## 1AC -- HWL

#### Plan: The appropriation of outer space by private entities in The People's Republic of China is unjust.

#### China’s dependent on private companies for space expansion, satellite deployment, and mining

Fernandez 21 — (Ray Fernandez, Writer at ScreenRant, “Hundreds Chinese Companies Called To Boost Space “, ScreenRant, 11-27-2021, Available Online at https://screenrant.com/chinese-companies-boost-space-development/, accessed 1-11-2022, HKR-AR)

In a new move to boost space development, China has opened up space to private companies. China's space program is heavily linked with the military and wrapped up in secrecy. However, recent Chinese space accomplishments, rovers on the Moon and Mars, new satellites and new space stations were primarily developed by government efforts.

The U.S. brought in the private sector as a strategy to boost its space program and develop expensive and ambitious new projects. Now China is doing the same. The last time China used national private companies to increase development was when it declared Artificial Intelligence a national priority. Fast forward a few years, Chinese AI dominates globally.

At the 7th China (International) Commercial Aerospace Forum, national private companies presented many new and ambitious projects, including spaceplanes, space resources, a massive constellation of satellites and more. One of the companies at the event was the space giant China Aerospace Science and Industry Corp. (CASIC). The Ministry of Science and Technology, China National Space Administration, and other government arms sponsored and supervised the event.

CASIC said that the Xingyun constellation — made up of 80 satellites is moving full speed ahead. The corporation announced that the intelligent space satellite production factory was operating. They are now launching rockets from their own rocket park in the city of Wuhan. Today the rocket park and smart sat factory produce 20 solid-fuel launches and 100 satellites per year but plans to increase capacities are on their way. CASIC is also working on the Tengyun spaceplane, recently flight-testing an advanced turbine-based combined cycle engine in the Gobi desert.

CASIC is not the only private company developing space planes in China. The China Aerospace Science and Technology Corp. and iSpace also presented their plans for space planes and space crafts. iSpace has designed two missions to the Moon, which they assure will be the first commercial missions to the natural satellite. China is getting some **inspiration from U.S. companies**. Local companies in China are looking into space tourism with suborbital and orbital flights. And Deep Blue Aerospace is developing a reusable launcher that looks very much like the Heavy Falcon of SpaceX.

The event's **main themes** were IoT space networks, multi-purpose satellite constellations, **space** resources (mining) and taking the Chinese space sector to a new level with private participation. While the U.S. has its eye on Chinese military space vehicles, it may have overlooked and underestimated the impact that the Chinese private sector will have. Hundreds of new companies have responded to the government's call to "start a new journey for commercial aerospace" in China. It is only a matter of time until their full power and capabilities are unleashed into space.

#### Xi commitments, manufacturing capacity, and FDI make the CCP’s private sector integral to 21st century space competition

Patel 21 — (Neel V. Patel, Neel is the space reporter for MIT Technology Review, and he writes The Airlock newsletter. Before joining, he worked as a freelance science and technology journalist, contributing stories to Popular Science, The Daily Beast, Slate, Wired, the Verge, and elsewhere. Prior to that, he was an associate editor for Inverse, where he grew and led the website’s space coverage., “China’s surging private space industry is out to challenge the US“, MIT Technology Review, 1-21-2021, Available Online at https://www.technologyreview.com/2021/01/21/1016513/china-private-commercial-space-industry-dominance, accessed 1-11-2022, HKR-AR)

Until recently, China’s space activity has been overwhelmingly dominated by two state-owned enterprises: the China Aerospace Science & Industry Corporation Limited (CASIC) and the China Aerospace Science and Technology Corporation (CASC). A few private space firms have been allowed to operate in the country for a while: for example, there’s the China Great Wall Industry Corporation Limited (in reality a subsidiary of CASC), which has provided commercial launches since it was established in 1980. But for the most part, China’s commercial space industry has been nonexistent. Satellites were expensive to build and launch, and they were too heavy and large for anything but the biggest rockets to actually deliver to orbit. The costs involved were too much for anything but national budgets to handle.

That all changed this past decade as the costs of making satellites and launching rockets plunged. In 2014, a year after Xi Jinping took over as the new leader of China, the Chinese government decided to treat civil space development as a key area of innovation, as it had already begun doing with AI and solar power. It issued a policy directive called Document 60 that year to enable large private investment in companies interested in participating in the space industry.

“Xi’s goal was that if China has to become a critical player in technology, including in civil space and aerospace, it was critical to develop a space ecosystem that includes the private sector,” says Namrata Goswami, a geopolitics expert based in Montgomery, Alabama, who’s been studying China’s space program for many years. “He was taking a cue from the American private sector to encourage innovation from a talent pool that extended beyond state-funded organizations.”

As a result, there are now 78 commercial space companies operating in China, according to a 2019 report by the Institute for Defense Analyses. More than half have been founded since 2014, and the vast majority focus on satellite manufacturing and launch services.

For example, Galactic Energy, founded in February 2018, is building its Ceres rocket to offer rapid launch service for single payloads, while its Pallas rocket is being built to deploy entire constellations. Rival company i-Space, formed in 2016, became the first commercial Chinese company to make it to space with its Hyperbola-1 in July 2019. It wants to pursue reusable first-stage boosters that can land vertically, like those from SpaceX. So does LinkSpace (founded in 2014), although it also hopes to use rockets to deliver packages from one terrestrial location to another.

Spacety, founded in 2016, wants to turn around customer orders to build and launch its small satellites in just six months. In December it launched a miniaturized version of a satellite that uses 2D radar images to build 3D reconstructions of terrestrial landscapes. Weeks later, it released the first images taken by the satellite, Hisea-1, featuring three-meter resolution. Spacety wants to launch a constellation of these satellites to offer high-quality imaging at low cost.

To a large extent, China is following the same blueprint drawn up by the US: using government contracts and subsidies to give these companies a foot up. US firms like SpaceX benefited greatly from NASA contracts that paid out millions to build and test rockets and space vehicles for delivering cargo to the International Space Station. With that experience under its belt, SpaceX was able to attract more customers with greater confidence.

Venture capital is another tried-and-true route. The IDA report estimates that VC funding for Chinese space companies was up to $516 million in 2018—far shy of the $2.2 billion American companies raised, but nothing to scoff at for an industry that really only began seven years ago. At least 42 companies had no known government funding.

And much of the government support these companies do receive doesn’t have a federal origin, but a provincial one. “[These companies] are drawing high-tech development to these local communities,” says Hines. “And in return, they’re given more autonomy by the local government.” While most have headquarters in Beijing, many keep facilities in Shenzhen, Chongqing, and other areas that might draw talent from local universities.

There’s also one advantage specific to China: manufacturing. “What is the best country to trust for manufacturing needs?” asks James Zheng, the CEO of Spacety’s Luxembourg headquarters. “It’s China. It’s the manufacturing center of the world.” Zheng believes the country is in a better position than any other to take advantage of the space industry’s new need for mass production of satellites and rockets alike.

Making friends

The most critical strategic reason to encourage a private space sector is to create opportunities for international collaboration—particularly to attract customers wary of being seen to mix with the Chinese government. (US agencies and government contractors, for example, are barred from working with any groups the regime funds.) Document 60 and others issued by China’s National Development and Reform Commission were aimed not just at promoting technological innovation, but also at drawing in foreign investment and maximizing a customer base beyond Chinese borders.

**“China realizes there are certain things they cannot get on their own,”** says Frans von der Dunk, a space policy expert at the University of Nebraska–Lincoln. Chinese companies like LandSpace and MinoSpace have worked to accrue funding through foreign investment, escaping dependence on state subsidies. And by avoiding state funding, a company can also avoid an array of restrictions on what it can and can’t do (such as constraints on talking with the media). Foreign investment also makes it easier to compete on a global scale: you’re taking on clients around the world, launching from other countries, and bringing talent from outside China.

#### Mining basing competition causes war

Jamasmie 21 — (Cecilia Jamasmie, Cecilia has covered mining for more than a decade. She is particularly interested in Corporate Social Responsibility (CSR), Diamonds and Latin America. Cecilia has been interviewed by BBC News and CBC among others and has been a guest speaker at mining conventions, including MINExpo 2016 and the World’s Copper Conference 2018. She is also member of the expert panel on Social License to Operate (SLO) at the European project MIREU (Mining and Metallurgic Regions EU). She holds a Master of Journalism from the University of British Columbia, and is based in Nova Scotia., “Experts warn of brewing space mining war among US, China and Russia“, MINING, 4-29-21, Available Online at https://www.mining.com/experts-warn-of-brewing-space-mining-war-among-us-china-and-russia/, accessed 1-11-2022, HKR-AR)

A brewing war to set a mining base in space is likely to see China and Russia joining forces to keep the US increasing attempts to dominate extra-terrestrial commerce at bay, experts warn.

The Trump Administration took an active interest in space, announcing that America would return astronauts to the moon by 2024 and creating the Space Force as the newest branch of the US military.

It also proposed global legal framework for mining on the moon, called the Artemis Accords, encouraging citizens to mine the Earth’s natural satellite and other celestial bodies with commercial purposes.

The directive classified outer space as a “legally and physically unique domain of human activity” instead of a “global commons,” paving the way for mining the moon without any sort of international treaty.

Spearheaded by the US National Aeronautics and Space Administration (NASA), the Artemis Accords were signed in October by Australia, Canada, England, Japan, Luxembourg, Italy and the United Emirates.

“Unfortunately, the Trump Administration exacerbated a national security threat and risked the economic opportunity it hoped to secure in outer space by failing to engage Russia or China as potential partners,” says Elya Taichman, former legislative director for then-Republican Michelle Lujan Grisham.

“Instead, the Artemis Accords have driven China and Russia toward increased cooperation in space out of fear and necessity,” he writes.

Russia’s space agency Roscosmos was the first to speak up, likening the policy to colonialism.

“There have already been examples in history when one country decided to start seizing territories in its interest — everyone remembers what came of it,” Roscosmos’ deputy general director for international cooperation, Sergey Saveliev, said at the time.

China, which made history in 2019 by becoming the first country to land a probe on the far side of the Moon, chose a different approach. Since the Artemis Accords were first announced, Beijing has approached Russia to jointly build a lunar research base.

President Xi Jinping has also he made sure China planted its flag on the Moon, which happened in December 2020, more than 50 years after the US reached the lunar surface.

#### China space commercialization uniquely risks cascades – they ignore norms and don’t register satellites which prevents tracking

Swinhoe 21 – Editor at Datacenter Dynamics. Previously he was at IDG in roles including UK Editor at CSO Online and Senior Staff Writer at IDG Connect. [Dan, “China’s moves into mega satellite constellations could add to space debris problem,” 4/20/2021, <https://www.datacenterdynamics.com/en/analysis/chinas-moves-into-mega-satellite-constelations-could-add-to-space-debris-problem/>]

Of the 3,000-odd operational satellites currently in orbit, a little over 400 belong to China or Chinese companies. The number of commercial companies in the West launching satellites has skyrocketed in recent years, and SpaceX now operates more satellites than any other company or government.

But refusing to be left behind, China is planning both state and commercial deployments of constellation satellites in huge numbers in the coming years, which could post an increased risk to in-orbit operations if Chinese companies don’t take due care in how they behave.

The new commercial space race

A report by the Secure World Foundation says a 2014 document from the Chinese Government known as “Document 60” (Official English Language Title: Guiding Opinions of the State Council on Innovating the Investment and Financing Mechanisms in Key Areas and Encouraging Social Investment) was the start of China’s modern commercial space sector. And in 2020, satellite Internet was included in the scope of China’s New Infrastructure policy initiative. Space is also part of China’s expansive Belt and Road initiative, which all combined have led to an explosion in the country’s commercial space ambitions.

China is beginning to “get its act together” around commercial use of space, Jonathan McDowell of the Harvard-Smithsonian Center for Astrophysics tells DCD. Whereas in previous years he says China has had many government satellites and some quasi-commercial satellites with strong ties to government, but now there are true commercial Chinese companies in space.

“We have the same phenomenon as the US companies in that they're moving fast and they're innovative and doing new things.”

But as Chinese companies look to follow the likes of SpaceX and OneWeb in deploying large numbers of satellites, he warns their lack of care in operations could potentially damage space for everyone.

China’s commercial space industry blasts off

A number of private space companies including LinkSpace, OneSpace, iSpace, LandSpace, and ExPace, have all launched in recent years. As well developing their own rockets, these companies are launching satellites of all shapes and sizes into Low Earth Orbit (LEO) with the aim of forming their own constellations to rival those of Western companies.

Bao Weimin, member of the National Committee of the Chinese People’s Political Consultative Conference and director of the Science and Technology Committee of the Aerospace Science and Technology Group, recently announced plans to establish a national satellite network company to be responsible for “coordinating the planning and operation of space satellite Internet network construction.”

The China Aerospace Science and Industry Corporation (CASIC), a state-owned enterprise, outlined its plans to preliminarily finish the construction of the Xingyun project, an 80-satellite LEO narrowband Internet of Things constellation, by 2025 in addition to 320 Hongyan communications satellites.

China Telecom’s satellite communications reportedly has plans to launch 10,000 satellites in the next five to ten years under the name ‘China StarNet’. Spacety is also launching a constellation of imagery satellites and has launched at least 20 so far. Another company called GW has filed for spectrum allocation from the International Telecommunication Union for two broadband constellations called GW-A59 and GW-2 that would include almost 13,000 satellites.

