# Trad Big Lex

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

## Framing

The value is **morality** and the value criterion is **utilitarianism**, defined as maximizing pleasure and minimizing pain through the consequences of actions. Prefer utilitarianism for the following reasons:

**1. Consequentialism is key.**

**Sinnot-Armstrong 19**

Sinnott-Armstrong, Walter, "Consequentialism", *The Stanford Encyclopedia of Philosophy* (Summer 2019 Edition), Edward N. Zalta (ed.), URL = <<https://plato.stanford.edu/archives/sum2019/entries/consequentialism/>>. [Chaminade ZS]

​​Consequentialism also might be supported by an *inference to the best explanation* of our moral intuitions. This argument might surprise those who think of consequentialism as counterintuitive, but in fact consequentialists can explain many moral intuitions that trouble deontological theories. Moderate **deontologists**, for example, often **judge that it is morally wrong to kill one person to save five but not morally wrong to kill one person to save a million.** **They never specify the line between what is morally wrong and what is not morally wrong, and it is hard to imagine any non-arbitrary way for deontologists to justify a cutoff point. In contrast, consequentialists can simply say that the line belongs wherever the benefits outweigh the costs** (including any bad side effects). Similarly, when two promises conflict, it often seems clear which one we should keep, and that intuition can often be explained by the amount of harm that would be caused by breaking each promise. In contrast, deontologists are hard pressed to explain which promise is overriding if the reason to keep each promise is simply that it was made (Sinnott-Armstrong 2009). If consequentialists can better explain more common moral intuitions, then consequentialism might have more explanatory coherence overall, despite being counterintuitive in some cases. (Compare Sidgwick 1907, Book IV, Chap. III; and Sverdlik 2011.) And even if act consequentialists cannot argue in this way, it still might work for rule consequentialists (such as Hooker 2000).

**2. The actors of the resolution are governments and governments must be practical and cannot concern itself with metaphysical questions – its only role is to protect citizens’ interests**

**Rhonheimer 05**

[(Martin, Prof Of Philosophy at The Pontifical University of the Holy Cross in Rome). “THE POLITICAL ETHOS OF CONSTITUTIONAL DEMOCRACY AND THE PLACE OF NATURAL LAW IN PUBLIC REASON: RAWLS’S “POLITICAL LIBERALISM” REVISITED” The American Journal of Jurisprudence vol. 50 (2005), pp. 1-70] [Chaminade AS]

It is a fundamental feature of political philosophy to be part of practical philosophy. **Political philosophy** belongs to ethics, which **is practical, for it** bothreflects on practical  knowledge and **aims at action. Therefore, it is not only normative, but must consider the concrete conditions of realization. The rationale of political institutions** and action **must be** understood as **embedded in concrete** cultural and, therefore, historical **contexts** and as meeting with problems that only in these contexts are understandable. **A** normative political **philosophy which would abstract from the conditions of  realizability** wouldbe  trying to establish norms for realizing the “idea of the good” or of “the just” (as Plato, in  fact, tried to do in his Republic). Such a purely metaphysical view, however, **is doomed to fail**ure**.** As a theory of political praxis, political philosophy must include in its reflection the concrete historical context, historical experiences and the corresponding knowledge of the proper logic of the political. 14 Briefly: political philosophy is not metaphysics, which contemplates the necessary order of being, but practical philosophy, which  deals with partly contingent matters and aims at action.  Moreover, **unlike moral norms in general**—natural law included,—which rule the  actions of a person—“my acting” and pursuing the good—, **the** logic of the **political is characterized by acts like framing institutions** and establishing legal rules **by which** not only personal actions but the actions of **a multitude** of persons **are regulated** by the coercive force of state power, and by which a part of citizens exercises power over others.  **Political actions are**, thus, both actions of **the whole** of the **body politic** and referring to  the whole of the community of citizens. 15 **Unless** wewish to espouse a platonic view according to which **some** persons **are** by  nature **rulers while others are** by nature **subjects**, we will stick to the Aristotelian differentiation between the “domestic” and the “political” kind of rule 16 : unlike domestic rule,  which is over people with a common interest and harmoniously striving after the same good [despotism]and, therefore, according to Aristotle is essentially “despotic,” political **rule is** exercised **over free persons who represent a plurality of interests and** pursue, in the common context of the polis, different goods. The exercise of **such political rule, therefore, needs justification and is** continuously **in search of  consent among those** who are**ruled**, but who potentially at the same time are also the rulers.

**3. Moral uncertainty means any risk of extinction outweighs under any framework**

**Bostrom 13**

Nick. "Existential risk prevention as global priority." Global Policy 4.1 (2013): 15-31. (Faculty of Philosophy and Oxford Martin School University of Oxford)// Elmer recut by SHS/JS

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

**With that, let’s move to the case.**

## Contention 1 - Debris

**Currently, entrepreneurs are pushing for privatization of space travel with increasing success**

**Thompson 20**

[(Clive, author of Coders: The Making of a New Tribe and the Remaking of the World, a columnist for Wired magazine, and a contributing writer to The New York Times Magazine) “Monetizing the Final Frontier The strange new push for space privatization,” December 3, 2020<https://newrepublic.com/article/160303/monetizing-final-frontier>] TDI

