## Ineq 1AC

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

### Advantage: Space Industrial Complex

#### 1. Private space activity is expanding, 2022 is the crucial year to demonstrate profitability

Kramer 1-4-22

(Miriam Kramer is the space reporter for Axios. She is the author of the weekly Axios Space newsletter and covers the science and business of space. “Private space companies’ 2022 promises to keep.” Axios. January 4, 2022. https://www.axios.com/private-human-spaceflight-2022-8ec6082a-e3ae-4d6b-8073-3f8af3e7e2a5.html)

The private human spaceflight industry delivered on long-held promises in 2021, but 2022 is the year where it will need to prove itself to the public. Why it matters: The space industry is predicted to be worth more than $1 trillion within the next 10 years. But for that to happen, companies will need to turn the extraordinary feats of the last year into routine operations. What's happening: Last year, Blue Origin and Virgin Galactic both launched their founders — Jeff Bezos and Richard Branson respectively — to space for the first time. Blue Origin followed that up with two more suborbital human flights in 2021. Those missions marked the culmination of decades of work for the two companies and delivered on a promise of sending more non-professionals to space. SpaceX also consistently launched crewed missions to the International Space Station for NASA, a major customer that will influence the continued growth of the company, and had a huge success with four non-professionals flying to orbit without a pro-astronaut onboard on the Inspiration4 mission. What to watch: Now, those companies are trying to demonstrate they can consistently deliver these services — and turn a profit from them. That means flying more. Blue Origin, Virgin Galactic and SpaceX are expected by space watchers to fly people to space consistently and safely this year. That will be key to determining whether the successes of the last year are one-offs or if they can get into "some sort of rhythm and make some money," Carissa Christensen, founder and CEO of BryceTech, told Axios. SpaceX is planning to launch the Axiom Mission-1 mission to the International Space Station early in 2022, which will act as a followup to the Inspiration4 mission and could be an indicator of the market for more amateur orbital flights. It's hard to gauge whether private companies like Blue Origin are profitable — because their finances aren't open to the public — but routinely launching, which is expensive, can act as a proxy for it, Christensen said. Yes, but: Transforming these missions into routine services won't be easy. It will require companies to increase launch cadence, which is challenging because they're working with relatively newly-developed technology and within complicated regulatory frameworks. The big picture: The public demand for these types of services could also become more clear this year. Studies indicate there is "substantial demand" for suborbital spaceflight, Christensen says. "You have a larger pool of people that can afford it now." According to a May 2021 note sent to investors by analysts Ken Herbert and Austin Moeller, of Canaccord Genuity, the suborbital tourism market could reach $8 billion by 2030 with 1 million potential customers. Between the lines: Demonstrating they can turn a profit will be important for the companies working to make consistent, private human spaceflight a reality, but it's likely a small portion of the revenue for the space industry overall. However, human spaceflight will be one of the most important public-facing elements of the overall industry. Major failures and successes will shift the way the public sees the industry, adding to its support or detracting from it. The bottom line: Last year, the private spaceflight industry showed what it can do, but this year, these companies will need to capitalize on it.

#### 2. Private space enterprise *requires* massive inequality-it’s viewed as a *spatial fix* that allows infinite expansion of state backed colonialism

Penny 20

(Eleanor Penny is a writer, poet and essayist based in London. She is a senior editor at Novara Media, <https://inthesetimes.com/article/space-privatization-future-technology-silicon-valley-elon-musk-jeff-bezos>, 12-17)

