedly depending on the socioeconomic status and culture of the population, and so we must take up the question of “dangerous to whom?” (54). Our discussion in this study is focused more on people and not on the ecosystem, and even with this limited scope, there are multitudes of categories of people. We will focus on the poorest 3 billion people living mostly in tropical rural areas, who are still relying on 18th-century technologies for meeting basic needs such as cooking and heating. Their contribution to CO2 pollution is roughly 5% compared with the 50% contribution by the wealthiest 1 billion (55). This bottom 3 billion population comprises mostly subsistent farmers, whose livelihood will be severely impacted, if not destroyed, with a one- to five-year megadrought, heat waves, or heavy floods; for those among the bottom 3 billion of the world’s population who are living in coastal areas, a 1- to 2-m rise in sea level (likely with a warming in excess of 3 °C) poses existential threat if they do not relocate or migrate. It has been estimated that several hundred million people would be subject to famine with warming in excess of 4 °C (54). However, there has essentially been no discussion on warming beyond 5 °C.

Climate change-induced species extinction is one major concern with warming of such large magnitudes (>5 °C). The current rate of loss of species is ∼1,000-fold the historical rate, due largely to habitat destruction. At this rate, about 25% of species are in danger of extinction in the coming decades (56). Global warming of 6 °C or more (accompanied by increase in ocean acidity due to increased CO2) can act as a major force multiplier and expose as much as 90% of species to the dangers of extinction (57).

The bodily harms combined with climate change-forced species destruction, biodiversity loss, and threats to water and food security, as summarized recently (58), motivated us to categorize warming beyond 5 °C as unknown??, implying the possibility of existential threats. Fig. 2 displays these three risk categorizations (vertical dashed lines).

#### Extinction comes first! Dalley – Dalley is a film theorist and doesn’t warrant his interpretation of extinction narratives at all – we’ve won 100% risk the scenarios in the 1nc are true and result in the death of every human being which disproves the Dalley evidence - they havne't justified psychoanalysis writ large

**Pummer 15** [Theron, Junior Research Fellow in Philosophy at St. Anne's College, University of Oxford. “Moral Agreement on Saving the World” Practical Ethics, University of Oxford. May 18, 2015] AT