For longtime enthusiasts of NASA’s human spacefaring, it was a singularly auspicious moment. Ever since NASA’s space shuttles were mothballed in 2011, the agency had no American-owned way of getting people into space. It had been paying the Russian government to fly U.S. astronauts up and back, on Russia’s Soyuz spacecraft. But this flight was different**. It was the first time humans had flown in a rocket and a capsule made by a private-sector company: SpaceX, the creation of the billionaire Elon Musk.** The launch was also a SpaceX branding bonanza. The astronauts rode up to the rocket in a Tesla, Musk’s fabled luxury electric car; when they’d reached orbit, they broadcast a live video in which they thanked SpaceX for making the flight happen, and showed off the sleek capsule—a genuine marvel of engineering, with huge touch screen control panels that looked rather like the ones inside a Tesla itself**. Over the next few years, NASA will pay Musk and SpaceX $2.6 billion to ferry astronauts to and from the space station six times.** For the feds, this price tag is remarkably cheaper than the space shuttle, which cost over $1 billion per flight. In his speech after the launch, Trump lauded the cost savings that SpaceX had realized on the government’s behalf. SpaceX, he announced, “embodies the American ethos of big thinking and risk-taking.... Congratulations, Elon.” **For Musk, though, the launch was more than just a technical success, and is bigger even than the $2.6 billion contract. It cements him as a leading player in what might seem the unlikeliest stage of the final frontier’s exploration—the privatization of space. Private-sector activity in space travel is accelerating dramatically—rocketing, one might say. For decades, ever since people first headed for orbit in the 1960s, spaceflight had been mostly the preserve of governments.** States were the only actors with the money and technical acumen to blast things into the vacuum and get them safely down again. **The private sector didn’t have NASA’s know-how, nor—more important—a business plan that could rationalize the massive outlay of capital required to operate in space. In the last few years, that calculus has changed dramatically. A generation of “New Space” entrepreneurs has begun launching rockets and satellites. Some seek to flood the planet with fast, cheap mobile-phone signals; others want to manufacture new products in zero gravity, harnessing the novel physics of such conditions to engineer substances that can’t be made in Earth’s gravity**. Further afield, they’re aiming to harvest water on the moon and even mine asteroids**. Backing this burst of entrepreneurial fervor are many billionaires who made their money in the early Wild West of the internet, including Amazon’s Jeff Bezos, with dreams of building space colonies, and Musk, the former PayPal titan who hopes to personally make it to Mars. Barack Obama’s administration made the first major overtures to the space privatizers, signing legislation that paved the way for today’s space boom. But the real land rush has occurred under Trump, via a flurry of executive orders designed to give private firms greater access to “low-Earth orbit.” Trump officials have even touted the idea of privatizing the $100 billion space station itself**—the last signature NASA-sponsored human spacecraft project still aloft. When Trump’s transition team in 2017 pondered the handoff of low-Earth orbit to the private sector, it concluded: “**This may be the biggest and most public privatization effort America has ever conducted.**” Or as Texas GOP Senator Ted Cruz—at the time the chairman of the Space, Science, and Competitiveness Subcommittee—put it in 2018: “**I predict the first trillionaire will be made in space.”** The burst of activity and high-tech acumen thrills many space fans. But it is making many others quite nervous. Opening up space to a frenzy of private actors could, they agree, produce measurable benefits back on planet Earth—making crucial scientific research, environmental monitoring, and everyday communication cheaper. But the critics are quick to note as well that **the history of privatization is spotty at best, with plenty of civically brutal knock-on effects: concentrations of monopolistic power, enfeebled democratic control, and widespread environmental degradation. We’ve seen all those problems appear on Earth as all manner of traditional social goods, from education and housing to pension plans and mass transit, have been targeted for private-sector control. Next up, it seems, is the great beyond.**

**Asteroid mining spikes the risk of satellite-dust collisions**

**Scoles 15**

(Sarah Scoles, freelance science writer, contributor at Wired and Popular Science, author of the books Making Contact and They Are Already Here) “Dust from asteroid mining spells danger for satellites,” New Scientist, May 27, 2015,<https://www.newscientist.com/article/mg22630235-100-dust-from-asteroid-mining-spells-danger-for-satellites/>] TDI

* Study this is citing – Javier Roa, Space Dynamic Group, Applied Physics Department, Technical University of Madrid. Casey J Handmer, Theoretical Astrophysics, California Institute of Technology. Both PhD Candidates. “Quantifying hazards: asteroid disruption in lunar distant retrograde orbits,” arXiv, Cornell University, May 14, 2015,<https://arxiv.org/pdf/1505.03800.pdf>

NASA chose the second option for its [Asteroid Redirect Mission](http://www.nasa.gov/content/what-is-nasa-s-asteroid-redirect-mission/), which aims to [pluck a boulder from an asteroid’s surface](https://www.newscientist.com/article/dn27243-rock-grab-from-asteroid-will-aid-human-mission-to-mars) and relocate it to a stable orbit around the moon. But **an asteroid’s gravity is so weak that it’s not hard for surface particles to escape into space**. Now a **new model warns that debris shed by such transplanted rocks could intrude where many defence and communication satellites live** – in geosynchronous orbit.