A report from IDA into China’s commercial space industry found others including Zhuhai Orbita, GalaxySpace, MinoSpace, LaserFleet, Head Aerospace and numerous others are also developing constellations from which, like US counterparts, these companies aim to provide satellite broadband, 5G, IoT, and various data services. Though many are in the early stages of development, most plan to launch the first of what could be hundreds or even thousands of satellites within the next few years.

While most companies can’t boast the same level of funding as US space companies – VC funding for Chinese space companies was up to $516 million in 2018 compared to the $2.2 billion US companies raised – they are bringing in investment; earlier this year Beijing Commsat received more than $4.5 billion in funding from the China Internet Investment fund, with more than $10 billion in additional funding promised in the future.

Xie Tao, founder of Beijing Commsat Technology Development Co., Ltd, told China Money Network he expects the country to launch 30,000 to 40,000 Satellites in the future, compared to 40,000 to 60,000 launched by the US.

“Space in the orbit is allocated on a first-come, first-served basis and the onus will be on these latecomers to ensure their satellites will not collide with existing ones,” Commsat’s Xie previously said. “The low-Earth orbit is becoming increasingly crowded and the space land grab is on.”

China isn’t up to speed in orbital norms

While the UN tightly controls GEO orbits, offering countries licenses for a set number of slots in the closely-packed and highly valuable planes, there is no such limit at lower orbits. The number of satellites that companies can launch at LEO is limited only by what local regulators will permit, despite the machines circling the entire planet in around 90 minutes.

And space is becoming increasingly crowded. The number of satellites being launched annually is beginning to reach the thousands, leftovers parts from previous launches and satellites can mount up if not properly disposed of, and debris from previous in-orbit incidents means LEO is full of thousands of pieces of potentially satellite-destroying junk and debris.

Around 28,200 pieces of space junk and debris are currently being tracked in orbit but ESA estimates there could be up to hundreds of thousands of potentially harmful pieces in orbit. At its most extreme, Kessler syndrome predicts a scenario where the space around Earth is so full of satellites and debris that it becomes unmanageable and collisions begin to cascade, causing a chain reaction of collisions which render many orbits out of use for generations.

China has as much right to operate satellites as Western companies, but the current lack of adherence to ‘space norms’ could increase risks further. McDowell warns the ‘explosion’ of Chinese activity could have a massive impact on the usability of space.

“Chinese adherence to things like space debris norms and registration norms is, I would say, about 10 years behind everybody else, if not more” he says. “In UN registration of satellites, they're being very incomplete. They're not registering a lot of their CubeSats and things like that. They're not really being as careful, and they're not as transparent in what's going on.”

Chinese commercial satellites are subject the same risks as Western ones in space; extreme temperatures, crowded operating environment, and new companies seeing large numbers of failures as they go through rapid development. But a lack of proper registration can create more risk of collisions, which can have catastrophic effects, especially with larger satellites at higher orbits.

#### Debris cascades---nuclear war

Les Johnson 13, Deputy Manager for NASA's Advanced Concepts Office at the Marshall Space Flight Center, Co-Investigator for the JAXA T-Rex Space Tether Experiment and PI of NASA's ProSEDS Experiment, Master's Degree in Physics from Vanderbilt University, Popular Science Writer, and NASA Technologist, Frequent Contributor to the Journal of the British Interplanetary Sodety and Member of the American Institute of Aeronautics and Astronautics, National Space Society, the World Future Society, and MENSA, Sky Alert!: When Satellites Fail, p. 9-12 [language modified]

Whatever the initial cause, the result may be the same. A satellite destroyed in orbit will break apart into thousands of pieces, each traveling at over 8 km/sec. This virtual shotgun blast, with pellets traveling 20 times faster than a bullet, will quickly spread out, with each pellet now following its own orbit around the Earth. With over 300,000 other pieces of junk already there, the tipping point is crossed and a runaway series of collisions begins. A few orbits later, two of the new debris pieces strike other satellites, causing them to explode into thousands more pieces of debris. The rate of collisions increases, now with more spacecraft being destroyed. Called the "Kessler Effect", after the NASA scientist who first warned of its dangers, these debris objects, now numbering in the millions, cascade around the Earth, destroying every satellite in low Earth orbit. Without an atmosphere to slow them down, thus allowing debris pieces to bum up, most debris (perhaps numbering in the millions) will remain in space for hundreds or thousands of years. Any new satellite will be threatened by destruction as soon as it enters space, effectively rendering many Earth orbits unusable. But what about us on the ground? How will this affect us? Imagine a world that suddenly loses all of its space technology. If you are like most people, then you would probably have a few fleeting thoughts about the Apollo-era missions to the Moon, perhaps a vision of the Space Shuttle launching astronauts into space for a visit to the International Space Station (ISS), or you might fondly recall the "wow" images taken by the orbiting Hubble Space Telescope. In short, you would know that things important to science would be lost, but you would likely not assume that their loss would have any impact on your daily life. Now imagine a world that suddenly loses network and cable television, accurate weather forecasts, Global Positioning System (GPS) navigation, some cellular phone networks, on-time delivery of food and medical supplies via truck and train to stores and hospitals in virtually every community in America, as well as science useful in monitoring such things as climate change and agricultural sustainability. Add to this the [destruction] ~~crippling~~ of the US military who now depend upon spy satellites, space-based communications systems, and GPS to know where their troops and supplies are located at all times and anywhere in the world. The result is a nightmarish world, one step away from nuclear war, economic disaster, and potential mass starvation. This is the world in which we are now perilously close to living. Space satellites now touch our lives in many ways. And, unfortunately, these satellites are extremely vulnerable to risks arising from a half-century of carelessness regarding protecting the space environment around the Earth as well as from potential adversaries such as China, North Korea, and Iran. No government policy has put us at risk. It has not been the result of a conspiracy. No, we are dependent upon them simply because they offer capabilities that are simply unavailable any other way. Individuals, corporations, and governments found ways to use the unique environment of space to provide services, make money, and better defend the country. In fact, only a few space visionaries and futurists could have foreseen where the advent of rocketry and space technology would take us a mere 50 years since those first satellites orbited the Earth. It was the slow progression of capability followed by dependence that puts us at risk. The exploration and use of space began in 1957 with the launch of Sputnik 1 by the Soviet Union. The United States soon followed with Explorer 1. Since then, the nations of the world have launched over 8,000 spacecraft. Of these, several hundred are still providing information and services to the global economy and the world's governments. Over time, nations, corporations, and individuals have grown accustomed to the services these spacecraft provide and many are dependent upon them. Commercial aviation, shipping, emergency services, vehicle fleet tracking, financial transactions, and agriculture are areas of the economy that are increasingly reliant on space. Telestar 1, launched into space in the year of my birth, 1962, relayed the world's first live transatlantic news feed and showed that space satellites can be used to relay television signals, telephone calls, and data. The modern telecommunications age was born. We've come a long way since Telstar; most television networks now distribute most, if not ali, of their programming via satellite. Cable television signals are received by local providers from satellite relays before being sent to our homes and businesses using cables. With 65% of US households relying on cable television and a growing percentage using satellite dishes to receive signals from direct-to-home satellite television providers, a large number of people would be cut off from vital information in an emergency should these satellites be destroyed. And communications satellites relay more than television signals. They serve as hosts to corporate video conferences and convey business, banking, and other commercial information to and from all areas of the planet. The first successful weather satellite was TIROS. Launched in 1960, TIROS operated for only 78 days but it served as the precursor for today's much more long-lived weather satellites, which provide continuous monitoring of weather conditions around the world. Without them, providing accurate weather forecasts for virtually any place on the globe more than a day in advance would be nearly impossible. Figure !.1 shows a satellite image of Hurricane Ivan approaching the Alabama Gulf coast in 2004. Without this type of information, evacuation warnings would have to be given more generally, resulting in needless evacuations and lost economic activity (from areas that avoid landfall) and potentially increasing loss of life in areas that may be unexpectedly hit. The formerly top-secret Corona spy satellites began operation in 1959 and provided critical information about the Soviet Union's military and industrial capabilities to a nervous West in a time of unprecedented paranoia and nuclear risk. With these satellites, US military planners were able to understand and assess the real military threat posed by the Soviet Union. They used information provided by spy satellites to help avert potential military confrontations on numerous occasions. Conversely, the Soviet Union's spy satellites were able to observe the United States and its allies, with similar results. It is nearly impossible to move an army and hide it from multiple eyes in the sky. Satellite information is critical to all aspects of US intelligence and military planning. Spy satellites are used to monitor compliance with international arms treaties and to assess the military activities of countries such as China, Russia, Iran, and North Korea. Figure 1.2 shows the capability of modem unclassified space-based imaging. The capability of the classified systems is presumed to be significantly better, providing much more detail. Losing these satellites would place global militaries on high alert and have them operating, literally, in the blind. Our military would suddenly become vulnerable in other areas as well. GPS, a network of 24-32 satellites in medium-Earth orbit, was developed to provide precise position information to the military, and it is now in common use by individuals and industry. The network, which became fully operational in 1993, allows our armed forces to know their exact locations anywhere in the world. It is used to guide bombs to their targets with unprecedented accuracy, requiring that only one bomb be used to destroy a target that would have previously required perhaps hundreds of bombs to destroy in the pre-GPS world (which, incidentally, has resulted in us reducing our stockpile of non-GPS-guided munitions dramatically). It allows soldiers to navigate in the dark or in adverse weather or sandstorms. Without GPS, our military advantage over potential adversaries would be dramatically reduced or eliminated.

#### NEA scarcity and ilaw ambiguity makes US-China competition go nuclear

Gautel 21 — (Gidon Gautel is currently an Analyst in the space industry. He was previously the Project Coordinator of China Foresight and Project Manager of the Economic Diplomacy Commission at LSE IDEAS. Gidon holds a BSc in Government and Economics with first class honours from the London School of Economics & Political Science, and an MSc in Innovation, Entrepreneurship & Management with distinction from Imperial College Business School., [insert quals], “Coordination Failure: Risks of US-China competition in space“, Medium, 4-29-2021, Available Online at https://lseideas.medium.com/coordination-failure-risks-of-us-china-competition-in-space-7112ca4f4da1, accessed 1-12-2022, HKR-AR)

Finally, a lack of coordination increases the risks for lunar crewmembers, once these arrive on the moon. The disruptions of the kind described above should be self-explanatory in their risk to humans attempting to establish a permanent presence. However, more insidious factors also abound. One of these is the lack of standardisation driven by a bifurcation into geopolitical blocs of lunar activity. As has been pointed out, widely adopted standards of lunar exploration promise considerable benefits[16]. A balkanisation of standards would do the opposite, limiting any attempt of future cooperation in exploration and scientific endeavour. In the most extreme cases, it endangers lives. Mutual aid is a core tenet of both the Outer Space Treaty and the Artemis Accords. Yet, a lack of universally accepted technological standards for lunar (and beyond) crewed operations potentially makes such action considerably more difficult. As the ISS has proven, any inter-operational system must be designed from the outset to be inter-operational. For future lunar activities, this presently seems impossible. Though currently remote, the possibility of the loss of life due to conflicting standards of crewed lunar technology is nevertheless a tragedy worth contemplating.

Again, the described issues are most likely to occur should terrestrial geopolitical tensions between the US and China preclude proactive coordination and information sharing. While the establishment of separate lunar operations can, at this point, be taken as a given, it is far from too late to establish functionally sufficient coordination mechanisms to prevent a major international incident. While US-China coordination is limited by the Wolf Amendment, it is not wholly precluded, as indicated by NASA’s monitoring of the Chang’e 4 mission, utilising the Lunar Reconnaissance Orbiter[17], and, more recently, an exchange of data to mitigate the risks of an orbital collision of Mars orbiters[18]. Ideally, therefore, the United States would proactively take the necessary bilateral steps to work with China to coordinate its respective beyond-Earth surface activities and prevent harmful interference.

Alongside, and regardless of, these efforts, it will be the task of members of international bodies, such as The Committee on the Peaceful Uses of Outer Space (COPUOS) to facilitate coordination activities. In the midst of such efforts, ESA member states are primary actors eligible for leading such initiatives, with ESA having engaged in collaborative activities in space with both the US and China. While diplomats active within UN COPUOS will be well aware of these issues, and their role in enabling such necessary coordination, it is incumbent upon national governments allied to the US to recognise these flashpoints and spearhead broader policy responses to proactively support coordination and the activities of their diplomats at the UN. The UK government, whose diplomats already play a major role in coordinating international space activities, must lend them its full support.

Beyond the moon, the issue of geographically concentrated sites of interest is only likely to prevail. While space is boundless, areas of economical or scientific value are nonetheless often concentrated. Some preliminary analysis, for example, places the number of economically viable near-Earth asteroids at around only ten[19], due to the fact that metallic, accessible, and economically viable near-Earth asteroids are comparatively rare in number. Given the considerable geographic challenges associated with on-asteroid operations, the need for multi-actor coordination will only become more pressing, especially if terrestrial US-China competition intensifies.

Failures to Coordinate

The risks outlined above are non-exhaustive, and do not touch upon the military dimension of space which carries equal if not greater weight. However, they demonstrate clearly the fact that US-China coordination in space will become ever more pressing as the exploration and commercialisation of space advances. Such risks will only manifest themselves if the US and China are unable to coordinate their activities sufficiently and allow geopolitical tensions to obstruct this crucial work.