**There appears to be lot of disagreement in moral philosophy. Whether these many apparent disagreements are deep and irresolvable, I believe there is at least one thing it is reasonable to agree on right now**, whatever general moral view we adopt**: that it is very important to reduce the risk that all intelligent beings on this planet are eliminated by an enormous catastrophe, such as a nuclear war.** How we might in fact try to reduce such existential risks is discussed elsewhere. My claim here is only that **we – whether we’re consequentialists, deontologists, or virtue ethicists – should all agree that we should try to save the world.** According to consequentialism, we should maximize the good, where this is taken to be the goodness, from an impartial perspective, of outcomes. **Clearly one thing that makes an outcome good is that the people in it are doing well. There is little disagreement here.** If the happiness or well-being of possible future people is just as important as that of people who already exist, and if they would have good lives, it is not hard to see how **reducing existential risk is easily the most important thing in the whole world. This is for the familiar reason that there are so many people who could exist in the future – there are trillions upon trillions… upon trillions. There are so many possible future people that reducing existential risk is arguably the most important thing in the world, even if the well-being of these possible people were given only 0.001% as much weight as that of existing people.** Even on a wholly person-affecting view – according to which there’s nothing (apart from effects on existing people) to be said in favor of creating happy people – the case for reducing existential risk is very strong. As noted in this seminal paper, **this case is strengthened by the fact that there’s a good chance that many existing people will, with the aid of life-extension technology, live very long and very high quality lives. You might think what I have just argued applies to consequentialists only. There is a tendency to assume that, if an argument appeals to consequentialist considerations (the goodness of outcomes), it is irrelevant to non-consequentialists. But that is a huge mistake.** **Non-consequentialism is the view that there’s more that determines rightness than the goodness of consequences or outcomes; it is not the view that the latter don’t matter.** Even John Rawls wrote, “**All ethical doctrines worth our attention take consequences into account in judging rightness. One which did not would simply be irrational, crazy.**” **Minimally plausible versions of deontology and virtue ethics must be concerned in part with promoting the good, from an impartial point of view.** **They’d thus imply very strong reasons to reduce existential risk**, at least when this doesn’t significantly involve doing harm to others or damaging one’s character. What’s even more surprising, perhaps, is that even if our own good (or that of those near and dear to us) has much greater weight than goodness from the impartial “point of view of the universe,” indeed even if the latter is entirely morally irrelevant, we may nonetheless have very strong reasons to reduce existential risk. **Even egoism, the view that each agent should maximize her own good, might imply strong reasons to reduce existential risk.** It will depend, among other things, on what one’s own good consists in. If well-being consisted in pleasure only, it is somewhat harder to argue that egoism would imply strong reasons to reduce existential risk – perhaps we could argue that one would maximize her expected hedonic well-being by funding life extension technology or by having herself cryogenically frozen at the time of her bodily death as well as giving money to reduce existential risk (so that there is a world for her to live in!). I am not sure, however, how strong the reasons to do this would be. But views which imply that, if I don’t care about other people, I have no or very little reason to help them are not even minimally plausible views (in addition to hedonistic egoism, I here have in mind views that imply that one has no reason to perform an act unless one actually desires to do that act). **To be minimally plausible, egoism will need to be paired with a more sophisticated account of well-being.** To see this, it is enough to consider, as Plato did, the possibility of a ring of invisibility – **suppose that, while wearing it, Ayn could derive some pleasure by helping the poor, but instead could derive just a bit more by severely harming them. Hedonistic egoism would absurdly imply she should do the latter. To avoid this implication, egoists would need to build something like the meaningfulness of a life into well-being**, in some robust way, where this would to a significant extent be a function of other-regarding concerns (see chapter 12 of this classic intro to ethics). But **once these elements are included, we can (roughly, as above) argue that this sort of egoism will imply strong reasons to reduce existential risk.** Add to all of this Samuel Scheffler’s recent intriguing arguments (quick podcast version available here) that most of what makes our lives go well would be undermined if there were no future generations of intelligent persons. On his view, my life would contain vastly less well-being if (say) a year after my death the world came to an end. So obviously if Scheffler were right I’d have very strong reason to reduce existential risk. **We should also take into account moral uncertainty.** **What is it reasonable for one to do, when one is uncertain not (only) about the empirical facts, but also about the moral facts?** I’ve just argued that **there’s agreement among minimally plausible ethical views that we have strong reason to reduce existential risk – not only consequentialists, but also deontologists, virtue ethicists, and sophisticated egoists should agree.** But **even those (hedonistic egoists) who disagree should have a significant level of confidence that they are mistaken, and that one of the above views is correct. Even if they were 90% sure that their view is the correct one** (and 10% sure that one of these other ones is correct), **they would have pretty strong reason, from the standpoint of moral uncertainty, to reduce existential risk.** Perhaps most disturbingly still, **even if we are only 1% sure that the well-being of possible future people matters, it is at least arguable that, from the standpoint of moral uncertainty, reducing existential risk is the most important thing in the world.** Again, this is largely for the reason that there are so many people who could exist in the future – there are trillions upon trillions… upon trillions. (For more on this and other related issues, see this excellent dissertation). Of course, it is uncertain whether these untold trillions would, in general, have good lives. It’s possible they’ll be miserable. **It is enough for my claim that there is moral agreement in the relevant sense if**, at least given certain empirical claims about what future lives would most likely be like, **all minimally plausible moral views would converge on the conclusion that we should try to save the world.** While there are some non-crazy **views that place significantly greater moral weight on avoiding suffering than on promoting happiness**, for reasons others have offered (and for independent reasons I won’t get into here unless requested to), they nonetheless **seem to be fairly implausible views.** And **even if things did not go well for our ancestors, I am optimistic that they will overall go fantastically well for our descendants, if we allow them to. I suspect that most of us alive today – at least those of us not suffering from extreme illness or poverty – have lives that are well worth living, and that things will continue to improve.** Derek Parfit, whose work has emphasized future generations as well as agreement in ethics, described our situation clearly and accurately: “We live during the hinge of history. **Given the scientific and technological discoveries of the last two centuries, the world has never changed as fast.** We shall soon have even greater powers to transform, not only our surroundings, but ourselves and our successors. **If we act wisely in the next few centuries, humanity will survive its most dangerous and decisive period.** Our descendants could, if necessary, go elsewhere, spreading through this galaxy…. **Our descendants might, I believe, make the further future very good. But that good future may also depend in part on us. If our selfish recklessness ends human history, we would be acting very wrongly.**” (From chapter 36 of On What Matters)

