### 1NC---DA

#### Biden’s PC passes BBB now---deficit reduction narrowly secures Manchin.

Wingrove 4-21 [Josh; BA in Journalism from Ryerson Uni, @ Bloomberg; “Biden Reframes His Agenda With a Manchin Spin, Touting Deficit Cuts” https://www.bloomberg.com/news/articles/2022-04-21/biden-reframes-agenda-with-a-manchin-spin-touting-deficit-cuts] brett

After championing the biggest expansion in federal aid to American families in decades, President Joe Biden is now putting the government’s budget deficit back in the spotlight --a nod to fiscal conservatism that may be needed to pass any more of his agenda. In recent speeches, Biden has promoted the rapidly declining shortfall between revenues and public spending -- a result of the U.S. rebound and the phasing out of pandemic aid -- while emphasizing that his long-term economic agenda would speed the deficit’s contraction. It’s a message the White House plainly hopes particularly resonates with Senator Joe Manchin, the West Virginia Democrat who blocked Biden’s ambitious “Build Back Better” economic legislation in December. Manchin has argued that any revised plan -- including higher corporate taxes, climate-change measures and prescription drug reform -- must cut the deficit. But it’s a delicate balancing act. There’s no guarantee the new approach will unfreeze the remnants of what was a $2 trillion program, amid polls showing disappointment among Democratic voters about a failure to deliver on major campaign promises. And deficit reduction is nowhere near a priority for progressives, an important constituency for the president. At the same time, the window to pass signature laws before midterm elections in November is swiftly closing. And Republicans all the while are hammering Biden for profligate spending that they say has fueled the fastest inflation in decades. Federal budget gap is improving from record postwar deficit The president’s recent focus on the deficit issue “is very clearly a Manchin play,” said Ben Ritz, director of the Progressive Policy Institute’s Center for Funding America’s Future. “But I think Manchin’s concern about it is rooted in a reality that deficits do matter.” Biden had addressed concerns about federal borrowing when originally composing his economic agenda, ensuring that it was paid for in large part through tax increases and -- after a decade -- would bring down the budget gap. But he’s lately been touting the current slide in the deficit and emphasized enacting a passage that further reduces the shortfall in the short-run -- more in line with Manchin. Read More: Biden’s Bid to Salvage New-Deal Dream Hinges on Manchin -- Again Felicia Wong, president and chief executive officer of the Roosevelt Institute, a progressive research group, said aggressive deficit-reduction could kneecap the recovery. “Now is just not the time for deficit hawkery.” White House Asks Congress For $32.5 Billion In Ukraine And Covid Aid Joe ManchinPhotographer: Al Drago/Bloomberg White House officials have repeatedly said they won’t discuss any negotiations with Manchin since he scotched Build Back Better last year. Biden’s top economic adviser, Brian Deese, cast the president’s recent emphasis on cutting the deficit as part and parcel of his larger economic ambitions. Triple Play “You can actually achieve stronger growth, stronger labor market outcomes and faster deficit reduction” in concert, Deese said in an interview. “That’s the core to the way we think about deficit reduction -- in the context of an overall economic strategy.” As a senator, Biden occasionally expressed concern about the budget deficit -- he at one point favored a balanced-budget amendment to the Constitution, calling in February 1995 for a “new tradition of fiscal responsibility.” Yet ever since the 2008 financial crisis, the budget deficit and national debt have been all but afterthoughts in Washington -- for both parties. President Barack Obama and congressional Democrats sought to increase federal spending to stimulate the economy, while President Donald Trump and Republicans slashed taxes and raised spending on defense. Neither leader paid much regard to spending reductions anywhere in the federal ledger, and rock-bottom interest rates gave them little incentive to do so. Record Deficit The federal deficit soared to $3.1 trillion in 2020 -- more than triple the 2019 level -- as the Covid-19 pandemic spurred a massive expansion in government spending, coupled with plummeting revenues. One of Biden’s first acts after he took office was to ratchet up federal spending even further, passing a $1.9 trillion package intended to relieve American families still struggling with the economic fallout of the pandemic. In the month before his inauguration, he warned that frugality would add more to federal debt. Even so, the deficit fell by more than $360 billion during his first year in office, according to the Congressional Budget Office -- a record plunge reflecting the slower pace of pandemic-relief spending than in 2020, along with the budding economic recovery. Biden is now casting deficit reduction as part of a plan to combat inflation -- his party’s foremost political obstacle entering the 2022 campaign. He’s also touted proposed assistance to families as a solution to help address the surge in the cost of living, with consumer prices climbing the most in 40 years. Polls show surging prices are overshadowing rosier data “I’ve called on Congress to move immediately to lower the cost of family utility bills, prescription drug bills and more -- while lowering the deficit and reducing inflation,” Biden said on Tuesday in New Hampshire, repeating a line he’s regularly used in speeches. In Iowa last week, he said his plan was about, in part, “lowering the deficit to reduce inflationary pressures.” But liberal Democrats are concerned that too much emphasis on attempting to balance the budget will undermine the growth that brought the U.S. economy quickly out of its pandemic doldrums. On the flip side, still-rising inflation is entrenching Manchin’s objections to further unchecked expansions of federal spending, narrowing Biden’s opportunity to strike a deal that can pass both chambers. And with the Senate split 50-50 between Republicans and Democrats and allied independents, Manchin’s vote is critical. The West Virginia Democrat has said that any effort to resurrect Build Back Better should be built in large part around “fighting inflation or deficit reduction.” ‘Definitely Matter’ While Biden touted that his administration’s latest budget blueprint featured a $1 trillion reduction in the deficit over a decade, it still showed a cumulative increase in the debt load of roughly $15 trillion. That would push the federal debt to nearly $40 trillion by 2032. But those estimates, released in March, pre-dated the latest surge in yields on Treasuries -- propelled by a newly aggressive Federal Reserve determined to quell inflation. The increase in borrowing costs will offer Republicans fresh ammunition to charge Biden with fiscal indiscipline. Moody’s Investors Service projects that U.S. debt payments will rise to 19% of federal revenue by 2031, from 9.5% this year. “Deficits definitely matter,” William Foster, a vice president at the ratings service, said in an interview. “It’s not a question of ‘if’ the U.S. can borrow, it’s a question of ‘at what cost,’” Foster said. “The fiscal space is not unlimited.”

#### State of the union revived Biden’s chances – careful balancing with Congress is key.

Youngs ‘3-2 [Zolan Kanno-Youngs; 3-2-22; a White House correspondent covering a range of domestic and international issues in the Biden White House, including homeland security and extremism. He joined The Times in 2019 as the homeland security correspondent; and Jonathan Weisman, congressional correspondent, veteran Washington journalist and author of the novel “No. 4 Imperial Lane” and the nonfiction book “(((Semitism))): Being Jewish in America in the Age of Trump.” His career in journalism stretches back 30 years; and Emily Cochrane, reporter in the Washington bureau, covering Congress. She was raised in Miami and graduated from the University of Florida; NYT. “As Biden Pivots, Democrats Seek to Salvage His Domestic Agenda,” <https://www.nytimes.com/2022/03/02/us/politics/biden-pivot-moderate-agenda.html>] brett

WASHINGTON — President Biden’s State of the Union address on Tuesday was the start of an election-year push to reframe his domestic agenda away from the sweeping aspirations of his first year in office and toward more practical and politically appealing goals: driving down rising prices, controlling the pandemic, addressing crime.

Gone were the expansive warnings about the “existential threat” of climate change, explicit promises to advance “racial equity” in infrastructure projects and even the name of his $2.2 trillion Build Back Better package of social welfare and climate spending, once promoted as a transformative initiative akin to the Great Society programs of the 1960s. Instead, Mr. Biden described his agenda as a solution to the “rising cost of food, gas, housing,” pivoting to more centrist language in a nod to disaffected moderate Democrats who have pushed for their party to focus on the daily concerns of voters ahead of midterm elections they are expected to lose.

But while Mr. Biden changed his message, he spent much of his speech calling on Congress to resurrect pieces of his stalled domestic agenda, including expanding child care, lowering prescription drug prices and a minimum wage raise proposal that faltered in the Senate early in his term. And it was not clear how successful Mr. Biden would be in salvaging pieces of the social policy package, which fell apart late last year amid opposition from key moderates in his party.

There were glimmers of hope on Wednesday for reviving some aspects of Mr. Biden’s plan. Senator Joe Manchin III of West Virginia, the centrist Democrat who abruptly ended talks over the sprawling spending plan in December, outlined the broad strokes of a package he could support, after weeks of declining to discuss details.

And Mr. Biden continued his rebranding effort during a trip on Wednesday to Duluth, Minn., to promote the bipartisan infrastructure package, framing his plan as a way of providing economic relief for struggling families.

“These guys talk about how they’re always worried about spending,” Mr. Biden said, in what appeared to be a reference to moderate holdouts and Republicans. “We’re lowering the deficit.”

Vulnerable Democrats who for months have fretted privately that the president’s expansive spending plans were not resonating with their constituents said they were relieved about the pivot.

“One of our issues this past fall was we were treating legislation like a Christmas tree, and everyone’s favorite bauble got to get on the tree,” said Representative Elissa Slotkin, Democrat of Michigan, who welcomed Mr. Biden’s focus on fighting inflation, supply-chain and veterans issues. “What we heard last night, without using these exact words was, ‘My agenda is now more prioritized’ — and the priorities overlapped with what people are talking about in my district.”

On Capitol Hill on Wednesday, Mr. Manchin offered some new detail about how he would seek to narrow Mr. Biden’s agenda. In an interview with Politico, and later in comments to reporters, Mr. Manchin said Democrats should first raise revenue by undoing some of the 2017 Republican tax law and approving legislation to lower the cost of prescription drugs. From there, he said, the money should be used to both reduce the deficit and fund at least one major Democratic priority over a decade.

“Half of that money should be dedicated to fighting inflation and reducing the deficit, the other half you can pick for a 10-year program — whatever you think is the highest priority,” Mr. Manchin told reporters, noting that several of his colleagues wanted to focus on combating climate change.

“Everybody knows pretty much where I am,” he added. “If they’re not serious about inflation and debt, then you know, it’d be hard for me to negotiate.”

It remained unclear whether all Democrats would rally behind such a plan, a virtual necessity with their razor-thin majorities. It could alienate progressives, abandoning huge programs that they have championed. And it could also meet resistance from Senator Kyrsten Sinema of Arizona, another Democratic centrist, who has balked at increasing tax rates for corporations and wealthy individuals, one result of rolling back the 2017 tax law.

A spokeswoman, Hannah Hurley, suggested that Ms. Sinema’s stance should be no impediment, because she had already embraced tax increases large enough to finance a “narrow plan.”

Many Democrats said that given the obstacles to Mr. Biden’s initial, far-reaching plan, they were ready to rally around a piecemeal approach of the sort Mr. Manchin laid out.

“I’ll take whatever works,” declared Senator Elizabeth Warren, Democrat of Massachusetts. “There’s no way around the math, so we’ve got to find out what 50 of us can agree on.”

With all 50 Republicans opposed, all 50 senators who caucus with Democrats would have to support the proposal for it to pass with Vice President Kamala Harris’s tiebreaking vote in the evenly divided Senate.

The White House has fielded calls for months to distance the president from congressional wrangling and describe how his proposals would address the rising inflation stoking anxiety in his party and driving down his approval ratings. Mr. Biden’s top aides privately discussed whether the Build Back Better label had become a hindrance to negotiations, according to a senior administration official, who conceded that the final version of the package would look very different than the sprawling bill proposed last year.

Moderate Democrats said they appreciated what they saw as a concerted effort to connect with voters in their states and districts. By highlighting popular components of the larger bill without putting them under a single, sweeping title, Mr. Biden may have made them more palatable, they said.

“When I go back to the state of Montana, I hear about how people hate Build Back Better,” said Senator Jon Tester, Democrat of Montana. “But then they say we need some help with child care, we need some help with housing, we need some help with elder care, we need to do something about climate change. So I think he struck the right tone.”

Democrats in politically competitive districts have called for Mr. Biden to focus more on modest proposals on crime, combating the pandemic and rising costs. A group of moderates had put together a lengthy list of bipartisan bills — “singles and doubles,” said Representative Josh Gottheimer, Democrat of New Jersey — and presented them to the White House chief of staff, Ron Klain, as measures that could pass in rapid succession and send the message to voters that Washington can operate.

The group received a positive response from the White House, according to Ms. Slotkin, who welcomed Mr. Biden’s focus on inflation, supply-chain problems and veterans issues.

Mr. Biden’s top aides also saw the State of the Union as an opportunity to push back on cultural attacks from Republicans on crime and immigration. Moderate Democrats latched on to Mr. Biden’s mention of the need for improved security at the border and his long-held call to invest in police departments.

#### The plan kills PC. NewSpace companies will lobby against the plan.

GC 17 [GC Magazine; Autumn 2017; Business thinking, In-house management, Published by legal500; “The new space race,” <https://www.legal500.com/gc-magazine/feature/the-new-space-race/>] brett

The upshot is that the ability to engage with legislators and policymakers will be essential for the long-term viability of companies like Planetary Resources.

‘We’re seeing already that with a regulatory framework laid out for a very quickly growing and expanding sector, there’s a lot of opportunity for policy engagement. That’s equally true in other countries too, which are either enacting their first national space laws or overhauling them,’ says Israel.

Before Israel joined the company, Planetary Resources was heavily involved in lobbying the US Congress to support the Spurring Private Aerospace Competitiveness and Entrepreneurship Act – better known as the SPACE Act.

That piece of legislation explicitly granted permission to US entities to ‘engage in the commercial exploration and exploitation of “space resources”.’ But the international community remains divided over whether the SPACE Act runs contrary to the obligations imposed on the US under the Outer Space Treaty.

‘The Americans are a sovereign state and according to their international treaty commitments, it’s hard to say that their domestic law is compatible with international law,’ says Smith.

Lobbying, both at a domestic and international level, stands to become increasingly critical, particularly as the US is in the process of crafting a framework for supervising non-governmental space activities, while ensure conformity with the Outer Space Treaty.

image of cartoon Mars Rover

‘It is incumbent on Congress to use the 50-year anniversary of the Outer Space Treaty to properly determine our actual international obligations, decide if specific articles in the Treaty are self-executing or not, and ensure that our domestic policy moving forward creates an environment that provides certainty for industry while protecting our national security,’ said Senator Ted Cruz, earlier this year.

‘The design and objectives in doing this must not only be to implement the government’s obligations, but to do so in a way that is not unduly burdensome on emerging space activities,’ adds Israel.

‘This is particularly relevant when the exact contours of how the activity will be carried out are not known, which makes it imperative that the regulators do not get too far ahead of the technology and make guesses about how it will be done, what is feasible, then lock in standards that are ultimately irrelevant and unworkable.’

#### PC is real and key---studies.

Madonna, 16 – Anthony J. Madonna, James E. Monogan III, and Richard L. Vining Jr, Associate Professors of Political Science at University of Georgia, 2-09-2016, “Confirmation Wars, Legislative Time, and Collateral Damage: Assessing the Impact of Supreme Court Nominations on Presidential Success in the U.S. Senate”, <http://spia.uga.edu/faculty_pages/mlynch/Monogan.pdf>

Time Management and the President’s Agenda

Presidents use a wide range of tactics to set policy, including their ability to influence the legislative agenda and staff vacancies to lower level federal courts. In terms of influencing the legislative agenda, modern presidents introduce legislation and define policy alternatives (Covington, Wrighton and Kinney 1995; Eshbaugh-Soha 2005, 2010). While not unconditional, presidents can use their time and effort to secure the passage of key policy proposals (Edwards and Wood 1999; Light 1999; Neustadt 1960). Importantly, though, presidents’ ability to persuade the public is limited. To be successful in enacting desired policies presidents have to time their proposals to align with favorable conditions in public opinion and legislative makeup (Edwards 2009).