According to [Casey Handmer](http://www.caseyhandmer.com/) of the California Institute of Technology in Pasadena and Javier Roa of the Technical University of Madrid in Spain, **5 per cent of the escaped debris will end up in regions traversed by satellites. Over 10 years, it would cross geosynchronous orbit 63 times on average. A satellite in the wrong spot at the wrong time will suffer a damaging high-speed collision with that dust.**

The **study also looks at the “catastrophic disruption” of an asteroid 5 metres across or bigger**. Its **total break-up into a pile of rubble would increase the risk to satellites by more than 30 per cent** ([arxiv.org/abs/1505.03800](http://arxiv.org/abs/1505.03800)).

**Early warning satellites going dark signals attacks – causes miscalc and goes nuclear**

**Orwig 16** [(Jessica, MS in science and tech journalism from Texas A&M, BS in astronomy and physics from Ohio State) “Russia says a growing problem in space could be enough to spark a war,” Insider,’ January 26, 2016,<https://www.businessinsider.com/russia-says-space-junk-could-spark-war-2016-1>] TDI

NASA has already warned that the large amount of space junk around our planet is growing beyond our control, but now a **team of Russian scientists has cited another potentially unforeseen consequence of that debris: War.** Scientists estimate that anywhere from 500,000 to 600,000 pieces of human-made space debris between 0.4 and 4 inches in size are currently orbiting the Earth and traveling at speeds over 17,000 miles per hour. **If one of those pieces smashed into a military satellite it "may provoke political or even armed conflict between space-faring nations,"** Vitaly Adushkin, a researcher for the Institute of Geosphere Dynamics at the Russian Academy of Sciences, reported in a paper set to be published in the peer-reviewed journal Acta Astronautica, which is sponsored by the International Academy of Astronautics. **Say, for example, that a satellite was destroyed or significantly damaged in orbit — something that a 4-inch hunk of space junk could easily do traveling at speeds of 17,500 miles per hour**, Adushkin reported. (Even smaller pieces no bigger than size of a pea could cause enough damage to the satellite that it would no longer operate correctly, he notes.) **It would be difficult for anyone to determine whether the event was accidental or deliberate. This lack of immediate proof could lead to false accusations, heated arguments and, eventually, war, according to Adushkin and his colleagues.** A politically dangerous dilemma **In the report, the Adushkin said that there have already been repeated "sudden failures" of military spacecraft in te last two decades that cannot be explained. "So, there are two possible explanations," he wrote. The first is "unregistered collisions with space objects." The second is "machinations" [deliberate action] of the space adversary.** "**This is a politically dangerous dilemma**," he added. **But these mysterious failures in the past aren't what concerns Adushkin most. It's a future threat of what experts call the cascade effect that has Adushkin and other scientists around the world extremely concerned. The Kessler Syndrome** In 1978, American astrophysicist Donald Kessler predicted that the amount of space debris around Earth would begin to grow exponentially after the turn of the millennium. **Kessler 's predictions rely on the fact that over time, space junk accumulates. We leave most of our defunct satellites in space, and when meteors and other man-made space debris slam into them, you get a cascade of debris. The cascade effect — also known as the Kessler Syndrome — refers to a critical point wherein the density of space junk grows so large that a single collision could set off a domino effect of increasingly more collisions.** For Kessler, this is a problem because it would "create small debris faster than it can be removed," Kessler said last year. And this cloud of junk could eventually make missions to space too dangerous. **For Adushkin, this would exacerbate the issue of identifying what, or who, could be behind broken satellites.** The future **So far, the US and Russian Space Surveillance Systems have catalogued 170,000 pieces of large space debris (between 4 and 8 inches wide) and are currently tracking them to prevent anymore dilemmas like the ones Adushkin and his colleagues cite in their paper.** But it's not just the large objects that concern Adushkin, who reported that even small objects (less than 1/3 of an inch) could damage satellites to the point they can't function properly. Using mathematical models, Adushkin and his colleagues calculated what the situtation will be like in 200 years if we continue to leave satellites in space and make no effort to clean up the mess. They estimate we'll have: 1.5 times more fragments greater than 8 inches across 3.2 times more fragments between 4 and 8 inches across 13-20 times more smaller-sized fragments less than 4 inches across **"The number of small-size, non-catalogued objects will grow exponentially in mutual collisions,"** the researchers reported.

**Modern War between space powers goes nuclear. Nuke war causes extinction – it won’t stay limited**

**Edwards 17**

[(Paul N. Edwards, CISAC’s William J. Perry Fellow in International Security at Stanford’s Freeman Spogli Institute for International Studies. Being interviewed by EarthSky/card is only parts of the interview directly from Paul Edwards.) “How nuclear war would affect Earth’s climate,” EarthSky, September 8, 2017, earthsky.org/human-world/how-nuclear-war-would-affect-earths-climate] Chaminade AS

