# Palm Classic R1

## 1

#### Interpretation: “Private entities” is a generic bare plural. The aff may not defend that a subset of nations ban the appropriation of outer space.

Nebel 19. [Jake Nebel is an assistant professor of philosophy at the University of Southern California and executive director of Victory Briefs. He writes a lot of this stuff lol – duh.] “Genericity on the Standardized Tests Resolution.” Vbriefly. August 12, 2019. <https://www.vbriefly.com/2019/08/12/genericity-on-the-standardized-tests-resolution/?fbclid=IwAR0hUkKdDzHWrNeqEVI7m59pwsnmqLl490n4uRLQTe7bWmWDO_avWCNzi14> TG

Both distinctions are important. Generic resolutions can’t be affirmed by specifying particular instances. But, since generics tolerate exceptions, plan-inclusive counterplans (PICs) do not negate generic resolutions.

Bare plurals are typically used to express generic generalizations. But there are two important things to keep in mind. First, generic generalizations are also often expressed via other means (e.g., definite singulars, indefinite singulars, and bare singulars). Second, and more importantly for present purposes, bare plurals can also be used to express existential generalizations. For example, “Birds are singing outside my window” is true just in case there are some birds singing outside my window; it doesn’t require birds in general to be singing outside my window.

So, what about “colleges and universities,” “standardized tests,” and “undergraduate admissions decisions”? Are they generic or existential bare plurals? On other topics I have taken great pains to point out that their bare plurals are generic—because, well, they are. On this topic, though, I think the answer is a bit more nuanced. Let’s see why.

“Colleges and universities” is a generic bare plural. I don’t think this claim should require any argument, when you think about it, but here are a few reasons.

First, ask yourself, honestly, whether the following speech sounds good to you: “Eight colleges and universities—namely, those in the Ivy League—ought not consider standardized tests in undergraduate admissions decisions. Maybe other colleges and universities ought to consider them, but not the Ivies. Therefore, in the United States, colleges and universities ought not consider standardized tests in undergraduate admissions decisions.” That is obviously not a valid argument: the conclusion does not follow. Anyone who sincerely believes that it is valid argument is, to be charitable, deeply confused. But the inference above would be good if “colleges and universities” in the resolution were existential. By way of contrast: “Eight birds are singing outside my window. Maybe lots of birds aren’t singing outside my window, but eight birds are. Therefore, birds are singing outside my window.” Since the bare plural “birds” in the conclusion gets an existential reading, the conclusion follows from the premise that eight birds are singing outside my window: “eight” entails “some.” If the resolution were existential with respect to “colleges and universities,” then the Ivy League argument above would be a valid inference. Since it’s not a valid inference, “colleges and universities” must be a generic bare plural.

Second, “colleges and universities” fails the [upward-entailment test](https://plato.stanford.edu/entries/generics/#IsolGeneInte) for existential uses of bare plurals. Consider the sentence, “Lima beans are on my plate.” This sentence expresses an existential statement that is true just in case there are some lima beans on my plate. One test of this is that it entails the more general sentence, “Beans are on my plate.” Now consider the sentence, “Colleges and universities ought not consider the SAT.” (To isolate “colleges and universities,” I’ve eliminated the other bare plurals in the resolution; it cannot plausibly be generic in the isolated case but existential in the resolution.) This sentence does not entail the more general statement that educational institutions ought not consider the SAT. This shows that “colleges and universities” is generic, because it fails the upward-entailment test for existential bare plurals.

Third, “colleges and universities” fails the adverb of quantification test for existential bare plurals. Consider the sentence, “Dogs are barking outside my window.” This sentence expresses an existential statement that is true just in case there are some dogs barking outside my window. One test of this appeals to the drastic change of meaning caused by inserting any adverb of quantification (e.g., always, sometimes, generally, often, seldom, never, ever). You cannot add any such adverb into the sentence without drastically changing its meaning. To apply this test to the resolution, let’s again isolate the bare plural subject: “Colleges and universities ought not consider the SAT.” Adding generally (“Colleges and universitiesz generally ought not consider the SAT”) or ever (“Colleges and universities ought not ever consider the SAT”) result in comparatively minor changes of meaning. (Note that this test doesn’t require there to be no change of meaning and doesn’t have to work for every adverb of quantification.) This strongly suggests what we already know: that “colleges and universities” is generic rather than existential in the resolution.

#### It applies to “private entities” – adding “generally” to the rez doesn’t substantially change its meaning and the rez doesn’t entail that all entities ought to ban private appropriation

#### Net benefits -

#### [1] Limits – 195 recognized countries plus combinations and specific entities within countries makes negating impossible especially with no unifying disads against different policies, implementation and regulation procedures

#### [2] Precision outweighs – it determines which interps your ballot can endorse by providing the only salient focal point for debates—if their interp is not premised on the text of the resolution, its benefits are irrelevant to the question of topicality since it fails to interpret the topic. Plan affs just lead to cheatier pics anyways since the neg has to default to generics

#### Fairness and education are voters – its how judges evaluate rounds and why schools fund debate

#### DTD – it’s key to norm set and deter future abuse

#### Competing interps – Reasonability invites arbitrary judge intervention and a race to the bottom of questionable argumentation – it also collapses since brightlines operate on an offense-defense paradigm

#### No RVIs – A – Encourages theory baiting – outweighs because if the shell is frivolous, they can beat it quickly B – its illogical for you to win for proving you were fair – outweighs since logic is a litmus test for other arguments

## 2

#### Interp: The affirmative must define “outer space” in a delimited text in the 1AC.

#### “Outer Space” is flexible and has too many interps – normal means shows no consensus and makes the round irresolvable

Leepuengtham 17 [Tosaporn Leepuengtham (Research Judge, Intellectual Property and International Trade Division, Supreme Court of Thailand). "International space law and its implications for outer space activities." 01-27-2017, Accessed 12-9-2021. https://www.elgaronline.com/view/9781785369612/06\_chapter1.xhtml // duongie

Those states which favor the precise demarcation of outer space support the spatial approach, whereas those who oppose to such demarcation prefer the functional approach, as the latter allows more flexibility in terms of the development of space technology.34 This lack of a definition and delimitation of outer space is problematic, since certain particular areas are neither explicitly defined as ‘air space’ or ‘outer space’. For example, it is vague whether an area located between 80 km and 120 km above sea level would be classified as either air space or outer space in the absence of demarcation, since 80 km is the maximum attitude for convention aircraft, and 120 km is the lowest attitude in which space activities could be carried out.35 Satellites which are stationed in a geostationary orbit are a good example of this ambiguity. Owing to this lack of any internationally recognized delimitation, equatorial states claim sovereignty over that part of the geostationary orbit which is located over their respective territories;36 whereas technologically developed countries believe that the geostationary orbit is an integral part of outer space.37 This uncertain status of areas leads to legal jurisdictional problems. According to international law, a state has sovereignty over the airspace above its territory.38 However, national sovereignty does not extend into outer space.39 Thus, it is necessary to determine where a state’s airspace ends to ensure that the appropriate legal regime is applied. One possible scenario which might occur and which is relevant to the subject of this book is the creation or infringement of an intellectual work is in just such an ambiguous location. This would cast doubt on the ‘legal’ location of creation or infringement, and the question of which applicable legal regime arises. Should we apply the law of the underlying state or is there no law to apply? For example, would satellite signals transmitted from a satellite stationed in a geostationary orbit located over equatorial countries be considered as works created or, if intercepted, be infringed, in outer space or in the sovereign air space of those respective countries? These hypothetical examples highlight why a boundary is necessary if unpredictability arising from different legal application is to be avoided. While it might be argued that this issue is being overemphasized at this stage, given increasing use of space technology, this problem is worth considering now rather than later.

appropriation[[1]](#footnote-1) is “a sum of money or total of assets devoted to a special purpose” but the rez doesn’t spec a purpose

#### Violation – you don’t.

#### Prefer –

#### 1] Stable Advocacy – they can redefine in the 1AR to wriggle out of DA’s which kills high-quality engagement and becomes two ships passing in the night – triggers presumption since the aff wasn’t subject to well researched scrutiny. We lose access to Tech Race DA’s, Asteroid DA’s, basic case turns, and core process counter plans that have different definitions and 1NC pre-round prep.

#### OSspec isn’t regressive or arbitrary – its core topic lit for what happens when the aff is implemented and cannot be discounted from policies that require enforcement to function.

## 3

#### CP Text: The People’s Republic of China should

#### end all private appropriation of outer space except for Asteroid Mining.

#### de-militarize its civilian, military, and commercial space industry.

#### dismantle and remove ASAT weapons.

#### dismantle the People’s Liberation Army.

#### end China-Russian cooperation in Outer Space.

#### The Counterplan solves the Case since it’s about Space Militarization which the CP explicitly gets rid of. Concede Space Key to Heg – means the CP access all of the Spill-over Offense to American leadership.

#### China’s Asteroid Mining efforts are light-years ahead of everyone else – now is key for Asteroid Mining. Successful Mining solves Warming through Green Transition.

Cohen 21 Ariel Cohen 10-26-2021 "China’s Space Mining Industry Is Prepping For Launch – But What About The US?" <https://www.forbes.com/sites/arielcohen/2021/10/26/chinas-space-mining-industry-is-prepping-for-launch--but-what-about-the-us/?sh=6b8bea862ae0> (I am a Senior Fellow at the Atlantic Council and the Founding Principal of International Market Analysis, a Washington, D.C.-based global risk advisory boutique.)//Elmer

Exploration of space-based natural resources are on the Chinese policy makers’ mind. The question is, what Joe Biden thinks? In April of this year, China’s Shenzen Origin Space Technology Co. Ltd. launched the NEO-1, the first commercial spacecraft dedicated to the mining of space resources – from asteroids to the lunar surface. Falling costs of space launches and spacecraft technology alongside existing infrastructure provides a unique opportunity to explore extraterrestrial resource extraction. Current technologies are equipped to analyze and categorize asteroids within our solar system with a limited degree of certainty. One of the accompanying payloads to the NEO-1 was the Yuanwang-1, or “little hubble” satellite, which searches the stars for possible asteroid mining targets. The NEO-1 launch marks another milestone in private satellite development, adding a new player to space based companies which include Japan’s Astroscale. Private asteroid identification via the Sentinel Space Telescope was supported by NASA until 2015. As private investment in space grows, the end goal is to be capable of harvesting resources to bring to Earth. “Through the development and launch of the spacecraft, Origin Space is able to carry out low-Earth orbit space junk cleanup and prototype technology verification for space resource acquisition, and at the same time demonstrate future asteroid defense related technologies.” In the end, it will come down to progressively lowering the cost of launched unit of weight and booster rocket reliability – before fundamentally new engines may drive the launch costs even further down. The April launch demonstrates that China is already succeeding while the West is spinning its wheels. The much touted Planetary Resources and Deep Space Industries (DSI) DSI -1% were supposed to be the vanguard of extra-terrestrial resource acquisition with major backers including Google’s GOOG -1.4% Larry Page. But both have since been acquired, the former by block chain company ConsenSys and the latter by Bradford Space, neither of which are prioritizing asteroid mining. This is too bad, given that that supply chain crunches here on Earth – coupled with the global green energy transition – are spiking demand for strategic minerals that are increasingly hard to come by on our environmentally stressed planet. And here China currently holds a monopoly on rare earth element (REE) extraction and processing to the tune of 90%. REE’s 17 minerals essential for modern computing and manufacturing technologies for everything from solar panels to semi-conductors. Resource-hungry China also has major involvement in global critical mineral supply chains, which include cobalt, tungsten, and lithium. As I’ve written before, the Chinese hold of upstream and downstream markets is staggering. Possessing 30% of the global mined ore, 80% of the global processing facilities, and an ever increasing list of high dollar investments around the world, China boasts over $36 billion invested in mining projects in Africa alone. Beijing’s space program clearly indicates that the Chinese would also like to tighten their grip on space-based resources as well. According to research, it is estimated that a small asteroid roughly 200 meters in length that is rich in platinum could be worth up to $300 million. Merrill Lynch predicts the space industry — including extraterrestrial mining industry – to value $2.7 trillion in the next three decades. REEs are fairly common in the solar system, but to what degree remains unknown. The most sought after are M-type asteroids which are mostly metal and hundreds of cubic meters. While these are not the most common, the 27,115 Near Earth asteroids are bound to contain a few. This – and military applications – are no doubt a driving factor of China’s ever increasing space ambitions.