The eye-watering upfront costs of these exploratory, high-risk, high-reward endeavors can be absorbed by Silicon Valley venture capitalists and the personal fortunes of its aristocracy. A concentration of capital stands ready to risk big money to secure a stake in future markets (which will double down on its power in existing ones). The point is to ensure a slice of the territory everyone else will be clamoring for. This form of ​“creative destruction”—an idea developed by economist Joseph Schumpeter, understood in neoliberalism to describe the boom-bust cycle of innovation — is often packaged in the mythology of moonshot genius that drives human progress. But Schumpeter’s theory has a less discussed underbelly: Such creative destruction is usually twinned with market capture. As competitors are tossed onto the scrap heap of history by their own sudden irrelevance, oligarchies and monopolies flourish. The riches of the asteroid belt make earthly mining look positively parochial. The problem is that a sudden, vast supply of (formerly) precious metals would make market prices plummet. Journalist Aaron Bastani, author of Fully Automated Luxury Communism, notes that satellite-delivered digital information has the potential to replace our earthbound Internet networks with ​“space-based global Internet” — the way music streaming has replaced CDs and CDs replaced cassettes and vinyl — or to at least render them much cheaper (through, for example, open-access 3D printing). SpaceX and Blue Origin surely share a goal to make space transport cheaper. The question is, for whom? These ventures train their sights on infinite excess, with dwindling marginal costs as the supply of key materials and digital resources expands. This paradigm is great for those interested in the advancement of human civilization, but not so much for a grinning billionaire’s fixation on the bottom line. At first glance, expanding industry beyond Earth sounds like a pragmatic fix to the earth-shatteringly simple dilemma faced by capitalism: that it must grow to survive, but the planet it grows upon is finite. But to maintain profit margins in conditions of plenty (a demand of industry), legal and political fixes are required. If you exclusively own mining rights to asteroids rich in platinum — and precious little platinum is left on Earth — you can charge whatever you like for platinum. The diamond industry perfected this technique decades ago. (Elon Musk’s family fortune comes partially from a Zambian emerald mine.) Hence, the focus of the new space race is not on the production of goods or their most efficient sourcing, but on ownership of land and transport networks. In this latest phase of capitalism, as national growth slows, productive industries dwindle and wealth concentrates in fewer hands. As economist Thomas Piketty has observed, this phase is accompanied by a pivot toward rent-seeking as a profit mechanism. In other words, the scramble for space is the scramble to own satellites and ​“starways,” gatekeep the riches of the solar system and charge rent on the moon. Against this backdrop, Space Force might seem retrograde, a warped nostalgia for a time when the space race was about petty terrestrial wars rather than Musk’s supposedly enlightened vision to colonize Mars. In reality, the two visions go hand in hand. Military might physically captures and secures territory, enforces the American political and legal apparatus and ensures business can function (even on the moon). The darlings of this new space age paint their vision as daring futurism, a wild-eyed libertarian dream of human elevation. But history repeats and the story is old. Like Bezos and Musk, Cecil Rhodes — mining magnate and premier villain of the British Empire — also succumbed to dreams of wealth in the night sky. ​“Expansion is everything,” Rhodes said. ​“I would annex the planets if I could.” Where technology opens up the yawning unknown of new territory glittering with potential profit, private enterprises hustle for dominance — backed by the military and legal capacities of earthbound nations. Colonialism in space is not some post-humanist utopia, but the age-old dominion of land barons and mining magnates, billionaires sloughing off the wreckage of one planet and setting out for the stars.