We are not talking enough about the climatic **effects of nuclear war.** The “nuclear winter” theory of the mid-1980s played a significant role in the arms reductions of that period. But with the collapse of the Soviet Union and the reduction of U.S. and Russian nuclear arsenals, this aspect of nuclear war has faded from view. That’s not good. In the mid-2000s, climate scientists such as Alan Robock (Rutgers) took another look at nuclear winter theory. This time around, they used much-improved and much more detailed climate models than those available 20 years earlier. They also tested the potential effects of smaller nuclear exchanges. The result: an exchange involving just 50 nuclear weapons — the kind of thing we might see in an India-Pakistan war, for example — could loft 5 billion kilograms of smoke, soot and dust high into the stratosphere. That’s enough to cool the entire planet by about 2 degrees Fahrenheit (1.25 degrees Celsius) — about where we were during the Little Ice Age of the 17th century. Growing seasons could be shortened enough to create really significant food shortages. So the climatic effects of even a relatively small nuclear war would be planet-wide. What about a larger-scale conflict? A U.S.-Russia war currently seems unlikely, but if it were to occur, hundreds or even thousands of nuclear weapons might be launched. The climatic consequences **would be catastrophic:** global average **temperatures would drop** as much as **12 degrees Fahrenheit** (7 degrees Celsius) for up to several years — temperatures last seen during the great ice ages. Meanwhile, **smoke and dust** circulating in the stratosphere **would darken the atmosphere** enough **to inhibit photosynthesis,** causing disastrous crop failures, widespread famine and massive ecological disruption. The **effect** would be **similar to** that of **the** giant **meteor** believed to be **responsible for the extinction of the dinosaurs. This time, we would be the dinosaurs.** Many people are concerned about North Korea’s advancing missile capabilities. Is nuclear war likely in your opinion? At this writing, I think **we are closer to a nuclear war** **than** we have been **since the early 1960s.** In the North Korea case, both Kim Jong-un and President Trump are bullies inclined to escalate confrontations. President Trump lacks impulse control, and there are precious few checks on his ability to initiate a nuclear strike. We have to hope that our generals, both inside and outside the White House, can rein him in. North Korea would most certainly “lose” a nuclear war with the United States. But many millions would die, including hundreds of thousands of Americans currently living in South Korea and Japan (probable North Korean targets). Such vast damage would be wrought in Korea, Japan and Pacific island territories (such as Guam) that any “victory” wouldn’t deserve the name. Not only would that region be left with horrible suffering amongst the survivors; it would also immediately face famine and rampant disease. Radioactive fallout from such a war would spread around the world, including to the U.S. It has been more than 70 years since the last time a nuclear bomb was used in warfare. What would be the effects on the environment and on human health today? To my knowledge, most of the changes in nuclear weapons technology since the 1950s have focused on making them smaller and lighter, and making delivery systems more accurate, rather than on changing their effects on the environment or on human health. So-called “battlefield” weapons with lower explosive yields are part of some arsenals now — but **it’s** quite **unlikely that any exchange** between two nuclear powers **would stay limited** to these smaller, less destructive bombs.

## Contention 2 - Africa

**Space mining destroys the African economy**

**Oni 19**

[(David, a space industry and technology analyst at Space in Africa. He’s a graduate of Mining Engineering from the Federal University of Technology Akure.) “The Effect of Asteroid Mining on Mining Activities in Africa,” Africa News, 9/24/19,<https://africanews.space/the-effect-of-asteroid-mining-on-mining-activities-in-africa/>]

At the moment, Asteroid mining poses no threat to terrestrial mining; however, this will not hold for long. The space industry is progressing at such a rapid pace, and the prospects are unequivocally mouth-watering. The big question is, will **asteroid mining [will] lure away investors in Africa**? The planetary resources company estimates that **a single** 30-m **asteroid may contain 30 billion dollars in platinum alone** and a 500m rock could contain half the entire world resources of PGM. **Considering** the **[this] abundance** of minerals in asteroids, once asteroid mining materialises, **it will severely affect the precious metals market**, usurp the prices of rare earth minerals, and a whole lot more because **minerals that are usually somewhat scarce on earth will be easily accessible on asteroids.** While foreign investors run the majority of the large-scale mining activities in the region, reports say that many **African countries are dangerously dependent on mining activities**. For some African countries, despite massive mineral wealth, their mining sectors are underdeveloped, and this is as a result of much focus on oil resources and a couple of other challenges. The million-dollar question is, what will become of the mining activities in Africa?