### 5

#### CP: Governments ought to permit the appropriation of outer space by private entities for designated safety zones and tech stationing for active debris removal by private entities.

#### Private entities ought to engage in debris removal.

#### CP solves the case. Every card they have read is about why space colonization not appropriation is bad. The CP bans it. They have no cards that Natives care about debris in space so it doesn’t interfere with their cosmology offense.

#### Debris removal is necessary and only private entities have the incentive and capability to do it.

**Giordano 21** (David Giordano is the Vice President of Mentorship for CBLA. Elsewhere at Columbia Law School, he serves on the Columbia Journal of Transnational Law, and is the Treasurer of Columbia OutLaws. During his 1L Summer, David was an intern at the Securities and Exchange Commission’s Division of Corporation Finance. Prior to law school, David worked as a Corporate Paralegal at the New York office of Cleary Gottlieb Steen & Hamilton LLP. David attended The George Washington University where he obtained a B.A. in psychology. “Space Debris: Another Frontier in the Commercialization of Space”. October 31, 2021.)

As **satellites** and other projectiles blast into orbit, upon collision they **can disintegrate into** shards, sometimes just centimeters wide, that remain in orbit, risking further collision. Hollywood captured the potential perils of **fairly large pieces of space debris** in the opening minutes of the 2013 film [*Gravity*](https://www.warnerbros.com/movies/gravity), where space junk threatens the lives of astronauts on a mission. Outside the realms of fictional space-thrillers, **even the smallest pieces of space junk can present real danger**. In 2016, a tiny piece of **space junk**, believed to be a paint chip or a piece of metal no more than a few thousandths of a millimeter across, [cracked the window of the International Space Station](https://www.popsci.com/paint-chip-likely-caused-window-damage-on-space-station/). In May 2021, a piece of space **debris** [punctured](https://www.nbcnews.com/science/space/space-junk-damages-international-space-stations-robotic-arm-rcna1067) **the robotic arm of the I**nternational **S**pace **S**tation. This is seriously concerning, as, [according to the European Space Agency](https://www.esa.int/Safety_Security/Clean_Space/How_many_space_debris_objects_are_currently_in_orbit), there are 670,000 pieces of space debris larger than 1cm and 170,000,000 between 1mm and 1cm in width. Unfortunately, **public action and policy struggles to keep up with these risks**. International law affords little clarity on the problem, as its control is a novel, [emerging field](https://www.technologyreview.com/2021/08/23/1032386/space-traffic-maritime-law-ruth-stilwell/) with many technical [tracking](https://www.space.com/space-situational-awareness-house-hearing-february-2020.html) and [removal](https://www.scientificamerican.com/article/space-junk-removal-is-not-going-smoothly/#:~:text=There%20is%20no%20doubt%20that,antisatellite%20weapon%2C%E2%80%9D%20she%20says.) challenges. **None of the existing space treaties** [directly tackle the issue](https://oxfordre.com/planetaryscience/view/10.1093/acrefore/9780190647926.001.0001/acrefore-9780190647926-e-70)