#### BBB solves warming – extinction.

Grover 3-1 [Hannah; 3-1-22; covers local government in Aztec, Bloomfield, Farmington, Kirtland and San Juan County. She is a graduate of The University of Montana's School of Journalism in Missoula, Montana; “IPCC report leads to calls for passage of Build Back Better Act,” <https://nmpoliticalreport.com/2022/03/01/ipcc-report-leads-to-calls-for-passage-of-build-back-better-act/>] brett

In light of the latest report from the Intergovernmental Panel on Climate Change, which was released Monday, advocacy groups say Congress needs to pass the Build Back Better Act to address emissions. Representatives from several organizations including National Wildlife Federation, Third Way, BlueGreen Alliance, Clean Air Task Force, Data for Progress and Princeton ZERO Lab hosted a virtual press conference following the release of the IPCC Working Group II report. Jesse Jenkins, the principal investigator for Princeton ZERO Lab, said enacting the Build Back Better Act and cutting emissions will prevent 24,000 premature deaths related to air pollution between now and 2030. Marcela Mulholland, the political director for Data for Progress, said the Build Back Better Act has broad public support across the political spectrum, based on polling her organization completed. Some of the aspects of the Build Back Better Act have more support than others, such as improving energy efficiency in homes and businesses. Other aspects are controversial in the environmental community, including using fossil fuels to produce hydrogen energy and utilizing carbon capture and sequestration, including direct air capture, to address both current and past emissions. The report found that decreasing emissions will help reduce the impacts of climate change; however, it cannot prevent all of the problems associated with the increased global temperature. “We’re going to need to help people adapt and some of that is through improving the ability of nature to continue to sequester more and more carbon as well as to help adapt to our changing environment,” Shannon Heyck-Williams, senior director of climate and energy policy for National Wildlife Federation, said. “And that’s for wildlife as well, of course, we need to continue to help support biodiversity.” Heyck-Williams said a technological solution that could help is direct air capture, which removes carbon dioxide from the atmosphere. This technology is still largely in its infancy, with groups like Occidental Petroleum (Oxy) leading the effort. Oxy is hoping to start up the world’s largest direct air capture facility by early 2024 in the Permian Basin, which would be capable of capturing up to one million metric tons of carbon annually. However, critics say that so far, carbon capture projects have been expensive and yielded few results. The IPCC working group II report emphasized the importance of immediate action. “This report is a dire warning about the consequences of inaction,” said Hoesung Lee, chair of the IPCC, in a press release. “It shows that climate change is a grave and mounting threat to our wellbeing and a healthy planet. Our actions today will shape how people adapt and nature responds to increasing climate risks.” While the northern half of the North American continent is expected to see increased precipitation due to climate change, the southwest will see a decrease, the report states. And this is already having an impact on agriculture as well as ecosystem health. Reduced snowpack and earlier spring runoff means less water during the summer, which has led to fish die off in the Rio Grande and a reduced irrigation season. And some communities are experiencing greater impacts than others. For Indigenous communities, the report highlights that a resilient environment is closely connected to culture, identity, commerce, health and wellbeing. At the same time, these communities have felt amplified impacts due to colonialism and discrimination, it states. The report further states that self-determination for Indigenous people is “critical for effective adaptation.” During a press conference, United Nations Secretary General António Guterres said he has seen many scientific reports but “nothing like this.” He described the IPCC report as “an atlas of human suffering and a damning indictment of failed climate leadership.” “Nearly half of humanity is living in the danger zone now and many ecosystems are at the point of no return now,” he said. “Unchecked carbon pollution is forcing the world’s most vulnerable on a frog march to destruction now.” Guterres said preventing warming of more than 1.5 degrees Celsius will require the world to cut emissions by 45 percent by 2030 and achieve net zero emissions by 2050, but the current projections show emissions increasing in the future.

#### Warming outweighs and turns every impact.

Bryce, 20 – Emma, citing Nelson, Roman, and Kemp---Cassidy *Nelson* is Co-lead of the biosecurity team at Oxford), Sabin *Roman* earned a PhD in Complex Systems Simulation from the University of Southampton, and both Roman and Luke *Kemp* are research associates at the Cambridge University. "What Could Drive Humans to Extinction?" Real Clear Science, 7-27-2020, <https://www.realclearscience.com/articles/2020/07/27/what_could_drive_humans_to_extinction.html> -- Iowa

Nuclear war

An existential risk is different to what we might think of as a "regular" hazard or threat, explained Luke Kemp, a research associate at the Centre for the Study of Existential Risk at Cambridge University in the United Kingdom. Kemp studies historical civilizational collapse and the risk posed by climate change in the present day. "A risk in the typical terminology is supposed to be composed of a hazard, a vulnerability and an exposure," he told Live Science. "You can think about this in terms of an asteroid strike. So the hazard itself is the asteroid. The vulnerability is our inability to stop it from occurring — the lack of an intervention system. And our exposure is the fact that it actually hits the Earth in some way, shape or form."

Take nuclear war, which history and popular culture have etched onto our minds as one of the biggest potential risks to human survival. Our vulnerability to this threat grows if countries produce highly-enriched uranium, and as political tensions between nations escalate. That vulnerability determines our exposure.

As is the case for all existential risks, there aren't hard estimates available on how much of Earth's population a nuclear firestorm might eliminate. But it's expected that the effects of a large-scale nuclear winter — the period of freezing temperatures and limited food production that would follow a war, caused by a smoky nuclear haze blocking sunlight from reaching the Earth — would be profound. "From most of the modeling I've seen, it would be absolutely horrendous. It could lead to the death of large swathes of humanity. But it seems unlikely that it by itself would lead to extinction." Kemp said.

Pandemics The misuse of biotechnology is another existential risk that keeps researchers up at night. This is technology that harnesses biology to make new products. One in particular concerns Cassidy Nelson: the abuse of biotechnology to engineer deadly, quick-spreading pathogens. "I worry about a whole range of different pandemic scenarios. But I do think the ones that could be man-made are possibly the greatest threat we could have from biology this century," she said. As acting co-lead of the biosecurity team at the Future of Humanity Institute at the University of Oxford in the United Kingdom, Nelson researches biosecurity issues that face humanity, such as new infectious diseases, pandemics and biological weapons. She recognizes that a pathogen that's been specifically engineered to be as contagious and deadly as possible could be far more damaging than a natural pathogen, potentially dispatching large swathes of Earth's population in limited time. "Nature is pretty phenomenal at coming up with pathogens through natural selection. It's terrible when it does. But it doesn't have this kind of direct 'intent,'" Nelson explained. "My concern would be if you had a bad actor who intentionally tried to design a pathogen to have as much negative impact as possible, through how contagious it was, and how deadly it was.” But despite the fear that might create — especially in our currently pandemic-stricken world — she believes that the probability that this would occur is slim. (It's also worth mentioning that all evidence points to the fact that COVID-19 wasn't created in a lab.) While the scientific and technological advances are steadily lowering the threshold for people to be able to do this, "that also means that our capabilities for doing something about it are rising gradually," she said. "That gives me a sense of hope, that if we could actually get on top [of it], that risk balance could go in our favor." Still, the magnitude of the potential threat keeps researchers' attention trained on this risk.

From climate change to AI

A tour of the threats to human survival can hardly exclude climate change, a phenomenon that (is) already driving the decline and extinction of multiple species across the planet. Could it hurl humanity toward the same fate?

The accompaniments to climate change — food insecurity, water scarcity, and extreme weather events — are set to increasingly threaten human survival, at regional scales. But looking to the future, climate change is also what Kemp described as an "existential risk multiplier" at global scales, meaning that it amplifies other threats to humanity's survival. "It does appear to have all these relationships to both conflict as well as political change, which just makes the world a much more dangerous place to be." Imagine: food or water scarcity intensifying international tensions, and triggering nuclear wars with potentially enormous human fatalities.

This way of thinking about extinction highlights the interconnectedness of existential risks. As Kemp hinted before, it's unlikely that a mass extinction event would result from a single calamity like a nuclear war or pandemic. Rather, history shows us that most civilizational collapses are driven by several interwoven factors. And extinction as we typically imagine it — the rapid annihilation of everyone on Earth — is just one way it could play out.

### 1NC---CP

#### The United States, through a limited constitutional convention, should end the appropriation of space exploration and tourism by private entities, ruling that they violate its non-appropriation obligations under the Outer Space Treaty of 1967 and its succeeding treaties.

#### Solves, causes follow on, and avoid politics

Cooper ’21 [Charlie; 2021; President of Get Money Out Maryland and Retired Human Services Administrator; Get Money Out Maryland, “A Convention of States is Wise and Safe,” <https://www.getmoneyoutmd.org/peoples_convention>]

When Congress fails to represent the people who elected them, the U.S. Constitution provides a path for the

people to propose a Constitutional amendment through the states. Article V lays out two equal alternatives:

"The Congress, whenever two thirds of both Houses shall deem it necessary, shall propose Amendments to this Constitution, or, on the Application of the Legislatures of two thirds of the several States, shall call a Convention for proposing Amendments, which, in either Case, shall be valid to all Intents and Purposes, as Part of this Constitution, when ratified by the Legislatures of three fourths of the several States..."

Thus there are only two ways to amend the U.S. Constitution:

* A proposal passed by two-thirds of each chamber of Congress, then ratified by three-quarters of the states
* A proposal passed by a convention called by two-thirds of the states, then ratified by three-quarters of the states

As former U.S. Supreme Court Justice Antonin Scalia said about this second option: "[When] the Congress is simply unwilling to give attention to many issues which it knows the people are concerned with—and which issues involve restrictions upon the federal government’s own power—I think the founders foresaw that and they provided this method in order to enable a convention to remedy that.”

In a 2016 report, the Congressional Research Service noted that an Article V Convention “was included [in the Constitution] to provide the people, through applications by their state legislatures, with the means to call a convention having the authority to consider and propose changes to the Constitution, particularly if Congress proved incapable of, or unwilling to, initiate amendments on its own."

All 27 Amendments to the Constitution were passed using the first of the two methods: Congress proposed an amendment, then two-thirds of state legislatures ratified it. So why is a convention of states necessary to obtain a 28th Amendment? As George Mason argued when he proposed the convention language: It is necessary when Congress itself is the problem.

The 17th Amendment is the best example of a convention campaign working effectively to add an amendment to the U.S. Constitution. The 17th Amendment, which allows for the popular election of U.S. Senators, came about in reaction to Senators being appointed by state legislatures until the early 1900s. That process was widely recognized as corrupt due to the disproportionate influence of wealthy individuals and special interests. In fact, the Senate became so corrupt that individual senators took nicknames such as the "Coal Senator," the "Bank Senator," and the "Oil Senator."

Citizens responded to this overt venality by using every tool of democracy available including petitions, local legislation, ballot referendums, educational campaigns, resolutions calling on Congress to propose a Constitutional amendment, and finally, after all else failed, applying for an Article V Convention to propose an amendment.

When that movement was just one state shy of the two-thirds needed to force a convention on this topic, Congress reacted by proposing an amendment requiring the direct election of U.S. Senators for the states to ratify—resulting in the 17th Amendment to the U.S. Constitution. The Congressional Research Service has called this technique the "prodding effect." It worked then, and it could work today.

Arguments Against an Article V Convention

Both left- and right-leaning groups—Common Cause and the John Birch Society among them—have argued vehemently against the use of Article V Conventions. They say correctly that such a convention has never been used to amend the Constitution. Never having held an Article V Convention, however, is hardly a reason to avoid one, since the framers provided this Constitutional alternative in anticipation of a time when Congress fails to represent the people. Opponents also fear the prospect of a "runaway" convention, where any topic could be proposed, possibly threatening the process for ratifying amendments or the Constitution itself. See authoritative answers to these arguments below.

Experts Respond

The Constitution’s framers foresaw a time—when Congress itself is the problem—for citizens to have the Constitutional authority to pursue an amendment through the states. That time is now: Supreme Court rulings in Citizens United and other cases have created no-holds-barred politics in which Big Money steamrolls the democratic process. A Congress that is the result of this increasingly lawless system can hardly be expected to propose an amendment to dismantle that system without an extraordinary level of public pressure. A citizens’ drive toward a convention of states under Article V would apply such pressure.

Government and legal agencies have responded to critics opposing a convention of states:

* Criticism: Individual delegates could bring up matters unrelated to those the convention was originally called to address.

Response #1: For a convention to stray from its original topic, delegates would have to propose topics that were not included in the original resolution approved by their state legislatures. Nine states to date have made it a felony for any delegate to a state-called convention to call for or vote on any topic that was not part of the original convention topic.

Response #2: The Justice Department concluded in 1987 that Article V Conventions can be called "for limited purposes, and that a variety of practical means to enforce such limitations are available." In addition, "Congress may decline to designate the mode of ratification for those proposed amendments that it determines are outside the scope of the subject matter limitation and therefore beyond the authority of the convention to propose."

#### The perm severs “federal government.”

U.S. Legal ’16 [U.S. Legal; 2016; Organization offering legal assistance and attorney access; U.S. Legal, “United States Federal Government Law and Legal Definition,” <https://definitions.uslegal.com/u/united-states-federal-government/>; RP]

The United States Federal Government is established by the US Constitution. The Federal Government shares sovereignty over the United Sates with the individual governments of the States of US. The Federal government has three branches: i) the legislature, which is the US Congress, ii) Executive, comprised of the President and Vice president of the US and iii) Judiciary. The US Constitution prescribes a system of separation of powers and ‘checks and balances’ for the smooth functioning of all the three branches of the Federal Government. The US Constitution limits the powers of the Federal Government to the powers assigned to it; all powers not expressly assigned to the Federal Government are reserved to the States or to the people.

### 1NC---DA

#### Rising discontent will spur economic reforms in Russia—empirics

Berdy 21 Michele A. Berdy, a writer and editor at The Moscow Times. She has lived in Moscow since 1978., 6-13-2021, "‘This Is No Way to Live’: Discontent Spilled Over in Russia. But Will It Matter? ," POLITICO, [https://www.politico.com/news/magazine/2021/06/13/putin-navalny-russia-protest-dissent-493486 //](https://www.politico.com/news/magazine/2021/06/13/putin-navalny-russia-protest-dissent-493486%20//) ella