Looking forwards, all third-party actors in space should closely monitor terrestrial US-China relations and map these to their own activities relating to space (be this in the realm of space exploration or applications), taking mitigating measures as necessary should tensions spill over beyond Earth. In tandem, states with notable diplomatic influence should increase further efforts to enable frictionless coordination and information sharing between the two great powers. Crucially, should formal coordination mechanisms in orbit, on the moon, or beyond be in sight, imperfect coordination should be prioritised if institutional gridlock driven by the pursuit of national interest is the alternative.

#### China will long-term outpace the US in space – mining, first-mover advantage, lunar projects

Fabian 21 — (Chris Fabian, Capt. Chris Fabian, U.S. Space Force, is a crew commander in the 3rd Space Operations Squadron supporting the Delta 9 mission. , “A call to action for strategic space competition with China“, TheHill, 6-22-2021, Available Online at https://thehill.com/opinion/national-security/558979-a-call-to-action-for-strategic-space-competition-with-china?rl=1, accessed 1-12-2022, HKR-AR)

To compete with China’s space power, the United States needs ambitious visions, not business as usual. China aims to be a dominant space power by 2045, raising concerns that it seeks to establish itself as a space hegemon. The meteoric rise of China’s space program and its lofty ambitions could result in China outpacing the United States in space. China understands that a vibrant space industry is critical infrastructure for economic development, would achieve potent soft-power effects, and provide vital capabilities to Chinese national security and economic development.

China sent its first astronaut into orbit in 2003, yet in 2018 conducted more space-oriented operations than any other nation. Last December, China landed on the moon, planted its flag, collected moon rock samples, returned to Earth, and plans to install a permanent lunar space station by 2031. Months after China reached Mars’ orbit, its Zhurong rover landed on the red planet surface in May. China has begun talks with Russia to secure partnership for a lunar base project. Between 2036-2045, China plans to have a long-term human presence at the Lunar South Pole. These are amazing accomplishments and an ambitious vision for a nation that launched its first satellite only recently, in 1970.

China’s space diplomacy and science efforts are biased toward exploring and exploiting natural resources in near-Earth objects and on the moon. China’s behavior in space may mirror its patterns of resource nationalism on Earth — that is to say, spending incredible political and economic capital to secure exclusive access to strategic resources. As Earth-based resources become scarce and technology makes space-mining feasible, space will become a frontier for strategic competition, especially resource nationalism. Mining even a single asteroid could disrupt global iron, nickel, platinum group metals (PGM) and precious metal-based economies, markets and industry supply chains, especially if controlled by a single state and used for in situ manufacturing and re-supply. Establishing a presence in cislunar space, as China clearly intends, provides capabilities and capacity for space mining, positioning, navigation and timing (PNT), and first-mover locational advantages for space settlement.

This emerging competition differs from the Cold War-era race for symbolic space milestones that sought to prove the superiority of the U.S. market-based economic system for the benefit of unaligned nations. Today’s space race is about the actual economics of space-derived capabilities, access to space resources, and the technologies for acquiring and controlling them. The United States is at a crossroads: It can either prepare itself for this new paradigm, or be relegated to second-class status and look back on what could have been. Efficient and advantageous strategic investment now is better than doubling down later with a patchwork of expensive, rushed space programs.

#### Commercialized proximity mining operations create dual-use deflection risks – inherent interoperability makes dangerous repurposing easy and likely

Howe 15 [Jim Howe is a writer and policy analyst who focuses on space and national security issues. He works in the nuclear power industry. COMMON GROUND: Asteroid Mining and Planetary Defense. Summer 2015. https://space.nss.org/media/Asteroid-Mining-And-Planetary-Defense.pdf]

Extensive and prolonged proximity operations will be an essential element of most types of planetary defense mitigation missions. The most technologically mature method for fragmentation or deflection of a hazardous object is through a surface, subsurface, or stand-off nuclear explosion: The tremendous impulsive force of the blast and resulting surface ablation could, in one moment, deliver the necessary velocity change to the body to miss its future collision with Earth. Time permitting, to assure exact positioning and maximum deflective or fragmentation effect, the nuclear device would be buried, anchored to the surface, or orbiting just above the asteroid, an effort that would involve precise proximity operations.

On the opposite end of the spectrum for deflecting an inbound body are the “slow push" methods, which would deliver a minute but steady deflective force to the asteroid or comet, over time providing a cumulative change in velocity. With few exceptions, every proposed slow push technique would be dependent on extended operations in close proximity to the body. Gravity tractors would hover a spacecraft near the asteroid for years or decades, slowly imparting a deflective gravitational force; an enhanced gravity tractor would first collect boulders or regolith from the threatening body, to increase the mass and gravitational pull of the spacecraft. Laser or solar ablation methods would require the stationing of a spacecraft near the asteroid to direct the ablative beam. Using thrusters or a space tug would require direct physical contact with the body for years on end, nudging it to alter its velocity. Mass driver systems would land and anchor a robotic mining apparatus on the asteroid’s surface, to cast a steady stream of regolith into space and produce a minute but steady deflective counterforce.

Similarly, asteroid or comet mining would rely entirely on the ability to conduct reliable, long-term, repetitive proximity operations. Several mining concepts have been analyzed. The most common concept would land and anchor robotic mining and support systems on the asteroid or comet; these systems would methodically drill, scrape, crush, lift, or scoop the desired minerals or ice from the body. Support systems would discard unwanted tailings and transport the ore to a processing station or collection facility. The mining operation could occur on the surface, in pits, or in caverns cut into the interior of the asteroid or comet.

Alternative mining methods include leaching minerals through the injection of high pressure steam, fully encapsulating a small asteroid or comet and capturing the escaping water as the container is heated by the Sun, and collecting water vapor from a passing comet using a spacecraft stationed in a trailing position behind it. Each of these activities would require the ability to operate on and near the surface of the body for long periods.

The commonalities between planetary defense and asteroid mining are extensive for the wide range of proximity operations. For both endeavors, hovering, orbiting, landing, and anchoring on the space body are essential competencies. The same base technologies that can be used to mine metals could be employed in burying a nuclear device to fragment an asteroid, or as a mass driver apparatus used in deflection. The technologies that could be employed to secure thrusters or a solar sail to a tumbling asteroid to change its orbit could be adapted to anchor a full suite of mining equipment to the surface of a resource-rich body.

#### That increases the risk of accidental collisions, astro-terror, and space weaponization

Mares 15 [Miroslav Mares, Professor, at the Division of Security and Strategic Studies, Masaryk University, Czech Republic. Jakub Drmola PhD student, at the Divison of Security and Strategic Studies, Masaryk University, Czech Republic. Revisiting the deflection dilemma. October 1, 2015. https://academic.oup.com/astrogeo/article/56/5/5.15/235650]

Sooner or later, in order to avoid the fate of the dinosaurs, humanity needs to develop scientific and technological capabilities to prevent extinction-level impact events. But most solutions bring about new challenges, because new technologies rarely have only one application. Here lies the dilemma: any technology allowing us to deflect asteroids from a collision trajectory with the Earth could also be used to direct them towards the Earth. This means we could potentially turn any future near-miss into an impact, with all its devastating consequences.

Sagan & Ostro (1994b) concluded that this is a risk not worth taking. Considering the very low probabilities of impacts with objects larger than 1 km (generally less than 1 in 5000 for a given century), they were more worried about the misuse of such trajectory-altering technology than the undiverted asteroids themselves. Humans visited a great deal of violence upon each other during the 20th century; war has been prevalent and increasingly technological. The beginning of the 21st century does not seem overly promising either. The risk that one of humanity's irrational totalitarian powers decides to have some nearby asteroid steered towards Earth might simply be too high. Many people still see the default cosmic odds as preferable to the lessons of recent history.

Later on, a modification of sorts to the deflection dilemma appeared, positing that the “real” dilemma (Schweickart 2004, Morrison 2010) lies in putting various parts of the Earth and its population in harm's way during a deflection attempt. Inevitably, any mission to deflect an object that is on a collision course with the Earth will involve moving its supposed point of impact across the surface until it misses the planet entirely. Should such a deflection attempt fail to modify the trajectory sufficiently, the impact would still occur, albeit in a different area. This could expose to risk countries that were not originally threatened by the asteroid (depending on its size and path), while diminishing the risk to those living near the original point of impact. The damage and casualties around this new and modified point of impact would then, to some extent, be caused by those who tried but failed to deflect the asteroid. The repercussions of such an event would certainly be grave.

Privatization and industry

Both of these versions of the deflection dilemma are essentially state-centric and neither presumes that this technology might be wielded by private companies and non-state actors. But the current trend of greater involvement of private companies in space suggests that states might be unable (or unwilling) to maintain their exclusive hold on the advanced space technologies. The private sector is currently hot on the heels of national and international space agencies in exploring feasible and economically viable options. At the moment, private companies are already in the business (or at least in the process of making it a profitable business) of resupplying the International Space Station, taking tourists to the edge of space and operating communication satellites. And, recently, a new area of potential commercialization of space, asteroid mining, has received increased attention and investment. It has already spawned private companies (such as Deep Space Industries and Planetary Resources, Inc.); this industry is highly relevant to the deflection dilemma (Ostro 1999).

While the idea of mining asteroids carries with it an air of science fiction (as all space-based endeavours do, at some stage), it is based on science fact. One of the most significant facts on which to base a space mining industry is the apparent abundance of highly valued raw materials in asteroids. Platinum, rhodium and other precious metals are extremely useful because of their catalytic and electrical properties, but are also exceedingly rare in the Earth's crust. While such metals sank deep into the planet during core formation, asteroids retained their original composition and even delivered much of the accessible reserves to our planet in the form of meteorite bombardment (Willbold et al. 2011). Some of the largest known deposits of these metals on Earth are found within ancient impact craters. Platinum-group metals are deemed critical to our modern technology-based civilization, without substitutes in many applications, and their supply is at risk of “geopolitical machinations” (Graedel 2013). The combination of natural scarcity and industrial demand leads to their high price, which easily rivals that of gold. Because space missions are inherently expensive, these precious metals are prime high-value candidates for economically viable asteroid mining. Since the projected market value of these metals within an asteroid is in the order of billions or even hundreds of billions of US dollars (depending on the size of the asteroid), the success of the industry comes down to developing technically feasible and cost-effective methods of mining them and retrieving them (Blair 2000, Gerlach 2005). The other interesting and potentially worthwhile resource we could harvest from asteroids is water. Not only is liquid water required by astronauts to survive, but it can also be broken down into oxygen and hydrogen to be used as fuel. And, while water is abundant and cheap here on Earth, it is very expensive to transport it to orbit. It costs $3000–$10 000 per kilogramme to launch water (or anything else) to low Earth orbit and about two or three times more for geostationary transfer orbit (Jain & Trost 2013). It is not the prospect of procuring something we covet here on the surface of the Earth that makes this venture attractive, but rather the idea of not having to wage an expensive battle with Earth's gravity each time we want to make use of something as mundane as water in space. If the costs associated with mining water from asteroids can be brought below the cost of launching water from Earth, this seemingly counter-intuitive industry might take off and become profitable. Additionally, through the use of some form of refuelling depots, it would probably in turn make space endeavours more affordable and sustainable. The same would apply if some of the more common metals found in asteroids (such as iron or nickel) were used to build structures directly in orbit instead of launching them from the Earth. The risks of mining asteroids There are two basic ways to go about moving the resources contained within a given asteroid to the Earth. They can be extracted from the asteroid during its natural orbit and then transported to the Earth, or the entire asteroid might be moved closer to a more convenient location before starting mining. Thus repositioned, it might even be used as a shielded habitat, once hollowed out (Ostro 1999). There are different speculative costs and benefits associated with either option, which would vary with the size, orbit and composition of the asteroid. But, crucially, the second option would entail putting asteroids into orbit around the Earth, the Moon or possibly at one of the Earth's Lagrangian points. Indeed, NASA has already planned a mission to capture a small asteroid and place it in a high cislunar orbit, where it would serve as a destination for future manned missions and experiments. This “Asteroid Redirect Mission” is to take place in the next decade and is being pitched mainly as a stepping stone towards a future mission to Mars (see box “NASA's Asteroid Redirect Mission”; Brophy et al. 2012, Burchell 2014, Gates et al. 2015).

Programmes to redirect asteroids and, especially, plans to mine asteroids on an industrial scale essentially resurrect the deflection dilemma. But it is no longer a matter of superpowers intentionally misusing technology designed to prevent dangerous impacts. It becomes an issue of proliferation among private entities. Once private mining companies acquire the technical ability to redirect suitable NEOs (Baoyin et al. 2011) in order to extract platinum or water from them, perilous inflections become more likely.

The probability of accidents will rise with the number of asteroids whose trajectories we decide to manipulate. Such accidents might be very unlikely, but even a tiny technical or human error in the execution of an inflection meant to place an asteroid into the lunar or geocentric orbit might send it crashing into the Earth with potentially devastating consequences. And while we might find solace in the low probabilities associated with such an accident, even contemporary industries which are considered very safe suffer from unlikely tragedies. Despite being dependable and reliable, airliners do crash; there are a lot of them flying and very improbable accidents do happen if the dice are rolled often enough. Undoubtedly, we will not be steering as many asteroids as we steer planes any time soon, but industries tend to be more accident-prone during their infancy. Furthermore, a single asteroid can do a lot more damage than a single plane. And who is to say how much metal or water we are going to need in space over the course of the 21st century, or the next?