, rendering [responsibility for it](https://scholarship.law.upenn.edu/jil/vol41/iss1/6/) ambiguous. Absent such responsibility, [legal incentives are non-existent](https://www.courthousenews.com/lack-of-space-law-complicates-growing-debris-problem/)**.** [Guidelines are occasionally issued](https://www.unoosa.org/pdf/limited/l/AC105_2014_CRP14E.pdf) by international governing bodies, but provide little legal significance and are [more targeted at the practicalities of tracking and removal](https://scholarship.law.upenn.edu/jil/vol41/iss1/6/). The nation best positioned to notify space actors of collision risks is the United States, and the burden of that task currently falls on the [Department of Defense](https://www.govexec.com/media/d1-mission-space.pdf). However, the Trump administration issued a [directive in 2018](https://www.cnbc.com/2018/06/18/national-space-council-trump-signs-space-debris-directive.html), shifting the responsibility from the DoD to the Department of Commerce, and the [transition has yet to materialize](https://www.govexec.com/media/d1-mission-space.pdf), leaving DoD struggling to keep pace [with increasing commercial activity](https://www.mckinsey.com/industries/aerospace-and-defense/our-insights/look-out-below-what-will-happen-to-the-space-debris-in-orbit). In the face of public paralysis, **addressing the problem through industry looks more and more attractive.** This has led some to call for a new legal order that still leaves room for government, but reframes who the rules exist to serve. Rather than our current, rudimentary treaty regime designed to [prevent international conflict](https://www.theverge.com/2017/1/27/14398492/outer-space-treaty-50-anniversary-exploration-guidelines), [commentators](https://space.nss.org/wp-content/uploads/NSS-Position-Paper-Space-Debris-Removal-2019.pdf) have called for an additional regime resembling [maritime law](https://www.technologyreview.com/2021/08/23/1032386/space-traffic-maritime-law-ruth-stilwell/) that preserves the interests of a more diverse set of stakeholders, including those in the future that can bring technology and interests to space that may not yet exist. These commentators shun the common conception that space regulation should resemble air-traffic control, which is suited to a narrower set of uses (transport). Under such a “maritime” regime, the light touch of central regulatory bodies, and perhaps their non-existence, is preferred, just as it has been on the seas. This way, individual nations have a degree of flexibility in instituting controls they see fit while leaving room for industry to address problems and introduce new uses for space. Furthermore, **governments seem ready and willing to construct the legal and incentive framework in concert with such private action.** [In a joint statement this summer](https://www.gov.uk/government/news/g7-nations-commit-to-the-safe-and-sustainable-use-of-space), **G7 members expressed openness to resolving** the technical aspects of the **debris** problem **with private institutions, and there is** some **promising progress**. Apple co-founder [Steve Wozniak](https://www.space.com/apple-cofounder-steve-wozniak-space-junk-company) signaled his plans to address the problem through a new company with a telling name: Privateer Space. **Astroscale**, a UK-based company, successfully **launched a pair of satellites** in the Spring of 2021 [that will remove certain space debris from orbit](https://astroscale.com/astroscale-celebrates-successful-launch-of-elsa-d/)**.** Astroscale also [stated their desire](https://astroscale.com/space-sustainability/) to work with governments and international governing bodies to craft policy with private efforts to control the problem top of mind. In light of public policy’s silence on space debris, the initiative of actors like Astroscale involving themselves in policy may be advised, as it could [promote further private investment](https://docs.google.com/document/d/1NCO5Vvjf-kgoZLNfgaOn4bDj_CAfyD1Qhz2oW3TrcHc/edit) in technology for space **debris removal**. A popular [policy recommendation](https://reason.org/policy-brief/u-s-space-traffic-management-and-orbital-debris-policy/) among experts is the establishment of public-private partnerships, and Astroscale has entered several such agreements including with [Japan](https://www.satellitetoday.com/in-space-services/2021/07/27/space-clean-up-company-astroscale-signs-partnerships-with-mhi-and-japanese-government/) and the [European Space Agency](https://spacenews.com/astroscale-clearspace-aim-to-make-a-bundle-removing-debris/). Other **actors include** [ClearSpace](https://www.space.com/esa-startup-clearspace-debris-removal-2025)**,** [OneWeb](https://www.hou.usra.edu/meetings/orbitaldebris2019/orbital2019paper/pdf/6077.pdf)**, and** [D-Orbit](https://www.satellitetoday.com/in-space-services/2021/09/10/esa-awards-d-orbit-uk-contract-for-debris-removal-demonstration/)**.** Some may want to push back against further private involvement. The congestion of space is, in part, industry’s fault, and if we conceptualize orbital space as a common resource, it might be right to fear the effects of the [Tragedy of the Commons](https://www.britannica.com/science/tragedy-of-the-commons). Critics may seek to bolster international treaties, give legal teeth to the guidelines occasionally issued by the UN, and preserve the public posture of the heavens. These may be welcome adjustments, but unlike a pond that industry overfishes or a well that industry dries up, here industry is working to add more fish and water. Moreover, governments stand to benefit from this private decluttering, as well, as [they are expected](https://astroscale.com/wp-content/uploads/2020/02/Reg-V-Development-of-Global-Policy-for-Active-Debris-Removal-Services-v2.0.pdf) to be major customers of some of these private actors. As for the public posture, space has long been a commercial place. Telecommunications companies and government contractors historically depend on space. As the number of commercial satellites set to launch skyrockets, it seems natural to craft policies that are responsive to their interests and provide incentives to remedy issues created in the course of spacefaring, such as space debris. **In light of the** long silence of international law on such issues and the demonstrated **motivation by private actors**, **space debris represents the latest frontier in the abdication of space from the public concern to the private.**

