## OFF

### NC – Long

#### Their use of an ethical frame of “injustice” presumes a metaphysics of discrete individuals for injustice to be acted by and on – that’s both conceptually incorrect and leads us to egoistic violence

Carpenter 17 Carpenter, Amber, works in ancient Greek and classical Indian philosophy, with a topical focus on the metaphysics, epistemology and moral psychology underpinning Plato’s ethics and Indian Buddhist ethics, taught or held visiting research appointments at the University of York, St Andrews, Cornell, Oxford, the University of Melbourne and Yale University. BA (Yale), PhD (Kings College London). "Ethics without Justice." A Mirror Is for Reflection: Understanding Buddhist Ethics (2017).

This study in the Buddhist claim that we ought to eliminate anger, and the distinctively Buddhist mode of doing so, has shown that the link between injustice and anger presumes a metaphysics. The moral perspective that picks out injustice as a special and additional kind of harm requires a metaphysics of discrete individuals, doing and “being done to” in turn, with a clear distinction between the two. But such a metaphysics and its moral categories engender in turn certain typical modes of thought—in particular, obsessing about Who is to Blame. Particularly in our victim-status-claiming age, we should wonder whether this is especially fruitful—or apt.

The Buddhist cannot show that their view will confirm or conform to all our intuitions about injustice because their basic metaphysical presumptions do not support the centrality of autonomous agency as a distinctive sort of cause, nor the violation of that by such free agents as a distinctive sort of harm. This is not, however, just an oversight or a morally horrifying omission. The proposal of an alternative metaphysics is the proposal of an alternative way of conceiving the moral. For every exercise in appreciating what no-self means, and what its implications are, is simultaneously an exercise in detachment, in recognizing the impulse to blame and resent as harmful assertions of oneself over and against others. Removing the conceptual structures for righteous indignation strips our evaluations of situations and persons of its self-assertiveness. Rather than being enervating, or blinding us to what moral responsiveness demands, this outlook is resolutely practical. None of this denies the no-self anger-eliminativist the resources necessary for forensics: we can see that some sets of conditions have intentions among them, and we can recognize that under some circumstances, these are more effectively engaged with in modes that differ from how we would engage with a forest fire.30 To regard someone’s raging violence as a forest fire does not mean that we turn the fire hose on it; it means that we consider the enabling conditions and defeating conditions and seek to eliminate the one and enhance the other.31

At the same time, as no-self introduces fluidity into our practices of individuation, it presents us with the entangled mutual causation of all factors and the simultaneous suffering. To see no-self, Buddhist-wise, just is to see that everything is conditioned and conditioning. Released from the demands of indignation, we are left with the only attitude that is appropriate in the face of suffering—a practically oriented care to relieve that suffering. Karuṇā is not an additional feature of a Buddhist outlook or the next thing on the list of dogmata. Care just is the affective and practical recognition of no-self metaphysics. Without discrete individuals to appeal to in any situation—these the perpetrators, these the victims—we have only efficacy in removing suffering as the standard preventing us from nihilism. Where before there were culprits to blame, and myself to exonerate or assert in retaliation, there is now only suffering, for which care to alleviate it is simply what is left when I am no longer distracted by righteous indignation.

#### Delusional egoism collapses the biosphere and produces rampant nationalism – extinction

Loy 17 David R Loy, former Besl Professor of Ethics/Religion and Society at Xavier University, teacher in Sanbo Kyodan Buddhism. M.A. in Asian philosophy from the University of Hawaii in 1975, and Ph.D. in philosophy in 1984 from the National University of Singapore. “Are Humans Special?” Tikkun, Vol. 32, No. 1, Winter 2017, <http://www.davidloy.org/downloads/Loy%20Are%20Humans%20Special.pdf>.

One uniquely human characteristic, emphasized by Buddhism, is that we can develop the ability to “dis-identify” from anything and everything, letting go not only of the individual sense of separate self but also of collective selves: dissociating from dualisms such as patriarchy, nationalism, racism, even species-ism (“we’re human, not lower animals”). Meditation develops such nonattachment, yet the point of such letting-go is not to dissociate from everything but to realize our nonduality with everything.

That human beings are the only species (so far as we know) that can know it is a manifestation of the entire cosmos opens up a possibility that may need to be embraced if we are to survive the crises that now confront us. Instead of continuing to exploit the earth’s ecosystems for our own supposed benefit, we can choose to work for the well-being of the whole. That we are not separate from the rest of the biosphere makes the whole earth our body, in effect, which implies not only a sp cial understanding but also a special role in response to that realization. As the Metta Sutta declares: “Let one’s thoughts of boundless love pervade the whole world— above, below, and across — without any obstruction, without any hatred, without any enmity.”

To ask whether the universe itself is objectively meaningful or meaningless is to miss the point— as if the universe were outside us, or simply there without us. When we do not erase ourselves from the picture, we can see that we are meaning- makers, the beings by which the universe introduces a new scale of significance and value.

The Responsibility of Being Special

If we are special because of our potential, we must choose. We are free to derive the meaning of our lives from delusions about who we are—from dysfunctional stories about what the world is and how we fit into it—or we can derive that meaning from insight into our nonduality with the rest of the world. In either case, there are consequences.

The problem with basing one’s life on delusions is that the consequences are unlikely to be good. As well as producing poetry and cathedrals, our creativity has recently found expression in world wars, genocides, and weapons of mass destruction, to mention a few disagreeable examples. We are in the early stages of an ecological crisis that threatens the natural and cultural legacy of future generations, including a mass extinction event that may lead to the disappearance of half the earth’s plant and animal species within a century, according to E. O. Wilson—an extinction event that may include ourselves.

What needs to be done so that our extraordinary co-creative powers will promote collective well-being (collective in this case referring to all the ecosystems of the biosphere)? Must we evolve further—not biologically but culturally—in order to survive at all? From a Buddhist perspective our unethical tendencies ultimately derive from a misapprehension: the delusion of a self that is separate from others, a big mistake for a species whose well-being is not separate from the well-being of other species. Insofar as we are ignorant of our true nature, individual and collective self-preoccupation naturally motivates us to be selfish. Without the compassion that arises when we feel empathy—not only with other humans, but with the whole of the biosphere—it is likely that civilization as we know it will not survive many more generations.

In either case, we seem fated to be special. If we continue to devastate the rest of the biosphere, we are arguably the worst species on earth: a cancer of the biosphere. If, however, humanity can wake up to become its collective bodhisattva—undertaking the long-term task of repairing the rupture between us and Mother Earth—perhaps we as a species will fulfill the unique potential of precious human life.

#### Planetary interdependence uniquely extends into space – the alternative is a shift away from individuation towards a politics of care that recognizes our mutual interdependence

Gál 20 Réka Gál, PhD student at the Faculty of Information and a Fellow at the McLuhan Centre for Culture and Technology, work unites feminist media theory and postcolonial studies with the history of science and environmental studies and explores how technological tools and scientific methods are employed to purportedly solve socio-political problems. B.A American and Media Studies, Humboldt Universität zu Berlin, M.A Cultural Studies, Humboldt Universität zu Berlin. "Climate Change, COVID-19, and the Space Cabin: A Politics of Care in the Shadow of Space Colonization." mezosfera.org, Oct, 2020, mezosfera.org/climate-change-covid-19-and-the-space-cabin-a-politics-of-care-in-the-shadow-of-space-colonization.

As much as dominant cultural narratives encourage us to entertain the idea that humans stand separate from and above their environments, the planetary crises of climate change and COVID-19 are painful reminders of the ways in which human and nonhuman ecologies are perpetually entangled. It is well-known that industrialized human-nonhuman relations, based on the capitalist extraction of what are considered natural resources, stand at the root of numerous environmental problems that are contributing to climate change. Animal industries – specifically the livestock industry – are one of the largest contributors to deforestation, greenhouse gas emission, and species extinctions.17 COVID-19’s believed origins in the Huanan wild animal markets and its eventual spread to humans is further testament to the ways in which our ecologies are always inseparable, with their intertwined nature here manifesting violently towards humans. Moreover, the spread of the coronavirus lays bare how local exploitation of nature can have global repercussions: the wildlife industry in China exists to this day because wildlife is considered a natural resource owned by the state, and the breeding, domestication, and trading of wildlife is encouraged by law.18

What must be made clear to those who are entertaining the idea that space habitats could provide a solution to such crises is that leaving Earth does not render these entanglements null and void. As much as spacecraft have been positioned as examples of subordinating the rules of nature to human control, their material reality only further consolidates the reciprocity of human and nonhuman, including human-machine, relations. 19 Our dependence on our surroundings intensifies in outer space. The inhospitality of space makes even the most physically fit astronauts dependent on numerous life support systems: oxygen and food supplies, waste management, and humidity control are all technologically operated but require continuous maintenance by humans. As such, ensuring the normal operation of a spacecraft is a relevant analogy for how a relationship of care with the diverse life support systems on Earth could be established.20

However, governments and private companies have been selling people the dream of human spaceflight ever since the Cold War, and the origins of this project in a military enterprise have made a significant mark on its implications for care work. The world of the 1960-70s astronauts was extremely segregated: the popular narrative was that of the hypermasculine astronaut, able to cope with danger and pain without complaint, with a brave wife at home waiting for his return.21 This segregation has had a remarkable impact on the types of work which have been considered “worthy” of these hypermasculine astronauts. In fact, the first American to travel to space, Alan Shepard, explicitly objected to having to learn maintenance techniques. As historian David Mindell put it, “the hottest test pilots didn’t want to be repairmen in space.”22 Similarly, data collected from NASA’s Skylab and the International Space Station’s 4-8 expeditions reveal that the time needed to complete maintenance activities on the Environmental Control and Life Support Systems was vastly underestimated, and in some cases even completely left out of operations plans.23 Even as late as the 2000s, the gendered view of care activities aboard spacecraft persisted: regarding the first female commander of a Space Shuttle, Eileen Collins, NASA made sure that her public persona was level-headed but also “pleasing.” She was referred to as “nice.” She took care of her fellow astronauts on board, taking on emotional labor by “providing support in ways that ease[d] the long hours and tension of training.” Her Air Force nickname was Mom.24

When this article calls for a feminist critique of outer space colonization, the argument is not that banishing technology and returning to a “pristine” nature or some other type of utopian primitivism is going to solve our planetary crises. Nor is it the point that more women need to be hired. What is being critiqued here is what Debbie Chachra has pointed out as a masculinist-capitalist obsession with progress and technological innovation that casts all maintenance, repair, and care work as inferior to creation.25 Much as our current experience of physical isolation during COVID-19 has exhibited, only during breakdowns are such taken-for-granted services made visible anew.26 The privileging of production obscures the societal understanding of the very real relationality of living, and the ongoing care and maintenance work required to keep human life running smoothly both on Earth and in outer space.