#### Warming causes Extinction

Kareiva 18, Peter, and Valerie Carranza. "Existential risk due to ecosystem collapse: Nature strikes back." Futures 102 (2018): 39-50. (Ph.D. in ecology and applied mathematics from Cornell University, director of the Institute of the Environment and Sustainability at UCLA, Pritzker Distinguished Professor in Environment & Sustainability at UCLA)//Re-cut by Elmer

In summary, six of the nine proposed planetary boundaries (phosphorous, nitrogen, biodiversity, land use, atmospheric aerosol loading, and chemical pollution) are unlikely to be associated with existential risks. They all correspond to a degraded environment, but in our assessment do not represent existential risks. However, the three remaining boundaries (**climate change**, global **freshwater** cycle, **and** ocean **acidification**) do **pose existential risks**. This is **because of** intrinsic **positive feedback loops**, substantial lag times between system change and experiencing the consequences of that change, and the fact these different boundaries interact with one another in ways that yield surprises. In addition, climate, freshwater, and ocean acidification are all **directly connected to** the provision of **food and water**, and **shortages** of food and water can **create conflict** and social unrest. Climate change has a long history of disrupting civilizations and sometimes precipitating the collapse of cultures or mass emigrations (McMichael, 2017). For example, the 12th century drought in the North American Southwest is held responsible for the collapse of the Anasazi pueblo culture. More recently, the infamous potato famine of 1846–1849 and the large migration of Irish to the U.S. can be traced to a combination of factors, one of which was climate. Specifically, 1846 was an unusually warm and moist year in Ireland, providing the climatic conditions favorable to the fungus that caused the potato blight. As is so often the case, poor government had a role as well—as the British government forbade the import of grains from outside Britain (imports that could have helped to redress the ravaged potato yields). Climate change intersects with freshwater resources because it is expected to exacerbate drought and water scarcity, as well as flooding. Climate change can even impair water quality because it is associated with heavy rains that overwhelm sewage treatment facilities, or because it results in higher concentrations of pollutants in groundwater as a result of enhanced evaporation and reduced groundwater recharge. **Ample clean water** is not a luxury—it **is essential for human survival**. Consequently, cities, regions and nations that lack clean freshwater are vulnerable to social disruption and disease. Finally, ocean acidification is linked to climate change because it is driven by CO2 emissions just as global warming is. With close to 20% of the world’s protein coming from oceans (FAO, 2016), the potential for severe impacts due to acidification is obvious. Less obvious, but perhaps more insidious, is the interaction between climate change and the loss of oyster and coral reefs due to acidification. Acidification is known to interfere with oyster reef building and coral reefs. Climate change also increases storm frequency and severity. Coral reefs and oyster reefs provide protection from storm surge because they reduce wave energy (Spalding et al., 2014). If these reefs are lost due to acidification at the same time as storms become more severe and sea level rises, coastal communities will be exposed to unprecedented storm surge—and may be ravaged by recurrent storms. A key feature of the risk associated with climate change is that mean annual temperature and mean annual rainfall are not the variables of interest. Rather it is extreme episodic events that place nations and entire regions of the world at risk. These extreme events are by definition “rare” (once every hundred years), and changes in their likelihood are challenging to detect because of their rarity, but are exactly the manifestations of climate change that we must get better at anticipating (Diffenbaugh et al., 2017). Society will have a hard time responding to shorter intervals between rare extreme events because in the lifespan of an individual human, a person might experience as few as two or three extreme events. How likely is it that you would notice a change in the interval between events that are separated by decades, especially given that the interval is not regular but varies stochastically? A concrete example of this dilemma can be found in the past and expected future changes in storm-related flooding of New York City. The highly disruptive flooding of New York City associated with Hurricane Sandy represented a flood height that occurred once every 500 years in the 18th century, and that occurs now once every 25 years, but is expected to occur once every 5 years by 2050 (Garner et al., 2017). This change in frequency of extreme floods has profound implications for the measures New York City should take to protect its infrastructure and its population, yet because of the stochastic nature of such events, this shift in flood frequency is an elevated risk that will go unnoticed by most people. 4. The combination of positive feedback loops and societal inertia is fertile ground for global environmental catastrophes **Humans** are remarkably ingenious, and **have adapted** to crises **throughout** their **history**. Our doom has been repeatedly predicted, only to be averted by innovation (Ridley, 2011). **However**, the many **stories** **of** human ingenuity **successfully** **addressing** **existential risks** such as global famine or extreme air pollution **represent** environmental c**hallenges that are** largely **linear**, have immediate consequences, **and operate without positive feedbacks**. For example, the fact that food is in short supply does not increase the rate at which humans consume food—thereby increasing the shortage. Similarly, massive air pollution episodes such as the London fog of 1952 that killed 12,000 people did not make future air pollution events more likely. In fact it was just the opposite—the London fog sent such a clear message that Britain quickly enacted pollution control measures (Stradling, 2016). Food shortages, air pollution, water pollution, etc. send immediate signals to society of harm, which then trigger a negative feedback of society seeking to reduce the harm. In contrast, today’s great environmental crisis of climate change may cause some harm but there are generally long time delays between rising CO2 concentrations and damage to humans. The consequence of these delays are an absence of urgency; thus although 70% of Americans believe global warming is happening, only 40% think it will harm them (http://climatecommunication.yale.edu/visualizations-data/ycom-us-2016/). Secondly, unlike past environmental challenges, **the Earth’s climate system is rife with positive feedback loops**. In particular, as CO2 increases and the climate warms, that **very warming can cause more CO2 release** which further increases global warming, and then more CO2, and so on. Table 2 summarizes the best documented positive feedback loops for the Earth’s climate system. These feedbacks can be neatly categorized into carbon cycle, biogeochemical, biogeophysical, cloud, ice-albedo, and water vapor feedbacks. As important as it is to understand these feedbacks individually, it is even more essential to study the interactive nature of these feedbacks. Modeling studies show that when interactions among feedback loops are included, uncertainty increases dramatically and there is a heightened potential for perturbations to be magnified (e.g., Cox, Betts, Jones, Spall, & Totterdell, 2000; Hajima, Tachiiri, Ito, & Kawamiya, 2014; Knutti & Rugenstein, 2015; Rosenfeld, Sherwood, Wood, & Donner, 2014). This produces a wide range of future scenarios. Positive feedbacks in the carbon cycle involves the enhancement of future carbon contributions to the atmosphere due to some initial increase in atmospheric CO2. This happens because as CO2 accumulates, it reduces the efficiency in which oceans and terrestrial ecosystems sequester carbon, which in return feeds back to exacerbate climate change (Friedlingstein et al., 2001). Warming can also increase the rate at which organic matter decays and carbon is released into the atmosphere, thereby causing more warming (Melillo et al., 2017). Increases in food shortages and lack of water is also of major concern when biogeophysical feedback mechanisms perpetuate drought conditions. The underlying mechanism here is that losses in vegetation increases the surface albedo, which suppresses rainfall, and thus enhances future vegetation loss and more suppression of rainfall—thereby initiating or prolonging a drought (Chamey, Stone, & Quirk, 1975). To top it off, overgrazing depletes the soil, leading to augmented vegetation loss (Anderies, Janssen, & Walker, 2002). Climate change often also increases the risk of forest fires, as a result of higher temperatures and persistent drought conditions. The expectation is that **forest fires will become more frequent** and severe with climate warming and drought (Scholze, Knorr, Arnell, & Prentice, 2006), a trend for which we have already seen evidence (Allen et al., 2010). Tragically, the increased severity and risk of Southern California wildfires recently predicted by climate scientists (Jin et al., 2015), was realized in December 2017, with the largest fire in the history of California (the “Thomas fire” that burned 282,000 acres, https://www.vox.com/2017/12/27/16822180/thomas-fire-california-largest-wildfire). This **catastrophic fire** embodies the sorts of positive feedbacks and interacting factors that **could catch humanity off-guard and produce a** true **apocalyptic event.** Record-breaking rains produced an extraordinary flush of new vegetation, that then dried out as record heat waves and dry conditions took hold, coupled with stronger than normal winds, and ignition. Of course the record-fire released CO2 into the atmosphere, thereby contributing to future warming. Out of all types of feedbacks, water vapor and the ice-albedo feedbacks are the most clearly understood mechanisms. Losses in reflective snow and ice cover drive up surface temperatures, leading to even more melting of snow and ice cover—this is known as the ice-albedo feedback (Curry, Schramm, & Ebert, 1995). As snow and ice continue to melt at a more rapid pace, millions of people may be displaced by flooding risks as a consequence of sea level rise near coastal communities (Biermann & Boas, 2010; Myers, 2002; Nicholls et al., 2011). The water vapor feedback operates when warmer atmospheric conditions strengthen the saturation vapor pressure, which creates a warming effect given water vapor’s strong greenhouse gas properties (Manabe & Wetherald, 1967). Global warming tends to increase cloud formation because warmer temperatures lead to more evaporation of water into the atmosphere, and warmer temperature also allows the atmosphere to hold more water. The key question is whether this increase in clouds associated with global warming will result in a positive feedback loop (more warming) or a negative feedback loop (less warming). For decades, scientists have sought to answer this question and understand the net role clouds play in future climate projections (Schneider et al., 2017). Clouds are complex because they both have a cooling (reflecting incoming solar radiation) and warming (absorbing incoming solar radiation) effect (Lashof, DeAngelo, Saleska, & Harte, 1997). The type of cloud, altitude, and optical properties combine to determine how these countervailing effects balance out. Although still under debate, it appears that in most circumstances the cloud feedback is likely positive (Boucher et al., 2013). For example, models and observations show that increasing greenhouse gas concentrations reduces the low-level cloud fraction in the Northeast Pacific at decadal time scales. This then has a positive feedback effect and enhances climate warming since less solar radiation is reflected by the atmosphere (Clement, Burgman, & Norris, 2009). The key lesson from the long list of potentially positive feedbacks and their interactions is that **runaway climate change,** and runaway perturbations have to be taken as a serious possibility. Table 2 is just a snapshot of the type of feedbacks that have been identified (see Supplementary material for a more thorough explanation of positive feedback loops). However, this list is not exhaustive and the possibility of undiscovered positive feedbacks **portends** even greater **existential risks**. The many environmental crises humankind has previously averted (famine, ozone depletion, London fog, water pollution, etc.) were averted because of political will based on solid scientific understanding. We cannot count on complete scientific understanding when it comes to positive feedback loops and climate change.