**Economic decline within Africa, causes war**

**Tollefsen 17**

The present study’s empirical contributions seek to help rectify the inadequate measures of poverty that have come to characterize the literature. To begin with, the article improves our understanding of whether and where a local poverty–conflict nexus exists by deploying experiential data on individuals’ actual wellbeing—which I argue is more closely connected to people’s motives and rationale for taking up arms. Second, the article examines the sociopolitical context’s conditioning effect on the poverty–conflict nexus. This is achieved by including data on individuals’ perceptions surrounding the quality of their local institutions, the presence of group grievances, and local unemployment rates. These factors, I argue, are more closely linked to reasons for fighting than are common proxies such as night-time luminosity and estimates of economic activity, both of which are often derived from dividing GDP per capita by local population counts. **Poverty**—a state in which individuals’ basic needs go unmet—**has been shown to motivate** people to join **rebellions.** Humphreys and Weinstein (2008), for instance, found that **poverty predicted inscription in** the Revolutionary United Front during **Sierra Leone’s civil war.** Barrett (2011) similarly saw how promises of loot lured the poor to enlist in the 1997– 1998 dispute in Nigeria’s local government area known as Toto. Combatants of the Toto conflict were also more likely to join the rebellion if they stood to gain personal protection, food, and shelter. For the present study, I developed a dataset by aggregating survey responses from the pan-African Afrobarometer survey to subnational districts and combining the results with information on post-survey violent conflicts. The dataset consists of 4008 subnational districts, spanning 35 African countries. As most districts were only assessed once, thus restricting study of within-unit variation, survey responses were also aggregated to higher-order subnational regions, resulting in a dataset of 111 regions that were surveyed at least twice; this permitted a region-level fixed-effects model design. Using a pooled cross-sectional dataset of districts, I found that high levels of poverty were linked to increases in local conflict-based violence. Districts with a large share of poor individuals, both in absolute terms and relative to country average, had a higher risk ofconflict than more affluent areas. This relationship held in a coarsened exact matching setup, as well as in a region-level fixed effects design with repeated measurements across time. While the results reveal a local poverty–conflict link, they do not aid in uncovering underlying mechanisms. Using interactions models, I found that poverty increased the risk of conflict, although only where local institutions are weak. The results also show that poverty-stricken areas in which individuals strongly perceive group injustice have a greater risk of conflict than similarly impoverished regions with no aggrieved population. A departure from the local individual opportunity cost explanation, local economic opportunities do not seem to condition the poverty–conflict nexus. In sum, the results suggest that while poverty is significantly connected to conflict, high-quality institutions and inclusiveness of ethnic groups can prevent violence. Although a wide range of robustness checks and alternative model specifications were implemented, including matching and fixed-effects models, the issue of endogeneity could not be ruled out; doing so would require some kind of exogenous instrument, which I have been unable to identify. The remainder of this article elaborates on the theoretical framework linking subnational poverty to local conflict-based violence. This is followed by a discussion of existing methods for measuring local poverty and their potential shortcomings. Next presented is the study’s research design and modeling strategy, followed by a discussion of empirical results. The conclusion considers the study’s limitations and proposes avenues for future research on poverty in locations that support rebel groups. Poverty and conflict A direct link A **connection between low income and risk of conflict is among the most robust findings in the literature on** civil **wars** (Hegre and Sambanis, 2006). However, there is little consensus on the mechanisms through which poverty may produce conflict. Collier and Hoeffler (1998) claimed that low per-capita income lowers the opportunity cost of rebellion because when they have less to lose from taking up arms, poorer individuals become more inclined to rebel. Fearon and Laitin (2003) observed that poorer countries experience more conflict because they are unable to monitor and control all of their territory, thereby creating pockets of hospitable conditions for insurgents; Tollefsen and Buhaug (2015) identified a similar scenario at the local level.

**Great power war**

**Yeisley 11**

[(USAF Lieutenant Colonel Mark O. Yeisley, assistant professor of international relations at the School of Advanced Air and Space Studies, Maxwell AFB, Alabama. MA Colorado State, PhD in international relations from Duke University) “Bipolarity, Proxy Wars, and the Rise of China,” Strategic Studies Quarterly, Winter 2011,<https://www.jstor.org/stable/26270538?seq=1#metadata_info_tab_contents>] TDI