Therefore, the problem with extraplanetary colonization is not solely that this escape reinforces an enduring gendered opposition between exit and care, privileging the former over the latter, but also that machines only give the illusion of providing humans with independence from care work. Orsolya Ferencz, the Hungarian Secretary of Space Affairs, claims that Hungarian machines in outer space do not break down27 but the truth is that machines, just like our “natural” environments, do repeatedly break down. They require maintenance. Humans whose lives are intimately intertwined with technology are all too aware of this. Social scientist Laura Forlano writes about her experience as a diabetic who uses various technologies to monitor and maintain her blood glucose levels: “With respect to my insulin pump and glucose monitor, often, I am not really sure whether I am taking care of them, or they are taking care of me.”28 This interdependence additionally applies to the care for “natural” environments which can be regularly observed, for example, in the relationship of Indigenous communities to the environment. In the Hā’ena community in Hawaii, for instance, not only do they always return some of the fish caught to the water as a way of thanking the ocean, but they also managed to impose a ten-year fishing moratorium around their island in 2019, which will both help the renewal of the ecosystem and the recovery of the immediate environment, allowing future generations to fish sustainably.29 With this moratorium, the Hā’ena are providing care-based, restorative justice: the ocean ecosystem has fallen victim to injustice (overfishing), and remedying this ought to help heal the party wounded by the injustice, which is in this case the ocean.30

The extractive industry practices deeply embedded within Western social systems clearly propel us toward unsustainable development. Escaping Earth will not solve these problems. Rather, the solution requires a fundamental onto-epistemological shift, one that will enable us to move away from the exploitative Western-colonialist worldview and towards one that prioritizes care and sustainability. The works of feminist and Indigenous thinkers can inspire us to imagine and understand such a worldview. Numerous pre-colonial Indigenous cultures were sustainability-centric: the acceptance of the reciprocity between humans and their environment and the enforcing of the ethics of care in all areas of life were essential parts of several nations’ worldviews. Indigenous epistemologies see humans and nature as members of an ecological family in which humans, the nonhuman beings around them (for example, badgers, antelopes) and materials (for example, water, clay) all form part of their kinship structures.31 In Indigenous cultures that have survived colonization, such teachings and ethical approaches are passed down to this day.32 Research by Potawatomi scholar Kyle P. Whyte and Chris Cuomo demonstrate that Indigenous conceptions of care emphasize the importance of recognizing that humans, nonhumans (animals) and collectives (e.g. forests) exist in networks of interdependence. Indigenous care ethics manifest also in the fact that mutual responsibility is seen as the moral basis of relationships.33 An important part of this mutual responsibility is that care-based justice is not punishment-centered but recovery-centered: as in the example of the fishing moratorium of the Hā’ena, it seeks to promote restorative justice for those wounded by injustice. This restoration is aimed not only at people and communities, but also at nature.34 Similarly, an ethics of care in feminist philosophy treats the state of interdependence of human and nonhuman beings as a moral foundation.35

Since all infrastructures break, they require continuous maintenance. Information scientist Steven Jackson therefore proposes that the starting point to our thinking on the human relationship to technology has to be a contemplation of “erosion, breakdown, and decay, rather than novelty, growth, and progress.”36 If we accept that our world is “always-almost-falling-apart,”37 then instead of simply focusing on technological innovation as the vessel of our salvation,38 we need to look at the ways in which the world is constantly fixed, cared for, and maintained. This, of course, does not only translate to humans’ relationship to machines, but also to our relationship to our environment –in fact, feminist scholars have already made this point about dealing with our environmental problems: historian of science Donna Haraway’s concept of “staying with the trouble”39 explicitly pleads for the foregrounding of the inherent interconnectedness and interdependence of living, and for working on restoring our broken systems. What we are looking at here is a promising paradigm shift in human-machine and human-nature relations that promotes the recognition that the processes of care and maintenance are foundational to the way humanity relates to our biotic and abiotic environments.40

Both life during the social isolation of COVID-19 and life in the space cabin highlight our perpetual interdependence with our environments. Our life support systems are in a state of continuous decay, but the solution to this is not building more and more invasive risk-mitigation machines based on individualization, isolation and an imperative of absolute, one-directional control. Instead, a better, safer, more sustainable future starts with acknowledging one’s place in a web of interdependent relationships.41 Among other steps, this means that instead of acting as though our biotic and abiotic infrastructures can endlessly care for us, we need to care for them in return. This entails not only planting new forests and cleaning up shorelines, but also policy decisions such as the fishing moratorium mentioned above. As anthropologist Gökçe Günel indicates, even the technologies used for the harvesting of renewable energies require maintenance: solar panels, for example, need to be wiped clean of dust and sand regularly.42 Thinking through the lens of maintenance and care also means providing infrastructures for effectively repairing machines as opposed to producing e-waste and continuously buying new ones which are thrown away once a smarter version is released. Additionally, it means respecting and paying theworkers who are cleaning our hospitals, nursing our sick and harvesting food – most of them immigrants, predominantly women43 – better, as they are the reason we have clean hospitals, transport, and food on our tables, even during a global pandemic.44

## OFF

### NC – Crypto

#### Ukraine ought to create significant subsidies for private entities to create terrestrially accessible blockchain verification computing centers and cryptocurrency mining centers on the Moon and Deep Space. Ukraine should restrict all other forms of appropriation of outer space by private entities.

#### Bans means to prohibit or forbid permanently

Collings ND https://www.collinsdictionary.com/us/dictionary/english/ban

ban

(bæn)

Word forms: bans, banning, banned

1. TRANSITIVE VERB

To ban something means to state officially that it must not be done, shown, or used.

Canada will ban smoking in all offices later this year.

Last year arms sales were banned.

Synonyms: prohibit, black, bar, block More Synonyms of ban

#### Climate-motivated terrestrial mining regulations kill crypto now – those don’t get applied to space because of unique environments – that saves crypto with sufficient private investment

Greene 21 Greene, Tristan. Tristan covers human-centric artificial intelligence advances, quantum computing, STEM, Spiderman, physics, and space stuff. As far as I can tell his highest level of education was that he was in the Navy for a while. "What happens to Bitcoin when billionaires build cryptocurrency miners on the Moon?" TNW | Hardfork, 8 June 2021, thenextweb.com/news/bitcoin-billionaires-build-cryptocurrency-miners-on-moon-bitcoin.