## 4

#### China’s space program is key to asteroid mitigation---US efforts fail and the same entities referenced in AC Patel and AC Chow are key.

Chen 21 (, S., 2021. How 23 giant Chinese rockets could save world from asteroids. [online] South China Morning Post. Available at: <https://www.scmp.com/news/china/science/article/3139914/how-23-giant-chinese-rockets-could-save-world-doomsday-asteroid> [Accessed 19 January 2022] Stephen Chen investigates major research projects in China, a new power house of scientific and technological innovation. He has worked for the Post since 2006. He is an alumnus of Shantou University, the Hong Kong University of Science and Technology, and the Semester at Sea programme which he attended with a full scholarship from the Seawise Foundation.)-rahulpenu

How 23 giant Chinese rockets could save the world from ‘doomsday’ asteroid

China can send mammoth machines into space which travel for years then deflect problematic rocks

Same devices have been criticised recently because one plummeted back to Earth in uncontrolled re-entry

**China’s** **space** **programme** **could** one day **save** **the** **world**, with massive rockets travelling for years to defend the planet from huge asteroids capable of wiping out entire cities, according to a government-backed study.

This saviour role is unexpected given these are the same machines seen as a threat by many, including the United States, just weeks ago; the main 20-tonne section from one such rocket fell back to Earth in May in an uncontrolled re-entry. It fell into the sea or burned up beforehand, although last year fragments from another rocket were said to have hit two villages in the West African country, Ivory Coast.

Now a new government-funded study says China can launch 23 Long March 5 (CZ-5) rockets – the largest in its fleet, weighing almost 900 tonnes on take-off – to break up the rocky objects in our solar system. Some asteroids are as small as pebbles but others are hundreds of kilometres across. An asteroid about 500 metres (1,640 feet) wide could kill millions.

Although the chance of one colliding with the Earth is currently low, there is one called Bennu which could hit in about a century. Researcher Li Mingtao and his colleagues at the National Space Science Centre in Beijing have been commissioned to find out how China can step in and try to ensure humans do not go the way of the dinosaurs. The asteroid that led to their extinction was around 10km (6 miles) wide.

To change the course of a giant asteroid hurtling towards us at terrifying speeds, a lot of kinetic energy would be needed. Nuclear weapons might do the job but such a blast could break the target into several threatening chunks.

In their proposal, the space centre team suggested launching 23 CZ-5 rockets from various sites across China, at the same time. The spacecraft would have to travel for almost three years to reach their target.

On top of each rocket would be a deflector, a device designed to avoid breaking up the asteroid. Each rocket would “hit” the asteroid, one after another, by way of a gentle nudge.

This would only change the course of a Bennu-sized asteroid slightly, but enough to make it pass safely at a distance about 1.4 times the radius of the Earth and **save** some cities **from** **annihilation**, according to Li’s calculations.

“[It is] possible to defend against large asteroids with a nuclear-free technique within 10 years,” said Li and colleagues in a June paper published in Icarus , an international journal for solar system studies.

The CZ-5 is the **backbone** **of** **China’s** space **programme**, a more-than-handy workhorse used in space station construction and Mars exploration. The problem is its size becomes an issue during free fall back to Earth, travelling at thousands of miles an hour.

Western authorities including the US Space Force have said they carefully tracked each CZ-5 after each launch. In May US Defence Secretary Lloyd Austin hoped the rocket of concern at the time would “land in a place where it will not harm anyone. Hopefully in the ocean, or someplace like that.”

He also said there was a need to make sure “those kinds of things” were taken into consideration when planning and conducting operations. Some Western media warned readers that the debris might hit big cities.

That did not happen but led to an increased focus on China’s responsibility as a space power.

In the Icarus paper Li and his colleagues said fuel not used during the rocket launch could give extra thrust during the flight towards an asteroid, and the rocket fuselage also increased the total mass of the deflector. They said existing rockets only had to undergo small modifications such as adding a few small thrusters.

A similar mission proposed by researchers with Nasa and California’s Lawrence Livermore National Laboratory in 2018 would require the launch of 75 Delta IV heavy rockets, according to the two organisations and mentioned by Li.

Known as HAMMER (Hypervelocity Asteroid Mitigation Mission for Emergency Response), the US plan would deliver more than 400 tonnes of deflectors, nearly twice as many as in the Chinese proposal, but with a flight time nearly a year shorter, to achieve similar results.

The US mission would be more expensive than the Chinese one, Li said. The Chinese plan also needs less preparation time. While the American approach would need to discover an asteroid 25 years before its potential collision with Earth, China’s plan could cut the lead time to just a decade.

Overall, the Chinese **approach**, involving what is called the Assembled Kinetic Impactor, could **greatly** **improve** deflection **efficiency** **and** **reduce** both **launch** **costs** **and** **lead** **time**, the paper said.

A space scientist at Beijing’s Tsinghua University said competition between China and the US would accelerate the development of space technology.

“The problem is, when the doomsday threat comes, politics may override science and lots of time may be wasted on debates to decide which country should take the lead,” said the researcher, who did not want to be named because of the sensitivity of the issue.

China has been challenging US dominance in space for some time. It already has a rover on Mars, is building a space station, exploring the far side of the moon and studying lunar samples recently retrieved by robots.

The US launched its first asteroid defence programme decades ago. It has the only asteroid-warning radar system on Earth and one of its spacecraft is returning home after obtaining samples from Bennu, the asteroid that could hit us in about a century. In 2025 China is expected to launch its own spacecraft to retrieve asteroid samples.

China is also building a planetary defence system with what will be the most powerful radar in the world, according to researchers involved in the project. It will be made up of large radio telescopes across the country and be able to track more targets than its US counterpart.

#### Extinction---nuclear winter and global calamity---comprehensive studies

Baum 19 - executive director of the Global Catastrophic Risk Institute, Ph.D in Geography, Seth Baum, “Risk-Risk Tradeoff Analysis of Nuclear Explosives for Asteroid Deflection,” SSRN Scholarly Paper (Rochester, NY: Social Science Research Network, May 31, 2019), <https://papers.ssrn.com/abstract=3397559>.

The most severe asteroid collisions and nuclear wars can cause global environmental effects. The core mechanism is the transport of particulate matter into the stratosphere, where it can spread worldwide and remain aloft for years or decades. Large asteroid collisions create large quantities of dust and large fireballs; the fire heats the dust so that some portion of it rises into the stratosphere. The largest collisions, such as the 10km Chicxulub impactor, can also eject debris from the collision site into space; upon reentry into the atmosphere, the debris heats up enough to spark global fires (Toon, Zahnle, Morrison, Turco, & Covey, 1997). The fires are a major impact in their own right and can send additional smoke into the stratosphere. For nuclear explosions, there is also a fireball and smoke, in this case from the burning of cities or other military targets.

While in the stratosphere, the particulate matter blocks sunlight and destroys ozone (Toon et al., 2007). The ozone loss increases the amount of ultraviolet radiation reaching the surface, causing skin cancer and other harms (Mills, Toon, Turco, Kinnison, & Garcia, 2008). The blocked sunlight causes abrupt cooling of Earth’s surface and in turn reduced precipitation due to a weakened hydrological cycle. The cool, dry, and dark conditions reduce plant growth. Recent studies use modern climate and crop models to examine the effects for a hypothetical IndiaPakistan nuclear war scenario with 100 weapons (50 per side) each of 15KT yield. The studies find agriculture declines in the range of approximately 2% to 50% depending on the crop and location.11 Another study compares the crop data to existing poverty and malnourishment and estimates that the crop declines could threaten starvation for two billion people (Helfand, 2013). However, the aforementioned studies do not account for new nuclear explosion fire simulations that find approximately five times less particulate matter reaching the stratosphere, and correspondingly weaker global environmental effects (Reisner et al., 2018). Note also that the 100 weapon scenario used in these studies is not the largest potential scenario. Larger nuclear wars and large asteroid collisions could cause greater harm. The largest asteroid collisions could even reduce sunlight below the minimum needed for vision (Toon et al., 1997). Asteroid risk analyses have proposed that the global environmental disruption from large collisions could cause one billion deaths (NRC, 2010) or the death of 25% of all humans (Chapman, 2004; Chapman & Morrison, 1994; Morrison, 1992), though these figures have not been rigorously justified (Baum, 2018a).

The harms from asteroid collisions and nuclear wars can also include important secondary effects. The food shortages from severe global environmental disruption could lead to infectious disease outbreaks as public health conditions deteriorate (Helfand, 2013). Law and order could be lost in at least some locations as people struggle for survival (Maher & Baum, 2013). Today’s complex global political-economic system already shows fragility to shocks such as the 2007- 2008 financial crisis (Centeno, Nag, Patterson, Shaver, & Windawi, 2015); an asteroid collision or nuclear war could be an extremely large shock. The systemic consequences of a nuclear war would be further worsened by the likely loss of major world cities that serve as important hubs in the global economy. Even a single detonation in nuclear terrorism would have ripple effects across the global political-economic system (similar to, but likely larger than, the response prompted by the terrorist attacks of 11 September 2001).

It is possible for asteroid collisions to cause nuclear war. An asteroid explosion could be misinterpreted as a nuclear attack, prompting nuclear attack that is believed to be retaliation. For example, the 2013 Chelyabinsk event occurred near an important Russian military installation, prompting concerns about the event’s interpretation (Harris et al., 2015).

The ultimate severity of an asteroid collision or violent nuclear conflict use would depend on how human society reacts. Would the reaction be disciplined and constructive: bury the dead, heal the sick, feed the hungry, and rebuild all that has fallen? Or would the reaction be disorderly and destructive: leave the rubble in place, fight for scarce resources, and descend into minimalist tribalism or worse? Prior studies have identified some key issues, including the viability of trade (Cantor, Henry, & Rayner, 1989) and the self-sufficiency of local communities (Maher & Baum, 2013). However, the issue has received little research attention and remains poorly understood. This leaves considerable uncertainty in the total human harm from an asteroid collision or nuclear weapons use. Previously published point estimates of the human consequences of asteroid collisions12 and nuclear wars (Helfand, 2013) do not account for this uncertainty and are likely to be inaccurate.

Of particular importance are the consequences for future generations, which could vastly outnumber the present generation. If an asteroid collision or nuclear war would cause human extinction, then there would be no future generations. Alternatively, if survivors fail to recover a large population and advanced technological civilization, then future generations would be permanently diminished. The largest long-term factor is whether future generations would colonize space and benefit from its astronomically large amount of resources (Tonn, 1999). However, it is not presently known which asteroid collisions or nuclear wars (if any) would cause the permanent collapse of human civilization and thus the loss of the large future benefits (Baum et al., 2019). Given the enormous stakes, prudent risk management would aim for very low probabilities of permanent collapse (Tonn, 2009).