Bipolarity, Nuclear Weapons, and Sino-US Proxy Conflict in Africa It is likely China will achieve economic and then military parity with the United States in the next two decades. China currently possesses 240 nuclear warheads and 135 ballistic missiles capable of reaching the United States or its allies; that number of nuclear warheads is estimated to double by the mid 2020s.43 As during the Cold War, a bipolar system in which war between the United States and China is too costly will lead to policy decisions that seek conflict resolution elsewhere.44 But why would China’s rising necessarily lead to geostrategic competition with the United States, and where would this most likely occur? Unlike the Cold War, access to strategic resources rather than ideology would lie at the heart of future US-Sino competition, and **the new “great game” will** most likely **be played in Africa**.  Despite Communist Party control of its government, China is not interested in spreading its version of communism and is much more pragmatic in its objectives—securing resources to meet the needs of its citizens and improve their standard of living.45 Some estimates show that China will overtake the United States to become the world’s largest economy by 2015, and rising powers usually take the necessary steps to “ensure markets, materials, and transportation routes.”46 China is the leading global consumer of aluminum, copper, lead, nickel, zinc, tin, and iron ore, and its metal needs now represent more than 25 percent of the world’s total.47 In contrast, from 1970 to 1995, US consumption of all materials, including metals, accounted for one-third of the global total despite representing only 5 percent of the world’s population.48 China is the largest energy consumer, according to the International Energy Agency, surpassing the United States in consumption of oil, coal, and natural gas in 2009.49 As the two largest consumers of both global energy and materials, the United States and China must seek foreign policy prescriptions to fulfill future resource needs. While the United States can alleviate some of its energy needs via bio- or coal-based fuels, hydrogen, or natural gas alternatives, China currently lacks the technological know-how to do so and remains tied to a mainly nonrenewable energy resource base. Since the majority of these needs are nonrenewable, competition of necessity will be zero-sum and will be conducted via all instruments of power.50 **Africa is home to** a wealth of **mineral and energy resources**, much of which still remains largely unexploited. Seven African states possess huge endowments of **oil**, **and** four of these have equally substantial amounts of **natural gas**.51 Africa also enjoys large deposits of bauxite (used to make aluminum), copper, lead, nickel, zinc, and iron ore, all of which are imported and highly desired by China. Recent activity serves to prove that China seeks greater access to natural resources in Africa by avidly promoting Chinese development in a large number of African nations. South Africa, the continent’s largest economy, has recently allowed China to help develop its vast mineral wealth; it is China’s number one African source of manganese, iron, and copper.52 Chinese involvement in Africa is not wholly extractive; the continent provides a booming export market for China’s goods and a forum to augment its soft power in the region by offering alternatives to the political and economic baggage that accompanies US foreign aid.53  Of primary interest is open access to Africa’s significant deposits of oil and other energy resources. For example, **China has** 4**,000 military personnel in Sudan** **to protect its** **interests in energy and mineral investments** there; it also owns 40 percent of the Greater Nile Oil Production Company.54 Estimates indicate that within the next few decades **China will obtain 40 percent of its oil and gas** supplies **from Africa**.55 Trade and investment in Africa have also been on the rise; trade has grown more than 10 percent annually in the past decade. Between 2002 and 2004, African exports to China doubled, ranking it third behind the United States and France in trade with the continent. Chinese investment is also growing; more than 700 Chinese business operations across Africa total over $1 billion. Aid and direct economic assistance are increasing as well, and China has forgiven the debt of some 31 African nations.56  Africa is thus a **vital** foreign interest for the Chinese and must be for the United States; access to its mineral and petroleum wealth is crucial to the survival of each.57 Although the US and Chinese economies are tightly interconnected, the **nonrenewable** nature of these **assets means** **competition will remain a zero-sum game**. Nearly all African states have been independent entities for less than 50 years; consolidating robust domestic state institutions and stable governments remains problematic.58 Studies have shown that weak governments are often prime targets for civil conflicts that prove costly to control.59 Many African nations possess both strategic resources and weak regimes, making them vulnerable to internal conflict and thus valuable candidates for assistance from China or the United States to help settle their domestic grievances. With access to African resources of vital strategic interest to each side, competition could likely occur by proxy via diplomatic, economic, or military assistance to one (or both) of the parties involved. Realist claims that focusing on third-world issues is misplaced are thus fallacious; war in a future US-China bipolar system remains as costly as it was during the Cold War. Because of the fragile nature of many African regimes, domestic grievances are more prone to result in conflict; US and Chinese strategic **interests will dictate** an **intrusive foreign policy** **to be** both **prudent and vital**. US-Sino **proxy conflicts over control of African resources will** likely **become necessary** if these great powers are **to sustain** their **national security postures**, especially in terms of strategic defense.60