#### 3. Utopian space fantasies are precisely that, they will never happen. Their purpose is to distract the public from a new age of capital accumulation

Marx 21

(Paris Marx is a socialist writer and host of the Tech Won't Save Us podcast. <https://www.jacobinmag.com/2021/07/billionaires-space-richard-branson-jeff-bezos-elon-musk> , 7-13)

But as these billionaires had their eyes turned to the stars and the media showered them with the headlines they craved, the evidence that the climate of our planet is rapidly changing in a way that is hostile to life — both human and otherwise — was escalating. Near the end of June, Jacobabad, a city of 200,000 people in Pakistan, experienced “wet bulb” conditions where high humidity and scorching temperatures combine to reach a level where the human body can no longer cool itself down. Meanwhile, half a world away, on the West Coast of North America, a heat dome that was made much worse by climate change sent temperatures soaring so high that the town of Lytton, British Columbia, hit 49.6ºC, beating Canada’s previous temperature record by 4.6ºC, then burned to the ground when a wildfire tore through the town. The contrast between those stories is striking. On one hand, billionaires are engaging in a dick-measuring contest to see who can exit the atmosphere first, while on the other, the billions of us who will never make any such journey are increasing dealing with the consequences of capitalism’s effects on the climate — and the decades its most powerful adherents have spent stifling action to curb them. At a moment when we should be throwing everything we have into ensuring the planet remains habitable, billionaires are treating us to a spectacle to distract us from their quest for continued capitalist accumulation and the disastrous effects it is already having. The Spectacle of Billionaires in Space Last May, we were treated to a similar display of billionaire space ambition. As people across the United States were marching in the streets after the murder of George Floyd and the government was doing little to stop COVID-19 from sweeping the country, Elon Musk and President Donald Trump met in Florida to celebrate SpaceX’s first time launching astronauts to the International Space Station. As regular people were fighting for their lives, it felt like the elite were living in a completely separate world and had no qualms about showing it. They didn’t have to make it to another planet. Over the past few years, as the billionaire space race has escalated, the public has become increasingly familiar with its grand visions for our future. SpaceX’s Elon Musk wants us to colonize Mars and claims the mission of his space company is to lay the infrastructure to do just that. He wants humanity to be a “multiplanetary” species, and he claims a Martian colony would be a backup plan in case Earth becomes uninhabitable. Meanwhile, Bezos doesn’t have much time for Mars colonization. Instead, he believes we should build large structures in Earth’s orbit where the human population can grow to a trillion people without further harming the planet’s environment. As we live out our lives in O’Neill cylinders, as they’re called, we’ll take occasional vacations down to the surface to experience the wonder of the world we once called home. Neither of these futures are appealing if you look past the billionaires’ rosy pitch decks. Life on Mars would be horrendous for hundreds of years, at least, and would likely kill many of the people who made the journey, while the technology for massive space colonies doesn’t exist and similarly won’t be feasible for a long time to come. So, what’s the point of promoting these futures in the face of an unprecedented threat to our species here on Earth? It’s to get the public on board for a new phase of capitalist accumulation whose benefits will be reaped by those billionaires. To be clear, that does not even mean anything as grand as asteroid mining. Rather, its form can be seen in the event last May: as Musk and even Trump continued to push the spectacle of Mars for the public, SpaceX was becoming not just a key player in a privatized space industry but also in enabling a military buildup through billions of dollars in government contracts. The grand visions, rocket launches, and spectacles of billionaires leaving the atmosphere are all cover for the real space economy.