Space exploration and exploitation have traditionally been nationalist endeavors. But the rise of the 12-digit billionaire has suddenly made outer space look like open territory. The players Jeff Bezos is stepping down from his position as the CEO of Amazon after 25 years ahead of his imminent launch into space aboard one of his own Blue Origin spaceships. This will be the future of fintech 6 trends that will dominate fintech in 2022 While it’s easy to imagine the long-time leader retiring to live out a childhood fantasy, there’s nothing in Bezos’ history as an incredibly ambitious person and businessman to indicate his he’ll just blast off into the sunset to live a life of quiet leisure. Simply put, Bezos’ interest in the space sector likely won’t end with offering consumer thrill rides. While it’s impossible to know where the soon-to-be-former CEO might take his ambition, it’s likely Amazon and/or Blue Origin is already looking for ways to exploit the space sector for profit. But, obviously, Bezos isn’t the only private citizen with a spaceship company. Elon Musk’s SpaceX has spent the last decade becoming the belle of NASA’s ball and he’s already all-in on the idea of sending humans to Mars. And we can’t forget Richard Branson. He may only be worth a paltry $5 billion (lol), but his Virgin Galactic company’s been banking on making some money in space tourism for a long time. Let’s also not forget that Virgin’s dabbled in everything from railroad technology to record labels. And the list goes on. Anyone with a few billion dollars has business options and opportunities that extend beyond our planet’s surface. Space for profit In the past, we’ve discussed the idea of mining space asteroids for profit. Some experts believe there are unimaginable fortunes floating around in space in the form of resource-rich asteroids. In fact, you can even get a degree in asteroid mining. And even Goldman Sachs has considered getting in on the action. But, at the end of the day, we still have to figure out where these resources are, build machines capable of extracting them, and get them safely to somewhere they can be useful. Right now, there’s not much value in investing in asteroid mining futures because the technology either doesn’t exist or isn’t ready yet. However, there’s more than one kind of mining you can do in space. Enter cryptocurrency and the future Elon Musk recently got involved in a friendly space race, but this time it has nothing to do with competition over rockets or government contracts. He’s racing against BitMEX, a cryptocurrency exchange and derivative platform, to see who can get a cryptocurrency on the Moon first. If you’re curious about how that works, here’s a snippet from BitMEX’s official announcement: BitMEX will mint a one-of-a-kind physical bitcoin, similar to the Casascius coins of 2013, which will be delivered to the Moon by Astrobotic. The coin will hold one bitcoin at an address to be publicly released, underneath a tamper-evident hologram covering. The coin will proudly display the BitMEX name, the mission name, the date it was minted and the bitcoin price at the time of minting. According to BitMEX, this isn’t just a ceremonial or token delivery. The coin itself is a hardware wallet containing an actual Bitcoin, so its value will change with the value of the BTC here on Earth. In other words, BitMEX is sending a literal treasure to the Moon for anyone brave (or rich) enough to retrieve it. Per the company’s blog post: A moon surface background with text superimposed, quote below Credit: BitMEX Come and Get It. When the physical coin lands, it will remain on the Moon until anyone deems it worthy of retrieval. Decades from now, what will it be worth? It’s a great question. Some experts have predicted a single bitcoin will one day be worth $100K, $1M, or even more. But an even better question is this: What’s the end game for cryptocurrency in space? Billionaires want to be trillionaires Back in 1999 Wired ran a feature about the imminent rise of the world’s first trillionaire. At the time, everyone assumed the richest man in the world, Microsoft CEO Bill Gates, would be the first trillionaire by a long shot. Here’s a quote from that article: The value of Bill’s Microsoft stake has grown from $233.9 million at the time of Microsoft’s 1986 IPO to $72.2 billion as of June 15, 1999 (disregarding stock sales). At this rate – 58.2 percent a year – he will become a trillionaire in March 2005, at age 49, and his Microsoft holdings will be valued at $1 quadrillion in March 2020, when he is 64. Of course, we still haven’t seen a trillionaire in modern history. As of the time of this writing, the richest person in the world is France’s Bernard Arnault, whose $193.6 billion empire edges out Jeff Bezos’ $189 billion. At some point, if Bezos wants to pull away with it or Elon Musk wants to close the widening gap between his $151.4 billion and a first place finish, the world’s richest people are going to have to do more than squeeze terrestrial markets for every last drop of profit. That’s why many experts view Elon Musk’s heavy involvement in cryptocurrency as the potential difference maker. On any given day the Tesla, SpaceX, and Neuralink founder’s total worth can skyrocket or plummet by tens of billions of dollars based on how his cryptocurrency holdings are performing. When you consider that market movements can be directly tied to Musk’s social media statements, the power proposition for billionaires holding cryptocurrency is unbridled. Simply put: Elon Musk has more control over the so-called “volatile” world of cryptocurrency than most. Putting a cryptocurrency in space, much like firing a Tesla off into the galaxy, is a PR move meant to generate interest in the burgeoning cryptomarket. But that’s not the only purpose they serve. These acts remind us that people like Musk and Bezos can do anything they want. If they want to put a coin on the Moon, they have the means to do it. And, for example, if Musk or Bezos suddenly wanted to solve the biggest problems with cryptocurrency mining – power consumption, carbon footprint, developing powerful-enough hardware – they’re in a unique position to do so. In space, no one can hear you mine Arguably, one of the biggest things stopping an apex whale like Elon Musk from spending a fair portion of his billions on cryptomining centers is the fact that such an operation would almost certainly draw universal condemnation for its potential effect on the global climate crisis. But the Moon’s atmosphere isn’t necessarily as fragile as the Earth’s. Hypothetically speaking, there’s nothing to stop a billionaire from building a facility on the Moon to mine cryptocurrency. They would, of course, need to be able to build their own batteries, have experience with artificial intelligence and supercomputers, and already have their own satellite network set up in space – all boxes Elon Musk can tick today. And, in the near-future, as we perfect deep space transmission technology, what’s to stop a billionaire from putting a supercomputer on a satellite and sending it somewhere in deep space to mine cryptocurrency 24/7 at near absolute-zero temperatures? All of this is conjecture, but the writing is on the wall. Cryptocurrency enthusiasts fear what the experts are consistently warning: regulation is coming. Eventually, it’s possible cryptocurrency mining could become regulated with harsh policies designed to keep mining operations from further damaging the environment. This could seriously hinder the market. If humanity walks away from terrestrial mining to save the planet, we’ll be leaving unfathomable amounts of money on table. Billionaires don’t become billionaires by doing that. The only logical path forward, barring some unknown new green mining technology, may be moving the cryptocurrency industry to space.

#### Cryptocurrency reach a wide rollout---that builds resilience to survive inevitable existential filters.

Alex McShane 21, Writer and Head of Video for Bitcoin Magazine, BA from the University of Iowa, Degree from the University College Dublin, Degree from Kirkwood Community College, “Bitcoin and Existential Risk”, Bitcoin Magazine, 9/5/2021, https://bitcoinmagazine.com/culture/bitcoin-and-existential-risk-alex-mcshane

TL;DR - An existential risk is the possibility of an event or series of events that could drastically curtail humanity’s potential. A hypothetical global catastrophe could be anthropogenic or non-anthropogenic and internal or external in nature. The adoption of Bitcoin will better position us to address these risks as a society.

EXTERNAL NON-ANTHROPOGENIC

A catastrophic collision with an astronomical object, such as an asteroid impact would be an external non-anthropogenic risk. This has already occurred here several times. During the Permian Triassic period (ending 250 million years ago) an astronomical impact killed 90 percent of the species on Earth. It took tens of millions of years for life on Earth to repopulate and Earth’s intelligence potential to recover.

One interesting external non-anthropogenic risk is Earth’s reflected light, which could be measured by an external intelligence who then come to extinguish us. (The topic of our own signal bringing about this death by misadventure is discussed further below.)

What does this have to do with Bitcoin?

Generally, hard money facilitates greater innovation and technological process. At this point one might argue that if we do not migrate to some degree from Earth as a species, and are subsequently wiped out by an astronomical object impact or a super-volcanic event, the risk becomes anthropogenic in nature. We are a centralized species on a grand scale, and at this point one could say we have through consensus chosen to remain vulnerable to a single vector of attack by staying here.

Bitcoin is not only the hardest money known to man, it is the most responsible from this standpoint. Bitcoin as it currently operates is currency that can provide a monetary framework on which humans can achieve greater capital growth, collaboration, resource allocation, and therefore technological progress. Because the terminal supply of Bitcoin is capped, we can store value in it indefinitely as a society.

66 Million years ago the Cretaceous-Paleogene Extinction Event extinguished the life and intelligence potential of the non-avian dinosaurs. This series of events was external, and broadly non-anthropogenic in the sense that no form of life on Earth at the time contributed to its own demise, but more specifically, at the time of those astronomical impacts the first humans hadn’t split from chimpanzee lineages. This split is thought to have occurred between between 4 and 8 million years ago.

An important distinction between astronomical impacts or super-volcanic events of the past and such events if they were to happen today is that one could argue that our intelligence potential is now mature enough to tackle certain of the external existential risks. Today, the risk posed by an asteroid impact or something similar would still be external in its origin, but at what point does the burden of responsibility to migrate off of the planet fall upon our population? We can surely solve for some external existential risks, and in any case, no one is going to do it for us. You could say that failing to collectively pursue a solution when technically we could have would recategorize a civilization-extinguishing asteroid impact as an external but anthropogenic risk.

At what point do innovation dampening authoritarian states and their mandated broken money cause society to stall at a local optimum? Surely the government has already caused this. It’s only a matter of time before another object strikes the Earth with devastating consequence. I would argue it is irresponsible to continue life here with government money. Government money is an existential risk. Bitcoin is not only a solution, it is a societal responsibility.

INTERNAL ANTHROPOGENIC

Nuclear war is one example of an internal anthropogenic risk. That is, should nuclear war arise, it would be both self destructive, and relatively self contained on a cosmic scale. It follows that biological warfare is an internal anthropogenic risk, the reality of which we as a species can surely understand now. If I were to hazard a guess I would say virtual emergencies and cyber pandemics are next. These self constructed catastrophes are the government’s misguided attempts at proof of work. This is a topic for another time. Do not surrender your ability to think and speak freely.

The second law of thermodynamics can summed thus, processes that involve the transfer or conversion of heat energy are irreversible. The law indicates we have not observed a spontaneous transfer of energy from cold to hot. Another way to think of this is that there is no such thing as cold, only lesser degrees of hot. Nothing cannot transfer. So broadly, within a closed system, the second law of thermodynamics would indicate that all differences tend to level out.

So what has this got to do with Bitcoin?

Well firstly, all hardware is subject to entropy. The distributed nature of the blockchain increases the probability that it will survive centralized entropy. At Bitcoin’s inception, imagine a failure because Satoshi’s computer randomly crashed. Distributed networks are inherently hedged against this particular centralized form of existential risk.

The second law of thermodynamics also suggests that on a grander scale, relatively isolated (centralized) systems will degenerate more and more into disordered states. Proof of work, and network growth are two ways Bitcoin fights against falling into disrepair.

Bitcoin uses proof of work to stave off entropy. The system cannot stay dormant. It must continue to use proof of work to advance the state of the chain, and to fight entropy to secure the monetary value all of the users have stored in the network. The U.S. dollar, as many have pointed out, relies on proof of war, or distributed political energies to maintain dominance. Its methodology can be described as haphazard at best.

INTERNAL NON-ANTHROPOGENIC

One internal non-anthropogenic risk is that of a super-volcanic eruption, provided it wasn’t humans who brought about the eruption. Just like with external non-anthropogenic risks, Bitcoin alone cannot prevent them, but it can help humans prepare for them such that we may survive these relatively small intelligence filters the universe throws our way.

Bitcoin allows for fundamental capital accumulation and human innovation, and promotes collaboration to such a degree that we will find an increased collective problem solving power as humans the further Bitcoin adoption spreads. It is worth mentioning that Bitcoin also maintains and appreciates wealth to such a degree that often those of us to chose to live our lives on a Bitcoin standard will experience relatively greater freedoms, and vastly greater amounts of free time than our peers who chose to continue their lives on a fiat standard, and are perpetually working to outpace their chronic debt. Many Bitcoiners will likely forego that newfound free time to work and continue to provide value to others in whatever area interests them, because Bitcoin incentivizes the collaborative accumulation of capital but also the responsible reallocation of it.

EXTERNAL ANTHROPOGENIC

An external anthropogenic risk has the least probability of occurring. This is a problem of reach. Imagine human intelligence being sent into the cosmos and signaling or generally causing an external intelligence or astronomical object to come back to extinguish us. This is a most improbable extinction by misadventure.

The probability that we send messages of consequence into the cosmos that in turn cause some other far-flung intelligence, with knowledge enough to reach us, to come and bring about our own destruction is next to zero, but it isn’t zero.

I would posit that the probability increases every day that Bitcoin survives, with each person that chooses to hold Bitcoin over fiat, because on a fiat standard we are again, stuck at a local optimum at best, and each day the global monetary system devolves further into chaos. The fiat world may continue to be habitable chaos, but our technological progress and our greatest capacity for innovation cannot be achieved on a fiat standard.