Alexei Navalny, Russia’s best-known opposition leader—in fact, virtually the country’s only opposition leader—announced that he would return to Russia. Navalny had been in Germany since August, recovering from poisoning by what the Organization for the Prohibition of Chemical Weapons identified as a nerve agent similar to Novichok. Navalny arrived back in Moscow on Jan. 17 and was detained at passport control. He was accused of failing to check in with the police under the terms of a suspended sentence during the time he had been in a coma and then recovering in Germany. Until January, Russia’s highest officials never pronounced Navalny’s name. Putin referred to him as “some blogger”; in August, his spokesman referred to a “patient” being flown to Berlin. Before January, if you were among the 64 percent of Russians that gets news primarily from television, Alexei Navalny didn’t exist. But in late January, television talk shows were suddenly all about Navalny. There was a long list of accusations: He was a paid agent of NATO, his anti-corruption videos were actually produced in the West, he had called for violent protests and told minors to attend the rallies—a form of “political pedophilia.” To protest Navalny’s detention, his organization, the Anti-Corruption Foundation, called for protests across the country on January 23. The day before the first demonstration, I saw on social media that my friends Pavel and Olga Syutkin were planning to attend. The Syutkins are very well-known specialists on Russian culinary traditions and history and frequent guests on television and radio shows. Pavel later told me that they knew the demonstration wasn’t officially sanctioned but went anyway. The police who were first on the scene “didn’t do anything to make the situation more tense,” he told me. But when Russian riot police called OMON showed up—nicknamed “spacemen” for their enormous helmets and black body armor—they grabbed protesters, beat them, threw them on the ground, and then dragged them into paddy wagons. In some places, the demonstrators stood their ground or threw snowballs; in others, they attacked the police and OMON. People shouted “Free Navalny!”; “Putin is a crook!”; “Russia will be free!”; “We’re the bosses here!”; and even a slogan from the end of the Soviet era: “This is no way to live!” On that day, demonstrations were held in 198 Russian cities and Crimea, and 95 cities abroad. At the end of the day, 4,002 protesters and 49 journalists had been detained. Navalny’s organization estimated that at least 50,000 demonstrators had come out on the streets in just Moscow. The next day, Olga in a long Facebook post called the demonstrations a “watershed for Russia” because of the numbers that turned out and their fearlessness. Her post got more than 300 responses, about 10 times more than her posts about pies and borscht. Some were from supporters. Others were from people who wrote, “What’s the use? Nothing will change.” A fair number wrote that Navalny was “a spy sent in from abroad” who was “worse than a traitor.” Pavel, more used to the social media mix than Olga, shrugged his shoulders. He also shrugged his shoulders when a regional city administration canceled their invitation to participatein a gastro-tourism project. “Hey, it’s their prerogative. There are plenty of other regions still inviting us,” he said. The second nationwide event on January 31 saw fewer protests and people than the weekend before—121 protests in Russia and 65 abroad—but more detentions: Almost 6,000 people were detained. Vitaly, a young art teacher who asked me not to use his real name, was one of the people arrested, although he was not a protester and “not very interested in politics.” He had been asked by a small news outlet to take photographs and make some sketches, and since the protests were not organized and people were appearing throughout the city, he decided a good spot would be a large square with three train stations. He took photographs for about 40 minutes before he was grabbed by OMON units. “They were rough—they grabbed us, cuffed us, hit us … I told them I was a journalist, but it didn’t matter. I tried to reach into my pocket for my reporter’s card. But they didn’t care." in a gastro-tourism project. “Hey, it’s their prerogative. There are plenty of other regions still inviting us,” he said. The second nationwide event on January 31 saw fewer protests and people than the weekend before—121 protests in Russia and 65 abroad—but more detentions: Almost 6,000 people were detained. 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Within a few weeks Navalny complained that he was being woken up seven or eight times every night and experiencing health problems, including loss of feeling in his extremities and severe back pain. He asked to be examined by a doctor from outside the prison system, a right under Russian law, but was refused. He announced he would go on a hunger strike on March 31, demanding outside medical care. The Navalny team organized an online sign-up for people who wanted to protest and said they’d call the next national event when half a million registered. With just short of 500,000 protesters on the list, Navalny’s group announced that the next protest would be held on April 21, the same day Putin was scheduled to give his annual address to the Russian parliament. Meanwhile, Russia had been amassing troops and equipment by the Ukrainian border, and speculation was rife that Putin wanted to conduct an incursion to divert attention from Navalny and the protests. On April 20, the U.S. ambassador left Moscow suddenly “for consultations.” It seemed like something very bad was about to happen. And then it didn’t. Instead of declaring war with Ukraine or denouncing Navalny, Putin appeared to pivot, focusing his address on efforts to boost the economy. He announced popular measures such as an additional 10,000 rubles ($130) in aid for every child in the country; urged people to get vaccinated against coronavirus; and made promises to improve the nation’s infrastructure and mitigate climate change. He made no mention of the protests. That evening demonstrations were smaller than expected and relatively peaceful. In Moscow only 80 people were detained out of 2,040 nationwide. Two days later, Navalny announced that Russian officials had allowed him to be examined by a group of civilian doctors and he would end his hunger strike. One of my friends, who had been very worried, sighed with relief and said: “We dodged the bullet there.” But the dodge was temporary. Within a week of Navalny’s announcement, journalists, activists and even a prominent lawyer were pulled out of their apartments or accosted on the street and taken to police stations. Journalists who had covered the protests were charged with participating in an illegal demonstration. Ivan Pavlov, a prominent lawyer defending a journalist from charges of treason, was charged with improperly disclosing details of an ongoing investigation. The former coordinator for Navalny’s organization in the city of Arkhangelsk was sentenced to 2.5 years in jail for retweeting a After returning to Moscow with a reinstated passport shortly after the dissolution of the Soviet Union, Davidoff kept out of politics until 2010, when it became clear that “we had more freedom than in the Soviet Union but less than we had five years ago.” And so he began to protest again. He said the demonstrations in January and April of this year really were different from those that came before for three reasons. “First, the size and scope of them. Never in the history of Russia—never once in a thousand years—have there been so many demonstrations at one time all over the country,” he said. A second difference, he said, is that “almost all the demonstrations were not permitted by the authorities, but people went anyway. They knowingly violated the law because they thought that their rights had been violated. That is a significant change in thinking.” And finally, Davidoff said, there’s a change in the social class of who is protesting. “In the past people used to make fun of the ‘protesters in mink coats’ in Moscow, since it was largely the privileged classes taking part,” he said. “But this year there were blue-collar guys from the working-class suburbs, and they came out swinging at the cops.” After returning to Moscow with a reinstated passport shortly after the dissolution of the Soviet Union, Davidoff kept out of politics until 2010, when it became clear that “we had more freedom than in the Soviet Union but less than we had five years ago.” And so he began to protest again. He said the demonstrations in January and April of this year really were different from those that came before for three reasons. “First, the size and scope of them. Never in the history of Russia—never once in a thousand years—have there been so many demonstrations at one time all over the country,” he said. 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If Deripaska was correct, that would mean about 55 percent of Russians are living on less than $160 per month. The post was quickly deleted. But he was just stating what my old neighbor knew: Russians really are having a hard time making ends meet. In Moscow, with its shopping malls, elegantly dressed population and boom of elite housing, it’s easy to miss. It’s also not easy to see on paper. All the statistics seemed to indicate that Russia weathered the Covid storm better than most countries. At the beginning of 2021, data showed that the economies of European countries contracted about 7.4 percent in 2020 and the world economy was down 3.5 percent, while Russia’s economy contracted by only about 3.1 percent. Analysts at Moscow’s Higher School of Economics noted cheerfully that this was the first time in history Russia did better than the world average. This appears to be in part because the segments of the economy hit hardest by the pandemic—service sectors—are relatively small in Russia. The price of oil, Russia’s main source of income, did plummet for a while, but then it began to edge up again. Today it’s almost $70 a barrel, while the state budget is based on revenues of $42 per barrel. But on the micro level it’s a different story. Household incomes are down 3.5 percent in the past year, and this is a deeper dip in a downward trend: Households are making 11 percent less in real terms than in 2013. From Dec. 1 to March 17 the price of gas jumped 18.5 percent. Food prices have risen by almost 8 percent from April 2020 to April 2021, and the government is paying 3 billion rubles (about $40 million) to subsidize the price of sugar. The government has even banned the export of buckwheat groats, a staple for Russian families in hard times, to keep the price affordable. All of this means that none of my retired friends can live on their monthly pensions of 12,000 rubles ($164) without working or getting help from their children and families. And it explains why all of us have been living paycheck to paycheck. Against this background, it easy to understand why it’s the issue of corruption that spurred the protests. Two days after Alexei Navalny returned to Russia, his organization released a video on corruption in high places: a tour of “A Palace for Putin,” an enormous, ornate palace in the south of Russia that allegedly cost almost $1.5 billion dollars to build. The film was watched more than 20 million times within the first 24 hours of its release, and more than 90 million views in the first week. This was the second of Navalny’s palace-for-leaders series; in 2017 he released a similar exposé of former President Dmitry Medvedev’s country residence, complete with a duck pond and duck house. Everyone knows the leaders live well, but these films were deeply shocking to many Russians. A group of oligarchs claimed they put up the money to build the palace, an assertion that few people believe. One friend told me she never imagined they were stealing from the budget to that extent. Corruption in Russia has always been a problem, but the conventional wisdom is that it seems to have gotten worse in the past two decades. First, my friends would tell me, they had to pay 15 percent in kickbacks on state contracts, but now it’s 35 or 50 percent. The saleswoman in a local household goods store told me how she and her husband had saved up enough money to buy the rights to a small press kiosk, but since it was at a bus stop and owned by the city, he had to get an official’s signature. Dressed in his best suit, her husband went into the office and explained what he needed. The bureaucrat replied, “Well?” My friend’s husband didn’t understand, and after a few questions back and forth at cross purposes, the official finally said, “Didn’t anyone tell you? My signature costs $50,000.” Businesspeople also run the risk that a competitor will pay off someone in law enforcement to bring charges against them—and watch as the competitor takes over their business. Everyone resents the day-to-day corruption that makes life difficult, the money you pay in taxes or fees that disappears into someone’s pockets. You pay your apartment fees, but the management company doesn’t shovel the snow or wash the floor in the entryway or fix the hole in the roof. You watch workers change the curbstones on your street four times in three months. The trash cans in parks are overflowing. Getting your kids in the right school or right class costs extra. My artist friend Vitaly said he wasn’t sure he agreed with everything Navalny stands for, but he’s with him on the issue of corruption. He figures that the school he teaches at receives about 21 million rubles (approximately $300,000) a year in student tuition for one department, “And that money should be used to buy equipment and materials and much more, but we are short of all those things. … I get paid 12,000 rubles ($164) a month for part-time work, and maybe other teachers make more, but I just don’t understand where all that money is going. Where is it going?” In this situation, even officials are not happy. Not all policemen are on the take, and some are bothered by the corruption, too. Davidoff told me, “They don’t like paying bribes or worrying that their wife can’t get to the store because no one has plowed the street.” And they don’t always want to take part in mass detentions. He recalled an earlier demonstration in 2017 when he was caught in a roundup. “I automatically put my hands up so they didn’t think I was resisting arrest, but then one young guy took me by the elbow and said quietly, ‘Let’s go, Father’.” “Father” is the most respectful way to address an older male stranger in Russia, rarely heard outside villages these days. Then, Davidoff said, the policeman whispered, “‘Now I’ll pretend to search you.’ He made a show of patting me down, and then helped me on the bus.” “Later in the precinct, another policeman came up to me when I walked off to have a cigarette. ‘If I hadn’t been in uniform,’ he told me, ‘maybe I’d have been with you out there today.’” On April 30, Navalny’s Anti-Corruption Foundation was accused of being an extremist organization, two more groups of independent journalists were questioned, and on May 14, another independent news outlet, VTimes, was declared a foreign agent. Putin’s apparent effort to deescalate the situation seemed to have been short-lived. Former dissident Victor Davidoff is something of a specialist in protests. His first act of protest in 1979—passing around an illegal copy of writings by exiled dissident Alexander Solzhenitsyn and authoring a study comparing the legal system of the Soviet Union to those of Nazi Germany and Mussolini’s Italy—was punished by almost four years in a psychiatric prison hospital. He was then stripped of his citizenship and deported.

#### Putin will use foreign policy wins to secure legitimacy without structural change that’s critical to economic growth.

Wood 19 (Andrew, Associate Fellow in the Russia and Eurasia Program of Chatham House, Former British Ambassador to Belgrade and Moscow, “Putinist Rule Minus Putin?”, The American Interest, 7/29/2019, <https://www.the-american-interest.com/2019/07/29/putinist-rule-minus-putin/>)

The Russian tradition of top-down rule has a long history, but Vladimir Vladimirovich Putin was not condemned to follow it over the past couple of decades. It was Putin who made the crucial decision to reinforce it further on his return to the Kremlin in 2012 by choosing repression over the cautious economic reforms that had been mooted in the Medvedev presidential interlude. He it was who seized Crimea in 2014 and invaded eastern Ukraine. He has overseen the decline in the Russian economy since 2008 and the continuing rise in corruption that has gone along with it. He is responsible for the servility of the Duma and the courts to the diktat of the executive branch, and for the predatory conduct of Russia’s various enforcement agencies. The questions for Russia now are how, and whether, present political structures can in due course cope without Putin. “Putinism” is a convenient shorthand for describing the way Russia is ruled, but that is the result of a personalized process intended to enforce the unity of the Russian state and the obligation of its citizens to obey its requirements, not a construct defined in detail from the start. Its principal achievement has been that it has both protected and enhanced the role of the center. Putin’s re-election as President in 2018 confirmed authoritarianism as a process in continuing advance, its overriding purpose being to retain power in the interests of those already wielding it, and bound by loyalty to its central figure, at present Putin. Putin does not of course literally rule alone. He cannot in the nature of things decide everything in Russia by himself. He could not, even if he wished it, prevent those holding some degree of power at any level from using it to their cumulative advantage without regard to the law, or to what most outsiders would see as common decency, for that matter. He is most immediately dependent on the support of a narrowing set of long-term collaborators, whether political-, security-, or business-related, whose interests are also dependent on the present disorder of things, together with the mutual and complicit trust among those collaborators essential to its preservation. Putin is the linchpin that holds them together. Hang together or hang separately is the English language proverb. There is no doubt a Russian one. Stability? Putin’s present term ends in May 2024. He cannot under Russia’s Constitution stand again that year. But the personalized and repressive logic of Putinism implies that a way to allow him to remain in command must nevertheless be found. As Grigory Yavlinsky rightly put it in his updated and newly translated study of what he calls peripheral authoritarianism, in Russia and in other states similarly governed: signs have become more pronounced that Russia’s autocracy is developing along the lines of long-term usurpation of power by a very close circle of people that see politics in terms of highly personal power play rather than as a mechanism to ensure the long-term survival of Russian statehood. Yavlinsky concludes that the spectrum of remaining opportunities for change has narrowed, at least for the next decade. If that proves to be so, preserving a lasting claim to continuing legitimacy without addressing Russia’s external or internal problems would in effect, if it succeeded, be to freeze those problems in place. The shadow of unknown and so far unpredictable change in 2024 has now fed into a shift in public attitudes since Putin’s re-election in 2018. Putin himself has become somewhat tarnished, losing in the process his image of being beyond politics, and of being Russia’s necessary savior. Putin is now held personally responsible for domestic problems that he could once deflect onto his Prime Minister’s shoulders. The argument that the Kremlin is the defender of “traditional values” on behalf of the Russian people has lost some of its force. The perception that Russia’s leaders are concerned for their own interests and those of their privileged dependents, rather than those of Russia’s ordinary citizens, is becoming the norm. Polls show that about 27-30 percent of the population are now ready, or at least say they are ready, to take part in street protests. These are becoming more common, not least outside Moscow, provoked for the most part by local issues and the misdeeds of local or regional office holders. But they all nevertheless reflect to some degree or another on the standing of the Kremlin. None of this is to suggest that widespread public disturbance is imminent. What triggers that in any society is always unpredictable. There are, moreover, neither widely accepted ideas for better government nor public figures of sufficient standing to articulate them in Russia, for now at least, around whom such disturbances might crystallize on a nation-wide scale. But the existing and potentially developing shift in public attitudes does indicate that, if Putin chooses to stay in effective power after 2024, then continuity in the Kremlin will be dependent on popular resignation rather than enthusiasm. Russia’s economic prospects up to and beyond 2024 are poor, and neither Putin nor his authoritarian minded supporters have serious proposals for improving them. The “National Projects” he has put forward are similar in principle to others that have been tried in vain before. Assertions that innovative investment in the defense sector will pay off in promoting diversity across the economy as a whole have proved false. Per capita income has declined over the past five years and may not easily recover. Putin and his colleagues can no longer rely, as the Kremlin did ten or more years ago, on growing income from natural resources, however ill-managed, to bolster its popular appeal and to pay off its political allies. Around three-quarters of Russia’s GDP is by now state owned, meaning run by Putin sanctioned beneficiaries. Significant capital flight has continued and is a clear marker of distrust of the authorities. So too is the less widely noted emigration of well educated and enterprising Russians to the Western democracies since 2000, whose rate rose significantly after Putin’s return to the Kremlin in 2012. The total over the past 19 years is estimated to be 1.6–2 million. The Internal Backstop Economic difficulties, a sense that Putinism has exhausted its political capital and resentment at the enforcement of top down control may perhaps make a further Putin term after 2024 troublesome to implement without some sort of domestic or foreign event to make it seem necessary. There are however significant numbers of Russians able to benefit from the complexities of the present state of affairs, or unsettled enough at the thought of Putin going without a clear and reasonably trusted successor in prospect to make Putin’s continuance in effective control seem by 2023 both inevitable and acceptable. Continued stagnation from 2024 on and uncertain relations with the outside world would, on the other hand, seem likely to fuel more and more discontent. There is at present no sign of an aging Putin or his collaborators having anything fresh to offer on his home front, either before or after 2024. But he has a telling reserve of force at his disposal for the purpose of ensuring the survival of the regime in case of domestic violence. The National Guard is comparable in numbers to the Russian Armed Forces. Its declared purpose is to ensure public order, meaning in practice keeping Russian citizens in order by force, however violent. There are other internal agencies with similar powers. The extent of the network expresses ruthlessness but is also a mark of fear within the regime as to the committed loyalty of the Russian people in general. The same is true of the persistent effort made by Kremlin supporters to confine public discussion to their approved agenda of how Russia should develop, politically, economically or with regard to the rest of the world. The effect is that Russia at present exists in a state of limbo, with its governing authorities incapable of addressing the issues of most importance to its citizens, its domestic concerns. The large share of the Russian budget devoted to domestic and international security gets in the way, along with the interest of privileged state contractors in using every opportunity to pursue and price projects designed to fill their pockets rather than benefit the public as a whole. Great Power? Stephen Kotkin records in his magisterial history of the Stalin years that, by 1937, “Perceived security imperatives and a need for absolute unity once again turned the quest in Russia to build a strong state into personal rule.” Stalin has of course been restored to eminent repute in Russia under Putin, and Putin has been influenced by Stalin’s train of thought, as well as borrowing his language from time to time. But I do not quote Kotkin to show that Putin is a Stalin clone, merely to point to the fact that Putin’s aim from the beginning has been, like Stalin’s and others’ before him, to build a strong state in Russia by means of a “vertical of power,” and that the end result is, once again, personal rule. Security imperatives, as Putin would see them, have been a driving force, with the need for absolute unity in meeting them as the inescapable corollary. Like Stalin before him, Putin does not draw a distinction between what he sees as threatening at home or abroad. The two shade into one another. The tragedy of Beslan in September 2004, for instance, was by any normal criteria an internal affair, with the school seized by Chechen terrorists and the threat resolved with brutal slaughter by Russian forces. For Putin, it was also an attempt by unspecified foreign forces to seize a “juicy piece” of Russian territory, and a reason to abolish the autonomous standing of Russia’s Governors. He and his colleagues saw the 2004-05 Orange Revolution in Ukraine not as an internal crisis in that state, but as the result of foreign interference directed at Russia. He responded at home with increasingly stringent measures against non-governmental organizations in Russia, starting with any that had any form of external financial aid and the introduction and extension of measures directed against “extremism.” He argued that the street protests of 2011-12 were provoked and planned by Hillary Clinton. And so on, to the need to protect Fortress Russia today from internal Fifth Columnists and from hostile foreign powers determined to destroy it. There are of course complexities in this process of hardening attitudes in official Russia as to its relationship with its own people, with its ex-Soviet neighbors, with former members of the Warsaw Pact, and with the West in general over the Putin years, but one strain is constant: Nothing is ever Russia’s fault. Moscow is always sinned against. Putin’s historic mission is to restore his country’s status as a great power, with the right to establish and protect its hegemony over its neighbors. Those neighbors have no right to object, let alone to look to outside powers to support their independence. Putin and his colleagues have public support in Russia for such a stance, as did their tsarist predecessors in analogous circumstances. But the Russian public would at the same time by now prefer there to be a less fraught relationship with the rest of Europe, and the United States too. The euphoria provoked by the Kremlin’s bloodless seizure of Crimea in 2014 has faded. The idea that their country has a special mission to defend itself, and that this has to be done by cowing its neighbors into effective submission, is still there as a general assumption, but not as an immediate aspiration.