The second source of risk is the intentional misuse, similar to the original deflection dilemma. But the entry barrier for asteroid weaponization gets much lower if mining them and moving them around becomes a common industrial activity. This is in stark contrast to the original scenario which envisioned this technology to be used solely for planetary defence and under control of a very small number of the most powerful countries (Morrison 2010). If such a powerful technology becomes widely and commercially available, even rogue states and well-funded terrorist groups might be tempted to use it for an unexpected and devastating attack. In addition, an active asteroid mining industry would make it more difficult to detect any hostile inflection attempts among the number of legitimate and benign ones.

#### Space competition is inevitable and will determine hegemonic power on Earth–it’s just a question of who wins the race.

Jaewoo Choo 21(Professor of Chinese foreign policy in the Department of Chinese Studies at Kyung Hee University, Korea. He was a Visiting Fellow at the Center for East Asian Studies Program, the Brooking Institution and a Visiting Associate Professor at Georgia Institute of Technology. He graduated from Wesleyan University (BA in Government) and Peking University (MA & Ph.D. in International Relations). His research areas are Chinese foreign policy, multilateral security cooperation, and China-North Korea relations. He was a contributor to Asia Times on the Korean peninsula affairs), “The United States and China: Competition for superiority in space to protect resources and weapon systems,” OpenAsia, 03/11/2021, https://www.openasia.asia/the-united-states-and-china-competition-for-superiority-in-space-to-protect-resources-and-weapon-systems/

**The strategic competition between the U.S. and China is fierce** even **in** **space** outside of the earth. What do the two countries compete for in space? What are their objectives and what strategic calculations did they start from? Will the space race between the two countries lead to competition over space hegemony? This is one of the most interesting issues for U.S.-China observers in recent days. The space race between the U.S. and China is not just a number fight. How many satellites and spaceships have been launched and how many space stations have been established are the questions that mattered in the past. These mattered for the convenience and benefit for mankind. It could also make possible for some of the curiosity about the universe to be solved. However, starting the 21st century, the space race between the U.S. and China has progressed into an intense, high-level strategic battle. **Whoever rules space rules the future** There is one reason why **the** two **countries' space strategy competition will inevitably lead to a hegemony competition**. This is **because they try to conquer the space order**. Conquering the space order is to define and establish the space order. **Those who dominate space will dominate almost all sectors of the future world, including economy, technology, environment, cyberspace, transportation and energy**. That's why the United States is considered as a hegemonic country on Earth today. **The U.S. is recognized as a hegemonic country because it establishes and leads the economic, financial, trade, political, and diplomatic order.** There are two areas in the world today where international order has not been established. One is virtual space, which is the cyber world. The other is the space. Since the international order of these two areas is closely correlated with each other, it is likely that the establishment of the order in these two areas will be pursued simultaneously. This means that cyber order cannot be discussed without discussing satellite issues. The Communist Party of China recognized this early on. At the 19th National Communist Party Congress in 2017, it expressed its justification for establishing space order. President Xi Jinping declared that China's diplomatic stage in the 21st century has expanded beyond the Earth into space and virtual space. It was the moment when China defined the concept of diplomatic space as the "universe" beyond the Earth. He then explained that the establishment of a system that can even manage the order of the universe and the virtual world eventually means the establishment of practical governance. Therefore, he justified that China's diplomatic horizon has no choice but to expand into space. Furthermore, he stressed that he is confident that the ideation of building such governance serves as the foundation for the community of common destiny for mankind which China pursues. In other words, he publicly urged China to have the capabilities and means to become a key country in building governance in these two areas. This led the Trump administration to spare no effort to develop space science and technology and space projects, which are the basis of space order. Since President George W. Bush, the maintenance work for supremacy in space has been carried out. President Obama also introduced a policy to encourage U.S. private companies to participate in space projects to expand the foundation for supremacy in space. It was President Trump who actualized all these. He was the one who legalized private companies' space development projects under the Space Policy Directive-I. He also thoroughly reflected his “America First” principle in the space business. For example, all the substances obtained in space, including minerals, were no longer defined as "common goods." He also promised that space activities by private companies in the United States would be free from restrictions such as the Outer Space Treaty and the 1979 resolution by the United Nations Committee on the Peaceful Uses of Outer Space. **Space and the moon were known as repositories of resources. As it became known that the resources that are scarce or will be depleted on Earth are very abundant outside the Earth in space, the space race has gotten intense. This is why the space race has been promoted on a geoeconomic level**. However, in order to secure these benefits of geoeconomic strategies, geopolitical strategies must be accompanied. In other words, military defenses should be backed up to protect the resource acquisition process. Fearing this, the United Nations Committee on the Peaceful Uses of Outer Space strictly regulates the military use of space. However, the fact that the logic of developing naval power to protect long-range foreign interests on Earth is reflected in the strategic thinking of securing space profits is the decisive factor that has driven the space race today. The repositories of resources and future energy sources There are three strategic benefits that drive the U.S.-China competition for supremacy in space. The first is the infinite resource in space. **There are endless resources buried in more than 10,000 asteroids orbiting the Earth.** **They are known to have an abundance of resources such as carbon, zinc, cobalt, platinum, gold, silver and titanium, in which platinum and titanium, for example, can be sold for $30,000 to $50,000 per kilogram.** Second, the **future energy source lies in space**. **Power supply using solar energy will be possible by establishing a space power plant that concentrates solar energy in the Earth-Moon area and transmitting it to Earth through laser beams. Here, the supplied solar power is known to be 35 to 70% more powerful than the solar energy on Earth. By 2100, 70 terawatts of energy will be needed, and it is expected that 332 terawatts can be supplied through the development of space solar power plants in a geostationary orbit. Third, the desire to dominate space for hegemony has established the space competition relationship between the U.S. and China. Although each started from different strategic interests, in the end, they have one common goal.** First of all, **China** wants to be free from the U.S. GPS system. This is because only through the freedom China can prevent its future weapons system from becoming vulnerable to U.S. control and restrictions. It **is planning to achieve its goal of establishing a so-called "Space Silk Road" by expanding China's "BeiDou" navigation system to the regions within One Belt One Road and the national satellite and communication systems. The U.S. also plans to spend $25 billion to develop GPS3 systems with stronger defense capabilities against Chinese space and cyberattacks, by 2025.** **The competition between the U.S. and China to establish a space station in order to secure the benefits from space strategies is inevitable.** This is because a space station is the foundation for establishing space order. As the space station has the purpose of protecting and defending from enemies**, militarization is inevitable in the process. It is clear that the outcome will lead to a space arms race. This is why the competition over supremacy in space between the U.S. and China has the aspects of the New Cold War outside the Earth.** Space is a blue ocean. It is a world without order. Preemption is therefore important. In order to prepare space order and accompanying laws, norms, and systems, the U.S. and China have been engaged in a fierce battle through space projects. This is because **space is the decisive factor in the operation of energy, resources, environment, communication, and advanced military weapons systems in the future. Space is no longer a dream world.** Of course, it takes a lot of time for these strategic benefits to become a reality. However, the Fourth Industrial Revolution and the development of AI (Artificial Intelligence) technology will speed up the pace. This is because economic problems can be so

lved if spacecraft recycling is made possible with the participation of private companies and facilities related to space stations and mineral mining equipment are set up with 3D printers.

#### Heg solves nuclear war and global fascism

Kroenig 20 [Matthew Kroenig is an American political scientist, best-selling author, and an award-winning national security strategist. "The Return of Great Power Rivalry Democracy versus Autocracy from the Ancient World to the U.S. and China." https://www.google.com/books/edition/The\_Return\_of\_Great\_Power\_Rivalry/dXLKDwAAQBAJ?hl=en&gbpv=1&printsec=frontcover]

Indeed, China itself has been among the greatest beneficiaries of a U.S.- led international order. American military and economic power have provided the peace and macroeconomic stability that allowed China to grow into the major power that it is today.

There is little reason to believe that Russia and China will be as kind. These autocratic powers long to establish spheres of influence in their near abroad, and they have shown little concern for the sovereignty or personal freedoms of their own citizens or subjected populations. To get a vision of a world led by Russia or China, just look at how they treat the people that fall under their influence today. Russian dictator Vladimir Putin invades neighboring countries and murders critical journalists. And China takes contested territory from its neighbors through brute force and locks up one million Muslim minorities in “re-education” camps. And this is but a small taste of the brutality of these governments. If readers doubt these claims, they can simply ask citizens of American allies in Eastern Europe or East Asia whether they desire continued American leadership, or whether they would prefer to live under the thumb of Moscow or Beijing, respectively.

Moreover, just as consequentially for the globe, the decline of the United States could very well result in war. As noted earlier, international relations theory maintains that the decline of one dominant power and the rise of another often results in great power conflict.24 According to this telling, World War I and World War II were primarily the result of the decline of the British Empire and the rise of Imperial and then Nazi Germany. Falling powers fight preventive wars in a bid to remain on top, and rising powers launch conflicts to dislodge the reigning power and claim their “place in the sun.”25 Many fear that a power transition between Beijing and Washington would produce a similar catastrophic result.26 Continued American leadership, therefore, could forestall this transition and may be necessary for continued peace and stability among the major powers. s

#### sustainable but not impervious to collapse

Hal Brands, 5-1-2021, Henry A. Kissinger Distinguished Professor At The Johns Hopkins School Of Advanced International Studies, China’s Creative Challenge—and the Threat to America, Commentary Magazine, https://www.commentarymagazine.com/articles/hal-brands/chinas-geopolitical-challenge-threat-to-america//Khan

FINALLY, CHINA is testing the patterns of history simply by taking on the United States. America is the most lethal competitor of the modern era, and it now has its sights set squarely on Beijing. Consider the historical record. In an environment populated mostly by hostile autocracies, America became a continental behemoth and the world’s strongest economy within a century. It then achieved something no other modern great power has managed—lasting, if periodically contested, hegemony in its home region. During the 20th century, America or the coalitions it supported decisively defeated a series of illiberal powers—Germany (twice), Japan, the Soviet Union—that challenged its vital interests. Along the way, Washington peacefully wrested global leadership from the United Kingdom. For over a century, the surest path to destruction has been inviting the focused hostility of the United States. America’s formidable record is the product of many factors. Vast resource endowments and uniquely advantageous geography have allowed America to project power globally without facing severe geopolitical threats near home. Similarly, the fact that America is powerful and far away leads countries all around the Eurasian periphery to ally with the United States against nearby predators that threaten their independence. The country’s relatively open economy has created great dynamism and innovation; its democratic institutions have allowed it, more often than not, to use its other advantages effectively. And the slowness with which America sometimes mobilizes to confront threats contributes to the single-mindedness with which it eventually combats them. The type of superpower America is also matters. Because America is a liberal nation, it has taken a liberal approach to global power. Since 1945, it has delivered freedom of the seas, a global reserve currency, and a massive market for foreign goods, in addition to providing security and stability in key regions. Those attributes have made other countries support the American cause, which makes American hegemony even harder to overturn. Neither China nor any other country can compete on these dimensions: Beijing lacks the ability to act as a global security provider and the willingness (as a neo-mercantilist actor) to anchor a truly open global economy. It cannot fully open its market without exposing key industries to competition and wrecking plans to reduce strategic dependence on the West. Even if China’s raw power exceeded America’s, its ability to act as a comparatively benign and popular hegemon would not. Having helped the United States defeat the Soviet Union, Chinese leaders understood the peril of provoking American hostility: This was the crux of Deng Xiaoping’s famous dictum about “hiding” capabilities and “biding” time. Chinese statecraft in the post-Tiananmen era was meant to increase Beijing’s power while delaying an American response. The building of deep commercial and financial ties with the United States not only fueled Chinese growth; it also made it more painful for America to turn toward competition. The cultivation of American elites in academia, business, and politics strengthened supporters of continued engagement. Even as Chinese statecraft become more assertive after 2008, Beijing moved incrementally—in the South China Sea and elsewhere—to avoid giving America an eye-opening “Sputnik moment.” And even as the relationship deteriorated during the Obama years, the Chinese leadership used the lure of cooperation on climate change and talk of a “new type of great-power relations” to discourage a sharper pivot in American policy. Historians will one day marvel at how well this strategy—combined with America’s post-9/11 distraction—worked. It took two decades, from the time serious observers began warning about the Chinese challenge, for the United States to adjust its statecraft decisively. During that time, China gained access to technology, capital, and markets that powered its ascent; there emerged an incredibly complex interdependence that continues to retard multilateral mobilization against Beijing. If the United States loses the competition with China, it will be—in no small part—because Beijing successfully anesthetized Washington to a growing peril. The bad news, from Xi’s vantage point, is that the game is up. Predatory economic behavior that America once tolerated has become more threatening as Beijing worked its way up global value chains. Small nibbles at the status quo eventually added up to larger, more alarming shifts. The Chinese government prematurely let the mask slip after the 2008–09 financial crisis, with more assertive diplomacy that gradually made the thesis of America’s engagement policy—that Beijing would mellow over time—impossible to defend. And by the Trump era, China had simply gotten tired of waiting and disguising its ambitions. COVID then did more than any Committee on the Present Danger could ever have done to reveal both the utterly cynical nature of the CCP regime—which sought to stymie the virus’s spread within China even as it allowed continued travel from Wuhan to the world—and the fact that this behavior could mortally imperil Americans’ well-being. China is no longer the “stealth superpower”—there is now a bipartisan consensus that America must thwart its global designs. From here onward, Beijing must forcefully wrest influence from a dangerous hegemon that is alert to a new authoritarian challenge. STRUCTURAL CONSTRAINTS don’t determine everything: History wouldn’t be very interesting if they did. The United States always had profound advantages over the Soviet Union, but it wouldn’t have won the Cold War had it not worked feverishly to shore up Western Europe in the late 1940s and maintain a military balance that made Soviet aggression seem suicidal. Strategic urgency and commitment were what ultimately allowed America to make the most of its strengths. That’s worth keeping in mind today. The fact that Chinese power and influence have grown so markedly in recent decades and that the resulting challenge has become so stark show the impact that determined, innovative strategy can have. The dilemmas that the United States confronts, in areas from 5G technology to the military balance in the Taiwan Strait, illustrate the costs of strategic lethargy. Indeed, America is fully capable of squandering its advantages if it degrades or destroys its own democracy, declines to make domestic reforms and investments to maintain its competitive edge, fails to rally the overlapping coalitions needed to resist Chinese ambitions, or delays in driving the military innovation required to shore up a sagging balance in the Western Pacific. The list of hard policy problems America must urgently solve to prevail against China is itself long and formidable. And even if Washington does prevail in that rivalry, America may absorb significant setbacks—and the international order may absorb significant damage—in the process. Yet as rough as the road ahead looks from Washington, it ought to look even rougher from Beijing. The Chinese Communist Party runs a profoundly illiberal regime that is trying to overcome centuries of liberal dominance. China is straining against a strategic geography and international system that surely seem more constraining than inviting. Chinese strategists must find a way of breaking America’s position in the Western Pacific while avoiding the potential cataclysm of major war. And Beijing is taking on a superpower that has thrashed all previous comers. Smart strategies have permitted Beijing to do remarkably well, so far, in managing these problems. But many of those strategies face an uncertain future, in part because the international complacency that allowed them to flourish has been replaced—gradually, but increasingly—with international concern. This isn’t to say that China’s ambitions are hopeless illusions. In the coming years, there will be an intense interaction between an America that is adapting its strategies to deal with a pressing threat and a China that will have to adjust its own approaches in light of that response. Even American success in this interaction could bring new dangers: If Chinese leaders perceive that their window to achieve grand geopolitical goals is closing, then the regime could become even more aggressive in seeking to revise the global order while it still can. Much thus hinges on the quality of decisions made in Washington and other capitals around the world. But the fact that so many characteristics of modern great-power politics seem to favor the United States probably gives the reigning superpower better options and more room for error than its autocratic challenger. Nothing is predetermined: Beijing may still succeed in displacing the United States as the primary power in Asia and, eventually, the world. Yet if it does, that outcome will represent a catastrophic failure of American statecraft—or an awesome triumph of Chinese strategy in overcoming the great obstacles that litter Beijing’s path to hegemony.