It should be noted that the severity of violent nuclear conflict could depend on more than just the effects of nuclear explosions, because the overall conflict scenario could include non-nuclear violence. Indeed, it is possible for the nuclear explosions to constitute a relatively small portion of the total severity, as was the case in World War II.

4.4 Risk of Violent Non-Nuclear Conflict

Finally, it is necessary to discuss the risk of violent non-nuclear conflict. Only a small portion of violent non-nuclear conflicts are applicable, specifically the portion affected by nuclear weapons. More precisely, this section discusses non-nuclear conflicts involving one or more countries that possess nuclear weapons at some point during the lifetime of a nuclear deflection program.

Nuclear deterrence theory predicts that nuclear-armed adversaries will not initiate major wars against each other because both sides could be destroyed in a nuclear war. However, the theory does permit limited, small-scale violent conflicts between nuclear-armed countries. These conflicts likely would not involve nuclear weapons. Indeed, nuclear deterrence may even make small violent conflicts more likely, because the countries know that neither side wants to escalate the conflict into major war. This idea is known as the stability-instability paradox: nuclear deterrence brings stability with respect to major wars but instability with respect to minor conflicts. Empirical support for the stability-instability paradox has been found by some research (Rauchhaus, 2009),while other research has found no significant effect of the possession of nuclear weapons on the probability of conflicts of any scale (Bell & Miller, 2015; Gartzke & Jo, 2009).

If countries fully disarm their nuclear arsenals, such that they would never have nuclear weapons again, then there would be no nuclear deterrence to prevent the onset of major wars. A simple risk analysis could assume that the risk of major wars would be comparable to the risk prior to the development of nuclear weapons. The two twentieth century World Wars combined for around 100 million deaths in 50 years,13 suggesting an annualized risk of two million deaths. However, two World Wars do not make for a robust dataset. Indeed, the robustness of these two data points is called into question by historical analysis finding that both world wars might not have occurred in the reasonably plausible event that the 1914 assassination of Archduke Ferdinand had failed (Lebow, 2014). Similarly, another historical analysis finds that the U.S. and Soviet Union would probably not have waged major war against each other even in the absence of nuclear deterrence (Mueller, 1988). Furthermore, these past events are not necessarily applicable to the future conditions of a post-nuclear-disarmament world. To the best of the present author’s knowledge, no studies have analyzed the risk of major wars in a post-nucleardisarmament world.

## 5

#### 1] The aff’s portrayal of China as a threat legitimizes otherizing power politics which transforms our conceptions of China into a social reality

**Pan** (Chengxin, Lecturerin International Relations, School of International and Political Studies at Deakin University, “The "China Threat" in American Self-Imagination”, Alternatives 29 (2004), 305-331, Galileo). 2004.

China and its relationship with the United States has long been a fascinating subject of study in the mainstream U.S. international relations community. This is reflected, for example, in the current heated debates over whether China is primarily a strategic threat to or a market bonanza for the United States and whether containment or engagement is the best way to deal with it.\* While U.S. China scholars argue fiercely over "what China precisely is," their debates have been underpinned by some common ground, especially in terms of a positivist epistemology. Firstly, they believe that China is ultimately a knowable object, whose reality can be, and ought to be, empirically revealed by scientific means. For example, after expressing his dissatisfaction with often conflicting Western perceptions of China, David M. Lampton, former president of the National Committee on U.S.-China Relations, suggests that "it is time to step back and look at where China is today, where it might be going, and what consequences that direction will hold for the rest of the world."2 Like many other China scholars, Lampton views his object of study as essentially "something we can stand back from and observe with clinical detachment."^ Secondly, associated with the first assumption, it is commonly believed that China scholars merely serve as "disinterested observers" and that their studies of China are neutral, passive descriptions of reality. And thirdly, in pondering whether China poses a threat or offers an opportunity to the United States, they rarely raise the question of "what the United States is." That is, the meaning of the United States is believed to be certain and beyond doubt. I do not dismiss altogether the conventional ways of debating China. It is not the purpose of this article to venture my own "observation" of "where China is today," nor to join the "containment" versus "engagement" debate per se. Rather, I want to contribute to a novel dimension of the China debate by questioning the seemingly unproblematic assumptions shared by most China scholars in the mainstream IR community in the United States. To perform this task, I will focus attention on a particularly significant component of the China debate; namely, the "China threat" literature. More specifically, I want to argue that **U**.S. conceptions of China as a threatening other are always intrinsically linked to how U.S. policymakers/mainstream China specialists see themselves (as representatives of the indispensable, security-conscious nation, for example). As such, they are not value-free, objective descriptions of an independent, preexisting Chinese reality out there, but are better understood as a kind of normative, meaning-giving practice that often legitimates power politics in U.S.-China relations and helps transform the "China threat" into social reality. In other words, it is self-fulfilling in practice, and is always part of the "China threat" problem it purports merely to describe. In doing so, I seek to bring to the fore two interconnected themes of self/other constructions and of theory as practice inherent in the "China threat" literature—themes that have been overridden and rendered largely invisible by those common positivist assumptions. These themes are of course nothing new nor peculiar to the "China threat" literature. They have been identified elsewhere by critics of some conventional fields of study such as ethnography, anthropology, oriental studies, political science, and international relations.\* Yet, so far, the China field in the West in general and the U.S. "China threat" literature in particular have shown remarkable resistance to systematic critical refiection on both their normative status as discursive practice and their enormous practical implications for international politics.^ It is in this context that this article seeks to make a contribution.

#### 2] The discursive construction of China as a threat makes violence inevitable – turns case

**Pan:** (Chengxin, Lecturerin International Relations, School of International and Political Studies at Deakin University, “The "China Threat" in American Self-Imagination”, Alternatives 29 (2004), 305-331, Galileo). 2004.

I have argued above that the "China threat" argument in mainstream U.S. IR literature is derived, primarily, from a discursive construction of otherness. This construction is predicated on a particular narcissistic understanding of the U.S. self and on a positivist- based realism, concerned with absolute certainty and security, a concern central to the dominant U.S. self-imaginary. Within these frameworks, it seems imperative that China be treated as a threatening, absolute other since it is unable to fit neatly into the U.S.-led evolutionary scheme or guarantee absolute security for the United States, so that U.S. power preponderance in the post-Cold War world can still be legitimated. Not only does this reductionist representation come at the expense of understanding China as a dynamic, multifaceted country but it leads inevitably to a policy of containment that, in turn, tends to enhance the influence of realpolitik thinking, nationalist extremism, and hard-line stance in today's China. Even a small dose of the containment strategy is likely to have a highly dramatic impact on U.S.-China relations, as the 1995-1996 missile crisis and the 2001 spy-plane incident have vividly attested. In this respect, Chalmers Johnson is right when he suggests that "a policy of containment toward China implies the possibility of war, just as it did during the Cold War vis-a-vis the former Soviet Union. The balance of terror prevented war between the United States and the Soviet Union, but this may not work in the case of China."^^ For instance, as the United States presses ahead with a missile defence shield to "guarantee" its invulnerability from rather unlikely sources of missile attacks, it would be almost certain to intensify China's sense of vulnerability and compel it to expand its current small nuclear arsenal so as to maintain the efficiency of its limited deterrence. In consequence, it is not impossible that the two countries, and possibly the whole region, might be dragged into an escalating arms race that would eventually make war more likely. Neither the United States nor China is likely to be keen on fighting the other. But as has been demonstrated, the "China threat" argument, for all its alleged desire for peace and security, tends to make war preparedness the most "realistic" option for both sides. At this juncture, worthy of note is an interesting comment made by Charlie Neuhauser, a leading CIA China specialist, on the Vietnam War, a war fought by the United States to contain the then-Communist "other." Neuhauser says, "Nobody wants it. We don't want it, Ho Chi Minh doesn't want it; it's simply a question of annoying the other side."94 And, as we know, in an unwanted war some fifty-eight thousand young people from the United States and an estimated two million Vietnamese men, women, and children lost their lives. Therefore, to call for a halt to the vicious circle of theory as practice associated with the "China threat" literature, tinkering with the current positivist-dominated U.S. IR scholarship on China is no longer adequate. Rather, what is needed is to question this un-self-reflective scholarship itself, particularly its connections with the dominant way in which the United States and the West in general represent themselves and others via their positivist epistemology, so that alternative, more nuanced, and less dangerous ways of interpreting and debating China might become possible.

#### That’s a voting issue – question their reps before the passage of the plan – they do not get to weigh the case

## Case

### Advantage

#### Russia/China space alliance is key to the Belt and Road initiative.

Goward 8/23/19 (Dana A. - president of the Resilient Navigation and Timing foundation, “Russia, China Alliance on Navigation Satellites Threatens GPS,” https://www.nationaldefensemagazine.org/articles/2019/8/23/viewpoint-russia-china-alliance-on-navigation-satellites-threatens-gps)

Russia and China have been increasingly moving toward greater synergies between their respective satellite navigation systems since at least 2015. The stated goals of the two powers have been: ensuring compatibility and interoperability of GLONASS and BeiDou navigation systems; augmentations, including mutual allocation of measuring stations within the territories of Russia and China; global navigation satellite system performance characteristics monitoring and assessment; and navigation technologies application Last month the partnership entered a new stage. Russia passed a law entitled “On ratification of the agreement between the Government of the Russian Federation and the Government of the People’s Republic of China on cooperation in the use of GLONASS and Beidou global navigation satellite systems for peaceful purposes.” This has caused some experts to assess the future implications for both GPS and the United States. At least a few industry insiders see this as part of an on-going effort to virtually combine the two systems and replace GPS as the leading global navigation system. This has far reaching geo-political implications and could impact GPS operations globally. “I believe that, in the intermediate term, these nations will increasingly combine their systems. This will conceivably create a larger, more robust constellation” said Rich Lee of Greenwood Telecommunications Consultants. “It could spawn important synergies that benefit both countries without either losing control of their respective national system.” Synergies could ultimately include having a shared, common signal, sponsorship of common chipset and receiver product requirements, and common ground reference stations. It could also include additional cooperation on terrestrial precision navigation and timing (PNT) augmentation systems. Both nations already operate versions of the Loran terrestrial PNT system, for example, and meet regularly to coordinate and discuss technical issues. Ultimately, the two nations and their satellite systems could declare their shared PNT architecture to be the official and primary source for PNT services. This would allow them to be more vigorous in trying to exclude other PNT sources and systems. Long recognized as a “silent utility” for transportation, networks, and a wealth of technologies, some see China incorporating PNT as part of its Belt and Road initiative.