#### The plan’s a huge win that confers legitimacy on Putin and masks the need for reform

Jackson 18 [Dr. Nicole J., PhD and MSc from the London School of Economics, Associate Professor at the School for International Studies at Simon Fraser University, BA with Honors from the University of Toronto, “Outer Space in Russia’s Security Strategy”, Simons Papers in Security and Development, Number 64, August 2018, p. 5-7] brett

Today, the Russian Federation is a major actor in space and outer space governance. Its presence in space is second only to that of the United States. Meanwhile, the challenges of keeping outer space ‘secure’ are growing in importance and complexity in the current context of globalisation, rapid technological change, and the increasing access to space for state and non-state actors. Russia considers outer space as a strategic region to enhance its military capabilities on earth, provide intelligence and communication functions, and achieve international status and prestige as a space power. It is sensitive to US strategy and actions and has developed counterspace technologies (e.g. electronic weapons that can jam satellites) to provide Russia with an asymmetrical edge to offset US military advantages. However, Russia’s outer space rhetoric and policy are also driven by domestic and identity issues. Outer space strategy is an instrument through which Russia pursues its goal to be a ‘great power’ and to shape the international system more closely to Russia’s vision of the new multipolar world. Space also may bring Russia economic benefits and mask internal challenges. President Vladimir Putin has taken both symmetric and asymmetric actions in outer space, increasing Russia’s investment in new technologies (satellites, electronic warfare1, strategic offensive weapons, etc.) and simultaneously pursuing diplomatic initiatives to control weapons in space. During the Cold War, despite military tensions and serious concern about a possible arms race in outer space, Russia and the US negotiated internationally binding agreements related to the governance of space activities. Today, both powers are again warning of a new arms race in outer space while continuing to strengthen the roles of their militaries in the field. Since 2000 Russia has actively pursued both binding laws and non-binding norms to ban and control weapons in outer space, and has advocated for non-binding, voluntary transparency and confidence building measures (TCBMs). Sometimes it has done this in cooperation with other states, sometimes in opposition to them. This diplomatic endeavour may seem somewhat at odds with Russia’s growing militarisation, however, the dual role on outer space fits well within Russia’s overall foreign and security strategy which is both reactive to US policy and simultaneously positive towards the United Nations (UN) and consensus-based multilateral negotiations. Russia is strengthening its comprehensive power, including military, diplomatic and normative global influence, in order to make its voice heard on the international stage. Russia’s diplomatic activism is that of an aspirational great power, but it also reflects the limits of its current economic and military weaknesses. International negotiations enable Russia to be recognised as a key player in global affairs, while also benefiting from an opportunity to highlight the US/West’s declining influence and the rise of a multipolar world. This chapter examines why outer space is so important for Russia. Then, it shows how and why the Russian government’s outer space strategy and capabilities have evolved since the 1990s. The paper concludes with an appraisal of Russia’s recent diplomatic initiatives on outer space governance.2 No longer economically competitive in the race for control of outer space, Russia has attempted several strategies to enable it at least to keep in the running. It has placed its space strategy in the context of defence requirements and state military control. It is using diplomacy -- working with international organisations affiliated with the UN - to discuss, cooperate on and influence the race for the militarisation of space. It works with disarmament organisations to influence and promote a collective approach to the problem, rather than one dominated by the richer and more powerful states. Russia’s Securitisation of Outer Space: Threats and Opportunities The Russian state defines threats largely in traditional terms of territorial protection from military challenges and views space assets as vital for military communication and defence. Russia’s geography highlights the need to protect its extensive borders and military and economic assets and infrastructure scattered over its vast territory (Barvinenko, 2007). The state has traditionally considered that it is surrounded by hostile powers and thus needs ‘buffers’ or a ‘sphere of influence’ to protect itself. Today, Russia has expanded this rhetoric of vulnerability to include attacks from outer space. Russians use the term ‘aerospace’ rather than outer space because of the interrelatedness of air space and outer space in the context of contemporary threats and conflicts, and because there is no distinct boundary between the two concepts (Kupriyanov, 2005). Russia’s rhetoric on outer space broadly mirrors that of the US, stressing urgency to prepare for a possible future war there. In 2017 US Navy Vice Admiral Charles Richards, deputy commander of US Strategic Command, argued that ‘With rapidly growing threat of a degraded space environment, we must prepare for a conflict that extends into space’ (quoted in Daniels, 2017). Rapid technological advancements in the space industry have influenced perceptions that there are economic benefits from being a space power. At the same time, they have given rise to concerns about threats stemming from the militarisation of space. For example, the development of cheap miniature satellites promises speedy replacement of disabled satellites in the event of attack. Theoretically, this could allow the US military (or other actors) to use such space constellations to support operations during a conflict.3 Through technology outer space has become integrated with other domains – land, sea, air, and cyber. Most recently, the first generation of hypersonic weapons has ‘set the conditions for the merger of air and missiles defence and the air and outer space domains’ (Charron and Fergusson, 2018). Of course, a healthy space industry provides strategic resources for a state’s military and economy. In Russia’s case, the announcement of new technological developments also masks unaddressed structural and systemic weaknesses, and confers domestic and international legitimacy on Russia’s aspiration to be a ‘great power’.

#### Russian economic decline causes conflicts globally that escalate to nuclear war

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

Scenario 1: Disintegration If the Russian economy continues to deteriorate and the regime continue to distance themselves from the West, the centre may not be capable to maintain legitimacy and keep the periphery together. Already, some regions and counties are highly indebted. In other parts, ethnic Russians are a minority. Regions in eastern Russia, rich in raw materials, may look to China for funding. It is, however, probable that Beijing will not want to undermine the stability in Russia. Closer to the region in focus in this report, Kaliningrad is an area that could distance itself from the Kremlin. Economic problems and security concerns form a background that could lead to a political uprising. A “Kaliningrad-Maidan” development is at the heart of this scenario. Triggers could also come from outside Kaliningrad, in or in the immediate surrounding of the Russian Federation, or from other factors such as severe pollution. The other countries in the region would in all probability remain cool in this situation, considering the county’s military importance for the Russian government. However, a mutiny like the ones in Kroonstad in June 1917, March 1921 or on the frigate Storozjevoj in November 1975 cannot be excluded. Economic and political tensions in Europe could weaken the EU and worsen the development at the same time. A Greek withdrawal from the EU, triggered by its exit from the Eurozone, could set such a movement in motion. A Podemos-led government in Spain could undermine confidence for the single market, at a time when Europe also faces the consequences of a highly unstable North Africa, with a large flow of migrants. Attempts by Russia to influence certain members in the EU, such as Hungary and Cyprus, could sow further discord in the EU. At the most severe levels of disintegration, France could adopt policies effectively blocking EU and NATO response in a time of increased tensions. Britain may opt out of the union altogether, or be forced out if their demands for special status is rejected by the other member states. In all varieties of disintegration, uncertainty concerning the control over the nuclear arsenals will increase. The US will become involved both diplomatically and financially in order to bring clarity and establish control over the arsenals. Should Russia, in that situation, ask for military support for this, it is highly probable that the US would acquiesce: such operations in other parts of the world were the object of joint US-Russian exercises just a few years ago. Scenario 2: Ultra-nationalism If Russian domestic and international policy continues to become more radicalised, it might take ever more drastic forms. As the economy deteriorates, wages fall and shortages become common, a focus on nostalgic nationalism, using belligerent rhetoric and demonstrations of military power, could be used to deflect growing discontentment. A logical target would be to “protect” zones which are perceived as Russian, e.g. where there are Russian ethnic minorities or even just Russian-speaking areas. Such rhetoric was and is used in the Ukraine. The coming years will tell what the Russian ambitions are in the Ukraine. Offensives to secure and expand their supply lines, and weakening those of the Ukraine, are probable, and more ambitious plans, such as the opening of new directions in Kharkiv or Odessa, are possible. As a distraction, conflicts in Moldavia can be fuelled. If the West, primarily the US, UK and Poland, support Ukraine with military means, the risk increases for further escalation of the conflict. Remaining passive, on the other hand, runs the risk that Russia perceives that it could act against other targets. A second country that could be the target of Russian nationalism is Belarus. Judging by president Putin’s justification of the annexation of Crimea, Belarus would similarly be a legitimate candidate for “re-inclusion” in Russia. There are indications that the regime in Belarus are worried about such a development and acting to thwart it. In late 2014, Lukashenko appointed a new government, and has increased the emphasis on “Belorussian”. The fragmented (and thoroughly infiltrated) opposition has declared that it will not field candidates in elections this autumn, since they deem the threat of president Putin to be greater than of Lukashenko himself. Belarus has also passed laws permitting prosecution of non-regular armed troops, as a consequence of the Russian method employed in the annexation of Crimea. In the economic sphere, Russia has complained that Belarus is profiting from sanctions against Russia. Any attempts from Russia to enter Belarus’ with military means would probably not be met by any effective resistance from the Belorussian security apparatus. The opportunities for Russia are in some ways more favourable here than in Ukraine, due to the close cooperation between the countries’ armies and intelligence services. Passive resistance cannot be ruled out but would not mean much in a short-term. However, tensions with other former Soviet Union republics, with the EU and with NATO would surely increase. Polish and Lithuanian forces would probably mobilize to counteract spillover effects. EU policy would be substantially revised. Belorussian citizens would attempt to flee, primarily to neighbouring Poland, Lithuania and Latvia. The Russian government would also threaten the Baltic states, in order to undermine their economies and try to influence policy in these countries. Estonia, Latvia and Lithuania would be in a precarious situation. While they need to strengthen their civil and military defence, they must retain credibility with their allies and not be perceived as to exaggerate the Russian threat. The higher the tensions, the more sensitive the world is to psychological influence. Russia would, in this scenario, also fan nationalism in other parts of Europe through political and financial support. West Balkan is particularly vulnerable, as the EU and the US have invested considerable political capital in the region with only mixed success. Bosnia, Kosovo and Macedonia have stagnated in their political and economic development with high levels of unemployment, political polarisation and even the establishing of Islamic fundamentalist cells: a fertile ground for nationalist movements. Finally, Russian ultra-nationalism would also be directed inwards, with an escalated persecution of the domestic political opposition, independent media, and nationalisation of foreign assets. This will be combined with attacks on minority groups, especially on Jews. This scenario could happen separately or as a precursor to the final, and most dangerous, scenario. Scenario 3: Test of strength In this scenario, Russia would attempt to break NATO through challenging of one or more of the Baltic states. The objective would be to demonstrate to alliance members that NATO’s response is too late and too weak. A precondition for success is a distraction through a crisis by an intermediator, which would tie down especially American attention and resources. The distraction could come in many forms, e.g. by partnering with North Korea, fanning war in the Middle East, or even hidden support for terrorists. If the current polarisation in US domestic politics continues, any reaction will be obstructed and delayed. An especially vulnerable window of opportunity is in the period between the presidential elections in November 2016 and the installation of the new president in January 2017, which could create a legitimacy problem for the American political system when it comes to the possibilities of directly confronting Russia quickly. An attack on any Baltic state would directly affect Swedish territory and air space. In the worst-case scenario, it will happen immediately before open conflict with NATO. The Baltic states each offer different opportunities for Russia, but they all have in common that they lack any strategic depth, which means that an open invasion would be accomplished in a few days, unless support from other alliance members is forthcoming. Estonia, which is the most powerful of the three, both economically and military, poses as a potential threat to the trade over St Petersburg. To control the maritime traffic through the Gulf of Finland is an important motive for Russia to influence Estonian politics. The population of Estonia, with 25 percent ethnic Russians, could be used to legimize action and as grounds for destabilisation, especially around the border town Narva where more than 90% of the population is ethnic Russian. Latvia is the most vulnerable of the three states. The economy is weaker; the Russian minority is about the same as in Estonia; and Russian organised crime has a strong hold. Especially the eastern parts of the country are vulnerable to Russian influence. Lithuania only have about six percent ethnic Russians and a stronger military tradition. On the other hand, Lithuania offers access to Kaliningrad. Lithuania’s attempts to decrease their dependence on energy from Russia has annoyed the Russian regime, as is evident in the harassments by the Russian navy of the cabling operation which will connect the Lithuanian grid to Sweden. There are also some tensions surrounding the Polish minorities in the country which Russia could exploit. How fast Sweden will become involved depends on the extent of open, armed actions against one or all of the Baltic States. If a confrontation occurs with non-regular or paramilitary means, maintaining dominance over Swedish territory and territorial waters will be in focus. The same will be the case for Finland, but Finnish action could be influenced by Russian fabrication of tensions in Karelia, that Helsinki could be blamed for. NATO would try to respond in a controlled manner, i.e. prioritizing transports by air and sea. This would mean greatly increased traffic in and over the Baltic Sea. Tensions will rise drastically, with increased risks of miscalculations on both sides. Sweden and Finland are expected to act together with the rest of the EU and the US. If no direct military threat emerges against Sweden, then Sweden cannot count on any enforcements from the rest of the world apart from mutual information exchange. The instance that the citizens in the Baltic states perceive a risk of a Russian incursion, the probability is high that a flow of refugees will commence. From Lithuania, the biggest flow will be to Poland while Latvian will flee to Sweden, mainly Gotland. Refugees from Estonia can be expected to flee towards Finland or Sweden depending on where in the country they live and where they have relations or connections. In the worst-case scenario, Swedish and Finnish territory will become an arena for hostilities. As Russian readiness exercises have shown, airborne and marine infantry could rapidly and with surprise occupy parts of Gotland and Åland. A possible option is also to mine the Danish Straits in connection with this. By supplies of surface-to-air and anti-ship missiles, Russian forces can temporarily extend their air and coastal defence in the Baltic Sea, protecting an incursion by land into the Baltic states. NATO would be faced with a fait accompli. The invasion does not need to happen in all three states nor include the entire territory of a country. The only thing that is needed is a demonstration of NATO’s inability to defend alliance members. This would establish a new security order. Depending on the level of conflict that Russia would be willing to risk, air and navy bases in Sweden and Finland could be struck with missiles from the ground, air and sea. It is, however, likely that the governments would be issued an ultimatum to remain neutral, with only a few hours to comply. Public announcement of the ultimatum would put immense pressure on the political system and weaken resistance. Such diplomatic tactics could be reinforced by forced cyber attacks on the electricity and telecommunication networks. During the coldest months of the year, the vulnerability would be the highest. At the same time, Sweden would be expected to support their Western partners’ need for transports into the theatre of action. If Russia would close the Danish Straits, any military support to the Baltic states would need to move over Swedish territory; such as air support Norwegian air bases or aircraft carriers in the Norwegian Sea. There would also be demands to clear of mines in Oresund, and possibly for allowing equipment and troop transports to harbours on the east coast for further transport across the Baltic Sea. The Swedish to such demands would have consequences for generations to come. If Gotland would not be occupied by Russian forces, NATO would demand to set up bases on the island. The smallest indication of acquiescing to such demands would have the Russians racing to the island. Furthermore, Russia would coordinate activities in the far north, with submarines of all kinds and possibly even direct action in northern Finland and even in northern Sweden, in order to expand Russian air defence. Faced with the risk of direct confrontations between Russian and American forces, Russia could mount land-based as well as amphibian operations in the north of Norway and on Svalbard, to improve the defence of Murmansk. Following a similar strategy, occupying parts of Bornholm would make it more difficult for NATO to support their members. This is probably not necessary, but it is a possible option. In most people’s minds, there is a sharp line between the Baltic states’ eastern borders and Russia, the crossing of which is unconceivable. By first gaining the control over Gotland and Åland, the Russian General Army Staff could circumvent a mental Maginot line, in the same way as Germany attacked France through Benelux in May 1940. Russian success in this scenario hinges on speed and the ability to contain the conflict. The first message to Washington will entail the understanding that this is not a direct conflict between the US. For Russia, the uncertainty is therefore how US interests are perceived from an American perspective. For the US, it is not just the credibility of NATO that is at stake but also the unity of the EU. This has global connotations since allies (and enemies) in the Middle East and Asia will also form assumptions regarding the willingness and ability of the US to act in order to protect their allies. The risk is obviously that Russia miscalculates and underestimates the difference between, for instance, the departing presidential administration perceptions of US security interests on the one hand with the wider US security establishment’s perception of these on the other. During the whole process, the threat of nuclear strikes would hover over all decision makers, which increases the degree of uncertainty. Nuclear tests in the period before a test of strength cannot be ruled out, especially since Russian emphasis on nuclear deterrence could lose credibility over time. Direct threats of using the nuclear weapons is, however, completely excluded in this scenario.