#### Biden will inev try to regain it – proves try or die

Tepperman 21 – a former editor in chief of Foreign Policy and the author of The Fix: How Countries Use Crises to Solve the World’s Worst Problems. (Jonathan, "Biden Was Right: America Is Back," Foreign Policy, 2-23-2021, https://foreignpolicy.com/2021/02/23/biden-was-right-america-is-back/, Accessed 11-17-2021, LASA-SC)

President Joe Biden’s declaration to the Munich Security Conference last Friday that “America is back”—lest anyone miss it, he repeated the line three times—hasn’t gone down very well in the days since. While I suspect many in the Zoom audience were quietly relieved to hear it, public responses have ranged from skeptical to hostile. At the same conference, for example, French President Emmanuel Macron insisted that France stake out greater “strategic autonomy” from the United States. His German counterpart, Angela Merkel, reminded the audience that U.S. and German interests “will not always converge.” And back in the United States, former Secretary of State Mike Pompeo said: “I don’t think the American people can afford to go back to eight more years of Barack Obama’s foreign policy.” While Pompeo’s sneering is easy to dismiss (why waste time worrying about the opinions of the worst secretary of state in U.S. history), the other comments deserve more attention. Yet they and the critiques of various pundits who have argued that the president’s pledge was both premature and hubristic also miss the key point. Biden surely didn’t mean to suggest that the United States has returned to the level of power, prestige, and importance it enjoyed in 2016. Or that it has recaptured its moral standing. He wasn’t arguing that he’d already repaired all the damage done by his predecessor; of course not. What Biden likely meant to convey—and what allies and adversaries should pay attention to—is the fact that Washington is trying again: trying to mend ties and restore cooperation with its friends. Trying to push back against authoritarian regimes and defend universal values. Trying to protect public goods like the environment. And, like it or not, trying to lead. If you have any doubt that America is back in this sense, just compare any of the five weeks Biden has been in office to any one of Donald Trump’s 208. Since taking charge, the new president has sought to wrap the country’s traditional allies in one of his trademark bear hugs: by returning to the G-7 (which Trump spurned), for example, or by reversing Trump’s withdrawal of U.S. troops from Germany. Washington has rejoined the Paris Agreement on climate change and the World Health Organization (both of which Trump dumped). Biden has extended the New START nuclear arms treaty with Russia (which Trump was about to abandon) and broadcast his intent to reenter the Iran nuclear deal, known as the Joint Comprehensive Plan of Action. He has stood up for democracy and human rights by imposing sanctions on the junta in Myanmar and preparing new measures to punish President Vladimir Putin and his cronies in Russia, as well as by ending U.S. support for the disastrous Saudi-led war in Yemen. And he has pledged up to $4 billion to COVAX, the global initiative to help vaccinate the developing world against COVID-19. That would be an impressive list of accomplishments for any monthlong period. When you remember that the Biden administration has pulled all this off while seriously understaffed (most of its key appointments have yet to be confirmed) and while the country is still suffering the aftershocks of last month’s violent insurrection (tremors that included Trump’s second impeachment), it looks even more remarkable—and makes recent criticisms of Biden’s foreign-policy record seem a little unfair. That’s especially so when you also factor in the administration’s overwhelming domestic to-do list, which includes small matters like passing a $1.9 trillion recovery package and speeding up the country’s COVID-19 vaccination Indeed, the fact that the administration is spending any time at all on foreign policy right now—let alone looking beyond immediate crises to longer-term priorities like restoring the country’s international standing—is yet more evidence for Biden’s claim that America is back. Such moves also firmly align the administration with a long-standing national tradition. One of the most unusual and distinguishing features of the country’s domestic and foreign-policy record isn’t the absence of mistakes—the United States makes as many or more of these than other countries. It’s the United States’ record of acting to repair the damage once it has been done and the moment has passed. The country has developed a remarkable mechanism for self-correction, a history of ensuring that, after every one of its disastrous bouts of inattention (think the interwar period) or destructive Jacksonian rage (think the aftermath of 9/11), the national pendulum swings back to the middle. Every Richard Nixon gets followed by a Gerald Ford or Jimmy Carter, every George W. Bush by a Barack Obama. Some mistakes take a lot longer to address than others. But the country often gets there in the end. American exceptionalism has become a dirty word in recent years, but this is that exceptionalism in its best form. Of course, the United States still has an enormous way to go before it can claim to be “back” to the kind of prominence it enjoyed before Trump’s election. But the fact that it’s trying so hard to get there shows it is already back in a critical sense. And that’s something we should all be grateful for.

#### Heg solves unstable nuclear alliances that cause war

Hayes 18 [Peter Hayes, Nautilus Institute, Berkeley, California, USA; Center for International Security Studies, Sydney University. Trump and the Interregnum of American Nuclear Hegemony. November 8, 2018. <https://www.tandfonline.com/doi/full/10.1080/25751654.2018.1532525>]

During a **post-hegemonic era**, **long-standing** nuclear **alliances** are likely to be **replaced** by **ad hoc nuclear coalitions**, aligning and realigning around different congeries of threat and even actual **nuclear wars**, with **much higher levels** of **uncertainty** and unpredictability **than** was the case in the **nuclear hegemonic system**.

There are a number of ways that this dynamic could play out during the interregnum, and these dynamics are likely to be inconsistent and contradictory. In some instances, the sheer **momentum** of past policy combined with bureaucratic inertia and the potency of political, military service and corporate interests, may ensure that **residual aspects** of the formerly **hegemonic postures** are adhered to even as formal nuclear alliances rupture. Even as they **reach for** the **old anchors**, these states may be forced to adjust and retrench strategically, or start to **take** their own **nuclear risks** by making **increasingly explicit nuclear threats** and deployments against nuclear-armed adversaries – as **Japan** has begun to do with reference to its “technological deterrent” since about 2012.9 This period could last for many years **until and when** **nuclear war breaks out** and leads to a post-nuclear war disorder; or a new, post-hegemonic strategic framework is established to manage and/or abolish nuclear threat.

**Under** full-blown **American nuclear hegemony**, **fewer states** had **nuclear weapons**, the **major nuclear** weapons **states** entered into **legally binding restraints** on force levels and they learned from nuclear near-misses to **promulgate rules** of the road and tacit understandings. The lines drawn during full-blown collisions involving nuclear weapons were stark and concentrated the minds of leaders greatly. In a nuclear duel, it was clear that only one of two sides could fire first; the only question was which one. Now, with nine nuclear weapons states, and conflicts conceivably involving three, four or more of them, no matter how much leaders concentrate, it will not be evident who is aiming at who, who may fire first, and during a volley, who fired first and even who hit whom.

In a highly proliferated world, nuclear-armed states may feel driven to obtain larger nuclear forces able to deter multiple adversaries at the same time, sufficient to conduct not only a few nuclear attacks but configured to fight **more than one** protracted **nuclear war** **at a time**, especially in nuclear states torn apart by civil war and post-nuclear attack reconstruction. The first time nuclear weapons are used since 1945 will be shocking, the second time, less so, the third time, the **new normal**.

#### Nuclear war

**Kroenig 15** (Matthew, Associate Professor and International Relations Field Chair in the Department of Government and School of Foreign Service at Georgetown University, 2015. “The History of Proliferation Optimism: Does It Have a Future?” *Journal of Strategic Studies*, Volume 38, Issue 1-2, 2015)