#### Successful BRI solves Indo-China war.

Joel Wuthnow 17, a Research Fellow in the Center for the Study of Chinese Military Affairs, Institute for National Strategic Studies, at the National Defense University (NDU), Chinese Perspectives on the Belt and Road Initiative: Strategic Rationales, Risks, and Implications, Center for the Study of Chinese Military Affairs, Institute for National Strategic Studies, China Strategic Perspectives, No. 12, <http://www.css.ethz.ch/content/dam/ethz/special-interest/gess/cis/center-for-securities-studies/resources/docs/ChinaPerspectives-12-1.pdf>

One common argument in Chinese analyses of the BRI is that regional integration will contribute to a more stable security environment, especially around China’s southern and western periphery. This argument both reflects and supports Xi’s broader vision for a new regional order—often described as a “community of common destiny” or “community of shared interests”—in which economic development and cooperative security reinforce each other.27 China’s 2017 white paper on Asia-Pacific security explains the logic: Security and development are closely linked and mutually complementary. Equal consideration should be given to both a security framework and an economic framework—the main components of the entire regional structure—to ensure their parallel development. On the one hand, the improvement of the security framework will help ensure a peaceful and stable environment for economic development; on the other, faster regional economic integration will provide solid economic and social support for the development of the security framework.28 This is not an abstract goal but rather vital to the mitigation of a range of security challenges within and around China’s borders, including terrorism, separatism, and extremism (known as the “three evils”), territorial disputes with India in the Himalayas and with several Southeast Asian nations in the South China Sea, and the alleged fomenting of “color revolutions” by the United States.29 Along these lines, Chinese scholars argue that the BRI can help improve stability in several ways: ■ Mitigating the sources of violence in fragile states. Retired Major General Wang Haiyun, a senior advisor at the China Institute of International Strategic Studies (CIISS), claims that economic growth created by the BRI will “eradicate poverty,” which is a “root cause” of terrorism and extremism, and play a role in “diffusing clashes of civilization that should actually never happen, and calming the restless social sentiments of Islamic regions.”30 This could reduce perceived threats such as those posed by Uighur separatists and militants of the so-called Islamic State (IS) infiltrating into China.31 ■ Ameliorating territorial disputes. Wang Junsheng, a scholar at the CASS National Institute of International Strategy, argues that the BRI will help resolve territorial disputes in the South China Sea by moving leaders away from a “zero sum” mindset. As evidence, he claims that Vietnam’s participation in BRI projects has lowered tensions between Beijing and Hanoi in the South China Sea, and led to stronger overall Sino-Vietnamese relations.32 Hu Bo, a research fellow at Beijing University, similarly argues that one goal of the BRI is to alleviate maritime disputes, though this does not imply that China will “sacrifice” its “legal rights” to enforce territorial claims.33 ■ Increasing mutual trust.34 Li Gang, a scholar at the Central Party School’s Institute of International Strategy, argues that the BRI will exhibit China’s virtues of “openness, trustworthiness, inclusivity, and development,” and thus convince other states of its peaceful intentions.35 Renmin University professor Wang Yiwei likewise contends that trust gained through “civil and local interactions” in creating the BCIM economic corridor will help Beijing and New Delhi overcome historical suspicions.36 ■ Building more effective security partnerships. Central Party School scholar Sun Xianpu argues that China can expand CT intelligence sharing, training, and technical exchanges under the BRI framework, citing closer CT cooperation with Pakistan as an example. Sun also anticipates greater cooperation in the areas of counternarcotics in Southeast Asia, and counterpiracy in South Asia.37 Senior Colonel Meng Xiangqing, a professor at the People’s Liberation Army (PLA) NDU, similarly argues that the BRI will lead to closer CT cooperation among Shanghai Cooperation Organization (SCO) members, which is needed to address violent extremism and to stabilize Afghanistan following a reduction of U.S. forces.38

#### Goes nuclear.

Brendan Thomas-Noone 18, Research Fellow at the United States Studies Centre at the University of Sydney, India’s rivalry with China, from the mountains to the sea, 2-23-18, <https://www.lowyinstitute.org/the-interpreter/doklam-india-rivalry-china-mountains-sea>

The Doklam border stand-off between India, China, and India’s ally Bhutan managed to break into the news cycle last year. It was a significant dispute, with troops clashing at one point and military forces mobilised, between two of the world’s nuclear powers that have previously fought a war. But details have emerged in recent weeks that indicate the crisis was even more serious than many realised. It may be one of the first episodes to demonstrate the evolving risks (and potential long-term benefits) that the introduction of nuclear-armed submarines will have on strategic stability in the Indo-Pacific. In June 2017, Chinese troops and bulldozers began to extend a road into the Doklam plateau, an area alaimed by the governments in Beijing and Thimphu at the intersection of Indian, Bhutanese, and Chinese territory. The area is of strategic importance to Indian and Chinese defence planners because it is near a geographic chokepoint that leads further into Indian territory known as the Siliguri Corridor, or India’s “chicken neck”. At the request of Bhutan, India’s troops responded to the intrusion, resulting in a series of “jostles” between the opposing forces on the plateau (this leaked video gives an idea of these events). For the next several weeks, the situation escalated as Chinese state media claimed that India would “suffer worse losses than 1962” if a conflict ensued. The stand-off lasted until August, and while tensions have largely subsided, reports alleging China’s continued military build-up in the area have filtered out. However, the most interesting detail to emerge since the crisis is the potential role of the INS Arihant, India’s first nuclear ballistic missile submarine. On 9 January, The Hindu reported that the Arihant, commissioned in August 2016 and first launched in 2009, had “suffered major damage” due to “human error”. According to the article, a “hatch” had been left open, allowing water to enter the submarine’s propulsion compartment, resulting in serious damage. A couple of days later, an article published in another Indian media outlet disputed some of the technical aspects of The Hindu story. Since the Arihant is based on a double-hull design, it agued, the engineering compartment was unlikely to have an outside hatch. Also, surely a modern submarine would have a warning system in place for hatches that must be closed for diving? What’s not in dispute is the fact that the submarine was not working at the time of the stand-off, and had probably been out of commission for at least 10 months. This caused some controversy in India, considering the cost of the project (US $2.9 billion) and the possibility that the government in New Delhi didn’t know about it. Yet this misses what should be the real focus for analysts concerned with strategic stability in the Indo-Pacific: that India’s leadership was interested to see if the Arihant could be deployed during the stand-off with China, and that a border dispute in an isolated Himalayan region could easily have escalated to other areas. Articles about India’s wider nuclear mobilisation should be treated with a healthy degree of scepticism. But the reporting raises interesting questions. Why would New Delhi be interested in sending out the Arihant on patrol during the crisis? One reason could be as a signal to Beijing of its resolve in the dispute. At present, the Arihant has limited military capability – the sea-launched ballistic missiles it carries, the K-15, has a widely reported range of only 750 kilometres, meaning limited use in a conflict with China when operated from likely patrol areas in the Bay of Bengal. But there is always the potential to escalate the crisis to other geographic regions. This also assumes Beijing would know that the boat was deployed, either through surveillance or communication from New Delhi. Surveillance is becoming more likely as Chinese intelligence and reconnaissance capabilities improve, and PLAN naval activity increases in the Indian Ocean. This may have been the purpose of the original leak. Even though the Arihant was disabled, Beijing will need to think hard about deploying assets to the Bay of Bengal the next time a crisis erupts on the Indian–Chinese border. Adding to the dynamic is China’s own evolving nuclear missile submarine program, which has the range to strike Indian targets from patrol areas near Chinese coastal waters, or from the South China Sea. Theoretically, like they did in the Cold War, secure second-strike capabilities should add to strategic stability in the region. Knowing a nuclear-armed submarine, which your military forces are going to have a hard time tracking and destroying during a crisis, is out there should have a mitigating impact on risk-taking and escalation. But in the short term, the Doklam stand-off also shows potential destabilising dynamics. China and India are still in the early stages of developing second-strike capabilities, and are putting the structures in place to maintain credible contact between submarines and political leaders while on patrol. In a crisis, accidents do occur; there were reportedly between 20 and 40 collisions between a tailing submarine and its target during the Cold War. Importantly, nuclear forces don’t exist in a vacuum. The Doklam episode underscores the growing military activity, as well as the competition for influence between China and India throughout the Bay of Bengal. Military access for anti-submarine warfare forces, control of port facilities, and intelligence are becoming more critical for both countries

#### China-Russia coop solves nuclear war

Artyom Lukin 20 {Artyom Lukin is Deputy Director for Research at the School of Regional and International Studies, Far Eastern Federal University. He is also Associate Professor at the Department of International Relations. 6-13-2020. “The Russia–China entente and its future.” https://link.springer.com/article/10.1057/s41311-020-00251-7}//JM

China and Russia are the two largest—and neighboring—powers of continental Eurasia. Can two tigers share the same mountain, especially when one great power is rapidly gaining strength and the other is in relative decline? And there seems to be a pattern in the history of international relations that two ambitious major powers that share a land border are less likely to make an alliance, while they are more likely to engage in territorial disputes with one another as well as rivalry over primacy in their common neighborhood. There are at least three major parts of Eurasia—East Asia, the post-Soviet space (mainly Central Asia), and the Arctic—where China’s and Russia’s geopolitical interests intersect, creating potential for competition and conflict. But, on the other hand, if managed wisely, overlapping interests and stakes can also generate opportunities for collaboration. The following sections examine how Russia and China are managing to keep their differences in key Eurasian zones under control while displaying a significant degree of mutual cooperation.

East Asia This is China’s ‘home region’, but also one where Russia, by virtue of possessing the Far Eastern territories, is a resident power. Moscow, which has traditionally been concerned with keeping sovereignty over its vulnerable Far East, does not at present see China as a major security risk on Russia’s eastern borders. All border delimitation issues between Moscow and Beijing were resolved in the 1990s and 2000s, while the 2001 Sino-Russian Treaty explicitly states that the two countries have no territorial claims to each other. Furthermore, Moscow is well aware that Chinese military preparations are directed primarily toward Taiwan, the Western Pacific and the South China Sea, not against the Russian Far East. There is the cliché, persistent among the Western media and commentariat, of a Chinese demographic invasion of the Russian Far East. For example, a Wall Street Journal article claimed recently that ‘about 300,000 Chinese, some unregistered, could now be settled in Russia’s Far East’ (Simmons 2019). In reality, the actual number of the Chinese who live more or less permanently in the Russian Far East is far lower, and there are very few cases of illegal Chinese migration. There is no imminent risk of the Russian Far East falling under Chinese control demographically or otherwise.

Not sensing any major Chinese menace to the Russian Far East, Russia has refused to engage in rivalry with China in East Asia. On the most important issues of contemporary East Asian geopolitics Moscow has tended to support Beijing or displayed friendly neutrality. On the Korean Peninsula, Moscow has largely played second fiddle to Beijing. On the South China Sea disputes, although Russia’s official stance is strict neutrality, some Russian moves may be seen as favoring Beijing. For example, following the July 2016 Hague tribunal ruling that rejected China’s claims to sovereignty over the South China Sea, Putin expressed solidarity with China, calling the international court’s decision ‘counterproductive’ (Reuters 2016).

Russia shares with China the objective of reducing American influence in East Asia and undermining the US-centric alliances in the region. Russian weapon sales are helping China alter the military balance in the Western Pacific to the detriment of the USA and its allies. Russia’s decision to assist China with getting its own missile attack early warning system may have also been partly motivated by the desire to strengthen China vis-à-vis the USA in their rivalry for primacy in East Asia. The Russian ambassador to the US Anatoly Antonov hinted as much by saying that this strategic system will ‘cardinally increase stability and security in East Asia’ (TASS 2019c).