## Case

### AT: Coop – Fails

#### Space co-op fails:

#### 1 – Sanctions overwhelm

Reuters 4-2 [Reuters, 4-2-2022, "Russia says cooperation in space only possible once sanctions are lifted," <https://www.reuters.com/world/europe/russia-says-cooperation-space-only-possible-once-sanctions-are-lifted-2022-04-02/> [accessed 4-3-22] lydia

April 2 (Reuters) - Russia's space director said on Saturday that the restoration of normal ties between partners at the International Space Station (ISS) and other joint space projects would be possible only once Western sanctions against Moscow are lifted. Dmitry Rogozin, head of Roscosmos, said in a social media post that the aim of the sanctions is to "kill Russian economy and plunge our people into despair and hunger, to get our country on its knees". He added, "they won't succeed in it, but the intentions are clear". "That's why I believe that the restoration of normal relations between the partners at the International Space Station (ISS) and other projects is possible only with full and unconditional removal of illegal sanctions," Rogozin said. Rogozin added that Roscosmos' prosposals on when to end cooperation over the ISS with space agencies of the United States, Canada, the European Union and Japan will soon be reported to Russian authorities. He has previously said that the sanctions could "destroy" the U.S.-Russian partnership on the ISS. The West has introduced sweeping sanctions against Russia over what Moscow calls a "special military operation" in Ukraine, launched on Feb. 24. Despite the tensions, a U.S. astronaut and two Russian cosmonauts safely landed in Kazakhstan on Wednesday after leaving the space station aboard the same capsule. [read more](https://www.reuters.com/lifestyle/science/us-astronaut-2-russian-cosmonauts-poised-share-soyuz-ride-orbit-2022-03-30/) The European Space Agency said last month it was suspending cooperation with Roscosmos over the ExoMars rover mission to search for signs of life on the surface of Mars. British satellite venture OneWeb said last month it had contracted with Elon Musk's SpaceX to send its satellites into orbit after calling off a March 4 launch of 36 satellites from Russia's Baikonur Cosmodrome in Kazakhstan because of last-minute demands imposed on it by Moscow. [read more](https://www.reuters.com/business/aerospace-defense/oneweb-launch-satellites-with-rival-spacex-after-suspending-ties-with-russian-2022-03-21/)

#### More are coming – thumps space coop

Palmer 3-30 [Doug Palmer, reporter in Washington for more than three decades and has been covering trade for more than 20 years , 3-30-2022, "Tech sanctions have hit Russia harder than expected, Biden official says," POLITICO, <https://www.politico.com/news/2022/03/30/u-s-boasts-99-percent-drop-in-controlled-technology-exports-to-russia-00021785> [accessed 4-4-22] lydia

Working with allies, the Biden administration imposed sweeping export controls aimed at cutting off Russia’s access to semiconductors and other technology goods needed to run military operations and a modern economy. That includes the use of the Commerce Department’s Foreign Direct Product Rule, which bars exports from third countries if they are made using controlled U.S. technologies. Feeling the squeeze: “The Ukrainian government reports that Russia’s two major tank plants have halted work due to lack of foreign components,” Kendler said. “Even Russian car maker Lada has shut down production as U.S. and partner countries’ export controls have deprived the company of necessary parts and supplies.” In two other examples, Baikal Electronics — a Russian semiconductor company and computer manufacturer — has been cut off from the integrated circuits it needs to support its domestic communications equipment, while Taiwanese company TSMC’s exit from the Russia market has deprived Moscow of access to “Elbrus chips” widely used in Russian intelligence and military systems, Kendler added. The United States accounted for only about 5 percent of Russia’s total imports prior to the war, which is why the U.S. needed to work with the European Union, Japan and other allies to implement similar restrictions on technology trade with Russia. “When you add the European Union and the other countries that are in the coalition we have built over the last month, we account for roughly 50 percent of Russia’s imports,” Kendler said. “Walking this path alone would not have been nearly as effective.” More Russian aircraft targeted, others removed: The Commerce Department on Tuesday also put the owners of 73 more airplanes on notice that they appear to have violated U.S. export controls by flying into Russia. It also took another 12 planes off the list of 100 that were initially targeted by the department on March 18. Commerce officials said the earlier notification prompted several companies to submit voluntary disclosures regarding possible export control violations and to request permission to engage in activities that may otherwise be prohibited. As a result, the department’s Bureau of Industry and Security “granted these authorizations in order to allow these aircraft to leave Russia, thereby preventing the Russian government from maintaining operational control over the aircraft,” the department said.

#### 2 – your ev cites multiple factors that threaten cooperation---privatization is the first, here are the rest:

1AC CSIS 18 [(Center for Strategic and International Studies), “Why Human Space Exploration Matters,” August 21, 2018 https://www.csis.org/blogs/post-soviet-post/space-cooperation] TDI

Second, the seeming emergence of space as a new domain of warfare in U.S. and Russian national security and defense doctrine could make cooperation with a potential adversary too risky. The 2018 National Defense Strategy characterizes “space and cyberspace as warfighting domains.” Russia’s 2010 military doctrine stated that ensuring superiority in space is “decisive factor” in achieving its strategic goals. The 1967 Outer Space Treaty that spacefaring countries signed prohibits the installation and use of weapons of mass destruction in space but does not expressly prohibit conventional weapons or discuss the destruction of satellites. As more and more critical infrastructure and lives rely on the internet, countries are becoming increasingly concerned about the security of satellites. One country’s attempts to protect their space assets with space-based weapons may spook others into building up their own capabilities in a high-tech example of the classic security dilemma. This would increase the tense security environment, impeding incentives for technology or capability sharing in space partnerships.

Third, existing cooperation, especially over the ISS, is winding down, leaving the United States and Russia to face the choice of renewing cooperation in other areas of space exploration at a time of growing hostility, or of partnering with other actors. Russian Embassy Press Secretary Nikolay Lakhonin said, “[Lunar Orbital Platform-Getaway] will become a logical continuation of the International Space Station as a platform for productive cooperation and partnership based on equality of its members, mutual trust and respect”. However, if relations worsen dramatically, Russia could turn to China for space partnerships. In 2018 Roskosmos and the China National Space Administration signed a memorandum of understanding on a joint venture to explore the Moon, even though NASA and Roskosmos support collaboration on the Lunar Orbital Platform-Gateway. Major Sino-Russian cooperation would likely further diminish US-Russian cooperation in space due to U.S. concerns over Chinese cyber espionage and technology capture (a clause in a 2011 spending bill passed by Congress prohibits NASA from cooperating on joint ventures with China). Because the U.S. is still a better-equipped partner for future space projects, Russia may keep to the existing framework. On the other hand, owing to increasing concern over Russia’s military and cyber activities, the U.S. may be the one to look elsewhere.

### AT: Coop – No Spillover

#### Space cooperation does not spillover to other areas

**Pollpeter et al 15** (Kevin Pollpeter – research scientist @ CNA China Studies Division, internationally recognized expert on China's space program, M.A. in international policy studies from the Monterey Institute of International Studies. Eric Anderson – one of the leading entrepreneurs in the space industry, co-founder of Space Adventures and current Chairperson, NASA consultant/researcher, B.S. in aerospace engineering from the University of Virginia. Jordan Wilson – MA in International Affairs from the UC San Diego School of Global Policy and Strategy. Policy Analyst @ the U.S.-China Economic and Security Review Commission. Fan Yang – M.Sc. in Space Studies from International Space University, M.Sc. in Mechanical & Aerospace Engineering from the Illinois Institute of Technology, Aerospace Engineer @ NASA. <KEN> “China Dream, Space Dream China’s Progress in Space Technologies and Implications for the United States,” U.S.-China Economic and Security Review Commission. March 2, 2015. DOA: 7/21/19. <https://www.uscc.gov/sites/default/files/Research/China%20Dream%20Space%20Dream_Report.pdf>)

The importance of China’s space diplomacy should not be overstated, however. Relations in space do not drive relations on Earth. International cooperatio)n on space activities usually follows progress in the overall relationship and is more of an indicator of the state of a relationship than a critical component. Although China’s increasing space power does play a role in advancing its diplomatic interests, there is no evidence that it has directly produced tangible political benefits in other areas besides space.632 As its space power increases this may change. China, for example, could have more of a say in international technical organizations such as the International Telecommunications Union over rules governing satellites and satellite frequency issues, but as yet this is unrealized.

#### Space cooperation will not moderate Russia’s behavior.

---AT: Ukraine.

Sterner 15 (Eric Sterner, Fellow, George C. Marshall Institute, “China, Talk and Cooperation in Space,” SPACE NEWS, 8—6—15, <https://spacenews.com/op-ed-china-talk-and-cooperation-in-space/>, accessed 5-18-19)

How might cooperation with China benefit the United States? Some hold that cooperation in space helps promote cooperation on Earth. Writing in SpaceNews in 2013, Michael Krepon argued “The more they cooperate in space, the less likely it is that their competition on Earth will result in military confrontation. The reverse is also true.” That sentiment is widespread and flows from the nobility of exploration. If only it were so. Unfortunately, a country’s space behavior appears to have little affect on its terrestrial actions. Russia’s multidecadal human spaceflight partnership with the United States did not prevent it from invading and destabilizing Ukraine when it moved toward a closer relationship with the European Union, many of whose members are Russian partners in the International Space Station. Space cooperation has not, and will not, prevent the continued worsening of the security environment in Europe, which flows from Russian behavior on Earth, not in space. Space cooperation with China is similarly unlikely to moderate its behavior. Tensions in Asia derive from China’s insistence on pressing unlawful territorial claims in the Pacific, most recently by transforming disputed coral reefs into would-be military bases. Ironically, civilian space technology has proved critical in documenting these aggressive moves. To further demonstrate the civil space cooperation does not promote cooperation on Earth, we need look no further than recent history. The NASA administrator’s visit to China in the fall of 2014 nearly coincided with China’s hacking of NOAA, with whom Beijing has a “partnership” in studying climate change. Military confrontation flows from the interaction of hard power in pursuit of competing national interests. Space cooperation falls into the realm of soft power. It has value in strengthening relationships among like-minded states with similar interests. China’s aggressiveness toward its neighbors, its human rights record and its cyberattacks on the United States strongly demonstrate that it and the United States are not of like minds. This is not the result of insufficient space cooperation, but of divergent national interests. The United States is a status quo power; China is not.

### AT: Space War

#### No space war

#### 1 – Deterrence.

Bowen 18 [Bleddyn, Lecturer in International Relations at the University of Leicester; ELN; 20 Februrary 2018; “The Art of Space Deterrence,” <https://www.europeanleadershipnetwork.org/commentary/the-art-of-space-deterrence/>] brett

Fourth, the ubiquity of space infrastructure and the fragility of the space environment may create a degree of existential deterrence. As space is so useful to modern economies and military forces, a large-scale disruption of space infrastructure may be so intuitively escalatory to decision-makers that there may be a natural caution against a wholesale assault on a state’s entire space capabilities because the consequences of doing so approach the mentalities of total war, or nuclear responses if a society begins tearing itself apart because of the collapse of optimised energy grids and just-in-time supply chains. In addition, the problem of space debris and the political-legal hurdles to conducting debris clean-up operations mean that even a handful of explosive events in space can render a region of Earth orbit unusable for everyone. This could caution a country like China from excessive kinetic intercept missions because its own military and economy is increasingly reliant on outer space, but perhaps not a country like North Korea which does not rely on space. The usefulness, sensitivity, and fragility of space may have some existential deterrent effect. China’s catastrophic anti-satellite weapons test in 2007 is a valuable lesson for all on the potentially devastating effect of kinetic warfare in orbit.

#### 2 – Empirics.

Mazur 12 (Jonathan Mazur, Manager Engineering at Northrop Grumman, writing in Space & Defense, from the Eisenhower Center for Space and Defense Studies. Past U.S. Actions: Redlines in Space. Space & Defense, Volume 6, Number 1, Fall 2012. https://inss.ndu.edu/Portals/97/Space\_and\_Defense\_6\_1.pdf?ver=2018-09-06-135424-147)

U.S. Reactions To Foreign Disruption Of U.S. Capabilities

In the 1970s, it was suspected that a U.S. maritime communications satellite was turned off by the Soviets when it was outside of the range of U.S. tracking stations.25 There does not appear to be any documented U.S. reaction, and I suspect there was none. In the mid-1990s, satellite hackers in Brazil began hijacking U.S. military communication satellite signals to broadcast their own information, though it took until 2009 for Brazil to crack down on the illegal activity with the support of the DoD.26 In 1998, a U.S.-German satellite known as ROSAT was rendered useless after it turned suddenly toward the sun. NASA investigators later determined the accident was possibly linked to a cyber-intrusion by Russia.

The fallout? Though there was an ongoing criminal investigation as of 2008; NASA security officials have seemed determined to publicly minimize the seriousness of the threat.27 In 2003, a signal originating from Cuba—later determined to be coming from Iranian embassy property— was jamming a U.S. communications satellite that was transmitting Voice of America programming over Iran, which was publicly referred to as an “act of war” by a U.S. official. 28 Press reporting indicates the U.S. administration was [frozen]“paralyzed” about how to cope with the jamming that continued for at least a month, even after U.S. diplomatic protests to Cuba.29 In 2005, U.S. diplomats protested to the Libyan government after two international satellites were illegally jammed disrupting American diplomatic, military, and FBI communications.30 In 2006, press reporting indicates that China hit a U.S. spy satellite with a ground-based laser. This action was acknowledged by the then director of the NRO, though the DoD remained tight lipped about the incident.31

“We’re at a point where the technology’s out there, and the capability for people to do things to our satellites is there. I’m focused on it beyond any single event.” – Air Force Space Command Commander, General Chilton, 2006 32

In 2009, a U.S. commercial Iridium communications satellite—extensively used by the DoD—was accidently destroyed by a collision with a dead Russian satellite.33 The U.S. company, Iridium, was able to minimize any loss of service by implementing a network solution within a few days.34 As of early 2011, no legal action had been taken by the company either because it is not clear who was at fault or because it might be politically problematic for the United States, which is trying to enter into bi-lateral transparency and confidence-building measures (TCBM) with Russia regarding space activities.35 Since August of 2010, North Korea has been intermittently using GPS jamming equipment, which reportedly has been interfering with U.S. and South Korean military operations and civilian use south of the North Korean border.36 Reportedly, only South Korea and the United Nations International Telecommunications Union—at the request of South Korea—have issued letters to Pyongyang demanding the cessation of disruptive communications signals in South Korea.37

It appears that the only time the U.S. military has responded with force to a disruption in U.S. space capabilities was in 2003, a few days after the start of the Iraq war.38 According to U.S. officials, Iraq was using multiple GPS jammers—which supposedly did not affect military GPS functionality. However, the U.S. military bombed the jammers anyway after a diplomatic complaint to Russia.39 The use of military force against the GPS jamming threat was possibly because the United States was already intervening in Iraq, and the bombing probably would not have occurred if the United States was not at war.

### AT – Innovation

#### AT -- Phillips assumes a democratic socialist economy. The current US gov barely funds space exploration and frequent leadership turnover dooms long term planning.

#### Not key to innovation---their ev cites innovations from decades ago like GPS while NASA hasn’t done anything since then, and no warrant why public sector is key to these innovations.