A Bitcoin standard is not only our current best bet, it is the only monetary vehicle that will take us from here, or enable us to build technology that can effectively communicate with places in the universe where other intelligence has emerged. The other reason this fatal miscommunication is unlikely to occur is that once through a Bitcoin standard we have manage to build a society that can effectively reach and communicate at greater depths of the cosmos we will at that time have already become a multi-planetary, if not transitory, if not multi-solar system species. The topic of Bitcoin in space and planetary interoperability will be discussed in a later essay.

The most distant human made object from the earth is the Voyager 1, which is over 13 billion miles away. (For perspective, Apha Centuri, the nearest star system to Earth, is 25 trillion miles away.) Human radio signals have announced our presence and our intelligence to the cosmos since around 1900. The first human radio signals have all ready traveled 114 light years, that is 681,920,540,000,000 miles. Although the reach of our radio signals is very great, the probability of us being heard and subsequently extinguished is negligible. External anthropogenic risks are the least of our concerns at the moment.

As Bitcoin adoption grows, it serves to promote advances in artificial intelligence and nanotechnology. External anthropogenic risks will become more relevant to human intelligence at a much later time. External non-anthropogenic risks are similarly out of our hands for the time being. That is, at the moment there is nothing we can do to prevent the Sun from becoming a red giant star and subsuming the Earth.

But we do already have the monetary technology upon which to engineer solutions to some of these problems. We have the potential as humans to prevent internal global catastrophes, both those set on by us and not. Survival and longevity is arguably our greatest task as a species. Adopting Bitcoin, and protecting this network is proceeding with diligence and a long eye toward the future in all of our political and scientific affairs. The existential risks of living are great, though it is human nature for our ambitions to out pace our current abilities. The only evidence of life is change. To change is to exit fiat currency, it is to use Bitcoin instead.

## OFF

### NC – T

#### Interp: Affirmatives may not defend only specific instances of outer space appropriation by private entities as unjust.

#### Violation: They only identify Ukraine’s appropriation of space as unjust

#### Moral statements are generic normative principles – necessitates the generic interpretation

McDonald 09 [Hugh P. McDonald, professor of philosophy at the New York City College of Technology. "Principles: The Principles of Principles." The Pluralist, vol. 4, no. 3, [University of Illinois Press, Society for the Advancement of American Philosophy], 2009, pp. 98–126, https://www.jstor.org/stable/20708996] HWIC

"Principle" has a great many meanings: origin, beginning, cause, rule, axiom, and so on.5 However, we cannot assume any necessary relation of these meanings. They may be distinct meanings without relations. Neverthe less we can trace some common roots and thereby interconnections of the meanings. I will concentrate here on certain meanings relevant to the prin ciple of principles, that principles are actual. One meaning is that principles are the "ultimate source, origin, or cause of something" or the "originating or actuating agency or force." Principles are connected with the origin and cause of any "something." Moreover, principles may cause the actuality of the something. A second meaning of principles is that they regulate change, whether internally, as the "method of operation of a thing," or as an external cause. That is, principles are regulative, especially including rules for opera tions, involving changes. As rules, they are universal for a kind, although there may be exceptions to them in certain modes. A principle, then, is an originating rule that universally regulates the formation, operation, or other changes of any actuality, which as universal applies to that kind of thing. Machines may be built according to a principle and operate on the same or even a different principle. Ships presume the principle of floatation but may be built according to principles of woodworking or those of other materials. The principle can have different modes?whether necessary, as in logical inference; general, as in scientific laws; or actualization of possibilities, as in machines or as in moral principles that we follow, but could do otherwise.6 I will cover modes below.

Principles are also a cause as regulative, combining cause and rule. The principle can be external, as in a chemical catalyst; or internal, as in geneti cally caused changes.7 Both kinds of causes involve relations. Internal prin ciples exhibit "tendencies," to borrow the word used in the dictionary. They continue to operate across time. Actions that come under principles may be of kinds whose causes are separate in time, since we may cease an action for a time and then take it up again; while genetic characteristics are tenden cies whose causes are connected by reproduction. As causal, principles may be originary for a kind. Especially in new technologies, for example, flying machines, the principle that organisms could fly (birds, bats, and insects) preceded the invention of the technology, although the principles of aero dynamics were discovered later. However, flying utilized and actualized the latter principles. In this sense, principles can be constitutive rules as the origin of a kind, whether generic or specific.

External principles are regulative and not attributes. They regulate change, such that change is not chaotic. Principles are not bodies, objects, or entities but are the basis of the judgment or evaluation that the latter will persist, since they follow or are regulated by principles. Moreover, there is another sense in which principles are not attributes, since the relation of bodies, ob jects, or other terms for actualities implies a common principle, an identity that is regulated and constituted by the same actual principle. "Object" is a principle uniting instances normatively, for example, that solids persist unless acted upon by heat, etc.

Scientific, engineering, and practical laws are cases of principles. The "law of gravity" is the principle of gravity. Rules of "right conduct" also exhibit laws. Principles form an identity of different instances that fall under the law, whether generally or invariably. Laws and rules are regulative identities, applicable to different instances, and whether originary, constitutive, or ex ternally regulative. Voluntary adherence to a rule is bringing actions in line with a principle or enacting a principle.

Since principles are general, the statement of a principle includes an abstraction of some identity element of the instance. Principles, then, can constitute the elements in any instance insofar as there are identical ele ments, such as matter, species, and genera. This abstraction both identifies the instance as alike with other instances in some respect and differentiates it from those that do not exhibit the principle. The instance may contain several principles conjointly, matter, the state of the matter, function, aes thetic element, and many others. Thus principles connect like instances in a very complex set of relations. A diamond and a painting may share aesthetic qualities but their material, functional, and cultural principles may be quite different. Since identity and difference are correlative terms, every identity is also a difference and this principle applies to actual principles in the world, one principle of principles. To identify a rock of a certain type as consisting in certain chemical combinations connects it with that kind of mineral in general but also certain chemical elements in general, their physical proper ties (such as consisting of a certain atomic number of protons, electrons, and the like), and other principles. However, it also differentiates the rock from other types with their own specific principles, although some generic prin ciples may overlap, namely, the physical properties of all chemical elements as consisting in protons, electrons, and other principles of atoms. Principles then mark both a difference and an identity. The principles identify a distinc tion, but such identifications differentiate from other identifying principles. The wavelengths for green light are identical at different times of emission from the sun but are not identical with those for red.

#### Vote neg:

#### 1] Precision – if we win definitions the aff is not topical. The resolution is the only predictable stasis point for dividing ground—any deviation justifies the aff arbitrarily jettisoning words in the resolution at their whim which decks negative ground and preparation because the aff is no longer bounded by the resolution.

#### 2] Predictable limits—specifying appropriations offers huge explosion in the topic since they get permutations of hundreds of appropriations by hundreds of states. This is magnified by the fact that most space programs are nascent so they’re incentivized to specify random countries with no literature. Limits explodes neg prep burden and draws un-reciprocal lines of debate, where the aff is always ahead, turns their pragmatics offense

#### Topicality is a voting issue that should be evaluated through competing interpretations – it tells the negative what they do and do not have to prepare for—there’s no way for the negative to know what constitutes a “reasonable interpretation” when we do prep – reasonability is arbitrary and causes a race to the bottom, proliferating abuse

#### No RVIs—it’s your burden to be topical.

## OFF

### NC – CP

#### Ukraine should:

#### Pass a binding internal policy banning weapons transfers to the Democratic People’s Republic of North Korea.

#### Ban private space companies from accepting Chinese investment.

#### Move all nuclear reactors offline, dismantle nuclear reactors, and entomb them in concrete deep underground.

#### Plank 1 solves advantage 1 – they said NoKo ballistic missile capabilities are dependent on the Ukrainian space industry but we end supply

#### Planks 2 and 3 solve advantage 2 – Ukraine not taking Chinese investment means no US alienation which preserves Biden’s support AND lack of nuclear reactors takes out the terminal impact

## OFF

### NC – DA

#### North Korean nuclear proliferation is key to broader economic movements to modernize the economy – the plan means more conservative policy

Eleanor 18 Eleanor M. Albert is a Ph.D. student in Political Science at the George Washington University. Her research interests include Chinese foreign and domestic policy, the evolving nature of Chinese power, and how the country exerts its influence and builds relationships. "North Korea’s Power Structure." Council on Foreign Relations, 19 July. 2018, www.cfr.org/backgrounder/north-koreas-power-structure.

North Korea is among the world’s poorest nations, with widespread malnutrition. Its economic activity centers on [PDF] mining and manufacturing, as well as agriculture, forestry, and fishing. While heavy international sanctions have intensified North Korea’s isolation, the economy still appeared to be registering modest growth through 2016, according to South Korea’s central bank. Kim has instituted slight changes and relaxed rules, including the liberalization of domestic markets, which have spawned growth, says a report by Daily NK, a South Korea–based online newspaper. In his first years in power, Kim Jong-un developed the byungjin policy, or “parallel development” of the country’s nuclear capabilities and its economy. To do so, Kim has rolled out policy modifications, shifting away from a centrally planned economy to one that is more incentive-based and allows for greater autonomy at the county and provincial levels. Industries such as shellfish and generic pharmaceuticals remain under tight control, but there are some sectors where opening up is taking place, such as agriculture. Still, North Korea’s coterie of elites, which experts estimate totals about fifty families and up to two thousand people, exerts heavy influence over the state’s economic functioning. They are said to hold important roles in which they facilitate or execute policy, as well as control hard currency operations, resources, or information. “Instability or unpredictability for elites is one of the levers that allows Kim Jong-un to maintain his hold on power. Even before Kim Jong-un came to power, there was increasing room for these moneyed elites. This group, known as the donju—money masters or lords—started making fortunes by facilitating trade in black markets that emerged at a time when the government was unable to provide sufficient food and services, in the late 1990s. Restrictions on these markets have eased over time, and in some circumstances market activity is even sanctioned without reprisal. For example, agricultural collectives are allowed to privately sell their surplus crops. Still, personal connections run deep across the economy: many children or other family members of high-powered party, military, and civilian officials run foreign trading companies that fuel the country’s economic development. In recent years, there are anecdotal accounts from journalists, researchers, and visitors of the construction or opening of ski resorts, theme parks, and a new airport—signs of an economic uptick and interest in infrastructure for potential tourism. All this, despite stringent international economic sanctions that have crippled formal trade and normal economic ties with dynamic regional actors such as China, Russia, and South Korea. If sanctions relief materializes and North Korea seeks to diversify its business relations with the outside world, experts say that all moves to grow the economy will have to be delicately calibrated by the leadership to ensure political stability inside the regime. The Future of the Regime Kim Jong-un is also determined to be seen as a ‘modern’ leader of a ‘modern North Korea.’ Jung H. Pak, Brookings Institution Experts say Kim Jong-un has deftly navigated his rise to power. While drawing on nostalgia for his grandfather’s era and grandiose persona, “Kim Jong-un is also determined to be seen as a ‘modern leader’ of a ‘modern North Korea,’” writes the Brookings Institution’s Jung H. Pak. Economic development is fashioned as the vehicle for this modernization. In Kim’s 2018 New Year’s speech, he emphasized using the acquisition of nuclear weapons as a springboard for progress and prosperity, stating that “the central task facing socialist economic construction this year is to enhance the independence and Juche character of the national economy and improve the people’s standard of living.” CNA’s Gause says “the economy is Kim Jong-un’s strategy,” adding that all of his recent efforts at diplomacy are “designed to hook into the South Korean economic engine” and solidify his legacy. Experts say North Korea is entering a critical period of change under a regime that has by and large resisted rapid change and outside influence. Even as the ultimate authority, they say, Kim will need to cultivate the support of enough elites and successfully manage the pace of change to meet his goal of making North Korea a strong and prosperous nation.