The spread of nuclear weapons poses at least six severe threats to international peace and security including: nuclear war, nuclear terrorism, global and regional instability, constrained US freedom of action, weakened alliances, and further nuclear proliferation. Each of these threats has received extensive treatment elsewhere and this review is not intended to replicate or even necessarily to improve upon these previous efforts. Rather the goals of this section are more modest: to usefully bring together and recap the many reasons why we should be pessimistic about the likely consequences of nuclear proliferation. Many of these threats will be illuminated with a discussion of a case of much contemporary concern: Iran’s advanced nuclear program. Nuclear War The greatest threat posed by the spread of nuclear weapons is nuclear war. The more states in possession of nuclear weapons, the greater the probability that somewhere, someday, there will be a catastrophic nuclear war. To date, nuclear weapons have only been used in warfare once. In 1945, the United States used nuclear weapons on Hiroshima and Nagasaki, bringing World War II to a close. Many analysts point to the 65-plus-year tradition of nuclear non-use as evidence that nuclear weapons are unusable, but it would be naïve to think that nuclear weapons will never be used again simply because they have not been used for some time. After all, analysts in the 1990s argued that worldwide economic downturns like the Great Depression were a thing of the past, only to be surprised by the dot-com bubble bursting later in the decade and the Great Recession of the late 2000s.48 This author, for one, would be surprised if nuclear weapons are not used again sometime in his lifetime. Before reaching a state of MAD, new nuclear states go through a transition period in which they lack a secure-second strike capability. In this context, one or both states might believe that it has an incentive to use nuclear weapons first. For example, if Iran acquires nuclear weapons, neither Iran, nor its nuclear-armed rival, Israel, will have a secure, second-strike capability. Even though it is believed to have a large arsenal, given its small size and lack of strategic depth, Israel might not be confident that it could absorb a nuclear strike and respond with a devastating counterstrike. Similarly, Iran might eventually be able to build a large and survivable nuclear arsenal, but, when it first crosses the nuclear threshold, Tehran will have a small and vulnerable nuclear force. In these pre-MAD situations, there are at least three ways that nuclear war could occur. First, the state with the nuclear advantage might believe it has a splendid first strike capability. In a crisis, Israel might, therefore, decide to launch a preventive nuclear strike to disarm Iran’s nuclear capabilities. Indeed, this incentive might be further increased by Israel’s aggressive strategic culture that emphasizes preemptive action. Second, the state with a small and vulnerable nuclear arsenal, in this case Iran, might feel use them or lose them pressures. That is, in a crisis, Iran might decide to strike first rather than risk having its entire nuclear arsenal destroyed. Third, as Thomas Schelling has argued, nuclear war could result due to the reciprocal fear of surprise attack.49 If there are advantages to striking first, one state might start a nuclear war in the belief that war is inevitable and that it would be better to go first than to go second. Fortunately, there is no historic evidence of this dynamic occurring in a nuclear context, but it is still possible. In an Israeli–Iranian crisis, for example, Israel and Iran might both prefer to avoid a nuclear war, but decide to strike first rather than suffer a devastating first attack from an opponent. Even in a world of MAD, however, when both sides have secure, second-strike capabilities, there is still a risk of nuclear war. Rational deterrence theory assumes nuclear-armed states are governed by rational leaders who would not intentionally launch a suicidal nuclear war. This assumption appears to have applied to past and current nuclear powers, but there is no guarantee that it will continue to hold in the future. Iran’s theocratic government, despite its inflammatory rhetoric, has followed a fairly pragmatic foreign policy since 1979, but it contains leaders who hold millenarian religious worldviews and could one day ascend to power. We cannot rule out the possibility that, as nuclear weapons continue to spread, some leader somewhere will choose to launch a nuclear war, knowing full well that it could result in self-destruction. One does not need to resort to irrationality, however, to imagine nuclear war under MAD. Nuclear weapons may deter leaders from intentionally launching full-scale wars, but they do not mean the end of international politics. As was discussed above, nuclear-armed states still have conflicts of interest and leaders still seek to coerce nuclear-armed adversaries. Leaders might, therefore, choose to launch a limited nuclear war.50 This strategy might be especially attractive to states in a position of conventional inferiority that might have an incentive to escalate a crisis quickly to the nuclear level. During the Cold War, the United States planned to use nuclear weapons first to stop a Soviet invasion of Western Europe given NATO’s conventional inferiority.51 As Russia’s conventional power has deteriorated since the end of the Cold War, Moscow has come to rely more heavily on nuclear weapons in its military doctrine. Indeed, Russian strategy calls for the use of nuclear weapons early in a conflict (something that most Western strategists would consider to be escalatory) as a way to de-escalate a crisis. Similarly, Pakistan’s military plans for nuclear use in the event of an invasion from conventionally stronger India. And finally, Chinese generals openly talk about the possibility of nuclear use against a US superpower in a possible East Asia contingency. Second, as was also discussed above, leaders can make a ‘threat that leaves something to chance’.52 They can initiate a nuclear crisis. By playing these risky games of nuclear brinkmanship, states can increase the risk of nuclear war in an attempt to force a less resolved adversary to back down. Historical crises have not resulted in nuclear war, but many of them, including the 1962 Cuban Missile Crisis, have come close. And scholars have documented historical incidents when accidents nearly led to war.53 When we think about future nuclear crisis dyads, such as Iran and Israel, with fewer sources of stability than existed during the Cold War, we can see that there is a real risk that a future crisis could result in a devastating nuclear exchange. Nuclear Terrorism The spread of nuclear weapons also increases the risk of nuclear terrorism.54 While September 11th was one of the greatest tragedies in American history, it would have been much worse had Osama Bin Laden possessed nuclear weapons. Bin Laden declared it a ‘religious duty’ for Al- Qa’eda to acquire nuclear weapons and radical clerics have issued fatwas declaring it permissible to use nuclear weapons in Jihad against the West.55 Unlike states, which can be more easily deterred, there is little doubt that if terrorists acquired nuclear weapons, they would use them.56 Indeed, in recent years, many US politicians and security analysts have argued that nuclear terrorism poses the greatest threat to US national security.57 Analysts have pointed out the tremendous hurdles that terrorists would have to overcome in order to acquire nuclear weapons.58 Nevertheless, as nuclear weapons spread, the possibility that they will eventually fall into terrorist hands increases. States could intentionally transfer nuclear weapons, or the fissile material required to build them, to terrorist groups. There are good reasons why a state might be reluctant to transfer nuclear weapons to terrorists, but, as nuclear weapons spread, the probability that a leader might someday purposely arm a terrorist group increases. Some fear, for example, that Iran, with its close ties to Hamas and Hizballah, might be at a heightened risk of transferring nuclear weapons to terrorists. Moreover, even if no state would ever intentionally transfer nuclear capabilities to terrorists, a new nuclear state, with underdeveloped security procedures, might be vulnerable to theft, allowing terrorist groups or corrupt or ideologically-motivated insiders to transfer dangerous material to terrorists. There is evidence, for example, that representatives from Pakistan’s atomic energy establishment met with Al-Qa’eda members to discuss a possible nuclear deal.59 Finally, a nuclear-armed state could collapse, resulting in a breakdown of law and order and a loose nukes problem. US officials are currently very concerned about what would happen to Pakistan’s nuclear weapons if the government were to fall. As nuclear weapons spread, this problem is only further amplified. Iran is a country with a history of revolutions and a government with a tenuous hold on power. The regime change that Washington has long dreamed about in Tehran could actually become a nightmare if a nuclear-armed Iran suffered a breakdown in authority, forcing us to worry about the fate of Iran’s nuclear arsenal. Regional Instability The spread of nuclear weapons also emboldens nuclear powers, contributing to regional instability. States that lack nuclear weapons need to fear direct military attack from other states, but states with nuclear weapons can be confident that they can deter an intentional military attack, giving them an incentive to be more aggressive in the conduct of their foreign policy. In this way, nuclear weapons provide a shield under which states can feel free to engage in lower-level aggression. Indeed, international relations theories about the ‘stability-instability paradox’ maintain that stability at the nuclear level contributes to conventional instability.60 Historically, we have seen that the spread of nuclear weapons has emboldened their possessors and contributed to regional instability. Recent scholarly analyses have demonstrated that, after controlling for other relevant factors, nuclear-weapon states are more likely to engage in conflict than nonnuclear-weapon states and that this aggressiveness is more pronounced in new nuclear states that have less experience with nuclear diplomacy.61 Similarly, research on internal decision-making in Pakistan reveals that Pakistani foreign policymakers may have been emboldened by the acquisition of nuclear weapons, which encouraged them to initiate militarized disputes against India.62 Currently, Iran restrains its foreign policy because it fears major military retaliation from the United States or Israel, but with nuclear weapons it could feel free to push harder. A nuclear-armed Iran would likely step up support to terrorist and proxy groups and engage in more aggressive coercive diplomacy. With a nuclear-armed Iran increasingly throwing its weight around in the region, we could witness an even more crisis prone Middle East. And in a poly-nuclear Middle East with Israel, Iran, and, in the future, possibly other states, armed with nuclear weapons, any one of those crises could result in a catastrophic nuclear exchange.

**multipolarity supports the natural incentive to seek status by fighting**

**Wohlforth, 09** – professor of government at Dartmouth (William, “Unipolarity, Status Competition, and Great Power War,” World Affairs, January, project muse)

The upshot is a near scholarly consensus that unpolarity’s consequences for great power conflict are indeterminate and that a power shift resulting in a return to bipolarity or multipolarity will not raise the specter of great power war. This article questions the consensus on two counts. First, I show that it depends crucially on a dubious assumption about human motivation. Prominent theories of war are based on the assumption that people are mainly motivated by the instrumental pursuit of tangible ends such as physical security and material prosperity. This is why such theories seem irrelevant to interactions among great powers in an international environment that diminishes the utility of war for the pursuit of such ends. Yet we know that people are motivated by a great many noninstrumental motives, not least by concerns regarding their social status. 3 As John Harsanyi noted, “Apart from economic payoffs, social status (social rank) seems to be the most important incentive and motivating force of social behavior.”4 This proposition rests on much firmer scientific ground now than when Harsanyi expressed it a generation ago, as cumulating research shows that humans appear to be hardwired for sensitivity to status and that relative standing is a powerful and independent motivator of behavior.5 [End Page 29]

Second, I question the dominant view that status quo evaluations are relatively independent of the distribution of capabilities. If the status of states depends in some measure on their relative capabilities, and if states derive utility from status, then different distributions of capabilities may affect levels of satisfaction, just as different income distributions may affect levels of status competition in domestic settings. 6 Building on research in psychology and sociology, I argue that even capabilities distributions among major powers foster ambiguous status hierarchies, which generate more dissatisfaction and clashes over the status quo. And the more stratified the distribution of capabilities, the less likely such status competition is.

Unipolarity thus generates far fewer incentives than either bipolarity or multipolarity for direct great power positional competition over status. Elites in the other major powers continue to prefer higher status, but in a unipolar system they face comparatively weak incentives to translate that preference into costly action. And the absence of such incentives matters because social status is a positional good—something whose value depends on how much one has in relation to others.7 “If everyone has high status,” Randall Schweller notes, “no one does.”8 While one actor might increase its status, all cannot simultaneously do so. High status is thus inherently scarce, and competitions for status tend to be zero sum.9

#### China long-term can’t become a hegemon because of slow growth and international constraints- BUT short-term lunges for power trigger immediate war . ONLY deterrence solves

Beckley and Brands 12-17 -- Associate Professor of Political Science at Tufts University and Jeane Kirkpatrick Visiting Scholar at the American Enterprise Institute

[Michael, and Hal Brands, Henry A. Kissinger Distinguished Professor of Global Affairs at the Johns Hopkins University School of Advanced International Studies and a Resident Scholar at the American Enterprise Institute, "Competition With China Could Be Short and Sharp," Foreign Affairs, 12-17-20, https://www.foreignaffairs.com/articles/united-states/2020-12-17/competition-china-could-be-short-and-sharp, accessed 12-20-20]

In foreign policy circles, it has become conventional wisdom that the United States and China are running a “superpower marathon” that may last a century. But the sharpest phase of that competition will be a decadelong sprint. The Sino-American contest for supremacy won’t be settled anytime soon. Yet history and China’s recent trajectory suggest that the moment of maximum danger is just a few years away. China has entered a particularly perilous period as a rising power: it has gained the capability to disrupt the existing order, but its window to act may be narrowing. The balance of power has been shifting in Beijing’s favor in important areas of U.S.-Chinese competition, such as the Taiwan Strait and the struggle over global telecommunications networks. Yet China is also facing a pronounced economic slowdown and a growing international backlash. The good news for the United States is that over the long term, competition with China may prove more manageable than many pessimists believe. Americans may one day look back on China the way they now view the Soviet Union—as a dangerous rival whose evident strengths concealed stagnation and vulnerability. The bad news is that over the next five to ten years, the pace of Sino-American rivalry will be torrid, and the prospect of war frighteningly real, as Beijing becomes tempted to lunge for geopolitical gain. The United States still needs a long-term strategy for protracted competition. But first it needs a near-term strategy for navigating the danger zone. RED FLAGS Much debate on Washington’s China policy focuses on the dangers China will pose as a peer competitor later this century. Yet the United States actually faces a more pressing and volatile threat: an already powerful but insecure China beset by slowing growth and intensifying hostility abroad. China has the money and muscle to challenge the United States in key areas. Thanks to decades of rapid growth, China boasts the world’s largest economy (measured by purchasing power parity), trade surplus, financial reserves, navy by number of ships, and conventional missile force. Chinese investments span the globe, and Beijing is pushing for primacy in such strategic technologies as 5G telecommunications and artificial intelligence (AI). Add in four years of disarray in the U.S.-led world order under President Donald Trump, and it is hardly surprising that Beijing is testing the status quo from the South China Sea to the border with India. Yet China’s window of opportunity may be closing fast. Since 2007, China’s annual economic growth rate has dropped by more than half, and productivity has declined by ten percent. Meanwhile, debt has ballooned eightfold and is on pace to total 335 percent of GDP by the end of 2020. China has little hope of reversing these trends, because it will lose 200 million working-age adults and gain 300 million senior citizens over the next 30 years. And as economic growth falls, the dangers of social and political unrest rise. Chinese leaders know this: President Xi Jinping has given multiple speeches warning about the possibility of a Soviet-style collapse, and Chinese elites are moving their money and children abroad. Meanwhile, global anti-China sentiment has soared to levels not seen since the 1989 Tiananmen Square massacre. Nearly a dozen countries have suspended or canceled participation in Belt and Road Initiative (BRI) projects. Another 16 countries, including eight of the world’s ten largest economies, have banned or severely restricted use of Huawei products in their 5G networks. India has been turning hard against China since a clash on their shared border killed 20 soldiers in June. Japan has ramped up military spending, turned amphibious ships into aircraft carriers, and strung missile launchers along the Ryukyu Islands near Taiwan. The European Union has labeled China a “systemic rival”; and the United Kingdom, France, and Germany are sending naval patrols to counter Beijing’s expansion in the South China Sea and Indian Ocean. On multiple fronts, China is facing the blowback created by its own behavior. HISTORY RHYMES Many people assume that rising revisionists pose the greatest danger to international security. But historically, the most desperate dashes have come from powers that had been on the ascent but grew worried that their time was running short. World War I is a classic example. Germany’s rising power formed the strategic backdrop to that conflict, but German fears of decline triggered the ultimate decision for war. Russia’s growing military power and mobility menaced Germany’s eastern flank; new French conscription laws were changing the balance in the West; and a tightening Franco-Russian-British entente was leaving Germany surrounded. German leaders ran such catastrophic risks in the July crisis for fear that geopolitical greatness would elude them if they did not act quickly. The same logic explains imperial Japan’s fatal gamble in 1941, after the U.S. oil embargo and naval rearmament presented Tokyo with a closing window of opportunity to dominate the Asia-Pacific. In the 1970s, Soviet global expansion peaked as Moscow’s military buildup matured and the slowing of the Soviet economy created an impetus to lock in geopolitical gains. Given that China is currently facing both a grim economic forecast and a tightening strategic encirclement, the next few years may prove particularly turbulent. The United States obviously needs a long-term strategy to compete with China. But it also needs to blunt a potential surge of Chinese aggression and expansion this decade.

#### Chinese revisionism causes nuclear war

Choi 18 [Ji Young Choi, associate professor in the Department of Politics and Government and affiliated professor in the International Studies Program and East Asian Studies Program at Ohio Wesleyan University. “Historical and Theoretical Perspectives on the Rise of China: Long Cycles, Power Transitions, and China's Ascent”]

Another important aspect is that Beijing is beginning to voice its dissatisfaction with the existing international economic order and take actions that could potentially change this order. The Chinese economy has overall benefited from the post-World War II international liberal order, but the Bretton Woods institutions like the IMF and the World Bank have been dominated by the United States and its allies and China does not have much power or voice in these institutions. Both institutions are based in Washington, DC, and the United States has enjoyed the largest voting shares with its veto power. Along with other emerging economies, China has called for significant reforms, especially in the governing system of the IMF, but reform plans to give more power to China and other emerging economies have been delayed by the opposition of the US Congress (Choi 2013). In response to this, Beijing recently took the initiative to create new international financial institutions including the AIIB. At this moment, it is premature to say that these new institutions would be able to replace the Bretton Woods institutions. Nonetheless, this new development can be read as a starting point for significant changes in global economic and financial governance that has been dominated by the United States since the end of World War II (Subacchi 2015).