#### Private control of space replaces democracy with technocracy. Mars should stay *red*, not become a racist country club

Spencer 17

(Keith A. Spencer is a freelance writer and graduate student from the Bay Area. <https://www.jacobinmag.com/2017/02/mars-elon-musk-space-exploration-nasa-colonization> , 2-5)

As the Western liberal order continues to unravel, can you really blame anyone who wants to get off this planet? Since space travel became technologically feasible in the twentieth century, many thinkers — from Arthur C. Clarke to Buckminster Fuller — envisioned the human colonization of other planets as all but inevitable. “Man will not always stay on Earth,” wrote Soviet rocket scientist Konstantin Tsiolkovsky, “the pursuit of light and space will lead him to penetrate the bounds of the atmosphere, timidly at first, but in the end to conquer the whole of solar space.” In their heydays, both the American and Soviet space programs funded research into Mars colonization, viewing it as the next logical step for humanity. In the past two decades however, people have started to pin their hopes for intergalactic travel on private groups instead of public agencies. While President Obama was privatizing much of the American space program, a flurry of ventures released competing proposals to visit and/or colonize the red planet. These schemes’ feasibility and harebrained-ness vary: the Mars Foundation, run by multimillionaire former investor Dennis Tito, is soliciting private donations to send a couple on a flyby of the red planet. Mars One, a Dutch nonprofit, wants to fund a permanent human colony through “merchandise sales, ads on video content, brand partnerships, speaking engagements, [b]roadcasting rights, intellectual property rights, games & apps, and events.” The most famous — and perhaps most likely to succeed — comes from entrepreneur and engineer Elon Musk, the multibillionaire CEO of SpaceX and Tesla Motors. Musk’s articulation of his Mars mission reveals not only what’s wrong with how we think about extraterrestrial colonies and resources, but also how little faith most people have in democracy here on Earth. Interplanetary Technocracy Given his reputation as an engineering genius, Musk’s vision for colonization seems the most plausible of the private missions to Mars. After all, SpaceX, which he admitted to founding specifically to colonize the solar system, became the first private company to successfully launch a rocket into orbit in 2008. In September 2016, at the International Astronautical Congress in Guadalajara, Musk laid out a detailed vision for his colonization project, including financial estimates, engineering specs for the reusable “Interplanetary Transit System,” and the price of a passenger ticket — around $200,000. Musk’s presentation even included a snazzy computer-animated video of the transit system in action and details about the long trip there, which would offer colonists games, restaurants, and entertainment. “It’ll be, like, really fun to go . . . You’re gonna have a great time,” Musk said. His approach to colonizing Mars comes straight out of Silicon Valley’s playbook: Musk has taken a “problem” — how to colonize Mars — and hacked a feasible “solution” that is one part engineering, one part moxie. Just add investors and we’ll be building cities on the red planet in no time. Though vague, Musk reiterated that his vision would need funding. His talk of “tickets” implies that colonists will likely pay for much of the mission. Unlike a space agency’s astronaut selection process, then, his Mars mission will be limited to those who can afford it. In that sense, Musk’s colonization plan looks a lot like joining a country club or gated community — or any other model of private access to space for those who can afford it. Musk’s proposal — heavy on the engineering and business details, light on the philosophical or political implications of colonization — epitomizes technocracy. He doesn’t seem interested in thinking through Mars’s policy or governance, the labor necessitated by building a civilization from scratch, or the problems that will arise from sending rich tourists to self-manage in a place with scant resources demanding communal organization and thinking. The True Value of Mars For some, sending a few rich folks off to Mars seems like a great idea. After all, it’s hardly an Eden waiting to be destroyed. Unlike previous colonial projects, there are no natives to exploit; no wildlife to hunt to extinction; no ecosystem to radically alter; no fossil fuels to extract; and no climate in danger of destruction from carbon emission. Mars’s atmosphere is already 96 percent carbon dioxide! Why not let Musk and his millionaire buddies take off for a few rounds of golf on the frosted dunes? If they get stuck there, all the better. From a humanistic perspective, however, even a lifeless world like Mars holds incredible scientific, educational, and environmental value. To let private interests colonize, terraform, or populate it without considering this collective value would be short-sighted. Indeed, when it comes to colonization, we should hope humanity has learned from its past mistakes and is ready to set upon a more democratic process. Perhaps Earth can agree to hold a public discussion before we set about strip-mining Mars’s glorious dunes, vistas, and mountains, lest the tallest mountain in the solar system become a trash heap like Everest. Government space agencies have gone to great lengths to keep the scientific and social benefits of publicly funded exploration intact. This is why NASA makes all its mission data public, and also why it insists on sterilizing space probes to avoid contaminating other worlds with cellular life from Earth — one stray terrestrial extremophile could confuse the search for microbial life off-planet. The agency, recognizing its work’s educational value, has sent elementary school children’s experiments into space and hosted public naming competitions for geographic features. Likewise, NASA thinks beyond the engineering challenges: they also consider space travel’s psychological and biological effects, surely an important field of study in anticipation of the long space flights required for interplanetary travel. Private industry will be unlikely to follow these collective practices, as its desire for profit or for exclusive property rights — physical and intellectual — will outweigh any public benefit. I Want to Believe The public and media reaction to Musk’s presentation — more than the presentation itself —reflects the current state of our politics. “The mood at the conference was almost as giddy as a rock concert or the launch of a new Apple product, with people lining up for Mr. Musk’s presentation a couple of hours in