## Contention 3 - Russia

**U.S. - Russia Relations are at an all time low.**

**Weir 21**

[(Fred Weir has been the Monitor's Moscow correspondent, covering Russia and the former Soviet Union, since 1998. He's traveled over much of that vast territory, reporting on stories ranging from Russia's financial crash to the war in Chechnya, creeping Islamization in central Asia, Russia's demographic crisis, the rise of Vladimir Putin and his repeated returns to the Kremlin, and the ups and downs of US-Russia relations). “Worse than the Cold War? US-Russia relations hit new low.“ Christian Science Monitor 4-20-2021 https://www.csmonitor.com/World/Europe/2021/0420/Worse-than-the-Cold-War-US-Russia-relations-hit-new-low]

Russia’s relations with the West, and the United States in particular, appear to be plumbing depths of acrimony and mutual misunderstanding unseen even during the original Cold War.After years of deteriorating relations, sanctions, tit-for-tat diplomatic expulsions, and an escalating “information war,” some in Moscow are asking if there even is any point in seeking renewed dialogue with the U.S., if only out of concern that more talking might just make things worse. Events have cascaded over the past month. Russia’s treatment of imprisoned dissident Alexei Navalny, who has been sent to a prison hospital amid reports of failing health, underlines the sharp perceived differences between Russia and the West over matters of human rights. Meanwhile, a Russian military buildup near Ukraine has illustrated that the conflict in the Donbass region might explode at any time, possibly even dragging Russia and NATO into direct confrontation. With its relations with Washington at a nadir, Russia is eyeing a more pragmatic, if adversarial, relationship with the U.S. in the hopes of getting the respect it desires. President Joe Biden surprised the Kremlin by proposing a “personal summit” to discuss the growing list of U.S.-Russia disagreements in a phone conversation with Vladimir Putin last week. He later spoke of the need for “disengagement” in the escalating tensions around Ukraine, and postponed a planned visit of two U.S. warships to Russia-adjacent waters in the Black Sea. But days later he also imposed a package of tough sanctions against Russia, for its alleged SolarWinds hacking and interference in the 2020 U.S. presidential elections, infuriating Moscow and drawing threats of retaliation. Last month, after Mr. Biden agreed with a journalist’s intimation that Mr. Putin is a “killer,” the Kremlin ordered Russia’s ambassador to the U.S. to return home for intensive consultations, an almost unprecedented peacetime move. Over the weekend, Russian Foreign Minister Sergey Lavrov suggested that the acting U.S. ambassador to Moscow, John Sullivan, should likewise go back to Washington for a spell. On Tuesday, Mr. Sullivan announced he would do just that this week. And **there is a growing sense in Moscow that the downward spiral of East-West ties has reached a point of no return, and that Russia should consider abandoning hopes of reconciliation** with the West and seek permanent alternatives: perhaps in an intensified compact with China, and targeted relationships with countries of Europe and other regions that are willing to do business with Moscow. **“Things are at rock bottom.** This may not be structurally a cold war in the way the old one was, but mentally, in terms of atmosphere, it’s even worse,” says Fyodor Lukyanov, editor of Russia in Global Affairs, a Moscow-based foreign policy journal. “The fact that Biden offered a summit meeting would have sounded a hopeful note anytime in the past. Now, nobody can be sure of that. A hypothetical Putin-Biden meeting might not prove to be a path to better relations, but just the opposite. It could just become a shouting match that would bring a hardening of differences, and make relations look like even more of a dead end.” Room for discussion Foreign policy experts agree that there is a long list of practical issues that could benefit from purposeful high-level discussion. With the U.S. preparing to finally exit Afghanistan, some coordination with regional countries, including Russia and its Central Asian allies, might make the transition easier for everyone. One of Mr. Biden’s first acts in office was to extend the New START arms control agreement, which the Trump administration had been threatening to abandon, but the former paradigm of strategic stability remains in tatters and requires urgent attention, experts say. “If you are looking for opportunities to make the world a safer place through reason and compromise, there are quite a few,” says Andrey Kortunov, director of the Russian International Affairs Council, which is affiliated with the Foreign Ministry. “There are also some areas where the best we could do is agree to disagree, such as Ukraine and human rights issues.” The plight of Mr. Navalny, which has evoked so much outrage in the West, seems unlikely to provide leverage in dealing with the Kremlin because – as Western moral authority fades – Russian public opinion appears indifferent, or even in agreement with its government’s actions. Recent surveys by the Levada Center in Moscow, Russia’s only independent pollster, found that fewer than a fifth of Russians approve of Mr. Navalny’s activities, while well over half disapprove. An April poll found that while 29% of Russians consider Mr. Navalny’s imprisonment unfair, 48% think it is fair. Russian opposition figure Alexei Navalny, shown here during a hearing in the Babuskinsky District Court in Moscow Feb. 12, 2021, is in poor health amid his hunger strike while in prison in Russia. He was recently moved to a prison hospital. Tensions around the Russian-backed rebel republics in eastern Ukraine have been much severer than usual, with a spike in violent incidents on the front line, a demonstrative Russian military buildup near the borders, and strong U.S. and NATO affirmations of support for Kyiv. The Russian narrative claims that Ukrainian President Volodymyr Zelenskiy triggered the crisis a month ago by signing a decree that makes retaking the Russian-annexed territory of Crimea official Ukrainian state policy. Mr. Zelenskiy has also appealed to the U.S. and Europe to expedite Ukraine’s membership in NATO, which Russia has long described as a “red line” that would lead to war. But Russian leaders, who have been at pains to deny any direct involvement in Ukraine’s war for the past seven years, now say openly that they will fight to defend the two rebel republics. Top Kremlin official Dmitry Kozak even warned that if conflict erupts, it could be “the beginning of the end” for Ukraine. **“This is a very desperate situation**,” says Vadim Karasyov, director of the independent Institute of Global Strategies in Kyiv. “We know the West is not going to help Ukraine militarily if it comes to war. So we need to find some kind of workable compromises, not more pretexts for war.” Time to turn eastward? In this increasingly vexed atmosphere, the Russians appear to be saying there is no point in Mr. Putin and Mr. Biden meeting unless an agenda has been prepared well in advance, setting out a few achievable goals and leaving aside areas where there can be no agreement. “Russia isn’t going to take part in another circus like we had with Trump in Helsinki in 2018,” says Sergei Markedonov, an expert with MGIMO University in Moscow. “What is needed is a deeper dialogue. That could begin if we had a real old-fashioned summit between Biden and Putin, one that has been calculated to yield at least some positive results. We need to find a modus vivendi going forward, and the present course is not leading there.” Alternatively, Russia may turn away from any hopes of even pragmatic rapprochement with the West, experts warn. Mr. Lukyanov, who maintains close contact with his Chinese counterparts, says they felt blindsided at a summit with U.S. foreign policy chiefs in Alaska last month, when what they expected to be a practical discussion of how to overcome the acrimonious Trump-era legacy in their relations turned into what they saw as a U.S. lecture about how China needs to obey the “rules-based” international order. “It was the Chinese, in the past, who were very cautious about participating” in anything that looked like an anti-Western alliance, says Mr. Lukyanov. “We are hearing a new tone from them now. Now our growing relationship with China isn’t just about compensating for a lack of relations with the U.S. It’s about the need to build up a group of countries that will resist the U.S., aimed at containing U.S. activities and policies that are harmful to our two countries.”

**But, deep space exploration is a shared goal that prevents escalation of US-Russia tensions. Unfortunately, privatization deeply threatens relations.**

**CSIS 18**

[(Center for Strategic and International Studies), “Why Human Space Exploration Matters,” August 21, 2018 <https://www.csis.org/blogs/post-soviet-post/space-cooperation>] Chaminade. Bracket was from the original article