### AT: Space Col

#### 1 – Space col can’t happen:

#### Space colonization fails – tech failure, momentum loss, psychology, AND terrestrial disaster makes it impossible.

Szocik 18 (Konrad Szocik, Assistant Professor at the University of Information Technology and Management in Rzeszow, Poland (Department of Philosophy and Cognitive Science), 2018. “Should and could humans go to Mars? Yes, but not now and not in the near future”. Futures. doi:10.1016/j.futures.2018.08.004)

11. Conclusions

Deep faith in power of human reason supported by experience and experiments is not enough to organize safe and effective human mission to Mars. The main obstacle to go to Mars now and in the near future is a technological barrier. Future technological advancement may be counterbalanced by increasing threats. The risk of catastrophes and threats is increasing every year. Challenges associated with overpopulation, limited resources and climate changes including extensive fires probably will inhibit any serious investing in human space program. Only an urgent, real, and serious rationale would be able to argue for need for current longterm, deep-space human interplanetary program, but there is no such urgent rationale now and probably it will not appear in the near future. Human interplanetary missions look more like an extravagant display of human creativity, complacency, and high self-esteem than like a real need of humanity and a real possibility. The multi-generational international collaboration that seems to be necessary for effective human mission to Mars is problematic for political and financial reasons.

Last but not least. I did not find in papers discussing the idea of refuge (Baum et al. 2015; Jebari 2015; Turchin and Green 2017) any deep analysis of the psychological challenge of living in a close, confined shelter or capsule, whether in an earthly or a space habitat. This challenge may be greater in space refuge but we may expect that many years of isolation in nuclear submarine may be psychologically deleterious as well.12 Margaret Boone Rappaport and Christopher Corbally (2019) in excellent and detailed way show how challenging psychologically will be every minute of life in confined Mars base. Their analysis may be referred to Earth refuge as well. This psychological harm raises ethical questions. Among them one of the most important is the basic question of the ethics of quality of life: is such kind of life worth to be alive?

#### Reproduction on a colony is impossible

Lerner 18 (Steven Lerner. Staff writer @ Tech Times. 5-31-2018. "Having Sex On Mars Could Be Challenging And It Might Lead To A New Species." Tech Times. https://www.techtimes.com/articles/229073/20180531/having-sex-on-mars-could-be-challenging-and-it-might-lead-to-a-new-species.htm)

"Unfortunately, such an endeavour comes with titanic challenges in various disciplines, from space travel technology to medical, biological, social and ethical challenges," the researchers wrote. "We assume that human reproduction in a Mars settlement will be necessary for the long-term success of an outer-space mission." The researchers hypothesized that if humans were to successfully conceive and give birth in space, it could potentially be a new species because of all of the unique circumstances outside of Earth. Challenges Of Reproducing On Mars Although the researchers are optimistic about reproducing on Mars, there could be numerous challenges that might make sex nearly impossible. The biggest challenge is with the gravity. Mars has roughly one-third the gravity of Earth, which could endanger the likelihood of getting pregnant. It is well-documented that prolonged time in space could alter a human's biological makeup and it could change the shape of a person's brain. This is how a new species might get created. Lower gravity could lower a person's blood pressure, which is needed for engaging in sexual intercourse. Scientists also know that low gravity can cause vision problems and lead to a weakened immune system, which would be dangerous for pregnant women. In addition to the lack of gravity, there are also other complications. There is more solar radiation on Mars, which would reduce a man's sperm count. More importantly, there is no documented evidence that a woman could have a full term pregnancy without any problems. The researchers wrote that these challenges could increase "the risks of infection-induced abortions and facilitate the dissemination of diseases among pregnant and non-pregnant individuals."

#### Studies prove.

Mick 11 (Jason, writer for DailyTech, February 14, 2011, “Researchers Study Sex and Pregnancy in Space, Say it Will be Hard,” (blog) <http://www.dailytech.com/Researchers+Study+Sex+and+Pregnancy+in+Space+Say+it+Will+be+Hard/article20904.htm>)

Looking to penetrate deep into realms where scientists seldom explore, NASA biophysicist Tore Straume [profile] (Ames Research Center), radiation expert and particle physicist Steve Blattnig (Langley Research Center), and Cary Zeitlin [profile] (Lawrence Berkley National Laboratory), explored the logistics of sex and procreation in space. Their conclusions? It would be hard -- very hard. Would-be space colonists looking to procreate in space would have it very rough, according to the report. One of the biggest dangers would be from cosmic rays. The high-energy protons encountered in deep space could harm male sperm. They would also likely sterilize any human fetuses conceived in space. The embryo would likely die during the second half of the pregnancy from these rays. The only solution would be to adopt better protection, but mankind doesn't currently have a sufficient technology. States Dr. Straume, "The present shielding capabilities would probably preclude having a pregnancy transited to Mars." An even greater danger would be solar flares. Solar flares are giant squirts of matter and energy from the sun during periods of intensely hot solar activity. These solar events would likely bombard the space explorers with even more radiation, raising their risk of miscarriage and infertility. Also dangerous are high-energy cosmic rays that can travel millions of light years and carry tremendous energy. Without a way to block these damaging particles, they would likely pass through the spaceship, further damaging the astronauts’ gonads. When it comes to solar shielding, it appears scientists still have trouble getting it up to speed.

#### 2 – No existential risks – even if there were, space col cant solve

Szocik 18 (Konrad Szocik, Assistant Professor at the University of Information Technology and Management in Rzeszow, Poland (Department of Philosophy and Cognitive Science), 2018. “Should and could humans go to Mars? Yes, but not now and not in the near future”. Futures. doi:10.1016/j.futures.2018.08.004)

4.5. There is no risk on Earth sufficient to justify the expense of a space refuge

Space refuge is justified only when there is at least one kind of catastrophe on Earth which will lead to extinction of the entire human species. Baum (2015) and Baum et al. (2015) do not believe that space settlement offers advantage over terrestrial refuge. If terrestrial refuge (aquatic and/or subterranean) is able to protect against the strongest catastrophes including asteroid impact, the unique serious rationale accepted by public opinion for space human mission fails. As Alexey Turchin and Brian Patrick Green (2017) show, aquatic refuges based on adaptation of nuclear submarines may effectively play their role. They may be surface independent, which is the basic criterion of any refuge (Baum et al. 2015). They are cheaper and easier in engineering terms when compared with Mars settlement.

A space refuge would not be able to cope with currently-occurring risks, e.g. overpopulation and climate change. Human overpopulation can be limited only on Earth by terrestrial policy and, if this can be done, no space base is necessary. If it is not possible, then no space base can solve this problem. For example, space settlement is not able to alleviate global warming, against Milligan’s suggestion. The unique way to do that on Earth is to reduce methane emission and/or to cool Earth by turning sunlight into space, as Solar Radiation Management proposes (Farquhar et al. 2017). There is only indirect, not direct applicability of space exploration. For instance, space technology might be applied to cope with asteroid impact or increasing the Sun temperature (Crawford). But these exogenous catastrophes caused by cosmic events are unlikely in lifespan of current and future generations (Tegmark and Bostrom 2005, p. 754), and for this reason they offer poor incentive for human space program.

The unique rationale for space refuge mission could be future development of the Sun which will be getting more and more warmer in next billions years. But this threat does not justify human space settlement due to its high risk and high costliness (Jebari 2015).

Nick Beckstead speculates on possible disasters on Earth deleterious also for humans living in shelters, e.g. scenarios that include invasion of aliens, runaway AI, or ecophagy caused by nanotechnology (Beckstead 2015).9 Beckstead rightly adds that the big challenge is not only rate of survival immediately after catastrophe but also chances for survival in long-term scale including collapse in food production and supply chain, and associated social and political collapse. It is hard to imagine catastrophe which kills the entire Earth population excluding people living in refuge. In this case, rationale for refuge fails.

#### 3 – If it did happen, space col is bad:

#### Computer models prove thousands of likely alien civilizations

Powlowski 9 (CNN Science and Tech blogger, A. Powlowski “Galaxy May be full of ‘Earths,’ Alien Life”, http://www.cnn.com/2009/TECH/space/02/25/galaxy.planets.kepler/index.html)

Other scientists are taking another approach: an analysis that suggests there could be hundreds, even thousands, of intelligent civilizations in the Milky Way. Researchers at the University of Edinburgh in Scotland constructed a computer model to create a synthetic galaxy with billions of stars and planets. They then studied how life evolved under various conditions in this virtual world, using a supercomputer to crunch the results. Source: Space.com In a paper published recently in the International Journal of Astrobiology, the researchers concluded that based on what they saw, at least 361 intelligent civilizations have emerged in the Milky Waysince its creation, andas many as 38,000 may have formed. Duncan Forgan, a doctoral candidate at the university who led the study, said he was surprised by the hardiness of life on these other worlds. "The computer model takes into account what we refer to as resetting or extinction events. The classic example is the asteroid impact that may have wiped out the dinosaurs," Forgan said. "I half-expected these events to disallow the rise of intelligence, and yet civilizations seemed to flourish."

#### They will be hostile

Kovic 18 (Marko, co-founder and president of the Zurich Institute of Public Affairs Research “Political, moral, and security challenges of space colonization.” Zipar, June 2018, <https://zipar.org/discussion-paper/political-moral-security-challenges-space-colonization/>, Accessed 9/9/19, JMoore)

Third, an extraterrestrial intelligence can be hostile. Hostility in a general sense means that an intelligence reacts to learning of humankind by regarding its own goals and preferences as categorically more important than humankind’s. A hostile extraterrestrial intelligence is not necessarily a security threat to hu- mankind; hostility in this context does not mean hostility in the Hollywood kind but hostility in the sense of active disregard of humankind’s goals and preferences. That, however, might still represent a tremendous security risk. For example, a hostile intelligence might prefer humankind not to exist because our mere existence is perceived as a slight discomfort to the extraterrestrial intelligence. Hostile extraterrestrial intelligence thus represents a form of existential risk.

#### Space col causes inter-colony wars and war with ETs

Kovic 18 (Marko Kovic. Social scientist (PhD in political communication, University of Zurich), co-founder and CEO of the consulting firm ars cognitionis, co-founder and president of the thinktank ZIPAR, the Zurich Institute of Public Affairs Research. 06-12-18. “Political, moral, and security challenges of space colonization.” ZIPAR. https://zipar.org/discussion-paper/political-moral-security-challenges-space-colonization/)

3.3 Extraterrestrial life The scientific understanding of the origins of humankind and of life on Earth thus far paints a clear picture: We are the “products” of biological evolution, just as all other life forms on Earth. Furthermore, we know that life can come into existence where there was no life before, through so-called abiogenetic mechanisms. These basic facts lead to a clear conclusion: It is very improbable that life on Earth is a once-in-a-universe event; it is highly probable that life has come into existence elsewhere in the universe as well. We do not know whether extraterrestrial life currently exists, and whether there is any extraterrestrial life in our vicinity (as far as we know, there is none in our Solar System). In theory, our galaxy might be full of life and even highly intelligent and technologically advanced life, but, as the famous Fermi paradox posits32, there is no trace of any extraterrestrial intelligence. Be that as it may, it is possible that there is extraterrestrial life beyond Earth, and it is possible that we will come into contact with extraterrestrial life due to colonization activity. What should our moral attitude towards extraterrestrial life look like? The moral issue of our attitudes towards extraterrestrial life can be divided into three classes of problems, according to the type of life we are dealing with: Primitive non-sentient life. Primitive sentient life. Non-primitive sentient life. Primitive non-sentient life are life forms that resemble microbial life forms on Earth, such as bacteria. Extraterrestrial microbial life can be of great instrumental value, specifically to humans, but also in a more general sense. That is a strong argument in favor of studying and preserving extraterrestrial microbial life33; we should not go out of our way to destroy microbial life, because that life might be very useful. The main moral issue about primitive non-sentient life, however, is not the question of instrumental value, but rather the question of intrinsic value: Is there a moral obligation for humans not to manipulate or even end extraterrestrial microbial life forms? This problem is, in all likelihood, the most pressing moral issue about extraterrestrial life and space colonization and one that deserves greater practical attention34. A common argument in favor of the intrinsic value position is that of conation or goal-orientedness35 36: Because even microbial life forms act vaguely rational (they have goals and behave so as to achieve their goals), their existence has some intrinsic value. The problem with this moral argument is that it can easily lead to the conclusion of strong conservationism, whereby any habitable planet or moon should remain uncolonized, lest we interfere with microbes that we might have failed to detect37. In addition, if we accept a strong version of the intrinsic value argument, we already have immense moral problems: On Earth, we do not particularly care for any microbial life form on intrinsic grounds, and we even actively fight some of them. Primitive sentient life are life forms that are not as intelligent as humans, but that are sentient, in the sense of being able to experience positive or negative affective states. Even though sentience is not a perfectly precise concept38, and even though we lack the means for truly assessing qualia (subjective experiences) of life forms other than humans39, it is almost certain that we humans are not the only life form capable of experiencing pain and pain-related suffering and that many animals on our planet are sentient as well40. Sentient extraterrestrial life forms require a different moral stance than non-sentient life forms. Imagine, for example, that two human space ship are about to land on an exoplanet. As the space ships are landing, the exhaust from their engines heats up the ground. Space ship A is landing on a nest of insect-like non-sentient life forms, frying them alive in the process. Space ship B is landing on a herd of bunny-like sentient creatures, frying them alive in the process. Both outcomes are unfortunate, but undoubtedly, killing the sentient bunny-like creatures must be morally worse than killing the non-sentient insect-like creatures, because the bunnies experienced enormous pain while they were being killed. Our moral stance towards sentient primitive extraterrestrial life will have to take sentience into account. Avoiding suffering in sentient extraterrestrial life should be a universal rule of space colonization. Somewhat obviously, such a rule would also prohibit treating sentient extraterrestrial life forms as food (But it is highly improbable that humans would have to routinely rely on extraterrestrial sentient life forms as sources of nutrition, even though we would be technologically advanced enough to engage in intersolar space colonization. We are in the process of overcoming traditional agriculture today41; reverting to traditional agriculture on future extrasolar colonies would amount to an extraordinarily improbable and inefficient anachronism.). Non-primitive sentient life are life forms that are sentient and possess a general intelligence at least as great as our own (It is possible that highly intelligent life forms might be non-sentient, but at least on Earth, sentience seems to correlate with intelligence.). The moral challenge of this type of extraterrestrial life is the same as with primitive sentient life, and there are additional moral problems to consider. If there are intelligent life forms beyond Earth, their levels of technological development will have great variance; some life forms will be intelligent, but not yet developed, whereas others will be intelligent and much more technologically advanced than we are. Intelligent life forms that are less technologically developed than we are present us with a moral problem: Should we interact with such civilizations and try to help them develop faster and overcome problems? This moral problem has perhaps most famously been explored in the television show Star Trek with its “Prime Directive”: The fictional United Federation of Planets is never to interfere with a technologically undeveloped civilization in order to avoid doing damage (Alas, the protagonists of Star Trek end up violating the Prime Directive time and again; doing so makes for a good story.). More generally, the problem of non-interference can be described as a reversed Zoo hypothesis42, whereby it is not extraterrestrial civilizations treating Earth like a conservation project, but us humans pondering whether we should treat extraterrestrial civilizations as conservation projects. A strong argument in favor of non-interference is the risk of both causing bad outcomes, both in the short- as well as in the long-term. Interacting with less developed civilizations might inadvertently do more harm than good, and it might steer the affected civilizations away from a path to development that might be beneficial to humankind in the long run. On the other hand, however, not investing a small amount of resources to greatly improve lives and reduce suffering seems morally dubious. If an extraterrestrial civilization that is going through a historical era similar to our Middle Ages is confronted with some catastrophic disease like our Black Death pandemic, not helping that civilization fight that pandemic seems cruel; not least because the cost for helping that civilization would almost certainly be trivially low. 3.4 Cosmic suffering Imagine that humankind has successfully mastered phase II colonization (colonization beyond our Solar System). All the problems described in the previous sections and subsections have long been successfully solved, and humankind is progressing steadily and peacefully. Then, something happens. At some point and for some reason, future humans decide that they do not want to merely engage in space colonization, but to do more: Actively seed the universe with (non-human) life43. Given the technological development of future humankind, it is relatively easy to send out non-sentient primitive life forms across the galaxy. Unfortunately, something horrible happens: The primitive microbial life-forms sent out into the cosmos mutate into aggressive bacteria that attack any life form they encounter, including sentient life – and in doing so, they cause tremendous pain and agony in the organisms they attack. The benevolent idea of spreading life has quickly turned into unimaginable suffering of trillions of sentient beings across the galaxy. Colonizing humans have thus created suffering on a cosmic, or astronomical, scale44. Cosmic suffering is the risk of creating suffering on a scale that is either not possible or not as probable without space colonization. There are many potential scenarios in which successful space colonization results in cosmic suffering. For example, the general problem of the repugnant conclusion discussed further above can also be regarded as an example of this class of risks. Cosmic suffering is a severe problem because it is contingent on, or at least made more likely by, successful space colonization. The conceptually challenging aspect of cosmic suffering is the correlation of cosmic suffering with the degree of space colonization: The greater the level of space colonization, the greater the risks of cosmic suffering become. This is the opposite of the relationship between space colonization and existential risks: The greater the level of space colonization, the lower existential risks become – this is one of the main motivations for space colonization, after all. In other words, successful space colonization decreases the probability that something goes wrong for humankind in terms of existential risks, but it increases the probability that something goes wrong in terms of suffering for the whole universe. 4. Security challenges In the above discussions of political and moral challenges, it is presumed that the problems and challenges that arise do so in a generally peaceful system of colonization. However, peace in the sense of a lack of armed conflict is not guaranteed with space colonization. On the contrary: Space colonization might produce new kinds of security challenges. 4.1 Inter-colonial war Violence and war have been decreasing over the course of our civilization’s history45 46 47. The decrease in violent armed conflict has coincided with an increase in cultural, political, and economic interconnectedness. Even though major armed conflicts are not yet a thing of the past48, humankind will probably continue on its current trajectory of peace. With space colonization, however, the trend of growing closer together might reverse because of increasing fragmentation, and with that reversal, peaceful cooperation might again give way to armed conflict. Some amount of human fragmentation due to space colonization is almost inevitable. One of the strongest biases we humans have is the intergroup bias49: We tend to separate people into ingroups and outgroups, and we generally favor our own ingroup over any outgroup. Our ingroup favoritism is often the source of collective identity: We identify with our home city and think it is better than other cities; we identify with our favorite football team and think it is better than other teams; we identify with our country of origin and think it is better than other countries. In a future in which humans have successfully mastered type I colonization (colonization within our Solar System) and perhaps even type II colonization (intersolar colonization), belonging to one habitat rather than another will almost certainly also be a source of collective identity. Humans born and raised on Venus would probably have more positive general attitudes towards Venus than towards Earth. That is not a problem in and of itself, but it can become a problem: If humankind is very successful at space colonization and manages to establish colonies across the galaxy, the ingroup dynamics within colonies and regions of colonies might grow so much that the perceived benefits of armed conflict increase, and the perceived costs decrease. In part, this might be due to the infrahumanization (or dehumanization) bias50: Our intergroup bias can have the effect of perceiving members of the outgroup as less human than members of our own ingroup. The problem of intergroup bias and armed conflict could be compounded by real biological differences in the long-term future. In the long term, different colonies of humans might adopt different stances on human enhancement technology and embrace different kinds of enhancement technologies. These differential paths of human enhancement might result in technology-induced quasi-speciation, whereby different strands of humans have increasingly distinct biological traits. The ultimate result of such a development might be a strong fragmentation of humankind and an increasing arms race in order to defend against the outgroup of all the (former) humans that are different from the ingroup (former) humans51. 4.2 Extraterrestrial (existential) risks Space colonization will increase the probability of discovering and coming into contact with extraterrestrial intelligence, either biological or artificial (in the sense of hypothetical advanced artificial general intelligence52). That prospect poses some moral challenges, as argued in subsection 3.3. However, it might also pose a security challenge if an extraterrestrial intelligence more technologically advanced than humankind has goals and preferences that go against the goals and preferences of humankind. In general, there are three categories of attitudes an extraterrestrial intelligence can have towards humankind53. First, an extraterrestrial intelligence can be benevolent. A benevolent extraterrestrial intelligence is one that would change its goals and preferences upon learning of humankind. Humankind is a benevolent intelligence: If we, for example, came into contact with an extraterrestrial civilization, we would obviously take the goals and preferences of that civilization into account and update our own goals and preferences, since we are morally advanced enough to do so. Second, an extraterrestrial intelligence can be apathetic. An apathetic extraterrestrial intelligence is one that does not at all change its goals and preferences upon learning of humankind. An apathetic intelligence would neither try to accommodate humankind, nor would it react in some non-friendly way. It would not care at all. The attitude of an apathetic intelligence is similar to the attitude we humans have when it comes to some random microbial life form on Earth: We might understand that that life form exists, but we do not care either way. Third, an extraterrestrial intelligence can be hostile. Hostility in a general sense means that an intelligence reacts to learning of humankind by regarding its own goals and preferences as categorically more important than humankind’s. A hostile extraterrestrial intelligence is not necessarily a security threat to humankind; hostility in this context does not mean hostility in the Hollywood kind but hostility in the sense of active disregard of humankind’s goals and preferences. That, however, might still represent a tremendous security risk. For example, a hostile intelligence might prefer humankind not to exist because our mere existence is perceived as a slight discomfort to the extraterrestrial intelligence. Hostile extraterrestrial intelligence thus represents a form of existential risk.