#### Failed economic modernization leads to state collapse – the elites partner with the military, and economic missteps become more likely when the economy falters

Pagano and Kuznar 18 Pagano, S. J. & Kuznar, L. A. (2018). Dr. Sabrina Pagano is the Global Practice Leader for DignityTRAC® and a Principal Research Scientist at NSI/NBI. Dr. Kuznar specializes in the ecological and economic features of traditional pastoral societies.Assessment of Pathways to Collapse in the DPRK: NSI Pathways™ Report. Arlington, VA: Strategic MulM-layer Assessment (SMA). Note – Nouveau Riche refers to “newly rich”, people in the DPRK who have recently acquired increased economic status

Summary of Indicators and Warnings (I&W) This review of antecedent conditions, catalysts, and markers identifies several social changes that may constitute important indicators and warnings that the DPRK is on a pathway to collapse. These indicators and warnings include: • Major policy shifts not conducive to nouveau riche or military group interests • Further decrements in quality of life for the nouveau riche • Emergence of common nouveau riche, grassroot, or military grievances • Linkages between interest groups such as the nouveau riche and the military, which would constitute key l&W Disruptive responses to sanctions and financial crises Crisis of legitimacy far the regime, likely arising from a failure to develop the economy and improve overall conditions for the population, and especially the nouveau riche Acute or frequent procedural justice violations (to., unfair processes, as opposed to unfair outcomes) that are perceived by the grassroots as unjust Major policy shifts by the Kim government that threaten key stakeholder interests could lead to the development of commonly perceived grievances within these groups. In the case of the nouveau riche, this could resemble the currency devaluation of 2009 or some other curtailment of the emergent market economy. Such actions would at a minimum frustrate the ambitions of the nouveau riche, or worse, lead to a decrease in their quality of life. In the case of the military, crackdowns on corruption, or changes in military policy that threaten officer income or social/political status, could lead to the development of a perceived common grievance among the military officer corps. Internally and alone, the military and the nouveau riche do not appear to mount an effective challenge to the regime. However, should ties form between these interest groups, their ability to join forces (economic and military power) might be an indicator of a particularly potent challenge to regime control. Though presently unlikely, a sharp spike in the perception among the grassroots of procedural injustice could lead to anger and downstream support for punishment of the regime or system change—which might be associated with grassroots support for joint nouveau riche and military efforts to unseat or otherwise undermine the existing government. The heavy sanctions and attendant financial crisis could exacerbate any missteps of the regime. Potential indicators or warnings would be government responses to these stresses, such as increased disappearances, executions, imprisonment, or reprimands of stakeholder groups such as the donju or military officers. Any of the above indicators could have the effect of challenging and potentially undermining the legitimacy of the Kim regime and the political system upon which it is based. While these indicators mark the potential for collapse, it is as important to monitor the presence and robustness of key buffers, such as the state's ability to suppress dissent.

#### Extinction through loose CBRNS and great power war – it’s higher magnitude than a North Korean lash out

Kazianis 17 Kazianis, Harry J. Harry J. Kazianis is director of Korean Studies at the Center for the National Interest. He also serves as executive editor of its publishing arm, The National Interest. "Why the sudden collapse of North Korea would be hell on Earth." The Week, 22 Mar. 2017, theweek.com/articles/681846/why-sudden-collapse-north-korea-hell-earth.

But in all fairness, there is one event possibly even more perilous than Pyongyang showing itself capable of launching a nuclear attack on Asia or America. Oddly enough, it is something many experts over the last few weeks have been rooting for — the collapse of North Korea's government. On the surface, the downfall of Pyongyang would seem like an unquestionable good thing, the death of a totalitarian state that should have long ago been tossed into the dustbin of history. However, just a quick walkthrough of what could happen in an uncontrolled collapse sends shivers down the spine of anyone who has studied the subject in detail — a topic that has been grossly underexamined in popular media considering the stakes. While a full review of the possible ways the North Korean state could meet its end is worthy of its own separate treatment, the dangers after a sudden collapse are quite clear. For our purposes, let us assume an internal event has caused the Kim family dynasty to come to a quick death. There is no central government and allied forces comprised of South Korea and the United States are moving across the 38th parallel to ensure order. What could be so bad? Well, for starters, there would be immediate concern over who has control over not only of Pyongyang's nuclear and atomic materials, but its perhaps much larger chemical and biological weapons stockpiles as well. While sometimes an afterthought, North Korea's chemical and biological weapons might be a much a bigger threat than its nuclear program. Most research points to Pyongyang having large quantities of chemical weapons — on display recently in the apparent assassination of Kim Jong Nam, the half-brother of Kim Jong Un — as well as a biological weapons programs capable of killing millions. U.S. and allied forces would surely need to mount an unprecedented intelligence effort to not only locate almost all of these materials but protect themselves from chemical or biological weapon attacks by forces who could be still vying for power. Allied forces would also need to ensure that no weapons of mass destruction left the country — a non-proliferation nightmare of the worst kind. As if potential loose weapons of mass destruction were not enough, there is an even more basic problem — that of a shattered society. How does one put back together a people broken by almost seven decades of being ruled as if they were slaves? How will the average North Korean, who only knows the Kim family, react to the end of the regime? Would some take up arms against those who would be there to ensure order? Is civil war a possibility? One thing is quite clear: It could take decades, but more likely generations, to wipe away the scars of psychological, emotional, and surely spiritual torture that was suffered. Then there is China. Beijing would obviously be a player in any future of North Korea, especially as its largest trading partner, providing Pyongyang with much of its food and energy needs. In fact, many national security experts in China are quick to point out that the Chinese Communist Party's greatest international worry is the collapse of the North Korean state. They fear a united Korea would become a major player in Northeast Asia, allied with America and armed with Washington's best weapons and troops. And if millions of refugees started coming across the border into China, President Xi Jinping might send his own forces into North Korea — where a superpower showdown between Washington and Beijing could be in the offing. And last, the sheer cost of rebuilding and reintegrating the North back into a united Korea would likely be in the trillions of dollars. Who would pay such costs? While South Korea is certainly an economic powerhouse, rebuilding and integrating North Korea into the south would be a historic undertaking — far greater than the merger of East and West Germany after the end of the Cold War. Back in 2013, a defector described North Korea as a "gulag masquerading as a country" — perhaps the perfect description for the most imperfect of regimes. But while the people of North Korea clearly deserve better, free of what can only be described as the vilest forms of state-sanctioned terror ever devised, a spontaneous, uncontrolled collapse could cost millions of people their lives. All the more reason for the Trump administration to act cautiously in the months to come.

## Advantage

### 1NC – Top

#### **Ukraine invasion inevitable – takes out everything**

NYT 2/18 [New York times. "Citing U.S. Intelligence, Biden Says Putin Has Decided to Invade Ukraine." https://www.nytimes.com/live/2022/02/18/world/russia-ukraine-biden-putin]

WASHINGTON — President Biden said on Friday that the United States had intelligence showing that President Vladimir V. Putin of Russia had made a final decision to invade Ukraine.

“We have reason to believe the Russian forces are planning to, intend to, attack Ukraine in the coming week, in the coming days,” Mr. Biden said in the Roosevelt Room at the White House. “We believe that they will target Ukraine’s capital Kyiv, a city of 2.8 million innocent people.”

Asked whether he thought that Mr. Putin was still wavering, Mr. Biden said, “I’m convinced he’s made the decision.” Later he added that his impression of Mr. Putin’s intentions was based on U.S. intelligence.

Previously, the president and his top national security aides had said they did not know whether Mr. Putin had made a final decision to follow through with his threat of an invasion of Ukraine.

Still, Mr. Biden implored Russia to “choose diplomacy.”

“It is not too late to de-escalate and return to the negotiating table,” Mr. Biden said, referring to planned talks between Secretary of State Antony J. Blinken and Russia’s foreign minister next week. “If Russia takes military action before that day, it will be clear that they have slammed the door shut on diplomacy.”

Mr. Biden also underscored that the United States and its allies were united behind imposing severe economic sanctions if Russia’s forces cross Ukraine’s borders.

### NC – AT: Ukrainian Space Sector

#### Privatization not key – 1AC Zoria says that Ukraine’s space industry is dependent on cooperation with foreign-based private companies like SpaceX and MLS, not domestic ones.

#### Antonik admits that most, if not all of Ukrainian space companies have now moved outside of Ukraine, because there is “no money or work for them in Ukraine.” It also says that “without a governmental space program, the industry is frozen.”