Russian deference to China on East Asian issues, albeit somewhat hurting Moscow’s great-power pride, makes geopolitical sense. The Kremlin treats Pacific affairs as an area of lower concern than Europe, the Middle East, or Central Asia. Mongolia, which constitutes Siberia’s underbelly, is the only East Asian nation that can count on Russian security protection in case it finds itself in danger of external aggression, at any rate a purely theoretical possibility so far.

It would be incorrect to say that Russia has completely withdrawn from East Asian geopolitics. In some cases, Russia does act against Chinese wishes in the Asia–Pacific. One recent example is Russia’s quiet determination to keep drilling in the areas of the South China Sea on the Vietnamese continental shelf over which China lays sovereignty claims. The Russian state-owned energy company Rosneft operates on Vietnam’s shelf, despite Beijing’s displeasure and periodic harassment by Chinese ships (Zhou 2019). Apart from the desire to make profits from the South China Sea’s hydrocarbons, Russia may be seeking to support its old-time friend Vietnam—to whom it also sells weapons—as well as demonstrate that it is still an independent actor in East Asia. Through such behavior on China’s Southeast Asian periphery, the Kremlin could also be sending the signal to Beijing that, if China gets too closely involved in Russia’s backyard, such as Central Asia or the Caucasus, Russia can do similar things in China’s. Albeit a friction point between Beijing and Moscow, the activities by Russian energy firms in the South China Sea are unlikely to destabilize the Sino-Russian entente, since Moscow and Beijing need each other on much bigger issues.

The post-Soviet space Russia has vital stakes in the geopolitical space formerly occupied by the Soviet Union and is willing to go to great lengths to defend those interests. It was, after all, a perceived brazen attempt by Brussels and Washington to draw Ukraine into the EU’s and NATO’s orbit that induced Moscow to take drastic action in Crimea and eastern Ukraine, causing a rupture with the West.

When it comes to Moscow–Beijing politics over the post-Soviet space, the most problematic question is certainly about Central Asia, a region composed of five former Soviet republics which shares borders with both Russia and China. Since the nineteenth century, Russia has traditionally considered Central Asia as its sphere of influence. However, in the 2000s China began its economic expansion in the region. It is now by far the biggest trade partner for Central Asian states (Bhutia 2019) as well as its largest source of investments. China also set up a small military presence inside Tajikistan, apparently to secure a sensitive area which borders China’s Xinjiang region and Afghanistan (Lo 2019).

#### It's the only thing keeping the Russian economy afloat.

Alexander Gabuev and Temur Umarov 20 {Gabuev is a senior fellow and the chair of the Russia in the Asia-Pacific Program at the Carnegie Moscow Center. Temur Umarov is an expert on China and Central Asia, and a consultant at Carnegie Moscow Center. 7-8-2020. “Will the Pandemic Increase Russia’s Economic Dependence on China?” https://carnegie.ru/2020/07/08/will-pandemic-increase-russia-s-economic-dependence-on-china-pub-81893}//JM

The coronavirus pandemic and the accompanying economic crisis are impacting Russia-China relations just like the 2014–2015 crisis unleashed by the war in Ukraine did: the bilateral relationship is not fundamentally changing, but existing trends are picking up speed. Russia’s economic and technological development will become increasingly dependent on China, and U.S.-China tensions, which are worsening as a result of the pandemic, may soon make Moscow’s balancing act more precarious.

Since 2014, far-reaching U.S.-EU sanctions have pushed the Kremlin to deepen Sino-Russian cooperation in multiple domains. Ever since, Russia’s asymmetrical dependence on the Chinese economy has grown continuously. China’s share in Russia’s trade turnover increased from 10.5 percent ($88.8 billion) in 2013 to 15.7 percent ($108.3 billion) in 2019. Meanwhile, Russia’s central bank has increased the proportion of the Chinese yuan in its foreign currency reserves from 0.1 percent in 2015 to the current 13.2 percent. Moscow is also increasingly relying on Chinese technology, and firms like Huawei are set to make major inroads in the Russian market as key decisions on 5G approach. In 2016, China for the first time surpassed Germany as the number one source of industrial equipment and other technology-related imports in the Russian market. This trend continued in 2019, as Russia imported $30.8 billion worth of equipment and technology-related products from China (28 percent of all technology-related imports that year), while imports from Germany dropped to $12.9 billion, or just 12 percent.

The deepening of Sino-Russian ties following the war in Ukraine and Western sanctions extended beyond trade. To highlight only a handful of key examples, in 2018 Russia’s armed forces carried out the biggest military exercises in the country’s history in which they were joined by a 3,200-strong contingent from China’s People’s Liberation Army. President Vladimir Putin announced in October 2019 that Moscow is helping Beijing create its own missile early warning system, thus tying China’s strategic nuclear deterrent to a Russian technological backbone.

Crises aside, however, there are several objective reasons for the Sino-Russian rapprochement. The structures of their economies naturally complement each other. The political regimes are similar, which frequently inspires joint approaches on issues like human rights, NGOs, and the future of the internet. The strategic imperative to spend once-scarce resources on a heavily fortified, 4,200-kilometer border has given way to new forms of cross-border cooperation and trade. For all of these reasons, Moscow and Beijing were well-inclined toward each other and likely to become closer partners even without a well-timed nudge from recent crises. But their actions scarcely would have been as coordinated as they are now.

The pandemic is accelerating a wide-ranging set of processes and incentives inside both Russia and China that are helping pull the two largest Eurasian powers toward each other. Unprecedented synchronized global economic turbulence and the drop in oil and gas demand from locked-down economies set the stage for a period of painful adjustment for the Russian economy. Trade with Beijing becomes increasingly important to offset the immediate shocks, as China appears to be the first major economy to recover after the pandemic.

#### Nuke war.

Dr. Benjamin Ståhl 15, CEO of the Blue Institute, PhD in Business Studies and Economics from Uppsala University, MA in International Relations from the University of Kent, and Johan Wiktorin, Founder and CEO of the Intelligence Company Brqthrough, Licensed Master of Competitive Intelligence and Former Member of the Swedish Armed Forces, “What’s At Stake?: A Geopolitical Perspective on the Swedish Economic Exposure in Northeast Europe”, Swedish Growth Barometer, 7/1/2015, https://blueinst.com/wp-content/uploads/2019/07/whats-at-stake\_geopolitical-perspective.pdf

Scenario 1: Disintegration

If the Russian economy continues to deteriorate and the regime continue to distance themselves from the West, the centre may not be capable to maintain legitimacy and keep the periphery together. Already, some regions and counties are highly indebted. In other parts, ethnic Russians are a minority. Regions in eastern Russia, rich in raw materials, may look to China for funding. It is, however, probable that Beijing will not want to undermine the stability in Russia.

Closer to the region in focus in this report, Kaliningrad is an area that could distance itself from the Kremlin. Economic problems and security concerns form a background that could lead to a political uprising. A “Kaliningrad-Maidan” development is at the heart of this scenario. Triggers could also come from outside Kaliningrad, in or in the immediate surrounding of the Russian Federation, or from other factors such as severe pollution.

The other countries in the region would in all probability remain cool in this situation, considering the county’s military importance for the Russian government. However, a mutiny like the ones in Kroonstad in June 1917, March 1921 or on the frigate Storozjevoj in November 1975 cannot be excluded.

Economic and political tensions in Europe could weaken the EU and worsen the development at the same time. A Greek withdrawal from the EU, triggered by its exit from the Eurozone, could set such a movement in motion. A Podemos-led government in Spain could undermine confidence for the single market, at a time when Europe also faces the consequences of a highly unstable North Africa, with a large flow of migrants.

Attempts by Russia to influence certain members in the EU, such as Hungary and Cyprus, could sow further discord in the EU. At the most severe levels of disintegration, France could adopt policies effectively blocking EU and NATO response in a time of increased tensions. Britain may opt out of the union altogether, or be forced out if their demands for special status is rejected by the other member states.

In all varieties of disintegration, uncertainty concerning the control over the nuclear arsenals will increase. The US will become involved both diplomatically and financially in order to bring clarity and establish control over the arsenals. Should Russia, in that situation, ask for military support for this, it is highly probable that the US would acquiesce: such operations in other parts of the world were the object of joint US-Russian exercises just a few years ago.

Scenario 2: Ultra-nationalism

If Russian domestic and international policy continues to become more radicalised, it might take ever more drastic forms. As the economy deteriorates, wages fall and shortages become common, a focus on nostalgic nationalism, using belligerent rhetoric and demonstrations of military power, could be used to deflect growing discontentment.

A logical target would be to “protect” zones which are perceived as Russian, e.g. where there are Russian ethnic minorities or even just Russian-speaking areas. Such rhetoric was and is used in the Ukraine.

The coming years will tell what the Russian ambitions are in the Ukraine. Offensives to secure and expand their supply lines, and weakening those of the Ukraine, are probable, and more ambitious plans, such as the opening of new directions in Kharkiv or Odessa, are possible. As a distraction, conflicts in Moldavia can be fuelled.

If the West, primarily the US, UK and Poland, support Ukraine with military means, the risk increases for further escalation of the conflict. Remaining passive, on the other hand, runs the risk that Russia perceives that it could act against other targets.

A second country that could be the target of Russian nationalism is Belarus. Judging by president Putin’s justification of the annexation of Crimea, Belarus would similarly be a legitimate candidate for “re-inclusion” in Russia.

There are indications that the regime in Belarus are worried about such a development and acting to thwart it. In late 2014, Lukashenko appointed a new government, and has increased the emphasis on “Belorussian”. The fragmented (and thoroughly infiltrated) opposition has declared that it will not field candidates in elections this autumn, since they deem the threat of president Putin to be greater than of Lukashenko himself.

Belarus has also passed laws permitting prosecution of non-regular armed troops, as a consequence of the Russian method employed in the annexation of Crimea. In the economic sphere, Russia has complained that Belarus is profiting from sanctions against Russia.

Any attempts from Russia to enter Belarus’ with military means would probably not be met by any effective resistance from the Belorussian security apparatus. The opportunities for Russia are in some ways more favourable here than in Ukraine, due to the close cooperation between the countries’ armies and intelligence services. Passive resistance cannot be ruled out but would not mean much in a short-term.

However, tensions with other former Soviet Union republics, with the EU and with NATO would surely increase. Polish and Lithuanian forces would probably mobilize to counteract spillover effects. EU policy would be substantially revised. Belorussian citizens would attempt to flee, primarily to neighbouring Poland, Lithuania and Latvia.

The Russian government would also threaten the Baltic states, in order to undermine their economies and try to influence policy in these countries. Estonia, Latvia and Lithuania would be in a precarious situation. While they need to strengthen their civil and military defence, they must retain credibility with their allies and not be perceived as to exaggerate the Russian threat. The higher the tensions, the more sensitive the world is to psychological influence.

Russia would, in this scenario, also fan nationalism in other parts of Europe through political and financial support. West Balkan is particularly vulnerable, as the EU and the US have invested considerable political capital in the region with only mixed success. Bosnia, Kosovo and Macedonia have stagnated in their political and economic development with high levels of unemployment, political polarisation and even the establishing of Islamic fundamentalist cells: a fertile ground for nationalist movements.