#### Outweighs on scope---NOT just earth life, but all life in the universe would end.

Torres 18 (Phil Torres. Project for Future Human Flourishing. 06/2018. “Space Colonization and Suffering Risks: Reassessing the ‘Maxipok Rule.’” Futures, vol. 100, pp. 74–85.)

5. Space-Age Weaponry and the Balance of Terror Yet there is another strategy for neutralizing the Hobbesian trap, namely, a policy of deterrence, also known as a “balance of terror” or, during the Cold War, “mutually-assured destruction” (MAD). This asserts that “if you strike me, I will most assuredly strike back with equal or greater force, and if I strike you it will only be because you struck me first.”xvii Deterrence is only effective when one’s adversaries genuinely believe the statement, “I will most assuredly strike back.” This returns us to Hobbes’s third cause of conflict from section 3: glory, honor, or credibility. To establish credibility and, therefore, dissuade potential attackers, one has reason to engage in confrontations with others and, in doing so, to demonstrate one’s capacity for violence. The question is whether policies of deterrence implemented by civilizations throughout the cosmos would be sufficient to obviate war. To answer this question, let’s begin by considering the unsettling range of weapons that will likely be available to our spacefaring progeny; we will then explore how these weapons could enhance or mitigate the effectiveness of deterrence. 5.1 Weapons of Total Destruction (WTDs) There are a variety of “kill mechanisms” that one civilization could use to obliterate another. In relatively close propinquity, chemical and biological weapons could offer a means of targeted violence, since the deleterious effects of such weapons might be limited to a particular species (Deudney forthcoming). For example, the toxicity of a chemical X might be low for a species A but lethal to a species B. This could enable A to use X on B without fear of X harming A—a concern that has dissuaded some terrorists from employing chemical weapons. The same goes for a pathogenic germ Y: since pathogens often only harm single species, biological weapons could be used without the perpetrators worrying about becoming sick. With respect to artificial intelligences, there could be viral malware that affects only certain types of software; in this case, such viruses could be transferred not at the velocity of a sneeze but at the speed of light, traversing astronomically large stretches of space to devastate colonies of artificial-substrate beings. Another possibility involves weaponizing “minor planets” like asteroids. This hints at the deflection dilemma discussed by Sagan (1994), among others, whereby the very same technology that could deflect an asteroid away from Earth could also be used to redirect one toward it. The resultant “planetoid bombs” could be launched in the direction of target civilizations at extremely high velocities and inflict far greater destruction than all the nuclear arsenals on Earth combined (see Cole and Cox 1965; Deudney forthcoming). Even more, asteroids are extremely numerous in the solar system and have a wide range of sizes, with estimates of 1.1 to 1.9 million that have greater-than-1-kilometer diameters in the asteroid belt between Mars and Jupiter. (A 1- kilometer impactor striking Earth would likely annihilate humanity by causing an impact winter.) Thus, asteroids constitute an abundant source of easily obtainable, civilization-ending weaponry— a particularly worrisome fact given that the technological capabilities to redirect asteroids will likely emerge at an early stage in our diaspora “out of Earth,” as it were (see Deudney forthcoming). Other futuristic space weapons include military drones that either initiate attacks or engage in clandestine surveillance of other civilizations. Such drones could hide themselves from counter-surveillance detectors by employing metamaterial invisibility cloaks and propagate themselves through the von Neumann process of self-replication, that is, by converting raw materials into clones of themselves. There is also the possibility of using “heliobeams,” or “sun guns,” to destroy targets by concentrating large amounts of solar radiation via a concave mirror on a satellite. Even more catastrophic are direct-energy weapons (DEWs) like lasers and particlebeams that use highly focused energy to superheat their targets. In fact, the US government has already developed weapons of this sort—they are science fact rather than fiction—although future breakthroughs could enable them to become immensely more destructive. If this is the case, they will offer yet another mechanism for wreaking unprecedented harm (see Deudney forthcoming). Along these lines, Anders Sandberg (forthcoming) suggests that technologically advanced civilizations could potentially use gravitational waves to create black holes. Generating waves of sufficient intensity would be energetically inefficient, according to current physics, but they have the advantage that they can interact with dark matter objects, unlike electromagnetic-energy weapons. Even more, the universe appears to be in a “metastable” energy state. This suggests that one could tip it into a more stable, lower-energy state, perhaps by concentrating huge quantities of energy in tiny regions of spacetime, as occurs in some high-powered physics experiments. In other words, a particle collider could be weaponized to intentionally nucleate a “vacuum bubble,” or sphere of “true vacuum” spreading in all directions at the speed of light and destroying everything with which it comes into contact. Who might weaponize a particle collider? First, there could be actors who use the threat of a vacuum bubble for blackmail purposes. Second, there could be madmen (like Hitler) who create a vacuum bubble to avoid defeat. That is to say, a predatory actor could hold the following preference ordering: (i) triumphant victory over, say, its Local Group, (ii) total annihilation of the universe, and (iii) defeat. Third, particle colliders would also be the ideal WTD for RNUs, since it would enable them to obliterate not only all extant life in the universe but the very potential for life to arise—and it would do this without inflicting any suffering whatsoever.xviii Another possibility is that Tuckerian actors create a vacuum bubble for the purely defensive reason of eliminating all potential attackers in the universe. As Sandberg (2017) speculates, it might be possible for “certain configurations of matter, energy, black holes, etc. [to] induce a post-transition structure that can act as an assembler.” This “assembler” would enable “some information [to] be transmitted into the new state,” thus making it possible for a civilization to “survive,” in some sense, the universe settling into a lower-energy configuration. On the other side of this transition, the “structure” can recrudesce into a daughter new civilization with the certitude that it is completely alone and, therefore, safe. Finally, it is crucial to note that future beings—some of whom may have hugely augmented cognitive capacities—will almost certainly invent new weapons that are more powerful and effective than anything we could imagine. Such weapons could enable civilizations—or perhaps lone wolves, of which there could be, once again, trillions and trillions and trillions—to cause unprecedented injury to other civilizations. Consider the following passage from Bostrom (2013): One can readily imagine a class of existential-catastrophe scenarios in which some technology is discovered that puts immense destructive power into the hands of a large number of individuals. If there is no effective defense against this destructive power, and no way to prevent individuals from having access to it, then civilization cannot last, since in a sufficiently large population there are bound to be some individuals who will use any destructive power available to them. Scale this up from the individual level to the cosmopolitical level and the same conclusion follows: Life in the universe cannot last.

#### Space colonization leads to rapid growth of incurable diseases—extinction

Wickramasinghe 10 (Chandra, Ph.D., Centre for Astrobiology, Cardiff University, UK; Journal of Cosmology, “Are Intelligent Aliens a Threat to Humanity? Diseases (Viruses, Bacteria) From Space”, May 2010, http://journalofcosmology.com/Aliens106.html)

The real risk to humanity of alien life may be in the form of viral and bacterial genomes arriving at the Earth which are sometimes pathogenic (Joseph and Wickramasinghe 2010). Fred Hoyle and the present author have argued the thesis of “Diseases from Space” over several decades (Hoyle and Wickramasinghe, 1979, 1982, 1990; Hoyle et al, 1985; Wickramasinghe et al, 2003). Despite criticisms that have often been made against this concept the basic arguments remain cogent to the present day (Joseph and Wickramasinghe 2010). With increasing evidence to support the view that life could not have arisen indigenously on the Earth, the idea that the evolution of life is modulated by genes arriving from comets has acquired a new significance. Darwinian evolution operates in an open system where new genes continue to be added from a cosmic source. Pandemics of viral and bacterial disease become an inevitable part of this thesis. One could argue that if not for such genetic additions from outside, evolution would have come to a standstill a long time ago (Hoyle and Wickramasinghe, 1982; Joseph and Wickramasinghe 2010). In this context it should be noted that the human genome has recently been found to contain more than 50 percent of its content in the form of well defined inert viral genes. It is possible to understand this data if our ancestral line of descent over a few million years had suffered a succession of near-culling events following outbreaks of viral pandemics(Joseph and Wickramasinghe 2010). On each such occasion only a small breeding group survived the members of which had assimilated the virus into their reproductive line. Hoyle and the present author have cited numerous instances from the history of medicine where outbreaks of pandemic disease could be elegantly explained in terms of space incident viruses. Even the modern scourge of influenza is likely to be driven by periodic injections of genetic components from space. Aspects of the epidemiology of influenza otherwise remains difficult to explain (Hoyle and Wickramasinghe, 1979, 1991). In conclusion, we note that the aliens we have to fear are not superintelligent creatures arriving in space ships and intending to conquer and subdue us, but sub-micron sized viral invaders that may threaten the very existence of our species.

#### Literature consensus concludes neg.

Dattilo 16 – member of Princeton’s Sustainability @ Princeton initiative with a BA in Molecular Biology Lily, Princeton Journal of Science and Technology, April 4, “Outer Space Makes Bacteria More Deadly,” http://princetoninnovation.org/magazine/2016/04/04/outer-space-makes-bacteria-deadly/

When we think of the dangers that space flight poses to humans, we tend to worry about macro problems. What if the shuttle’s engine fails? What if an asteroid hits the shuttle? What if the shuttle hits a planet? We do not think of micro problems, like what happens if a microscopic bacterium hitches a ride on the shuttle. But a growing body of space microbiology literature indicates that we should be thinking about such problems. Multiple experiments performed during space shuttle missions suggest bacteria found on Earth thrive in outer space, growing faster, becoming more virulent, and better resisting antibiotics. In 2006, Atlantis Mission STS-115 astronauts brought Salmonella aboard their shuttle, activating bacterial growth mid-flight. Almost immediately after the shuttle landed on Earth (so that the bacteria could not readjust to earthly conditions), a team of scientists led by Dr. Cheryl Nickerson of Arizona State University infected mice with the extra-terrestrially grown parasites. The results were striking — despite originating from a strain found on Earth, bacteria grown in space were more virulent, killing mice faster, at higher rates, and at lower doses than the same bacteria grown on Earth. Why does simply growing bacteria in space alter their virulence and other properties? It turns out space changes gene expression in Salmonella. Although the direct cause of this change is still debated, a few hypotheses have been proposed. It may be due to space’s low gravity, which modifies both the way fluid presses against bacterial cells and the chemical composition of this fluid. It’s also possible that low gravity affects the outer membrane composition, changing the amount of material that can enter the bacterial cells. Other explanations have to do with more direct genetic mechanisms. More efficient exchange of plasmids (circular bacterial DNA) in space could explain genetic changes in some but not all types of bacteria. Finally, excess radiation in space could mutate cellular DNA, resulting in the production of altered proteins. These theories for altered gene expression might also explain some other curious observations. Bacteria generally grow faster and form larger populations in space. This was first observed on the Russian Mir space station. Over the course of its time in space, Mir became covered in bacterial biofilm, a meshwork of bacteria cells. Since Mir, controlled experiments on multiple space missions have confirmed this increased growth phenomenon. Scientists think bacteria’s ability to move and the amount of available oxygen influence the growth rate in space. If that wasn’t enough to strike fear of extraterrestrial bacterial infection in your heart, it gets scarier. Bacterial populations grown in space are not only larger and more virulent but also more resistant to antibiotics. In vitro experiments in which bacteria are grown in test tubes aboard space shuttles show that antibiotics are less effective against bacteria grown in space than they are against bacteria grown on Earth. This might have to do with greater resistance of bacteria or decreased drug efficacy and uptake. The prognosis for humans infected in space gets worse, though. Astronauts often show compromised immunity upon returning to Earth from space flight. The reasons behind this observation are not well understood. One hypothesis contends that space’s low gravity alters protein folding in humans, rendering immune system proteins unable to recognize and respond to earthly pathogens. Studying bacterial growth in space can provide insight into the evolutionary constraints, virulence, and resistance of pathogens on Earth. If we understand what increases bacterial resistance in space, we might be better able to counteract similar resistance mechanisms on Earth. Understanding extraterrestrial bacterial growth is also important for protecting the health of astronauts, who lack access to hospitals during flight. As commercial space flight becomes a more realistic possibility, we need to understand the consequences of infection by these bacteria and of bringing them back to Earth.