advance,” wrote Kenneth Chang in the New York Times, who devoted 1,200 words to it. “Elon Musk finally told the world his vision for colonizing Mars, and it turned out to be one hell of a show,” exclaimed Loren Grush in a video article for the Verge. Grush noted that Musk drew an “insane crowd,” describing how “people actually stampeded into the hall where his lecture was in order to get a good seat.” He began in lofty tones: “I want to . . . make Mars seem possible. Make it seem as though it is something we can do in our lifetimes.” This statement implied that we needed some great technological leap forward before embarking on this adventure, but, in fact, travel to Mars has been possible for well over half a century. Given the political will, we can go right now. The subtext of Musk’s message, then, was that our democratic governments will never execute big science and engineering projects. People should trust in the private vision for colonization and space travel instead. In Earth politics, this lack of faith in democratic institutions is nothing new. This idea’s policy implications — that collectively we can’t have big public projects or any sort of real democratic decision-making, and must cede our whims to privately funded foundations and technocratic “experts” — have already taken hold of most countries. As far as I could find, none of the magazines that covered Musk’s announcement mentioned this metatheme, namely, that a public and democratically organized colonization of Mars will never happen. No one questioned the premise that we must let billionaires decide how and when to go to Mars — or that it is the only possible way to get there. Musk’s tech-industry social circle benefits from branding technology as synonymous with progress. As a result, many tech employees work long hours to achieve this invisible notion of progress, but their work just fattens their employer’s profit margins. One can imagine the grueling labor required to make an inhospitable planet habitable. On Mars, employees would exhaust themselves for a corporation under the guise of “survival.” After all, regardless of whether a foundation or a corporation spearheads the colonization effort, they will be incentivized, even forty million miles away, to squeeze as much labor out of their workers at the lowest cost. Further, the question of who is allowed to go to Mars will become as important as the question of who isn’t. If, as Musk proposes, the trip requires a “ticket” — which, as he claims, will eventually drop to only $100,000 — it seems probable that those who can afford to go will mostly resemble, ethnically and politically, Earth’s ruling class. Imagine: the red planet turned racist country club. These questions matter more than how to engineer a rocket or how to build greenhouses or how to harvest water. In fact, state-funded research has already largely solved these technical problems — or, at the least, led to numerous creative ideas about making a Mars colony self-sufficient. The Martian Commons Any colonization effort on Mars — even if only a small number of humans go — will present huge political challenges in terms of the labor and personal rights of its citizens. To wit: what kinds of reproductive restrictions will exist on a planet of scarce resources? How will colonists ration food and activity? What about personal privacy? If Martian citizens are working in a life-or-death situation, can the workers strike? At least in its early years, Mars would have a scarcity economy — in other words, resources would likely have to be rationed in order for the collective to survive. A private colony would be unlikely to make any kind of egalitarian guarantee — after all, if there’s a ticket price, there will certainly be a Martian service economy pampering the space tourists. Inequalities will emerge in terms of labor, housing, food, and access to other resources. In fact, we already know what a privatized Mars might resemble: Mount Everest. At higher elevations, it becomes a barren, lifeless, cold world, where climbers require oxygen tanks to survive. The cost of ascending is as steep as the mountain: between $30,000 to $100,000. Climbers’ journeys are only made possible by their Sherpas’ exploited labor, many of whom die in accidents and are paid as little as $5,000 a year by Western companies. Now imagine this situation replicated forty million miles off, on a lifeless planet, where two-way Earth communication takes almost an hour, and you can envision how dire things could get. A New Hope Musk spent nearly an hour of his speech detailing the technological aspects of Mars travel: the landers, the rockets, the fuel costs, and so on. Musk takes a technology-first approach and rarely mentions the numerous social aspects. His speech and its collective reactions attest to a naïve, John Galt fantasy about how policy and engineering come to pass: through the mind of the lone genius, who alone holds the key to humanity’s future. We saw the same fantasy at work last week when, in the wake of President Trump’s executive order banning emigration from seven majority-Muslim countries, Starbucks CEO Howard Schultz announced his plan to hire ten thousand refugees and was immediately hailed as a liberal hero. The message was clear: we can’t hope to help refugees ourselves, or on a democratic basis — we must rely on the whims of the rich to push forward progressive causes. Alas, the reaction to Musk’s speech also demonstrates how public sentiment has changed: collectively, we no longer believe in public space exploration. Even if we know state agencies can launch a Mars mission, few think it will happen. This doesn’t bode well for how we think of the commons. Are rich people and their foundations the only ones who can save us? The plethora of private Mars proposals reflects a lack of faith in democracy on Earth, in particular in our democratic influence over the directions science and engineering research take. And while faith in public institutions sits at an all-time low, we seem more than happy to hear what the rich can make possible and to believe their promises. Musk is just one of many technocrats who think of a Mars voyage as a technological problem. Not only is it not a technological problem, it’s not even a problem. Colonization of Mars should be seen as a complex social and political policy, with so much potential to create inequality and oppression that it cannot rationally be undertaken without political consensus and a stratagem for maintaining democracy and egalitarianism. We are ready to colonize Mars, and have been for half a century. Doing so without a democratic plan will present unimaginable dangers for the planet and colonists alike. As socialists, our rallying cry should be this: Keep the red planet red!