Finally, Russian ultra-nationalism would also be directed inwards, with an escalated persecution of the domestic political opposition, independent media, and nationalisation of foreign assets. This will be combined with attacks on minority groups, especially on Jews.

This scenario could happen separately or as a precursor to the final, and most dangerous, scenario.

Scenario 3: Test of strength

In this scenario, Russia would attempt to break NATO through challenging of one or more of the Baltic states. The objective would be to demonstrate to alliance members that NATO’s response is too late and too weak.

A precondition for success is a distraction through a crisis by an intermediator, which would tie down especially American attention and resources. The distraction could come in many forms, e.g. by partnering with North Korea, fanning war in the Middle East, or even hidden support for terrorists.

If the current polarisation in US domestic politics continues, any reaction will be obstructed and delayed. An especially vulnerable window of opportunity is in the period between the presidential elections in November 2016 and the installation of the new president in January 2017, which could create a legitimacy problem for the American political system when it comes to the possibilities of directly confronting Russia quickly.

An attack on any Baltic state would directly affect Swedish territory and air space. In the worst-case scenario, it will happen immediately before open conflict with NATO.

The Baltic states each offer different opportunities for Russia, but they all have in common that they lack any strategic depth, which means that an open invasion would be accomplished in a few days, unless support from other alliance members is forthcoming.

Estonia, which is the most powerful of the three, both economically and military, poses as a potential threat to the trade over St Petersburg. To control the maritime traffic through the Gulf of Finland is an important motive for Russia to influence Estonian politics. The population of Estonia, with 25 percent ethnic Russians, could be used to legimize action and as grounds for destabilisation, especially around the border town Narva where more than 90% of the population is ethnic Russian.

Latvia is the most vulnerable of the three states. The economy is weaker; the Russian minority is about the same as in Estonia; and Russian organised crime has a strong hold. Especially the eastern parts of the country are vulnerable to Russian influence.

Lithuania only have about six percent ethnic Russians and a stronger military tradition. On the other hand, Lithuania offers access to Kaliningrad. Lithuania’s attempts to decrease their dependence on energy from Russia has annoyed the Russian regime, as is evident in the harassments by the Russian navy of the cabling operation which will connect the Lithuanian grid to Sweden. There are also some tensions surrounding the Polish minorities in the country which Russia could exploit.

How fast Sweden will become involved depends on the extent of open, armed actions against one or all of the Baltic States.

If a confrontation occurs with non-regular or paramilitary means, maintaining dominance over Swedish territory and territorial waters will be in focus. The same will be the case for Finland, but Finnish action could be influenced by Russian fabrication of tensions in Karelia, that Helsinki could be blamed for.

NATO would try to respond in a controlled manner, i.e. prioritizing transports by air and sea. This would mean greatly increased traffic in and over the Baltic Sea. Tensions will rise drastically, with increased risks of miscalculations on both sides. Sweden and Finland are expected to act together with the rest of the EU and the US. If no direct military threat emerges against Sweden, then Sweden cannot count on any enforcements from the rest of the world apart from mutual information exchange.

The instance that the citizens in the Baltic states perceive a risk of a Russian incursion, the probability is high that a flow of refugees will commence. From Lithuania, the biggest flow will be to Poland while Latvian will flee to Sweden, mainly Gotland. Refugees from Estonia can be expected to flee towards Finland or Sweden depending on where in the country they live and where they have relations or connections.

In the worst-case scenario, Swedish and Finnish territory will become an arena for hostilities. As Russian readiness exercises have shown, airborne and marine infantry could rapidly and with surprise occupy parts of Gotland and Åland. A possible option is also to mine the Danish Straits in connection with this.

By supplies of surface-to-air and anti-ship missiles, Russian forces can temporarily extend their air and coastal defence in the Baltic Sea, protecting an incursion by land into the Baltic states. NATO would be faced with a fait accompli. The invasion does not need to happen in all three states nor include the entire territory of a country. The only thing that is needed is a demonstration of NATO’s inability to defend alliance members. This would establish a new security order.

Depending on the level of conflict that Russia would be willing to risk, air and navy bases in Sweden and Finland could be struck with missiles from the ground, air and sea. It is, however, likely that the governments would be issued an ultimatum to remain neutral, with only a few hours to comply.

Public announcement of the ultimatum would put immense pressure on the political system and weaken resistance. Such diplomatic tactics could be reinforced by forced cyber attacks on the electricity and telecommunication networks. During the coldest months of the year, the vulnerability would be the highest.

At the same time, Sweden would be expected to support their Western partners’ need for transports into the theatre of action. If Russia would close the Danish Straits, any military support to the Baltic states would need to move over Swedish territory; such as air support Norwegian air bases or aircraft carriers in the Norwegian Sea. There would also be demands to clear of mines in Oresund, and possibly for allowing equipment and troop transports to harbours on the east coast for further transport across the Baltic Sea. The Swedish to such demands would have consequences for generations to come.

If Gotland would not be occupied by Russian forces, NATO would demand to set up bases on the island. The smallest indication of acquiescing to such demands would have the Russians racing to the island.

Furthermore, Russia would coordinate activities in the far north, with submarines of all kinds and possibly even direct action in northern Finland and even in northern Sweden, in order to expand Russian air defence.

Faced with the risk of direct confrontations between Russian and American forces, Russia could mount land-based as well as amphibian operations in the north of Norway and on Svalbard, to improve the defence of Murmansk. Following a similar strategy, occupying parts of Bornholm would make it more difficult for NATO to support their members. This is probably not necessary, but it is a possible option.

In most people’s minds, there is a sharp line between the Baltic states’ eastern borders and Russia, the crossing of which is unconceivable. By first gaining the control over Gotland and Åland, the Russian General Army Staff could circumvent a mental Maginot line, in the same way as Germany attacked France through Benelux in May 1940.

Russian success in this scenario hinges on speed and the ability to contain the conflict. The first message to Washington will entail the understanding that this is not a direct conflict between the US. For Russia, the uncertainty is therefore how US interests are perceived from an American perspective.

For the US, it is not just the credibility of NATO that is at stake but also the unity of the EU. This has global connotations since allies (and enemies) in the Middle East and Asia will also form assumptions regarding the willingness and ability of the US to act in order to protect their allies. The risk is obviously that Russia miscalculates and underestimates the difference between, for instance, the departing presidential administration perceptions of US security interests on the one hand with the wider US security establishment’s perception of these on the other.

During the whole process, the threat of nuclear strikes would hover over all decision makers, which increases the degree of uncertainty. Nuclear tests in the period before a test of strength cannot be ruled out, especially since Russian emphasis on nuclear deterrence could lose credibility over time. Direct threats of using the nuclear weapons is, however, completely excluded in this scenario.

#### No space war, and no impact if it does happen

Handberg 17 Roger Handberg 17, Professor in the School of Politics, Security, and International Affairs at the University of Central Florida, 2017, “Is space war imminent? Exploring the possibility,” Comparative Strategy, Vol. 36, No. 5, p. 413-425

The assumption made is that space war will be successfully waged in both the heavens and on the Earth itself. This assumption, however, is grounded on several hypotheticals occurring. First, that total devastating strategic surprise can be achieved—the side attacked becomes so damaged and devastated that further resistance is impossible to sustain regardless of national will, since nuclear weapons overhang the entire enterprise. The analogy usually invoked for American audiences is a “Pearl Harbor” type attack. This scenario is premised on equivalent American incompetence and lack of readiness as exhibited in December 1941. One must note that Pearl Harbor ended as a strategic failure for Japan—it led to defeat because the attack mobilized U.S. power without hesitation, given the intense political divisions over whether to enter the worldwide conflicts already raging. The attack was a military failure because Navy carriers were not destroyed along with battleship row along with critical fuel facilities. Similar analogies invoke September 11, 2001 as the prototype for such attacks more recently, but the same caveats apply. Total surprise assumes that all relevant opponent systems and civilian assets are disabled and left vulnerable to follow on attacks. In fact, collapse of U.S. defenses leaves U.S. cities as hostages to the rulers of the heavens, or vice versa if the U.S. moves first. Space war is extremely destabilizing, as will be discussed, since survivability of one's strategic assets becomes problematic. Second, surprise requires that sufficient offensive space assets be placed in orbit without triggering a response by other states—the scale of such technology deployment is in itself possibly self-defeating given high costs and a likely lack of launch capacity. In addition, much launch capacity is now international rather than national, so maintaining secrecy becomes even more difficult. Space as an operational environment suffers from excessive transparency, meaning any launches can be monitored and tracked by others with strong evidence as to what is being deployed. One must remember that the original satellite launches in the 1950s were accurately tracked by a British grade-school class as a science project. In addition, at least since the early 1960s, remote sensing has increased exponentially the global capability to detect buildup of military assets of differing types, whether in space or on the ground. Commercial remote-sensing capabilities further enhance the capacity to detect militarily relevant actions. For example, commercial imagery is accessed by private parties to monitor the North Korean missile and nuclear weapons programs, in effect expanding the capacity of the world to look in on various states' interior regions, scanning for relevant information, including weapons buildup and launch capabilities. Even construction of physical facilities for production of space assets or for other weaponry can be monitored, making surprise more difficult but not impossible, as demonstrated in earlier monitoring of North Korea and, in 1998, the nuclear tests by both Pakistan and India. That means if the ASAT weapons come from ground locations, there is a high probability that they can be detected but no guarantee exists that detection will in fact occur. The uncertainty will impact calculations of attack success. Third, the most obvious initial attack of space-based assets will most likely come from cyber attacks, given that such actions do not necessarily require the scale of resources necessary for other modalities such as kinetic weapons, or even lasers or other energy-type weapons. One will have to position the weapons plus the infrastructure to permit rapid recycling of the weapons for the next attack. Firing off interceptors will likely be a one-off, meaning extremely precise targeting will be required if the attack is to be successful. Note that none of these systems require that individuals be placed in Earth orbit, despite the imagery describing such operations in fictional universes. Deployment requires a large lift capacity for initial deployment plus replenishment of destroyed or inoperative space assets, since a space conflict assumes that assets will be lost either kinetically or be compromised by cyber or energy beams. In any case, the combatants must be able to recover their capabilities lost during the conflict; failure to do would mean defeat or at least stalemate, negating the reason for the attack. That raises a major question when one considers the problem or expectation that space war can be successfully conducted or defended. Operationally Responsive Space (ORS) remains a critical weak point for all potential space-war participants. Loss of space assets occurs routinely during operations, but actual combat losses can be exponential depending on the weaponry used, and replacing those losses becomes the race to the next level after the initial exchange or combat. Unfortunately, ORS remains a major weakness of the United States and likely other states; deploying replacement satellites remains a multiyear process, while launch capabilities are scheduled long in advance. The rise of multiple private-launch competitors may partially alleviate some of the delay but that remains problematic given that the military payloads may be competing with commercial vendors also trying to replace losses. The tradeoff is that. in principle, private-launch vendors may be able to do so more cheaply, but their capacity may be saturated by demand from the civil and commercial sectors, leaving few “uncommitted” launch options for military purposes. Normally this is not an issue, but the available launch options may be third party rather than national-flag carriers, which raises severe security concerns. Fourth, several other assumptions become essential to make the strategy work, including that such an attack does not render Earth orbit so debris-saturated that further military space operations become impossible to sustain. Also, damage to civilian space assets remains, such that their continuation is possible if undamaged replacements can be quickly reintroduced to restart economically critical operations. Globalization has been fostered through satellite technologies. Their disruption can be devastating for all parties, regardless of who is the winner or the loser. What may occur is the graveyard of the modern economic system. No potential space participants would be immune to the damage, regardless of whether or not they were participants in the actual conflict. Fifth, there must be no difficulty in separating potential targets from the enemy, allied states, and nonbelligerent states. This creates a situation in which the spread of space technologies globally complicates actions, expanding the range of participants beyond the combatants, much like earlier wars at sea, where there were the combatants' ships, along with those of nonbelligerents, including neutrals whom the combatants struggled to draw into the conflict on their side, or at least to render their services unavailable to the other side. The earliest discussion of space conflict was premised on Cold War analogies, meaning two major combatants, either U.S.–Russia, or U.S–-China, or even a three-way war. Presently, analyses focus on a bilateral conflict with the U.S. opposed to China and Russia. Whether that would occur is obviously unknown, despite political rhetoric about a Eurasia coalition of likeminded states. What it does is multiply the number of potential targets and complicates reactions to neutrals' actions to protect their interests or assets. The distinction between combatants and neutrals or third parties will be possibly blurred beyond separation. The byproduct of a kinetic space conflict is massive amounts of space debris, destroying or damaging most space assets regardless of their state sponsor or nationality. Initial attacks may be focused and precise, but the result is still the same. The debris generated by armed conflict will endure beyond the immediate clash. The obvious alternative is a strictly electronic attack on space assets' operating systems, leaving the satellites in orbit, although without the ability to move them or control possible erratic changes in orbit due to collisions with other space debris. Other forms space war will take Reality is more complicated—kinetic action produces debris, the ultimate deterrent to actual space war. Therefore, space war could likely track several distinct phases. The first is cyber attacks, which disable or destroy the working systems of the spacecraft or the ground-support network—in effect, a series of stealth attacks. Civilian satellites are extremely soft targets—defense requires a capacity to detect and analyze any attack on the spacecraft, not available presently for most commercial spacecraft due to cost considerations. Otherwise, one could use nuclear weapons to create electromagnetic pulses (EMP) which can fry unprotected electronics both in space and on the ground, depending on where the weapons are detonated. Interestingly, space war scenarios have some territorial war aspects in that any attacks on space assets will devastate both military and civilian targets without distinction between the war participants and civilians. Similar to unrestricted submarine warfare, all targets in the relevant area will become casualties or otherwise impacted in their operations. Second, attacks that are conducted against the ground down links and/or communications systems, leaving the spacecraft without guidance or instructions, and also no information is returned to the commanders even if the satellites survive the initial onslaught. These can involve kinetic attacks against specific locations or insertion of special operations forces to render the facility inoperative. For example, antennas can be disabled or destroyed, disrupting operations until new facilities are brought online. Other alternatives could include kinetic weapons launched from space, “rods from God.”20 Air strike packages could include electronic warfare elements capable of scrambling or disrupting operations of such facilities even prior to physical strikes against the targets. Spacecraft not destroyed or disabled in the initial two stages of the attack can be directly attacked by “dazzling” their receivers, with laser impulses destroying the receivers for which there are few replacements without replacing the spacecraft physically. Third, rapid replacement of inoperative satellites, regardless of the reasons, does not occur, which translates into a race for the third, possibly end, phase of the war, replenishment. Inability to replace losses may mean that none of the combatants are able to dominate in the end, meaning conventional conflict may be the outcome, although issues of global reach may confine conflicts to relatively small areas. In previous conventional conflicts, large-scale forces were moved, albeit slowly, across the globe to the conflict, i.e., Desert Shield morphing into Desert Storm after a nearly six-month buildup.