#### SpaceWatch proves our argument – privatization doesn’t save the space industry, and harsh regs cause outflow.

### NC – AT: North Korea

#### **Fuhrman says NK bought soviet rocket engines made in Ukraine in the 90s on the black market – that’s not key to their missile program and the aff doesn’t solve it – Harker is Yellow**

Fuhrman 6/30 [(Eli, a contributing writer for The National Interest.) “Ukraine Gave Up Its Nukes — And Some of Its Secrets to North Korea” National Interest, 6/30/2021. https://nationalinterest.org/blog/korea-watch/ukraine-gave-its-nukes-%E2%80%94-and-some-its-secrets-north-korea-188945] BC

Recent years have also seen North Korea make significant strides related to its long-range missile capabilities. 2017 saw North Korea carry out its first – and to date only – successful tests of intercontinental ballistic missiles (ICBMs), testing its Hwasong-14 ICBM twice that year and its Hwasong-15 variant once. Since then, North Korea has unveiled an additional ICBM model – dubbed the Hwasong-16 – that is larger than either of its predecessors. The result is a North Korea that increasingly appears capable of delivering a nuclear-armed ICBM to the continental United States.

Their Card Starts

North Korea’s ability to make such substantial progress in the development of its ballistic missile capabilities – particularly with regards to its long-range missiles – is likely the result of a number of factors, including simply the progress that can be expected to emerge from sustained and dedicated efforts. Since coming to power in 2011, North Korean leader Kim Jong Un has presided over a significant increase in North Korean ballistic missile tests. This increased effort has borne fruit, producing breakthroughs that have themselves resulted in additional breakthroughs; North Korea’s development of its Hwasong-12 intermediate-range ballistic missile (IRBM) that is capable of hitting the island of Guam, for example, proved to be the foundation upon which the Hwasong-14 was built.

But North Korea’s progress in the development of its ballistic missiles has also most assuredly been the result of new technology becoming available to the DPRK, and one important source of this technology has likely been Ukraine.

Scientists have been a favorable group within North Korea for much of the country’s existence, and Kim Il Sung is believed to have sent North Korean scientists to study in various parts of the Soviet Union and the socialist world, which may well have included Ukraine. The country is also believed to have attempted to recruit suddenly out of work Soviet scientists and missile engineers after the collapse of the Soviet Union, which is again likely to have included efforts to woo Ukrainian experts.

But scientific exchanges and rogue scientists and engineers likely do not form the entirety – or even the most important aspect – of the connection between Ukraine and the North Korean ballistic missile program. Instead, the more significant connection likely revolves around a particular rocket factory near the Ukrainian city of Dnipro known as Yuzhmash. The factory was once a major production site for advanced Soviet ballistic missiles, but has now shifted its focus to the production of such things as rockets designed to launch satellites into space; the site did, however, remain a common storage site for space ballistic missile components, including engines.

North Korea has for many years had an interest in the site, with one former employee of the factory recalling a tour he gave to North Koreans posing as tourists in the early 2000s. They were almost certainly not tourists, however, and the United Nations Panel of Experts has confirmed that in 2011-2012 North Korean operatives attempted to steal missile designs from the factory before they were apprehended by the Ukrainian Security Services.

Despite the failure of that operation, North Korea does appear to have successfully acquired Soviet missile technology that has proven essential in the development of its own ballistic missile capabilities. Analysis of the Hwasong-14 has revealed that the missile looks to be powered by several Soviet RD-250 engines, which may have come from the Yuzhmash facility. It is not entirely clear how North Korea acquired the engines though the most likely explanation involves a DPRK black market purchase.

Regardless, the connection between Ukraine and the North Korean ballistic missile program reveals both how North Korea was able to so quickly advance its long-range missile capabilities and the lengths to which the country will go in order to do so, as well as the degree of difficulty associated with preventing advances in North Korea’s missile program.

#### No impact – Bennet refers to ballistic missile capabilities that exist in the squo (ICBMs, etc) and the impact should have happened already.

#### \*\*North Korean prolif doesn’t pose a threat – no domino theory, no loose nukes, and no loss of allied assurances

CFR 19 – Council on Foreign Relations. (“Time to Abandon Denuclearization? Three Common Objections to Changing US Policy” May 30, 2019. <https://www.cfr.org/blog/time-abandon-denuclearization-three-common-objections-changing-us-policy>)

There are three common objections that focus on the nuclear nonproliferation consequences of “acceptance.”

1. Abandoning denuclearization would set a bad precedent and encourage others to adopt the North Korean “model” toward the bomb. According to this argument, if the United States drops its insistence on North Korea’s disarmament it will prove to other countries that they can wait out U.S. pressure. Washington—and by extension, the international community—will eventually give up and accept their nuclear status.

Of course, there are already other cases—India and Pakistan, for example—that arguably provide better examples to follow. But **neither of these seemed to stimulate significant increases in proliferation motives among other countries**. Moreover, the North Korea “model” is attractive to few, if any, nuclear aspirants. **Few regimes** would be willing to endure the type of economic deprivation and diplomatic isolation that North Korea has lived under for decades. Not even Iran sees North Korea as a viable path.

This argument also overweighs the degree to which countries debating their nuclear options take their cues from predecessors. Although a leader or government might draw inspiration from a state that successfully got the bomb, or use inconsistencies in U.S. policies as a talking point to defend their actions, **this is not enough to guide policy or strategy** (and a leader predisposed to wanting nuclear weapons will likely find the inspiration they desire anyway). More often, governments see their needs and risks as specific to their own strategic situation and circumstances. There are certainly reasons why Iran, Syria, or others might seek nuclear weapons, but “because North Korea got away with it,” is likely lower on the list.

2. Accepting North Korea’s arsenal and its expansion makes it more likely Kim will sell nuclear weapons or materials. Some fear that unless North Korea’s weapons are eliminated, there will always be a risk that its leadership will sell them abroad. A related argument holds that as North Korea’s stockpile increases it could be more willing to part with spare nuclear material, especially if it were in dire economic straits. There is good reason to worry: North Korea was building a nuclear reactor in the Syrian desert until an Israeli strike destroyed it in 2007, the North apparently provided uranium hexafluoride to Libya in the early 2000s, and it has reportedly sold a variety of missile technologies to multiple countries, including Iran.

But **there is not a direct and linear relationship between more nuclear weapons and willingness to sell them.** More nuclear weapons would not alone change Kim’s risk calculus. That calculus is more about the chances he would be caught, and the penalties he would incur. On the first element of that decision (detection), the above examples suggest there is a realistic probability that the international community will pick up on these transfers eventually (whether that remains “good enough” for U.S. policymakers is another question). On the second element of that decision (penalties), it is hard to make the case that Kim believes he would suffer serious consequences. There have so far been no discernible costs imposed on the Kim regime that would signal that those brazen proliferation attempts are markedly worse than other provocations.

The good news, again, is that few countries would seek to partner with North Korea on nuclear weapons. If presumably they aren’t already economically or diplomatically isolated—or in a strategically desperate state—they have far more to lose in that endeavor than Pyongyang. The destruction and exposure of the reactor in Syria also probably does not instill much confidence in would-be recipients that they could get away with it.

Thus, the challenge is real, but bounded. The United States must continue to monitor for such transfers and consider how to make clearer the seriousness with which it would treat any nuclear or missile cooperation with North Korea. But Washington should not let this concern artificially constrain its consideration of alternative North Korea policy options.

3. Abandoning denuclearization as the goal would be unacceptable to our allies and increase the risk that South Korea and Japan would go nuclear. According to this argument, the dramatic reversal of decades of U.S. North Korea policy—the basic goal of which is strongly supported by Washington’s allies in the region—would up the pressure on South Korea and Japan to develop their own nuclear weapons. By cementing North Korea’s nuclear status, allies would feel the United States has abandoned them and a shared strategic vision for regional security. Combined with the reality that the North Korean nuclear threat would now only grow, this would compel South Korea and Japan to develop their own independent nuclear deterrents.

But caution here is warranted. For starters, the region **has already ticked through the “milestones”** that were supposed to cause Japan and South Korea to go nuclear. These included North Korea’s acquisition of nuclear weapons, its testing of them, and its demonstration of an ICBM capability. **Yet both Tokyo and Seoul remain non-nuclear.** This suggests that the United States and its allies are better at adapting to changes in the security environment than they—and observers—often give themselves credit for. It also suggests that, to some degree, the North Korean nuclear threat is already baked into their threat perceptions.

#### North Korea prefers the status quo and uses nukes for regime security.

Kelly ’18 (Robert; reporter for The Interpreter; 1-9-2018; "North Korea probably does not seriously seek unification"; The Interpreter; https://www.lowyinstitute.org/the-interpreter/north-korea-probably-does-not-seriously-seek-unification; Accessed 7-18-2019)

After North Korea **burnished** its credentials last year as a **nuclear-armed state**, there's been much discussion about what Pyongyang aims to do with its **nuclear missiles**. The panic in the western media has been palpable. But so is the contrast with the South Korean media's more sanguine response. I find it notable that The Interpreter's most read post of 2017 was on precisely this topic. Why were South Korean officials going on holiday when US President Donald Trump was talking about 'fire and fury'? Why did South Korean celebrity news routinely crowd out North Korea in the press last year? The answer is **partially exhaustion**. South Koreans have been living next to North Korea and its **threats** for so long that there is now a **'boy who cried wolf'** effect. North Korean threats have been so over-the-top and **ridiculous** for so long that South Koreans simply **tune it out.** When the North says it wants to **reunify Korea** or turn Seoul into a 'sea of flame', the effect is more **eye-rolling** than fear. In short, talk is cheap, and no state more than North Korea has demonstrated that over the years. Another answer is that North Korea probably no longer really wants to **reunify Korea**, no matter what it says, and that recognition has **slowly filtered** through. All things being equal, sure, North Korea would like unification on its **own terms**. But is it willing to carry real costs for that? **Probably not**. Indeed, South Korea is probably **no longer willing** to carry real costs for pushing **unification either**. De jure, these are both irredentist-revisionist states; constitutionally, they are committed to unification. And North Korea being what it is, Northern **rhetoric** about unity is predictably **frightening and extreme**. But de facto, neither Korea is making serious (ie. costly) moves to bring unity about. I bring this up, because the issue of North Korean goals – specifically, will it use its nuclear weapons to somehow **coerce South Korea** into an unwanted federation or other unequal but united framework, or even as a **shield against the US** to invade South Korea once again – has been in the news recently as the nuclear program has ramped up (here, here, here, and here). Much of this anxiety strikes me as **exaggerated**. It is far **more likely** that North Korea is a **status quo power** seeking nuclear weapons for **regime security.**