#### Collisions with high-value satellites guarantee nuclear escalation.

Egeli 21 [Sitki Egeli is an assistant professor in the Political Science and International Relations Department of Izmir University of Economics. He was previously a director for foreign affairs in Turkey’s Undersecretariat for Defense Industries (SSM) and vice president in charge of the defense and aerospace sectors of an international consulting firm.] “Space-to-Space Warfare and Proximity Operations: The Impact on Nuclear Command, Control, and Communications and Strategic Stability,” Published 25 Jun 2021, <https://www.tandfonline.com/doi/full/10.1080/25751654.2021.1942681>, VM

“Amid increased tensions, perhaps even an imminent military confrontation between **two nuclear-armed adversaries**, a high-value (for example, early-warning or strategic communication) **satellite stops functioning** or communicating **instantly and inexplicably**. SSA sensors do not pick up any anomalies. **This may be the outcome of** a technical malfunction or a natural phenomenon, such as the impact of a collision with a meteoroid or piece of **space debris small enough to have evaded detection**. Alternatively, the satellite perhaps becomes the victim of a deliberate, undetected attack. Earth-to-space kinetic, electronic, or directed energy attacks would leave behind some trails. A cyberattack, which is harder to detect and attribute, is a strong possibility. So is a stealthy attack by hostile spacecraft. In fact, the adversary is known to have experimented with ominous small spacecraft that could easily conceal or disguise themselves until conducting a final maneuver to neutralize their targets. The victim would also be aware that, especially at distant GEO and HEO altitudes, SSA is not sufficiently comprehensive to detect and give warning of all suspicious or threatening movements as they happen. As suspicions abound, decision makers are faced with hard choices. Could this perhaps be the harbinger of a wider nuclear or nonnuclear **first strike**, along with which the attacker is seeking to eliminate the **possibility of retaliation**

by degrading the defender’s capacity to command, control, and communicate with its forces? Should the defender react immediately before the remaining space-enabled NC3 elements are also compromised and its control over nuclear and nonnuclear forces degrades even further? In the absence of a clear-cut picture of what actually has happened, there is a risk that impending decisions will be made on the basis of insufficient and potentially **erroneous information**, and the climate will be ripe for unfounded presumptions and predispositions. The resulting ultimatums, responses, or counteractions could **set off a dangerous cycle of escalation** and tit-for-tat actions, whereby reactions and overreactions between adversaries lead to potentially catastrophic consequences. At a minimum, heightened tension in orbit would **have the outcome of spilling down to Earth** so as to further aggravate an already tense situation.?”

### Case

#### 1] Metaphorizaiton DA – reading a Tuck and Yang card in this 1ac was a bad decision – divorcing decolonization from its material implications is the metaphorization of decolonization that Tuck and Yang criticize. “Decolonizing space” trivializes the material processes of colonization that caused and cause material genocidal violence against indigenous people. Allowing non-indigenous people like Nikki to win ballots by waxing poetic about decolonization of space without tying that politics to material land return is the epitome of Tuck and Yang’s critique of academic spaces and the way they derevolutionize indigenous movements. Think about how the 1ac analogizes taking diamonds from asteroids to the colonization of the new world. and uses decolonization as a buzzword rather than a material process. Don’t let Nikki colonize decolonization.