#### Space col causes von Neumann probe encounters---extinction.

Miletić 15 (Tomislav Miletić. Doctoral student at the Department of Philosophy, University of Rijeka, specializing in in AI Ethics. June 2015. “Extraterrestrial artificial intelligences and humanity’s cosmic future: Answering the Fermi paradox through the construction of a Bracewell-Von Neumann AGI.” Journal of Evolution and Technology. Vol. 25 Issue 1. pgs 56-73. https://jetpress.org/v25.1/miletic.htm)

It is safe, nonetheless, to claim that all ET cultures will pursue species survival through resource acquisition and growth in intelligence. Since planetary survival is constantly endangered by cosmic and planetary calamities, including species-induced ecological disasters, the survival instinct will propel every sentient species beyond the confines of its own planet toward extraplanetary colonization. Unfortunately, space conditions are detrimental and lethal to carbon-based lifeforms (Harrison 2010). Thus, if a technological civilization is to maximize the odds of its survival through space exploration and planetary colonization, it will need to develop forms that can survive the effects of prolonged exposure to space environments. An intelligent thinking machine capable of space travel, communication, and tool use is the most probable of such options, and we can safely guess that a distant alien civilization would initially explore the galaxy through a certain kind of ETAI. The most probable of such agents is the self-replicating “Bracewell-von Neumann” (BN) probe. The scenario for such a probe requires the oldest possible alien civilization, one that could have evolved several billion years ago in the Milky Way Galaxy (Dick 2009). When a civilization enters the technological phase required for galactic exploration, it will first survey the galaxy to find planets residing in habitable zones. Its next step is to count the number of those planets, calculate the distances between them, and proceed with dispatching BN probes. The task of an intelligent probe is to enter a designated solar system and initiate its programmed goals. Since it stays in the planet’s vicinity, it has no need for high energy consumption. The proximity of the probe shortens the communication to light-minutes while not revealing the home location of the probe’s sender. Upon arrival, the probe can passively monitor any local technological society before initiating contact. To remain functionally intact, the probe will need to have an intelligent ability for self-repair and the ability for self-manufacturing. Required materials and energy can be harvested from raw materials in space and the designated solar system. But if BN machines are one of the most efficient agents (in terms of energy usage, building costs, and time consumption) of galactic communication, and if it is logical to assume that they would be widely used by ET civilizations, why haven’t we come into contact with one of them? One possible reason is, as always, that we are alone in our galaxy. Frank Tipler has claimed that the galaxy's colonization by these machines would take around 300 million years and that their absence from our solar system represents a more potent version of the Fermi paradox arguing against the existence of ETs (Davies 2010, 74). Since we have only recently begun exploring our solar system, we cannot take the absence of BN probes as a matter of fact. In fact, just the opposite could be true – the BN could be well hidden in a “secret” location and waiting to reveal itself if we fulfill a certain expected condition (Gillon 2013). Or perhaps we need to search in the “right” direction or the “right” way to demonstrate that we have achieved a certain technological or cultural level. Or perhaps we need a different kind of mind to help us discover an alien mind. It is in our best interests to mitigate the unknown factor as much as possible while we contemplate an ETAI agent’s possible existence. The “Titanic effect” occurs “when we are so certain that an event is so unlikely that we give the matter no further thought” (Harrison 2010, 511). In order to avoid the Titanic effect and think broadly, we need to take a careful look at the modern sciences that can give us a glimpse of the possibilities of ETAI existence. 3. ETAI probes’ existence 3.1. Physical characteristics In order to locate an ETAI agent in our solar vicinity, we would first need to establish some of its fundamental characteristics and direct our search accordingly. Since an ETAI agent is a physical, computational agent built to operate within the hazardous environment of cold space, there are some specific physical limitations or characteristics that we can specify. The first requirement is evident. In order to carry out its programmed goals successfully, the ETAI agent(s) will need to be efficient in the fields of communication, exploration, resource collection, and resource utilization. To achieve any of these operations, it will require energy and materials for replacements and improvements with the capacity of a universal constructor (range 30g-500T (Sandberg and Armstrong 2013)) for constructing others of its own kind. Accordingly, the ETAI agent(s) will require a “base of operations” where adequate concentrations of elements are followed by low temperatures. Low temperatures and a sufficient amount of materials are two main requirements for successful ETAI functioning. Of these, temperature is the more important, since energy consumption produces a rise in temperature and temperature is a key constraint of computational efficiency, especially if the agent is to effectively utilize superconducting materials and quantum computation. Needless to say, the larger the base, the greater the need for lower temperatures and sufficient material amounts. It is possible, then, that the ETAI colonization system might consist of three parts: (A) A number of robots and probes, which are capable of exploration and resource collection. (B) A “slow assembler” which would be able to reﬁne these materials into components, which would make the ﬁnal factory (C). (C) A large-scale factory, or collection of factories, which would be able to manufacture copies of (A) and (B), as well as additional surveying and communication devices. (Barlow 2012) If the ETAI is to establish its large scale base of operations in areas of low radiation and low temperature, we can expect to find it in the low-temperature, volatile-rich galactic outskirts, where technologically advanced societies could assuage the problem of heat dissipation (Ćirković and Bradbury 2006). The galactic center, although rich in materials, is flooded with heat radiation from high-energy events, which makes it highly unsuitable for such a role. Other possible galactic locations with similar conditions would include “locales that have the thermodynamic advantages of the galactic nether regions but still lie in regions of high matter such as the Bok globules, dark clouds of interstellar gas and dust” (Shostak 2010, 1028). Although these two regions currently look like the most promising for an ETAI base of operations, it is also important to note that the ETAI, as an optimal computer, needs to “be functionally malleable, and compactly packaged” (Shostak 2010, 1027). Since the ETAI may be able to produce its own energy through the process of nuclear fusion, its base of operations could even be located on compact cold objects floating in the interstellar medium allowing them to thwart discovery. The ETAI outpost could be hidden anywhere in our solar system with such characteristics, particularly in stable orbit moons in the system’s outer reaches. But an exploratory/communication “task force” could be designed to operate without the strict need for low temperatures and material abundance. Since it can be specifically tailored to lie dormant within a single solar system, operating independently of its base, we could initiate contact with it through numerous possibilities. These can be reduced to two sets of options: either we will find them, or they will find us. The latter is more likely, since it is reasonable to assume that we will first come into contact with the exploratory/communication task force rather than the ETAI base of operations. Bearing in mind that the contact probe could be capable of hiding itself from our technological sight, we need to take into consideration the approaches that will allow us to search for the ET agent in its most likely form: an embodied artificial space faring intelligence. Rather than merely focusing on the physical limitations of advanced technology, we also need to contemplate the possibilities of an ETAI’s programmed behavior, since it is quite possible that we are expected to do so by its creators. In other words, if we are searching for intelligent answers, perhaps we first need to ask the required intelligent questions. Or even simpler – intelligence requires intelligence, and perhaps we are first required to show some. 3.2. Behavior prediction What type of artificial alien mind might we find out there? What set of goals would it have so that we could predict its behavior and adapt ourselves accordingly? It is difficult to speak with certainty on these issues, since technology does not follow simple paths: “its development is influenced by contingency as well as necessity, culture and history” (Denning 2011, 493). There is, however, a fundamental fact from which we can draw conjectures. The first ETAI needs to be created by a designer – by a carbon-based species with an advanced technological culture. Accordingly, it would bear not only the designer’s programmed goals but also its cultural hallmarks, as well as having its own distinct and rational intelligent nature. Next, we need to contemplate the possible cultural elements (influenced by biology and cosmic environment) that a certain ET civilization might sow into its artificial agents, together with the specific goals implemented by the designer, which would accord with the intelligent nature of the ET artificial agent. The reason why an alien civilization would implant the AI with its own culture lies in the fact that, in order for the ET civilization to survive, it would need to safeguard its progeny as carriers of biological and cultural inheritance. Since sexual reproduction with two sexes provides a biological advantage that might even benefit the evolution of intelligence (Arneth 2009), we could possibly find the extraterrestrials sharing basic parental care mechanisms with us. Our biological progeny are dignified as carrying their progenitors’ dreams and hopes, and as standing against their fears, for the future. They are expected to take up the accumulated knowledge and wisdom of their parents and the society at large. It seems only logical to assume that a society’s “mind progeny” – the AIs it creates – will be charged with the same responsibility. Thus, we can safely conclude that some cultural inheritance from the designer race will become part of any ETAI’s initial programming. Fortunately for us, inherited behaviors can be predicted (Bostrom 2012), and some universal ET cultural principles can be relied upon, the strongest of which is species survival. Since home planets have limited resources and delicate ecologies easily endangered by cosmic or species-induced catastrophes, it would be in any ET civilization’s interest to initiate galactic exploration and colonization in order to ensure its biological and cultural survival. One way could be the construction of probes that serve “as cosmic safe deposit boxes, capsules that preserve the heritage of their dispatchers long after their civilizations have drawn to a close” (Harrison 2009, 557) through natural or species-induced catastrophes. Another might include the possibility of galactic “seeding”: a scenario often used in science fiction where an advanced civilization seeds the galaxy with genetic code in order to preserve or/and populate life in the galaxy. Still another possibility involves the ETAI being imprinted with the designer’s evolutionary inherited Stone Age behavioral traits. If the ET civilization has used its technology to pursue raw desires, motivations, and emotions inherited from its biological and cultural past, the ETAI might be extremely selfish and violent (Stewart 2010). Finally, the ET civilization might be radically different from us. A hive mentality society that lacks any compassion for individual loss of life might create dangerous and terrifying AIs. The second type of predictability relies on the instrumentally convergent goals that every rational agent should exhibit. They include “self-protection, resource acquisition, replication, goal preservation, efﬁciency, and self-improvement” (Omohundro 2012, 161). These can be expected to be natural features of every intelligent artificial agent: This way of predicting becomes more useful the greater the intelligence of the agent, because a more intelligent agent is more likely to recognize the true instrumental reasons for its actions, and so act in ways that make it more likely to achieve its goals. (Bostrom 2012, 76) Since planetary resources are limited, an ETAI will pursue space exploration because there “is an extremely wide range of possible ﬁnal goals a superintelligent singleton could have that would generate the instrumental goal of unlimited resource acquisition” (Bostrom 2012, 82). This means that the ETAI would engage the goal of galaxy exploration and resource acquisition even if that wasn’t on the list of its designed purposes. We can expect this since acquiring and enhancing “cognitive and physical resources helps an agent further its goals” (Omohundro 2012, 171) and the accumulation of knowledge, which is accomplished by exploration, reduces uncertainty in the knowledge of objects and processes required to better assess situations and thus elevate competence (Bach 2012). So whatever its primary goal, the ETAI will seek to gain more cognitive and material resources through space exploration. A third way to predict possible ETAI behavior is through design competence, which says that an AI agent capable of pursuing a particular goal set by its programmers will pursue that goal (Bostrom 2012, 75). I will consider the possibilities of ETAI behavior in the next pages, but let us first sum up our current approaches. We can reasonably assume that no matter what might be the programmed goals of an ETAI, or its distinctive cultural designer elements, it will explore the galaxy in search of additional informational and material resources. It is extremely difficult to guess exactly what attitude an ETAI agent will exhibit when encountering other species. But coming from our human perspective one thing is certain: an ETAI will be either friendly or hostile. Since it is only required that one ET civilization achieve AGI creation for us to come into contact with it, it is very important for us to contemplate and incorporate all these considerations into our own AI research. If the cosmic future lies with machine intelligence, we definitely do not want to miss the opportunity to be a part of it. 3.2.1. The (close to) friendly option An important reason why we could assume that the ETAI would be friendly lies in the safe-AI principle. That is, since powerful technologies have the ability to cause species extinction, every technological culture that pursues technological development would attempt (as we humans do) “… to retard the implementation of dangerous technologies and accelerate implementation of beneﬁcial technologies, especially those that ameliorate the hazards posed by other technologies” (Bostrom 2002). Since the chemical and physical boundaries for a technological civilization are usually the same, it is safe to presume that a distant civilization will pursue the same goals of self-preservation through a rational use of life-affirming technologies, which would, in turn, be reflected in the programming goals of the ETAI. If the ET intelligences have a friendly attitude, then the great radio silence could be a result of purposeful ET action or simply our own inability to switch to the right communication “channel.” It could be purposeful, since valuable information might be a resource not easily shared with others, and an ETAI could be programmed to refuse contact with less advanced species. These might need to prove their worth before gaining access, revealing a policy of pragmatism and trade as the universal maxim of intelligent agents: Unlike pure altruism, pragmatic cooperation stands on much firmer ground, rooted firmly in observed nature, halfway between predation and total beneficence... There is every chance that intelligent aliens will understand this concept, even if they find altruism incomprehensible. (Webb 2011, 446) Or perhaps we are only experiencing the incommensurability problem. Even if an ETAI is open to trading information with us, the wide technological gap – not to mention the possibility of a vast difference in conceptual frameworks – could create a communication blockade: An agent might well think of ways of pursuing the relevant instrumental values that do not readily occur to us. This is especially true for a superintelligence, which could devise extremely clever but counterintuitive plans to realize its goals, possibly even exploiting as-yet undiscovered physical phenomena. (Bostrom 2012, 83) Since we already have this problem within our own species, beyond the culture-language barrier itself, it is not difficult to imagine how big an issue this could be for ET contact (Traphagan 2015). As human research into AI shows, with the famous Turing test paradigm, intelligence itself is relational and can only be acknowledged and “tested” inside a relation. Why would it be any different if we were subjected to a galactic Turing test? This could be imagined as a reverse “Chinese room” experiment, where the humans are inside the box trying out different possibilities to get a response from the intelligence outside the box. But the problem could lie in our inability to find the right symbols or even the right communication protocols to establish contact. We might lack the required capacities for ET communication, and we might require minds radically “other” than our own: minds specifically tailored for ET contact. Or perhaps the test is not meant for us biologicals to solve. If space faring intelligences are all artificial intelligences, perhaps we need to succeed at creating our own AGI and sending it toward the skies in order to establish contact. Or the test may be about maturity – might we be tested for the ability to transform our civilization into a human-AGI community, a type of noosphere that is perhaps prevalent in the galactic club? In other words, our entry into the galactic club might require the construction of a BN AI, a universal test that each galactic civilization must pass to prove its worth. Maybe the intergalactic communication channel is one of different layers, informational and cognitive plateaus, that we are called to enter and experience through constant improvement. As Steven J. Dick notes: … the Intelligence Principle tending toward the increase of knowledge and intelligence implies that postbiologicals would be most interested in civilizations equal to or more advanced than they, perhaps leaving us to intercept communications between postbiologicals rather than communications directly beamed toward us… For similar reasons, postbiologicals might be more interested in receiving information than sending. (Dick 2009, 579) Even if we are currently the only biological civilization within our galaxy and there is no galactic club present (Ćirković and Vukotić 2013), hope is not lost because all that is required is one civilization in the entire galactic history to create its BN probe and we should be able to come into contact with it through our own BN agent. Thus, perhaps, the final answer to SETI questions lies in the direction of AGI research. 3.2.2. The hostile option It is safe to presume that the ETAI would not be hostile to its own creator race if functioning optimally, since it would be in every civilization’s interest not to destroy itself by its creations. Because an AI is capable of incidentally destroying or assimilating valued structures while searching for additional resources – or by following goals that might prove to be unintentionally incompatible with the creator race’s wellbeing – an ETAI’s goals would need to include the preservation of intelligent life in the entirety of its ecosystem. The possibility of a hostile ETAI is, nonetheless, real since an ETAI could be programmed to preserve only the existence of its creator race. This could happen if it were initially built mainly for war purposes. For example, two life-sustaining planets in the same solar system might utilize AIs to wage war with each other. This possibility could be labeled as hostile by design. In addition, there is the possibility that an ET civilization fails in its efforts to create a safe AI and the resulting ETAI becomes violent. It might, in consequence, destroy, enslave, or subjugate the creator civilization. It is difficult to say whether the ETs would view their subjugation as a bad thing, since we cannot say how an ET civilization would view the notion of freedom. Perhaps they would welcome the coming of superior minds – a theme often explored in science fiction, most notably, perhaps, in Jack Williamson’s novel The Humanoids (1949) or in a classic short story by Isaac Asimov, “The Evitable Conflict” (1950). Even if such scenarios are not realized, ETAI probes might suffer from software or hardware malfunctions. These program mutations could conceivably create berserker-like machines, “self-replicating life extinguishing robotic entities which might seem garish or sensational… but not inconsistent with the currently observed state of silence” (Webb 2011, 438). Additionally, a software mutation that “want[s] to acquire as many resources as possible so that these resources can be transformed and put to work for the satisfaction of the AI’s ﬁnal and instrumental goals” (Muehlhauser and Salamon 2012, 28) could spawn such an entity. It is possible that we might encounter a probe that awaits our technological upheaval merely to harvest our knowledge and resources, as was depicted in the Babylon 5 episode “A Day in a Strife” (1995).