#### Military superiority is dead – and nothing can reverse the trend.

Schadlow ‘20 [Nadia; Senior Fellow at the Hudson Institute and a Visiting Fellow at the Hoover Institution, in 2018, she served as U.S. Deputy National Security Adviser for Strategy; 8/11/20; "The End of American Illusion"; Foreign Affairs; https://www.foreignaffairs.com/articles/americas/2020-08-11/end-american-illusion; accessed 8-21-2020; SM]

INVINCIBLE NO MORE

Although liberal internationalism encouraged interdependence and multilateralism, it also rested on a faith in Washington’s ability to indefinitely maintain the uncontested military superiority it enjoyed in the immediate aftermath of the Cold War. In reality, U.S. military dominance is now challenged in virtually every domain. The United States is no longer able to operate freely in the traditional spheres of land, sea, and air, nor in newer ones such as outer space and cyberspace. The spread of new technologies and weapon systems and the pursuit of asymmetric strategies by adversaries have limited the U.S. military’s ability to find and strike targets, supply and safeguard its forces abroad, freely navigate the seas, control sea lines of communication, and protect the homeland. Nothing is likely to reverse these trends.

#### No heg impact

* empirics and political psychology prove US posture is unrelated to great power peace
* other factors aren’t accounted for in their analysis

Fettweis 17 [Christopher Fettweis, associate professor of political science at Tulane University. Unipolarity, Hegemony, and the New Peace. May 8, 2017. http://www.tandfonline.com/doi/pdf/10.1080/09636412.2017.1306394?needAccess=true]

After three years in the White House, Ronald Reagan had learned something surprising: “Many people at the top of the Soviet hierarchy were genuinely afraid of America and Americans,” he wrote in his autobiography. He continued: “Perhaps this shouldn’t have surprised me, but it did … I’d always felt that from our deeds it must be clear to anyone that Americans were a moral people who starting at the birth of our nation had always used our power only as a force for good in the world…. During my first years in Washington, I think many of us took it for granted that the Russians, like ourselves, considered it unthinkable that the United States would launch a first strike against them.” 100 Reagan is certainly not alone in believing in the essential benevolent image of his nation. While it is common for actors to attribute negative motivations to the behavior of others, it is exceedingly difficult for them to accept that anyone could interpret their actions in negative ways. Leaders are well aware of their own motives and tend to assume that their peaceful intentions are obvious and transparent.

Both strains of the hegemonic-stability explanation assume not only that US power is benevolent, but that others perceive it that way. Hegemonic stability depends on the perceptions of other states to be successful; it has no hope to succeed if it encounters resistance from the less powerful members of the system, or even if they simply refuse to follow the rules. Relatively small police forces require the general cooperation of large communities to have any chance of establishing order. They must perceive the sheriff as just, rational, and essentially nonthreatening. The lack of balancing behavior in the system, which has been puzzling to many realists, seems to support the notion of widespread perceptions of benevolent hegemony.101 Were they threatened by the order constructed by the United States, the argument goes, smaller states would react in ways that reflected their fears. Since internal and external balancing accompanied previous attempts to achieve hegemony, the absence of such behavior today suggests that something is different about the US version.

Hegemonic-stability theorists purport to understand the perceptions of others, at times better than those others understand themselves. Complain as they may at times, other countries know that the United States is acting in the common interest. Objections to unipolarity, though widespread, are not “very seriously intended,” wrote Kagan, since “the truth about America’s dominant role in the world is known to most observers. And the truth is that the benevolent hegemony exercised by the United States is good for a vast portion of the world’s population.” 102 In the 1990s, Russian protests regarding NATO expansion—though nearly universal—were not taken seriously, since US planners believed the alliance’s benevolent intentions were apparent to all. Sagacious Russians understood that expansion would actually be beneficial, since it would bring stability to their western border.103 President Clinton and Secretary of State Warren Christopher were caught off guard by the hostility of their counterparts regarding the issue at a summit in Budapest in December 1994.104 Despite warnings from the vast majority of academic and policy experts about the likely Russian reaction and overall wisdom of expansion itself, the administration failed to anticipate Moscow’s position.105 The Russians did not seem to believe American assurances that expansion would actually be good for them. The United States overestimated the degree to which others saw it as benevolent.

Once again, the culture of the United States might make its leaders more vulnerable to this misperception. The need for positive self-regard appears to be particularly strong in North American societies compared to elsewhere.106 Western egos tend to be gratified through self-promotion rather than humility, and independence rather than interdependence. Americans are more likely to feel good if they are unique rather than a good cog in society’s wheel, and uniquely good. The need to be perceived as benevolent, though universal, may well exert stronger encouragement for US observers to project their perceptions onto others.

The United States almost certainly frightens others more than its leaders perceive. A quarter of the 68,000 respondents to a 2013 Gallup poll in sixty-five countries identified the United States as the “greatest threat to world peace,” which was more than three times the total for the second-place country (Pakistan).107 The international community always has to worry about the potential for police brutality, even if it occurs rarely. Such ungratefulness tends to come as a surprise to US leaders. In 2003, Condoleezza Rice was dismayed to discover resistance to US initiatives in Iraq: “There were times,” she said later, “that it appeared that American power was seen to be more dangerous than, perhaps, Saddam Hussein.” 108 Both liberals and neoconservatives probably exaggerate the extent to which US hegemony is everywhere secretly welcomed; it is not just petulant resentment, but understandable disagreement with US policies, that motivates counterhegemonic beliefs and behavior.

To review, assuming for a moment that US leaders are subject to the same forces that affect every human being, they overestimate the amount of control they have over other actors, and are not as important to decisions made elsewhere as they believe themselves to be. And they probably perceive their own benevolence to be much greater than do others. These common phenomena all influence US beliefs in the same direction, and may well increase the apparent explanatory power of hegemony beyond what the facts would otherwise support. The United States is probably not as central to the New Peace as either liberals or neoconservatives believe.

In the end, what can be said about the relationship between US power and international stability? Probably not much that will satisfy partisans, and the pacifying virtue of US hegemony will remain largely an article of faith in some circles in the policy world. Like most beliefs, it will remain immune to alteration by logic and evidence. Beliefs rarely change, so debates rarely end.

For those not yet fully converted, however, perhaps it will be significant that corroborating evidence for the relationship is extremely hard to identify. If indeed hegemonic stability exists, it does so without leaving much of a trace. Neither Washington’s spending, nor its interventions, nor its overall grand strategy seem to matter much to the levels of armed conflict around the world (apart from those wars that Uncle Sam starts). The empirical record does not contain strong reasons to believe that unipolarity and the New Peace are related, and insights from political psychology suggest that hegemonic stability is a belief particularly susceptible to misperception. US leaders probably exaggerate the degree to which their power matters, and could retrench without much risk to themselves or the world around them. Researchers will need to look elsewhere to explain why the world has entered into the most peaceful period in its history.

The good news from this is that the New Peace will probably persist for quite some time, no matter how dominant the United States is, or what policies President Trump follows, or how much resentment its actions cause in the periphery. The people of the twenty-first century are likely to be much safer and more secure than any of their predecessors, even if many of them do not always believe it.

1. <https://www.google.com/search?q=appropriation+definition&rlz=1C1CHBF_enUS877US877&oq=appr&aqs=chrome.0.69i59j69i57j69i59l2j69i60l3.1218j0j7&sourceid=chrome&ie=UTF-8> //Xu [↑](#footnote-ref-1)