#### 2] Another piece of offense – the 1ac’s reading of the Taylor evidence trivilializes indigenous spirituality and reduces it to an argument to win debate rounds. Instead of engaging in the storytelling the evidence advocates for, Nikki dehiglighted every story about indigenous relationality to space, which proves that the 1nc steals indigenous scholarship and uses it for their own gains while not doing any of the actual work that their evidence says settlers need to do in relation to indigenous spirituality. Indigenous people’s spiritual beliefs are deeply personal – reducing them to an argument settlers can use to get bids is really disrespectful and an independent reason to reject the team.

#### 3] Public appropriation spills over and reverses the inmpact – they can’t solve anything and public appropriation gets worse but the aff can’t solve enough

#### 3] They have indicted scientific rationalism. Scientific cosmology produces new methods for political life and justice. Turns the case. They demonize and turn this as a basis for political formation.

Bentley B. Allan 18, Assistant Professor of Political Science at Johns Hopkins University, “Scientific Cosmology and International Orders,” DOI: 10.1017/9781108241540

By contrast, I demonstrate that scientific ideas have done more than serve as instrumental means; they have laid the groundwork for the transformation of state purpose. Scientific ideas allowed individuals and groups to reimagine their relationships to the cosmos. In so doing, they inspired new ways of thinking about what political life could and should be about. Scientific ideas were thereby transformed from means to ends. Far from draining the world of meaning, scientific discourses have been used to naturalize a number of ends and purposes since the sixteenth century. Indeed, Weber himself presupposes that science has operated as a negative cosmological force that reduced the meaning of life and death to moments in the organic life cycle. Moreover, he doubts that progress itself can have “an intrinsically meaningful end.”85 However, the inability of science to provide meanings that are logically deduced from scientific principles has nothing to do with the fact that scientific ideas have nonetheless been used to define humanity’s place in the universe. Another aspect of the problem is that IR scholars are used to characterizing the political orders of non-Western societies as drawing on cosmological beliefs, but less likely to think of Western political orders in those terms.86 This is part of a broader orientalist tendency to see Western political orders as rational and progressive while viewing non-Western societies as backward.87 As we shall see in Chapter 4, this tendency was built into the social sciences by colonial anthropology.88 Weberian ideas about rationalization are also bound up in this discourse. Weber argues that “traditional” societies rest on “the sanctity of orders and powers of rule which have existed since time immemorial.”89 For Weber, the process of rationalization in the West eroded magical thinking and disrupted the ritualistic basis of traditional rule. As a result, Western political orders came to be based on the impartial administration of fixed, rational rules.90 We might seek to avoid thinking in these orientalist terms by discarding the cosmological analysis of political orders altogether. However, this would leave us unable to understand and explain shifts in political purpose in the West. Instead, we can push back on the cosmological–rational dichotomy itself by retelling Western history in cosmological terms. Thus, in contrast to the instrumental and Weberian views of science, I conceptualize the Western scientific tradition as carrying and expressing cosmological elements

that have been used to infuse the world with meaning. As John Meyer and his colleagues in the World Polity School argue, “science operates as the secular equivalent of a ‘sacred canopy’ for the modern order, generating a modern, rational interpretation of world order and offering this logic as a secular interpretive grid for natural and social life.”91 In short, science describes both nature and society as knowable, calculable, law-governed domains. In so doing, it provides ontological and cosmological support to legitimate the modern idea that actors (individuals, states, and organizations) can rationally harness knowledge to their ends. The role of science in world order further bolsters ends of justice (equality) and progress (economic growth).92 On one hand, this argument usefully extends and modifies Weber’s rationalization thesis. For the World Polity School, rationalization has not drained the world of meaning but has simply replaced older cultural frames with modern scientific ones.93 On the other hand, the argument reproduces the weakest aspect of Weber’s schema: the idea that science and technology exhibit a singular, rational logic that produces the same effects everywhere throughout the world. The result is that the varied political effects of scientific ideas are folded into monolithic, abstract processes like modernization, rationalization, and commodification.94 This universalistic conception of science is at odds with the plural and historical conception of science that has emerged from the last forty years of historical and sociological studies of science. Indeed, the singular conception of science in the World Polity School was designed to explain isomorphism and is poorly suited to explain change in international discourses.95 To be adapted to the historical analysis of science in international politics, the World Polity School’s narrow, universalistic conception of science must be replaced with the plural and historical view. In light of the fact that the meanings and methods of the scientific enterprise change over time, it does not make sense to refer analytically to “science” as a single enterprise with uniform effects on international politics over the course of 450 years. Instead, I trace the effects of specific scientific movements on the history of the present international order. So, rather than produce a general theory of how science has shaped political institutions, my approach seeks to demonstrate the effects of three specific cosmological shifts on the discourses of state purpose underlying international order. This approach decomposes a macrohistorical process, the emergence of scientific ideas in politics, into a series of contested moments of institutionalization.