China's historical legacies reinforce the view that China has a willingness to become a global hegemon . From the Ming dynasty in the late fourteenth century to the start of the first Opium War in 1839, China enjoyed its undisputed hegemonic position in East Asia. "Sino-centrism" that is related to this historical reality has long governed the mentality of Chinese people. According to this hierarchical world view, China, as the most advanced civilization, is at the center of East Asia and the world, and all China's neighbors are vassal states (Kang 2010). This mentality was openly revealed by the Chinese foreign minister's recent public statement that I quoted previously: "China is a big country . . . and other countries are small countries and that is just a fact" (Economist 2012). This view is related to Chinese people's ancient superiority complex that developed from the long history and rich cultural heritage of Chinese civilization (Jacques 2012). In a sense, China has always been a superpower regardless of its economic standing at least in most Chinese people's mind-set. The strong national or civilizational pride of Chinese people, however, was severely damaged by "the Century of Humiliation," a period between the first Opium War (1839) and the end of the Chinese Civil War (1949). During this period, China was encroached on by the West and invaded by Japan, experienced prolonged civil conflicts, and finally became a semicolony of Great Britain while its northern territory was occupied by Japan. China's economic modernization is viewed as a national project to lay an economic foundation to overcome this bitter experience of subjugation and shame and recover its traditional position and old glory (Choi 2015). Viewed from this perspective, economic modernization or the accumulation of wealth is not an ultimate objective of China. Rather, its final goal is to return to its traditional status by expanding its global political and military as well as economic influence. What it ultimately desires is recognition (Anerkennung), respect (Respekt), and status (Stellung). These are important concepts for constructivists who see ideational motives as the main driving forces behind interstate conflicts (Lebow 2008). This reveals that constructivist elements can be combined with long cycle and power transition theories in explaining the rise and fall of great powers, although further systematic studies on it are needed.

Considering all this, China has always been a territorial power rather than a trading state. China does not seem to be satisfied only with the global expansion of international trade and the conquest of foreign markets. It also wants to broaden its (particularly maritime) territories and spheres of influence

to recover its traditional political status as the Middle Kingdom. As emphasized previously, the type or nature and goals or ideologies of a rising power matter. Nazi Germany and Imperial Japan (territorial powers) experienced rapid economic expansion and sought to expand their territories and influence in the first half of the twentieth century. For example, during this period Japan's goal was to create the Japanese empire in East Asia under the motto of the East Asian Co-prosperity Sphere. On the other hand, democratized Germany and Japan (trading powers) that enjoyed a second economic expansion did not pursue the expansion of their territories and spheres of influence in the post-World War II era. Twentieth century history suggests that political regimes predicated upon nondemocratic or nonliberal values and cultures (for instance, Nazism in Germany and militarism in Japan before the mid-twentieth century, and communism in the Soviet Union during the Cold War) can pose significant challenges to democratic and liberal regimes. The empirical studies of Lemke and Reed (1996) show that the democratic peace thesis can be used as a subset of power transition theory. According to their studies, states organized similarly to the dominant powers politically and economically (liberal democracy) are generally satisfied with the existing international rules and order and they tend to be status quo states. Another historical lesson is that economic interdependence alone cannot prevent a war for hegemony. Germany was one of the main trade partners of Great Britain before World War I (Friedberg 2011), and Japan was the number three importer of American products before its attack on Pearl Harbor (Keylor 2011). A relatively peaceful relationship or transition is possible when economic interdependence is supported by a solid democratic alliance between a rising great power and an existing or declining one.

Some scholars such as Ikenberry (2008) emphasize nuclear deterrence and the high costs of a nuclear war. Power transition theorists agree that the high costs of a nuclear war can constrain a war among great powers but do not view them as "a perfect deterrent" to war (Kugler and Zagare 1990; Tammen et al. 2000). The idea of nuclear deterrence is based upon the assumption of the rationality of actors (states): as long as the costs of a (nuclear) war are higher than its benefits, an actor (state) will not initiate the war. However, even some rationalists admit that certain actors (such as exceedingly ambitious risk-taking states) do not behave rationally and engage in unexpected military actions or pursue military overexpansion beyond its capacity (Glaser 2010). The state's behaviors are driven by its values, perceptions, and political ambitions as well as its rational calculations of costs and benefits. Especially, national pride, historical memories, and territorial disputes can make states behave emotionally. The possibility of a war between a democratic nation and a nondemocratic regime increases because they do not share the same values and beliefs and, therefore, the level of mistrust between them tends to be very high. China and the United States have enhanced their cooperation to address various global issues like global warming, international terrorism, energy issues, and global economic stability. But these issues are not strong enough to bring them together to overcome their mistrust that stems from their different values, beliefs, and perceptions (Friedberg 2011). What is more important is whether they can set mutually agreeable international rules on traditional security issues including territorial disputes.

### Framing

#### the standard is maximizing expected wellbeing

#### Independently:

#### 1] Extinction outweighs---it’s the upmost moral evil and disavowal of the risk makes it more likely.

Burns 2017 (Elizabeth Finneron-Burns is a Teaching Fellow at the University of Warwick and an Affiliated Researcher at the Institute for Futures Studies in Stockholm, What’s wrong with human extinction?, <http://www.tandfonline.com/doi/pdf/10.1080/00455091.2016.1278150?needAccess=true>, Canadian Journal of Philosophy, 2017)