#### \*\*They would never use them

Reisener 18 Matthew Reisener, Writer for the national interest 4-19-2018, "North Korea Won't Sell Nuclear Material to Terrorists," National Interest, <https://nationalinterest.org/feature/north-korea-wont-sell-nuclear-material-terrorists-25480>)

In a recent interview with Jon Scott of Fox News, National Security Advisor John Bolton argued that the United States should take preventive military action against North Korea to eliminate its nuclear weapons program. While this viewpoint has generated many opposition pieces outlining the massive death toll that would result from such a conflict, one of Bolton’s arguments in favor of preventive war is particularly deserving of greater consideration. According to Bolton, “It’s not simply the threat of what North Korea would do with its own nuclear weapons. It’s the threat they would sell those weapons to others, to Iran, to Al Qaeda, to other would be nuclear powers. That is a real danger that I don’t think people have taken enough account of. Bolton’s concern is not entirely unfounded. North Korea exports an estimated $100 million worth of arms annually, assisted Syria in the development of their fledgling nuclear program in the early 2000s, and it maintains relations with many nations that have traditionally been hostile towards the United States. Should North Korea sell nuclear weapons to actors with the intent and capability to use them, the resulting death toll may be high enough to justify the risks associated with preventive strikes. However, North Korea has little to gain and much to lose from the prospect of selling its nuclear materials, which, combined with the lack of probable buyers, makes it extremely unlikely that North Korea would consider dispersing nuclear materials to other states or non-state actors. Concerns over North Korea taking such an action serve as a poor justification for preventive military action designed to eliminate the North Korean nuclear program.

The argument that North Korea would currently be interested in selling its hard-earned nuclear materials to the highest bidder relies on a fundamental misunderstanding of the goals behind its nuclear program. The Kim regime has long considered itself at risk for deposition by foreign actors such as South Korea and the United States, a perception heightened by the presence of twenty-three thousand American military personnel in South Korea and the thirty-nine thousand American troops located six hundred miles east of Pyongyang in Japan. North Korea is arguably the most isolated nation in the world with few meaningful alliances to speak of, and even states that provide them with a modicum of support, such as China and Russia, would likely be content to see the Kim dynasty collapse if not for the chaos that such a destabilizing event would bring to the region.

The North Korean nuclear program exists as a remedy to this precarious security situation. North Korea wagers that the United States, South Korea, and Japan are all unwilling to risk conflict with Pyongyang, knowing that escalation could result in their population centers or military assets being targeted by nuclear weapons. Furthermore, the presence of nuclear weapons on the Korean Peninsula serves as a massive deterrent towards any attempts at regime change by the United States or any of North Korea’s neighbors, who would fear Kim Jong-un’s capacity to use nuclear weapons in a last-ditch effort to retain his stranglehold on political power. The primary goal of the Kim regime has always been to preserve its rule even at the expense of the interests of the North Korean people, and nuclear weapons serve as the Kim family’s ultimate insurance policy.

Should North Korea attempt to sell its nuclear materials to the highest bidder, it would greatly undermine the high level of regime security that Kim Jong-un has achieved. While the United States has largely pursued a strategy of deterrence towards North Korea coupled with occasional diplomatic overtures towards denuclearization, efforts by the Kim regime to sell nuclear weapons to any actor hostile towards the United States would be met with universal condemnation and swift retaliation. Such actions would clearly signal the failure of America’s containment and deterrence efforts, and would likely result in an American-led, multilateral military response designed to destroy North Korea’s nuclear capabilities and depose Kim. North Korea’s nuclear program exists to reduce the likelihood of an American attack, and Kim Jong-un would not risk losing power or having his nuclear program threatened by acting in a manner that would necessitate such a response.

### NC – AT: China Switch

#### Detsch isn’t about Chinese influence in Ukraine, it’s about Chinese influence over global arms supply. Also, this is about aerospace engineering, not space – two different things. Finally, no impact to China getting stuff from Russia not China.

Chinese investment the reason commit – investment

### NC – AT: Deter Russia

#### Grady proves mil aid is an alt cause.

#### This is also too old – we sent more military aid, and it didn’t deescalate the situation.

### NC – Deterrence Bad

#### U.S. support for Ukraine in NATO validates Russian fears of encirclement---that causes Russia to preemptively escalate the crisis.

Trenin 20, director of the Carnegie Moscow Center, part of the Carnegie Endowment for International Peace, a global think-tank, since 2008, (Dmitri, March 2020, “The World Through Moscow’s Eyes: A Classic Russian Perspective”, http://www.afsa.org/world-through-moscows-eyes-classic-russian-perspective)

Ukraine Is More Than a Foreign Policy Matter

Moscow does not care much about—and does not think much of—nascent democracy in Georgia or Ukraine, where it prefers to see mostly chaos, oligarchy and mob rule; but it is wary of U.S. military presence and activities in its neighborhood and Washington’s virtually unconditional support for Russian neighbors’ historical or current grievances against Russia.

Ukraine’s movement away from Russia represents a most difficult and painful divorce within the core of the historical Russian state. As such, it is only partly a foreign policy matter. The Russo-Ukrainian separation will take decades and likely generations to become a fact fully accepted in Russia. For Ukraine, the process of nation-building has involved a thorough rejection of anything to do with Russia and severance of all contacts with it.

For Russians, the Atlantic alliance is a U.S.-owned platform for pressuring Russia in order to weaken it and, in extremis, an advanced position from which to attack the Russian heartland.

In Moscow, U.S. policies in Ukraine have been largely seen as aimed at diminishing Russia through undermining its great power position (e.g., Zbigniew Brzezinski’s famous quote that Russia without Ukraine cannot be an empire) and even as a dry run for regime change in Moscow. In Russian eyes, the most dangerous element of U.S. policy has been Washington’s support for Ukraine’s NATO membership. For Russians, the Atlantic alliance is a U.S.-owned platform for pressuring Russia in order to weaken it and, in extremis, an advanced position from which to attack the Russian heartland. Fears of the dangers associated with NATO’s eastern enlargement are probably exaggerated, but they remain an article of faith within the Russian security and military communities, where memories of Hitler’s surprise attack of 1941 live on.

The United States is unlikely to stop supporting its Ukrainian clients, Russian leaders believe. U.S. political and diplomatic support, as well as military assistance, to Ukraine will continue into the future; and thus, a major irritant in U.S.-Russian relations will continue to exist. Yet NATO membership for Ukraine— intolerable for Russia for security reasons—will probably remain out of reach, Russians conclude. Without acknowledging it, Washington cannot ignore the possibility that such a move, even before it is consummated, might precipitate a preemptive Russian action. Since Ukraine clearly matters much more to Russia than it does to the United States, Moscow believes it has a de facto veto on Ukraine’s NATO membership through high-cost military intervention. Should the conflict escalate, Russia will have an edge in escalation dominance. A prudent U.S. policy needs to make sure that its actions in Ukraine do not cause it to stumble into a military conflict with Russia.

#### Russia’s “escalate to de-escalate” posture is verifiable, and its express purpose is keeping the US out of Ukraine.

Gressel 20, a senior policy fellow with the Wider Europe Programmer at the European Council on Foreign Relations' Berlin office, he holds a PhD in Strategic Studies at the Faculty of Military Sciences at the National University of Public Service, Budapest and a Masters Degree in political science from Salzburg University, (Gustav, June 12th, 2020, “Russia’s nuclear deterrence principles: what they imply, and what they do not”, https://www.ecfr.eu/article/commentary\_russias\_nuclear\_deterrence\_principles\_what\_they\_imply\_and\_what\_n)

Other observers in the past argued that Russian military thinking’s focus on offence and pre-emption would likely leave a mark on nuclear matters as well and concluded that Russia had adopted an ‘escalate to de-escalate’ doctrine. According to this view, Russia would resort to the pre-emptive first use of a non-strategic nuclear weapon once the Russian army had achieved its operative goals to end the war on Moscow’s terms. While the existence of such an ‘escalate to de-escalate’ doctrine and other details on Russia’s potential use of nuclear weapons was [contested](https://warontherocks.com/2018/02/nuclear-posture-review-russian-de-escalation-dangerous-solution-nonexistent-problem/) in the past, the final sentence of Article 4 of the doctrine comes closest to answering this question. It states that, once a war has started, nuclear deterrence policy is to seek to prevent it from escalating further, or from being terminated on terms unfavourable to Moscow. This is a short version of what in Russian military literature is termed ‘[escalation control](https://www.cna.org/CNA_files/PDF/DRM-2019-U-022455-1Rev.pdf)’. Escalation control implies that threats, demonstrations of strike capabilities, and inflicting “calibrated damage” on the enemy (which may, but does not have to, include nuclear weapons) should contain, localise, and if possible terminate a war on Moscow’s terms. This is more flexible and adaptable than most previous assumptions on Russian ‘escalate to de-escalate’ or ‘escalate to win’ concepts. However, flexible escalation control is no less challenging for NATO, as the final result may still be a pre-emptive, limited nuclear strike. One needs to stress that Russia and the West have fundamentally different traditions and perceptions on what ‘defensive’ military operations are and where ‘pre-emption’ on a ‘legitimate’ security threat transitions into ‘aggression’. For this reason, nothing in the decree precludes Russia embarking on ‘escalate to de-escalate’. The practical backdrop to [Russian deliberations](https://www.cna.org/CNA_files/PDF/DIM-2020-U-026101-Final.pdf) on escalation control of course was, and remains, to dissuade a large nuclear power – the US – from intervening in a war Russia has started with an immediate non-aligned neighbour, particularly Ukraine. A head-on confrontation with NATO is not Russia’s primary concern, but could dev

elop out of another crisis. In such a confrontation, nuclear weapons and their dissuasive potential would play a major role. But as such scenarios would hardly develop according to a script or pre-planned decision, Article 18 will be the most relevant: it sets Putin as the sole decision-maker about the use of nuclear weapons. The decision of whether or not to use them would depend on how he perceives the circumstances and whether, if, and in what contexts, threats are made or weapons used. This said, the decree does not differentiate between strategic and non-strategic nuclear weapons and does not at any point imply or hint that the Russian armed forces would rely on the employment of nuclear weapons to fulfil tactical or operative tasks assigned. In this regard, all nuclear weapons – regardless of range and yield – are ‘strategic’ in terms of being a political tool to influence political decision-making processes.