#### 4] Anticipating nuclear extinction breeds empathy and entangled care.

Offord, 17—Faculty of Humanities, School of Humanities Research and Graduate Studies, Bentley Campus (Baden, “BEYOND OUR NUCLEAR ENTANGLEMENT,” Angelaki, 22:3, 17-25, dml)

You are steered towards overwhelming and inexplicable pain when you consider the nuclear entanglement that the species Homo sapiens finds itself in. This is because the fact of living in the nuclear age presents an existential, aesthetic, ethical and psychological challenge that defines human consciousness. Although an immanent threat and ever-present danger to the very existence of the human species, living with the possibility of nuclear war has infiltrated the matrix of modernity so profoundly as to paralyse [shut down] our mind-set to respond adequately. We have chosen to ignore the facts at the heart of the nuclear program with its dangerous algorithm; we have chosen to live with the capacity and possibility of a collective, pervasive and even planetary-scale suicide; and the techno-industrial-national powers that claim there is “no immediate danger” ad infinitum.8

This has led to one of the key logics of modernity's insanity. As Harari writes: “Nuclear weapons have turned war between superpowers into a mad act of collective suicide, and therefore forced the most powerful nations on earth to find alternative and peaceful ways to resolve conflicts.”9 This is the nuclear algorithm at work, a methodology of madness. In revisiting Jacques Derrida in “No Apocalypse, Not Now (Full Speed Ahead, Seven Missiles, Seven Missives),”10 who described nuclear war as a “non-event,” it is clear that the pathology of the “non-event” remains as active as ever even in the time of Donald Trump and Kim Jong-un with their stichomythic nuclear posturing.

The question of our times is whether we have an equal or more compelling capacity and willingness to end this impoverished but ever-present logic of pain and uncertainty. How not simply to bring about disarmament, but to go beyond this politically charged, as well as mythological and psychological nuclear algorithm? How to find love amidst the nuclear entanglement; the antidote to this entanglement? Is it possible to end the pathology of power that exists with nuclear capacity? Sadly, the last lines of Nitin Sawhney's “Broken Skin” underscore this entanglement:

Just 5 miles from India's nuclear test site

Children play in the shade of the village water tank

Here in the Rajasthan desert people say

They're proud their country showed their nuclear capability.11

As an activist scholar working in the fields of human rights and cultural studies, responding to the nuclear algorithm is an imperative. Your politics, ethics and scholarship are indivisible in this cause. An acute sense of care for the world, informed by pacifist and non-violent, de-colonialist approaches to knowledge and practice, pervades your concern. You are aware that there are other ways of knowing than those you are familiar and credentialed with. You are aware that you are complicit in the prisons that you choose to live inside,12 and that there is no such thing as an innocent bystander. You use your scholarship to shake up the world from its paralysis, abjection and amnesia; to unsettle the epistemic and structural violence t

hat is ubiquitous to neoliberalism and its machinery; to create dialogic and learning spaces for the work of critical human rights and critical justice to take place. All this, and to enable an ethics of intervention through understanding what is at the very heart of the critical human rights impulse, creating a “dialogue for being, because I am not without the other.”13