Many, though certainly not all, people might believe that it would be wrong to bring about the end of the human species, and the reasons given for this belief are various. I begin by considering four reasons that could be given against the moral permissibility of human extinction. I will argue that only those reasons that impact the people who exist at the time that the extinction or the knowledge of the upcoming extinction occurs, can explain its wrongness. I use this conclusion to then consider in which cases human extinction would be morally permissible or impermissible, arguing that there is only a small class of cases in which it would not be wrong to cause the extinction of the human race or allow it to happen. 2.1. It would prevent the existence of very many happy people One reason of human extinction might be considered to be wrong lies in the value of human life itself. The thought here might be that it is a good thing for people to exist and enjoy happy lives and extinction would deprive more people of enjoying this good. The ‘good’ in this case could be understood in at least two ways. According to the first, one might believe that you benefit a person by bringing them into existence, or at least, that it is good for that person that they come to exist. The second view might hold that if humans were to go extinct, the utility foregone by the billions (or more) of people who could have lived but will now never get that opportunity, renders allowing human extinction to take place an incidence of wrongdoing. An example of this view can be found in two quotes from an Effective Altruism blog post by Peter Singer, Nick Beckstead and Matt Wage: One very bad thing about human extinction would be that billions of people would likely die painful deaths. But in our view, this is by far not the worst thing about human extinction. The worst thing about human extinction is that there would be no future generations. Since there could be so many generations in our future, the value of all those generations together greatly exceeds the value of the current generation. (Beckstead, Singer, and Wage 2013) The authors are making two claims. The first is that there is value in human life and also something valuable about creating future people which gives us a reason to do so; furthermore, it would be a very bad thing if we did not do so. The second is that, not only would it be a bad thing for there to be no future people, but it would actually be the worst thing about extinction. Since happy human lives have value, and the number of potential people who could ever exist is far greater than the number of people who exist at any one time, even if the extinction were brought about through the painful deaths of currently existing people, the former’s loss would be greater than the latter’s. Both claims are assuming that there is an intrinsic value in the existence of potential human life. The second claim makes the further assumption that the forgone value of the potential lives that could be lived is greater than the disvalue that would be accrued by people existing at the time of the extinction through suffering from painful and/or premature deaths. The best-known author of the post, Peter Singer is a prominent utilitarian, so it is not surprising that he would lament the potential lack of future human lives per se. However, it is not just utilitarians who share this view, even if implicitly. Indeed, other philosophers also seem to imply that they share the intuition that there is just something wrong with causing or failing to prevent the extinction of the human species such that we prevent more ‘people’ from having the ‘opportunity to exist’. Stephen Gardiner (2009) and Martin O’Neill (personal correspondence), both sympathetic to contract theory, for example, also find it intuitive that we should want more generations to have the opportunity to exist, assuming that they have worth-living lives, and I find it plausible to think that many other people (philosophers and non-philosophers alike) probably share this intuition. When we talk about future lives being ‘prevented’, we are saying that a possible person or a set of possible people who could potentially have existed will now never actually come to exist. To say that it is wrong to prevent people from existing could either mean that a possible person could reasonably reject a principle that permitted us not to create them, or that the foregone value of their lives provides a reason for rejecting any principle that permits extinction. To make the first claim we would have to argue that a possible person could reasonably reject any principle that prevented their existence on the grounds that it prevented them in particular from existing. However, this is implausible for two reasons. First, we can only wrong someone who did, does or will actually exist because wronging involves failing to take a person’s interests into account. When considering the permissibility of a principle allowing us not to create Person X, we cannot take X’s interest in being created into account because X will not exist if we follow the principle. By considering the standpoint of a person in our deliberations we consider the burdens they will have to bear as a result of the principle. In this case, there is no one who will bear any burdens since if the principle is followed (that is, if we do not create X), X will not exist to bear any burdens. So, only people who do/will actually exist can bear the brunt of a principle, and therefore occupy a standpoint that is owed justification. Second, existence is not an interest at all and a possible person is not disadvantaged by not being caused to exist. Rather than being an interest, it is a necessary requirement in order to have interests. Rivka Weinberg describes it as ‘neutral’ because causing a person to exist is to create a subject who can have interests; existence is not an interest itself.3 In order to be disadvantaged, there must be some detrimental effect on your interests. However, without existence, a person does not have any interests so they cannot be disadvantaged by being kept out of existence. But, as Weinberg points out, ‘never having interests itself could not be contrary to people’s interests since without interest bearers, there can be no ‘they’ for it to be bad for’ (Weinberg 2008, 13). So, a principle that results in some possible people never becoming actual does not impose any costs on those ‘people’ because nobody is disadvantaged by not coming into existence.4 It therefore seems that it cannot be wrong to fail to bring particular people into existence. This would mean that no one acts wrongly when they fail to create another person. Writ large, it would also not be wrong if everybody decided to exercise their prerogative not to create new people and potentially, by consequence, allow human extinction. One might respond here by saying that although it may be permissible for one person to fail to create a new person, it is not permissible if everyone chooses to do so because human lives have value and allowing human extinction would be to forgo a huge amount of value in the world. This takes us to the second way of understanding the potential wrongness of preventing people from existing — the foregone value of a life provides a reason for rejecting any principle that prevents it. One possible reply to this claim turns on the fact that many philosophers acknowledge that the only, or at least the best, way to think about the value of (individual or groups of) possible people’s lives is in impersonal terms (Parfit 1984; Reiman 2007; McMahan 2009). Jeff McMahan, for example, writes ‘at the time of one’s choice there is no one who exists or will exist independently of that choice for whose sake one could be acting in causing him or her to exist … it seems therefore that any reason to cause or not to cause an individual to exist … is best considered an impersonal rather than individual-affecting reason’ (McMahan 2009, 52). Another reply along similar lines would be to appeal to the value that is lost or at least foregone when we fail to bring into existence a next (or several next) generations of people with worth-living lives. Since ex hypothesi worth-living lives have positive value, it is better to create more such lives and worse to create fewer. Human extinction by definition is the creation of no future lives and would ‘deprive’ billions of ‘people’ of the opportunity to live worth-living lives. This might reduce the amount of value in the world at the time of the extinction (by killing already existing people), but it would also prevent a much vaster amount of value in the future (by failing to create more people). Both replies depend on the impersonal value of human life. However, recall that in contractualism impersonal values are not on their own grounds for reasonably rejecting principles. Scanlon himself says that although we have a strong reason not to destroy existing human lives, this reason ‘does not flow from the thought that it is a good thing for there to be more human life rather than less’ (104). In contractualism, something cannot be wrong unless there is an impact on a person. Thus, neither the impersonal value of creating a particular person nor the impersonal value of human life writ large could on its own provide a reason for rejecting a principle permitting human extinction. It seems therefore that the fact that extinction would deprive future people of the opportunity to live worth-living lives (either by failing to create either particular future people or future people in general) cannot provide us with a reason to consider human extinction to be wrong. Although the lost value of these ‘lives’ itself cannot be the reason explaining the wrongness of extinction, it is possible the knowledge of this loss might create a personal reason for some existing people. I will consider this possibility later on in section (d). But first I move to the second reason human extinction might be wrong per se. 2.2. It would mean the loss of the only known form of intelligent life and all civilization and intellectual progress would be lost A second reason we might think it would be wrong to cause human extinction is the loss that would occur of the only (known) form of rational life and the knowledge and civilization that that form of life has created. One thought here could be that just as some might consider it wrong to destroy an individual human heritage monument like the Sphinx, it would also be wrong if the advances made by humans over the past few millennia were lost or prevented from progressing. A related argument is made by those who feel that there is something special about humans’ capacity for rationality which is valuable in itself. Since humans are the only intelligent life that we know of, it would be a loss, in itself, to the world for that to end. I admit that I struggle to fully appreciate this thought. It seems to me that Henry Sidgwick was correct in thinking that these things are only important insofar as they are important to humans (Sidgwick 1874, I.IX.4).5 If there is no form of intelligent life in the future, who would there be to lament its loss since intelligent life is the only form of life capable of appreciating intelligence? Similarly, if there is no one with the rational capacity to appreciate historic monuments and civil progress, who would there be to be negatively affected or even notice the loss?6 However, even if there is nothing special about human rationality, just as some people try to prevent the extinction of nonhuman animal species, we might think that we ought also to prevent human extinction for the sake of biodiversity. The thought in this, as well as the earlier examples, must be that it would somehow be bad for the world if there were no more humans even though there would be no one for whom it is bad. This may be so but the only way to understand this reason is impersonally. Since we are concerned with wrongness rather than badness, we must ask whether something that impacts no one’s well-being, status or claims can be wrong. As we saw earlier, in the contractualist framework reasons must be personal rather than impersonal in order to provide grounds for reasonable rejection (Scanlon 1998, 218–223). Since the loss of civilization, intelligent life or biodiversity are per se impersonal reasons, there is no standpoint from which these reasons could be used to reasonably reject a principle that permitted extinction. Therefore, causing human extinction on the grounds of the loss of civilization, rational life or biodiversity would not be wrong. 2.3. Existing people would endure physical pain and/or painful and/or premature deaths Thinking about the ways in which human extinction might come about brings to the fore two more reasons it might be wrong. It could, for example, occur if all humans (or at least the critical number needed to be unable to replenish the population, leading to eventual extinction) underwent a sterilization procedure. Or perhaps it could come about due to anthropogenic climate change or a massive asteroid hitting the Earth and wiping out the species in the same way it did the dinosaurs millions of years ago. Each of these scenarios would involve significant physical and/or non-physical harms to existing people and their interests. Physically, people might suffer premature and possibly also painful deaths, for example. It is not hard to imagine examples in which the process of extinction could cause premature death. A nuclear winter that killed everyone or even just every woman under the age of 50 is a clear example of such a case. Obviously, some types of premature death themselves cannot be reasons to reject a principle. Every person dies eventually, sometimes earlier than the standard expected lifespan due to accidents or causes like spontaneously occurring incurable cancers. A cause such as disease is not a moral agent and therefore it cannot be wrong if it unavoidably kills a person prematurely. Scanlon says that the fact that a principle would reduce a person’s well-being gives that person a reason to reject the principle: ‘components of well-being figure prominently as grounds for reasonable rejection’ (Scanlon 1998, 214). However, it is not settled yet whether premature death is a setback to well-being. Some philosophers hold that death is a harm to the person who dies, whilst others argue that it is not.7 I will argue, however, that regardless of who is correct in that debate, being caused to die prematurely can be reason to reject a principle when it fails to show respect to the person as a rational agent. Scanlon says that recognizing others as rational beings with interests involves seeing reason to preserve life and prevent death: ‘appreciating the value of human life is primarily a matter of seeing human lives as something to be respected, where this involves seeing reasons not to destroy them, reasons to protect them, and reasons to want them to go well’ (Scanlon 1998, 104). The ‘respect for life’ in this case is a respect for the person living, not respect for human life in the abstract. This means that we can sometimes fail to protect human life without acting wrongfully if we still respect the person living. Scanlon gives the example of a person who faces a life of unending and extreme pain such that she wishes to end it by committing suicide. Scanlon does not think that the suicidal person shows a lack of respect for her own life by seeking to end it because the person whose life it is has no reason to want it to go on. This is important to note because it emphasizes the fact that the respect for human life is person-affecting. It is not wrong to murder because of the impersonal disvalue of death in general, but because taking someone’s life without their permission shows disrespect to that person. This supports its inclusion as a reason in the contractualist formula, regardless of what side ends up winning the ‘is death a harm?’ debate because even if death turns out not to harm the person who died, ending their life without their consent shows disrespect to that person. A person who could reject a principle permitting another to cause his or her premature death presumably does not wish to die at that time, or in that manner. Thus, if they are killed without their consent, their interests have not been taken into account, and they have a reason to reject the principle that allowed their premature death.8 This is as true in the case of death due to extinction as it is for death due to murder. However, physical pain may also be caused to existing people without killing them, but still resulting in human extinction. Imagine, for example, surgically removing everyone’s reproductive organs in order to prevent the creation of any future people. Another example could be a nuclear bomb that did not kill anyone, but did painfully render them infertile through illness or injury. These would be cases in which physical pain (through surgery or bombs) was inflicted on existing people and the extinction came about as a result of the painful incident rather than through death. Furthermore, one could imagine a situation in which a bomb (for example) killed enough people to cause extinction, but some people remained alive, but in terrible pain from injuries. It seems uncontroversial that the infliction of physical pain could be a reason to reject a principle. Although Scanlon says that an impact on well-being is not the only reason to reject principles, it plays a significant role, and indeed, most principles are likely to be rejected due to a negative impact on a person’s well-being, physical or otherwise. It may be queried here whether it is actually the involuntariness of the pain that is grounds for reasonable rejection rather than the physical pain itself because not all pain that a person suffers is involuntary. One can imagine acts that can cause physical pain that are not rejectable — base jumping or life-saving or improving surgery, for example. On the other hand, pushing someone off a cliff or cutting him with a scalpel against his will are clearly rejectable acts. The difference between the two cases is that in the former, the person having the pain inflicted has consented to that pain or risk of pain. My view is that they cannot be separated in these cases and it is involuntary physical pain that is the grounds for reasonable rejection. Thus, the fact that a principle would allow unwanted physical harm gives a person who would be subjected to that harm a reason to reject the principle. Of course the mere fact that a principle causes involuntary physical harm or premature death is not sufficient to declare that the principle is rejectable — there might be countervailing reasons. In the case of extinction, what countervailing reasons might be offered in favour of the involuntary physical pain/ death-inducing harm? One such reason that might be offered is that humans are a harm to the natural environment and that the world might be a better place if there were no humans in it. It could be that humans might rightfully be considered an all-things-considered hindrance to the world rather than a benefit to it given the fact that we have been largely responsible for the extinction of many species, pollution and, most recently, climate change which have all negatively affected the natural environment in ways we are only just beginning to understand. Thus, the fact that human extinction would improve the natural environment (or at least prevent it from degrading further), is a countervailing reason in favour of extinction to be weighed against the reasons held by humans who would experience physical pain or premature death. However, the good of the environment as described above is by definition not a personal reason. Just like the loss of rational life and civilization, therefore, it cannot be a reason on its own when determining what is wrong and countervail the strong personal reasons to avoid pain/death that is held by the people who would suffer from it.9 Every person existing at the time of the extinction would have a reason to reject that principle on the grounds of the physical pain they are being forced to endure against their will that could not be countervailed by impersonal considerations such as the negative impact humans may have on the earth. Therefore, a principle that permitted extinction to be accomplished in a way that caused involuntary physical pain or premature death could quite clearly be rejectable by existing people with no relevant countervailing reasons. This means that human extinction that came about in this way would be wrong. There are of course also additional reasons they could reject a similar principle which I now turn to address in the next section. 2.4. Existing people could endure non-physical harms I said earlier than the fact in itself that there would not be any future people is an impersonal reason and can therefore not be a reason to reject a principle permitting extinction. However, this impersonal reason could give rise to a personal reason that is admissible. So, the final important reason people might think that human extinction would be wrong is that there could be various deleterious psychological effects that would be endured by existing people having the knowledge that there would be no future generations. There are two main sources of this trauma, both arising from the knowledge that there will be no more people. The first relates to individual people and the undesired negative effect on well-being that would be experienced by those who would have wanted to have children. Whilst this is by no means universal, it is fair to say that a good proportion of people feel a strong pull towards reproduction and having their lineage continue in some way. Samuel Scheffler describes the pull towards reproduction as a ‘desire for a personalized relationship with the future’ (Scheffler 2012, 31). Reproducing is a widely held desire and the joys of parenthood are ones that many people wish to experience. For these people knowing that they would not have descendants (or that their descendants will endure painful and/or premature deaths) could create a sense of despair and pointlessness of life. Furthermore, the inability to reproduce and have your own children because of a principle/policy that prevents you (either through bans or physical interventions) would be a significant infringement of what we consider to be a basic right to control what happens to your body. For these reasons, knowing that you will have no descendants could cause significant psychological traumas or harms even if there were no associated physical harm. The second is a more general, higher level sense of hopelessness or despair that there will be no more humans and that your projects will end with you. Even those who did not feel a strong desire to procreate themselves might feel a sense of hopelessness that any projects or goals they have for the future would not be fulfilled. Many of the projects and goals we work towards during our lifetime are also at least partly future-oriented. Why bother continuing the search for a cure for cancer if either it will not be found within humans’ lifetime, and/or there will be no future people to benefit from it once it is found? Similar projects and goals that might lose their meaning when confronted with extinction include politics, artistic pursuits and even the type of philosophical work with which this paper is concerned. Even more extreme, through the words of the character Theo Faron, P.D. James says in his novel The Children of Men that ‘without the hope of posterity for our race if not for ourselves, without the assurance that we being dead yet live, all pleasures of the mind and senses sometimes seem to me no more than pathetic and crumbling defences shored up against our ruins’ (James 2006, 9). Even if James’ claim is a bit hyperbolic and all pleasures would not actually be lost, I agree with Scheffler in finding it not implausible that the knowledge that extinction was coming and that there would be no more people would have at least a general depressive effect on people’s motivation and confidence in the value of and joy in their activities (Scheffler 2012, 43). Both sources of psychological harm are personal reasons to reject a principle that permitted human extinction. Existing people could therefore reasonably reject the principle for either of these reasons. Psychological pain and the inability to pursue your personal projects, goals, and aims, are all acceptable reasons for rejecting principles in the contractualist framework. So too are infringements of rights and entitlements that we accept as important for people’s lives. These psychological reasons, then, are also valid reasons to reject principles that permitted or required human extinction.

#### 2] That justifies util – it’s impartial, specific to public actors, and resolves infinite regress which explains all value.

Greene 15 — (Joshua Greene, Professor of Psychology @ Harvard, being interviewed by Russ Roberts, “Joshua Greene on Moral Tribes, Moral Dilemmas, and Utilitarianism”, The Library of Economics and Liberty, 1-5-15, Available Online at <https://www.econtalk.org/joshua-greene-on-moral-tribes-moral-dilemmas-and-utilitarianism/#audio-highlights>, accessed 5-17-20, HKR-AM) \*\*NB: Guest = Greene, and only his lines are highlighted/underlined

Guest: Okay. So, I think utilitarianism is very much misunderstood. And this is part of the reason why we shouldn't even call it utilitarianism at all. We should call it what I call 'deep pragmatism', which I think better captures what I think utilitarianism is really like, if you really apply it in real life, in light of an understanding of human nature. But, we can come back to that. The idea, going back to the tragedy of common-sense morality is you've got all these different tribes with all of these different values based on their different ways of life. What can they do to get along? And I think that the best answer that we have is--well, let's back up. In order to resolve any kind of tradeoff, you have to have some kind of common metric. You have to have some kind of common currency. And I think that what utilitarianism, whether it's the moral truth or not, is provide a kind of common currency. So, what is utilitarianism? It's basically the idea that--it's really two ideas put together. One is the idea of impartiality. That is, at least as social decision makers, we should regard everybody's interests as of equal worth. Everybody counts the same. And then you might say, 'Well, but okay, what does it mean to count everybody the same? What is it that really matters for you and for me and for everybody else?' And there the utilitarian's answer is what is sometimes called, somewhat accurately and somewhat misleadingly, happiness. But it's not really happiness in the sense of cherries on sundaes, things that make you smile. It's really the quality of conscious experience. So, the idea is that if you start with anything that you value, and say, 'Why do you care about that?' and keep asking, 'Why do you care about that?' or 'Why do you care about that?' you ultimately come down to the quality of someone's conscious experience. So if I were to say, 'Why did you go to work today?' you'd say, 'Well, I need to make money; and I also enjoy my work.' 'Well, what do you need your money for?' 'Well, I need to have a place to live; it costs money.' 'Well, why can't you just live outside?' 'Well, I need a place to sleep; it's cold at night.' 'Well, what's wrong with being cold?' 'Well, it's uncomfortable.' 'What's wrong with being uncomfortable?' 'It's just bad.' Right? At some point if you keep asking why, why, why, it's going to come down to the conscious experience--in Bentham's terms, again somewhat misleading, the pleasure and pain of either you or somebody else that you care about. So the utilitarian idea is to say, Okay, we all have our pleasures and pains, and as a moral philosophy we should all count equally. And so a good standard for resolving public disagreements is to say we should go with whatever option is going to produce the best overall experience for the people who are affected. Which you can think of as shorthand as maximizing happiness--although I think that that's somewhat misleading. And the solution has a lot of merit to it. But it also has endured a couple of centuries of legitimate criticism. And one of the biggest criticisms--and now we're getting back to the Trolley cases, is that utilitarianism doesn't adequately account for people's rights. So, take the footbridge case. It seems that it's wrong to push that guy off the footbridge. Even if you stipulate that you can save more people's lives. And so anyone who is going to defend utilitarianism as a meta-morality--that is, a solution to the tragedy of common sense morality, as a moral system to adjudicate among competing tribal moral systems--if you are going to defend it in that way, as I do, you have to face up to these philosophical challenges: is it okay to kill on person to save five people in this kind of situation? So I spend a lot of the book trying to understand the psychology of cases like the footbridge case. And you mention these being kind of unrealistic and weird cases. That's actually part of my defense.