#### Russia’s defensive, and US imperialists who think otherwise justify endless wars.

Götz & Merlen ‘18 (\*Elias Götz; Postdoctoral Researcher at the Uppsala Center for Russian and Eurasian Studies (UCRS), Uppsala University, Sweden; \*\*Camille-Renaud Merlen. PhD Candidate in International Relations; Published online 11/15/18; “Russia and the question of world order”; *European Politics and Society*; Volume 20; Issue 2; https://www.tandfonline.com/doi/full/10.1080/23745118.2018.1545181)

To begin with, there are a number of reasons to be sceptical about the ‘revanchist Russia’ perspective. First, it adopts an overly deterministic position, which negates the open-ended character of history by underlining its predetermined course through certain ‘iron laws’ and the supposedly unchanging ‘essence’ of Russia. In so doing, this perspective effectively denies the role of individual agency: Whoever the leader is, or whatever the regime may be, Russians are subordinate to the quest for imperial greatness. This is a view that incidentally dovetails with that of extreme Russian nationalists, who see Russian history in similar holistic terms of a ‘single stream’ that connects Ivan IV, Peter the Great, Stalin, and Putin. However, Russia has experienced tremendous upheavals throughout history that dramatically changed its society and its relations with the outside world. This happened often at the instigation of one or a few individuals. Both the beginning and the end of the Soviet Union, for example, serve as powerful reminders of the role agency plays in affecting Moscow’s internal and external affairs. Furthermore, essentialist claims about Russian identity do not offer much insight into the dynamics of Moscow’s approach to the liberal international order, which has significantly fluctuated over time (Tsygankov, 2016Tsygankov, A. P. (2016). Russia’s foreign policy: Change and continuity in national identity. Lanham: Rowman & Littlefield. Second, Russia’s revisionist behaviour should not be exaggerated. Its intervention in Ukraine has remained relatively limited, as has its military activity in other post-Soviet states (Götz, 2016Götz, E. (2016). Russia, the West, and the Ukraine crisis: Three contending perspectives. Contemporary Politics, 22(3), 249–266. doi: 10.1080/13569775.2016.1201313, p. 9). In fact, the scope of Russia’s revanchist aims is a matter of debate. It is doubtful whether Moscow has a blueprint for an alternative international order

with different norms and principles than the current one. Nor does its promotion of conservative authoritarianism seem to constitute a genuine agenda. As Lewis (2016Lewis, D. (2016, May 24). The “Moscow Consensus”: Constructing autocracy in post-Soviet Eurasia. The Foreign Policy Centre. Retrieved from https://fpc.org.uk/moscow-consensus-constructing-autocracy-post-soviet-eurasia/ ) writes, ‘the export of conservative social and political values (…) has so far not developed into a coherent campaign, but remains a rather ad hoc and inchoate critique by Russian politicians of “multiculturalism”, LGBT rights and “political correctness” in Europe.’ Furthermore, the ‘revanchist Russia’ perspective is unable to account for the numerous instances in which Moscow has adhered to the norms, rules, and institutions that are associated with the existing liberal order. While it might be a stretch to describe Moscow as a consistent defender of multilateralism (Lo, 2015Lo, B. (2015). Russia and the new world disorder. Washington, DC: Brookings Institution Press. ), it has supported frameworks such as the 2015 Iran nuclear deal. It also acceded to the World Trade Organization in 2012 – after 19 years of talks – and continues to be a member of the European Court of Human Rights. The liberal goals and supranational methods of these institutions hardly fit with a revisionist imperial agenda.Third, Moscow’s behaviour is much more in line with that of an ordinary great power than the ‘revanchist Russia’ perspective makes it out to be. For one thing, Russia is by no means unique in its quest to establish a zone of influence in its near neighbourhood. As Carpenter (2017Carpenter, T. G. (2017, January 19). The simple reason Russia and America keep inching towards crisis. National Interest (online). Retrieved from http://nationalinterest.org/blog/the-skeptics/the-simple-reason-russia-america-keep-inching-towards-crisis-19117 [Google Scholar] , January 19) points out, Russia is hardly the only country to regard the [sphere of influence] concept as important for its security. Or do U.S. officials believe that Chinese actions in the South China Sea, Turkey’s policies towards Iraq and Syria, and Saudi Arabia’s actions in Bahrain and Yemen do not involve such a consideration?For another, interference in the domestic affairs of other states is something of a habit for great powers. Whether they are democratic or authoritarian does not seem to make a difference in this regard. The United States, for example, has a long track record of meddling in the internal affairs and electoral processes of other countries (Levin, 2016Levin, D. H. (2016). When the great power gets a vote: The effects of great power electoral interventions on election results. International Studies Quarterly, 60(2), 189–202. doi: 10.1093/isq/sqv016 ). It is therefore unlikely that a more democratic Russia will substantially change its key foreign policy objectives and activities. Furthermore, the discrediting of Russian concerns over NATO enlargement as an ‘imagined’ threat, rather than a ‘real’ one, misses the mark. Any international relations scholar worth their salt knows that uncertainty about others’ intentions is central to security dilemma dynamics. Thus, Moscow’s fears should not be brushed aside as idiosyncratic Russian paranoia. In conclusion, it seems fair to say that the ‘revanchist Russia’ perspective faces an array of explanatory challenges and shortcomings.

### NC – AT: Nuke Plants

#### Meltdowns card assumes US retaliation – no card says we would get involved. Also no nuclear war from this so no scenario for extinction.

#### Nuclear plants are resilient

* New reactor technology is resilient
* NERC concluded shut downs for power plants are possible during a major EMP event

Conca 19 [James Conca, pHd, expert on energy, nuclear and dirty bombs, a planetary geologist, and a professional speaker, “Can Nuclear Power Plants Resist Attacks Of Electromagnetic Pulse (EMP)?”, 1/3/19, <https://www.forbes.com/sites/jamesconca/2019/01/03/can-nuclear-power-plants-resist-attacks-of-electromagnetic-pulse-emp/#689dec8270cb>]

Yes. Specifically, the small modular nuclear reactor company, NuScale, out of Oregon, has made their reactor resistant to electromagnetic pulses (EMP) and most other reactor designs should follow.

EMPs are one of those things that many people think is fake, or over-blown, or a conspiracy theorist’s dream. But they are real. EMPs can be either natural, from things like extreme solar geomagnetic disturbances, or man-made like a large thermonuclear detonation or a cyberattack. If they are coordinated with physical attacks then things can get real dicey real fast.

As the U.S. Commission to Assess the Threat to the United States from EMP Attack points out, “the physical and social fabric of the United States is sustained by a system of systems - a complex and dynamic network of interlocking and interdependent infrastructures whose harmonious functioning enables the myriad actions, transactions, and information flow that undergird the orderly conduct of civil society.”

According to the Commission, EMP effects represent arguably the largest-scale common-cause failure events that could affect our electric power grid and undermine our society, leaving it vulnerable on many fronts. High-voltage control cables and large transformers that control the grid are particularly vulnerable. Transformers weigh 400 tons, take two years to build, and cost $7 million apiece. We are already way behind in having backup transformers ready, so if many go out at once, we have a big problem powering our country.

So can we do anything about it?

The phenomenon of a large electromagnetic pulse is not new. The first human-caused EMP occurred in 1962 when the 1.4 megaton Starfish Prime thermonuclear weapon detonated 400 km above the Pacific Ocean.

One hundred times bigger than what we dropped on Hiroshima, Starfish Prime resulted in an EMP which caused electrical damage nearly 900 miles away in Hawaii. It knocked out about 300 streetlights, set off numerous burglar alarms, and damaged a telephone company microwave link that shut down telephone calls from Kauai to the other Hawaiian islands.

And that was from 900 miles away.

On the natural side, in 1989, an unexpected geomagnetic storm triggered an event on the Hydro-Québec power system that resulted in its complete collapse within 92 seconds, leaving six million customers without power. The storm resulted from the Sun ejecting a trillion-cubic-mile plume of superheated plasma, or ionized gas.

It took two days for this cloud to smash into the Earth’s magnetosphere overwhelming its normal ability to throw off charged cosmic particles, triggering hundreds of incidents across the globe and causing undulating, multicolored auroras to spread as far south as Texas and Cuba.

Such storms occur every 60 years or so, and in 1989, we weren't anywhere near as electrified and electronically interconnected as we are today, or as we will be in 30 years.

This is the most likely EMP to occur.

A new 2018 study by the U.S. Air Force Electromagnetic Defense Task Force addresses direct EMP threats to the United States and its allies. While some issues have existed for decades, the window of opportunity to mitigate some of these threats is closing. Meanwhile, many existing threats have gained prominence because of the almost universal integration of vulnerable silica-based technologies into all aspects of modern technology and society.

In 2008, the Commission to Assess the Threat to the United States from Electromagnetic Pulse Attack made a compelling case for protecting critical infrastructures against EMP and solar geomagnetic disturbances. To avert long term outages, the U.S. must assure the availability of survivable power sources with long-term, readily accessible and continuous fuel supplies to blackstart the grid, sustain emergency life-support services, and reconstitute local, state, and national infrastructures. Long term outages are defined as the interruption of electricity for months to years over large geographic regions.

An eye-level point-of-view rendering from inside the NuScale plant visitor’s center looking toward the plant facilities. The plant design guards against EMPs, meltdowns and cyberattacks, and can provide energy continuously through any disaster.NUSCALE

The Nuclear Regulatory Commission tracks this issue closely, and has been examining these issues for more than 30 years, starting in the late 1970s when the agency studied how EMP could affect nuclear power plant safe-shutdown systems. The agency concluded as recently as two years ago that nuclear power plants can safely shut down following an EMP event. NRC drafted a rule last year on maintaining key plant safety functions after a severe event, particularly on how to keep spent fuel pools cool.