U.S.-Russian space cooperation continues to be a stated mutual goal. In April 2018, President Putin said of space, “Thank God, this field of activity is not being influenced by problems in politics. Therefore, I hope that everything will develop, since it is in the interests of everyone…This is a sphere that unites people. I hope it will continue to be this way.” During his statement at a recent event at CSIS, NASA Administrator Jim Bridenstine said, **“[space] is our best opportunity to dialogue when everything else falls apart.** We’ve got American astronauts and Russian cosmonauts dependent on each other on the International Space Station, which enables us to ultimately maintain that dialogue.” The U.S. and Russia both benefit from the ISS partnership. Russia provides transportation to the ISS for U.S. astronauts, from which Russia receives an average of $81 million per seat on the Soyuz (and recognition of its status as a space power). The U.S. also benefits from Russia’s technical contributions to the ISS while Russia benefits The **U.S. and Russia** signed a joint statement in 2017 in **support** of **the idea of collaborating on deep space exploration**, including the construction of the Lunar Orbital Platform-Gateway, a research-focused space station orbiting the moon. Through agreements on civilian space exploration, such as the Lunar Orbital Platform-Gateway or future Mars projects, that have clear benefits to both sides, some degree of cooperation will remain in both countries’ interest. The high price tag for pursuing space exploration alone and opportunities for sharing and receiving technical expertise encourages international partnerships like the ISS. However, at least three factors, apart from the overall deterioration of U.S.-Russia relations, threaten this cooperation. First, **growth of the private sector space industry may alter the economic arrangement between** the **U.S. and Russia**, **and** ultimately **lower the benefits of cooperation to both** countries. The development of advanced technologies by private companies will give NASA new options to choose from and reduce the need to depend on (and negotiate with) Russia. **If NASA and its Russian counterpart,** Roskosmos**, have no need to talk with one another, they probably won’t in the face of tense political relations.** The U.S. intends to use Boeing and SpaceX capsules for human spaceflight beginning in 2020, and a Congressional plan in 2016 set a phase out date of Russian RD-180 rocket engines by 2022.

**With conflict between the U.S. and Russia escalating as a result of failed diplomacy, a U.S. - Russia war would be inevitable. A conflict between these two superpowers would be catastrophic.**

**Edwards 17 2**

[(Paul N. Edwards, CISAC’s William J. Perry Fellow in International Security at Stanford’s Freeman Spogli Institute for International Studies. Being interviewed by EarthSky/card is only parts of the interview directly from Paul Edwards.) “How nuclear war would affect Earth’s climate,” EarthSky, September 8, 2017, earthsky.org/human-world/how-nuclear-war-would-affect-earths-climate] Chaminade AS

We are not talking enough about the climatic effects of nuclear war. The “nuclear winter” theory of the mid-1980s played a significant role in the arms reductions of that period. But with the collapse of the Soviet Union and the reduction of U.S. and Russian nuclear arsenals, this aspect of nuclear war has faded from view. That’s not good. In the mid-2000s, climate scientists such as Alan Robock (Rutgers) took another look at nuclear winter theory. This time around, they used much-improved and much more detailed climate models than those available 20 years earlier. They also tested the potential effects of smaller nuclear exchanges. The result: an exchange involving just 50 nuclear weapons — the kind of thing we might see in an India-Pakistan war, for example — could loft 5 billion kilograms of smoke, soot and dust high into the stratosphere. That’s enough to cool the entire planet by about 2 degrees Fahrenheit (1.25 degrees Celsius) — about where we were during the Little Ice Age of the 17th century. Growing seasons could be shortened enough to create really significant food shortages. So the climatic effects of even a relatively small nuclear war would be planet-wide. What about a larger-scale conflict? A **[If a] U.S.-Russia war** currently seems unlikely, but if it **were to occur,** **hundreds or** even **thousands of nuclear weapons might be launched.** The climatic **consequences would be catastrophic:** global average **temperatures would drop** as much as **12 degrees Fahrenheit** (7 degrees Celsius) for up to several years — temperatures last seen during the great ice ages. Meanwhile**, smoke and dust** circulating in the stratosphere **would darken the atmosphere** enough **to inhibit photosynthesis,** causing disastrous crop failures, widespread famine and massive ecological disruption. **The effect would be similar** **to** that of **the** giant **meteor** believed to be **responsible for the extinction of the dinosaurs. This time, we would be the dinosaurs**. Many people are concerned about North Korea’s advancing missile capabilities. Is nuclear war likely in your opinion? At this writing, I think we are closer to a nuclear war than we have been since the early 1960s. In the North Korea case, both Kim Jong-un and President Trump are bullies inclined to escalate confrontations. President Trump lacks impulse control, and there are precious few checks on his ability to initiate a nuclear strike. We have to hope that our generals, both inside and outside the White House, can rein him in. North Korea would most certainly “lose” a nuclear war with the United States. But many millions would die, including hundreds of thousands of Americans currently living in South Korea and Japan (probable North Korean targets). Such vast damage would be wrought in Korea, Japan and Pacific island territories (such as Guam) that any “victory” wouldn’t deserve the name. Not only would that region be left with horrible suffering amongst the survivors; it would also immediately face famine and rampant disease. Radioactive fallout from such a war would spread around the world, including to the U.S. It has been more than 70 years since the last time a nuclear bomb was used in warfare. What would be the effects on the environment and on human health today? To my knowledge, most of the changes in nuclear weapons technology since the 1950s have focused on making them smaller and lighter, and making delivery systems more accurate, rather than on changing their effects on the environment or on human health. So-called “battlefield” weapons with lower explosive yields are part of some arsenals now — but it’s quite unlikely that any exchange between two nuclear powers would stay limited to these smaller, less destructive bombs.

**C/A Edwards from above, nuke war causes extinction and Extinction links into my framework because as Bostrom stated, extinction is the highest impact under both mine and my opponent’s frameworks.**