Furthermore, as a critical human rights advocate living in a nuclear armed world, your challenge is to reconceptualise the human community as Ashis Nandy has argued, to see how we can learn to co-exist with others in conviviality and also learn to co-survive with the non-human, even to flourish. A dialogue for being requires a leap into a human rights frame that includes a deep ecological dimension, where the planet itself is inherently involved as a participant in its future. This requires scholarship that “thinks like a mountain.”14 A critical human rights approach understands that it cannot be simply human-centric. It requires a nuanced and arresting clarity to present perspectives on co-existence and co-survival that are from human and non-human viewpoints.15

MARK Ultimately, you realise that your struggle is not confined to declarations, treaties, legislation, and law, though they have their role. It must go further to produce “creative intellectual exchange that might release new ethical energies for mutually assured survival.”16 Taking an anti-nuclear stance and enabling a post-nuclear activism demands a revolution within the field of human rights work. Recognising the entanglement of nuclearism with the Anthropocene, for one thing, requires a profound shift in focus from the human-centric to a more-than-human co-survival. It also requires a fundamental shift in understanding our human culture, in which the very epistemic and rational acts of sundering from co-survival with the planet and environment takes place. In the end, you realise, as Raimon Panikkar has articulated, “it is not realistic to toil for peace if we do not proceed to a disarmament of the bellicose culture in which we live.”17 Or, as Geshe Lhakdor suggests, there must be “inner disarmament for external disarmament.”18 In this sense, it is within the cultural arena, our human society, where the entanglement of subjective meaning making, nature and politics occurs, that we need to disarm.

It is 1982, and you are reading Jonathan Schell's The Fate of the Earth on a Sydney bus. Sleeping has not been easy over the past few nights as you reluctantly but compulsively read about the consequences of nuclear war. For some critics, Schell's account is high polemic, but for you it is more like Rabindranath Tagore: it expresses the suffering we make for ourselves. What you find noteworthy is that although Schell's scenario of widespread destruction of the planet through nuclear weaponry, of immeasurable harm to the bio-sphere through radiation, is powerfully laid out, the horror and scale of nuclear obliteration also seems surreal and far away as the bus makes its way through the suburban streets.

A few years later, you read a statement from an interview with Paul Tibbets, the pilot of “Enola Gay,” the plane that bombed Hiroshima. He says, “The morality of dropping that bomb was not my business.”19 This abstraction from moral responsibility – the denial of the implications on human life and the consequences of engagement through the machinery of war – together with the sweeping amnesia that came afterwards from thinking about the bombing of Hiroshima, are what make you become an environmental and human rights activist. You realise that what makes the nuclear algorithm work involves a politically engineered and deeply embedded insecurity-based recipe to elide the nuclear threat from everyday life. The spectre of nuclear obliteration, like the idea of human rights, can appear abstract and distant, not our everyday business. You realise that within this recipe is the creation of a moral tyranny of distance, an abnegation of myself with the other. One of modernity's greatest and earliest achievements was the mediation of the self with the world. How this became a project assisted and shaped through the military-industrial-technological-capitalist complex is fraught and hard to untangle. But as a critical human rights scholar you have come to see through that complex, and you put energies into challenging that tyranny of distance, to activate a politics, ethics and scholarship that recognises the other as integral to yourself. Ultimately, even, to see that the other is also within.20

#### 5[ They’re wrong about their thesis. No universal ontology claim explains space exploration. Evaluate specificity.

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We reject these arguments about essential qualities of human nature. **No** historical **evidence**, no social science evidence, and no genetic evidence **prove that human beings have an innate, universal compulsion to explore. In fact**, **space exploration is radically different from the kinds of geographical expansion that have marked human history because of its high degree of technical difficulty**, the environments’ extreme hostility to human life, **and** the **total lack of encounters with other human cultures.** Furthermore, **if there were some grand universal compulsion to explore**, **we would find no compelling reason** for the United States or any other nation **to act now**, as we would eventually migrate to the stars, **regardless of our** potentially fallible **political decision making.** The exploration of space will continue if and only if governments or other large entities consider it within their interests and means to do so. **Only a fraction of nations** have ever found exploration valuable, and only a smaller fraction **are** now **space faring**.