#### The tradeoff is direct- tax dodging billionaires get government subsidies for space programs that only serve the elite

Pizzigati 21

(Veteran labor journalist and Institute for Policy Studies associate fellow Sam Pizzigati co-edits Inequality.org, the Institute’s weekly newsletter on our great divides. He also contributes a regular column to OtherWords, the IPS national nonprofit editorial service. <https://ips-dc.org/our-billionaires-are-blasting-off-good-riddance/>, 7-17)

Let’s enjoy the ridicule. But let’s not treat the billionaire space race as a laughing matter. Let’s see it as a wake-up call, a reminder that we don’t only get billionaires when wealth concentrates. We get a society that revolves around the egos of the most affluent among us and an economy where the needs of average people go unmet and don’t particularly matter. Characters like Elon Musk, notes Paris Max, host of the Tech Won’t Save Us podcast, are using “misleading narratives about space to fuel public excitement” and gain tax-dollar support for various projects “designed to work best — if not exclusively — for the elite.” The three corporate space shells for Musk, Bezos, and Branson — SpaceX, Blue Origin, and Virgin Galactic — have “all benefited greatly through partnerships with NASA and the US military,” notes CNN Business. Their common corporate goal: to get satellites, people, and cargo “into space cheaper and quicker than has been possible in decades past.” Branson, for his part, is hawking tickets for roundtrips “to the edge of the atmosphere and back,” at $250,000 per head. He’s planning some 400 such trips a year, observes British journalist Oliver Bullough, about “almost as bad an idea as racing to see who can burn the rainforest quickest.” The annual UN Emissions Gap Report last year concluded that the world’s richest 1 percent do more to foul the atmosphere than the entire poorest 50 percent combined. That top 1 percent, the UN report adds, would have to “reduce its footprint by a factor of 30 to stay in line” with the 2015 Paris Agreement targets. Opening space to rich people’s joyrides would stomp that footprint even bigger. Bezos and Musk seem to have grander dreams than mere space tourism. They’re looking “to colonize the cosmos,” with Bezos pushing “artificial tube-like structures floating close to Earth” and Musk talking up the terraforming of Mars. They essentially see space as a refuge from an increasingly inhospitable planet Earth. They expect tax-dollar support to make their various pipedreams come true. And how should we respond to all this? We should, of course, be working to create a more hospitable planet for all humanity. In the meantime, several egalitarian wags have been circulating online petitions that urge our terrestrial authorities not to let orbiting billionaires back on Earth. “Billionaires should not exist…on Earth or in space, but should they decide the latter, they should stay there,” reads one petition nearing 200,000 signatures. Ric Geiger, the 31-year-old automotive supplies account manager behind that effort, is hoping his petition helps the issue of maldistributed wealth “reach a broader platform.” Activists like Geiger are going down the right track. We don’t need billionaires out to “conquer space.” We need to conquer inequality.

#### Profit motive makes equitable space exploration *impossible*-rejecting private appropriation enables socialization of space and its benefits

Marx 20

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The May 30 launch symbolized both Trump’s desire to project an image of revived American greatness and Musk’s need not only to bolster the myth that makes his wealth possible, but to set the foundations for a privatized space industry. The space billionaires — Musk and Amazon CEO Jeff Bezos foremost among them — have little stake in the well-being of the majority of the population. Their space visions are designed for wealthy people like themselves, with little mention of where the working class would fit in. They’ve built their wealth on exploitation, and their visions of the future are little more than an extension of their present actions. A History of Violence The business practices of Musk and Bezos are increasingly well known and have been on clear display during the pandemic. Musk tried to claim Tesla’s Fremont, California factory was “essential” until authorities forced him to close it; then he reopened it in defiance of health orders. As Tesla CEO, Musk has a long history of opposing the unionization of workers, presiding over a high rate of worker injuries (which the company tried to cover up), and even having a former worker hacked and harassed after he became a whistleblower. Meanwhile, Bezos has a similar history of abusing Amazon workers. Amazon’s warehouses are known for having higher injury rates than the industry average, the company has fought unionization, and the stories of the terrible conditions experienced by workers are legendary. During the pandemic, that has continued, with the company failing to enforce social distancing or provide adequate protective equipment until workers began walking out, refusing to be open about infection information, and firing workers who dared criticize the company, all while Bezos’s wealth has increased by more than $30 billion. But it goes beyond that, because the worldviews of these billionaires began to be formed long before they started the empires they currently lord over. Musk did not have a regular childhood, but rather a wealthy upbringing in apartheid South Africa. His father was an engineer and owned part of an emerald mine in Zambia, telling Business Insider, “We were very wealthy. We had so much money at times we couldn’t even close our safe.” In Elon Musk: Tesla, SpaceX, and the Quest for a Fantastic Future, Ashlee Vance describes how Musk got money from his father when he was starting one of his original ventures. He also had a particular admiration for his grandfather, who moved to apartheid South Africa from Canada after rallying “against government interference in the lives of individuals.” Bezos has a not dissimilar story. His father was a well-off oil engineer in Cuba while Fulgencio Batista was in power. In Bit Tyrants, Rob Larson explains that Bezos’s father left the island after the Cuban Revolution and passed his libertarian views down to his son. Bezos’s parents invested nearly $250,000 in Amazon in 1995 as it was getting started. These space barons made their billions through the exploitation of their workers and came from well-off backgrounds made possible from resource extraction. When digging into their visions for a future in space, it’s clear that they seek to extend these conditions into the cosmos, not challenge them in favor of space exploration for the benefit of all. The Future They Want Musk and Bezos are the leading drivers of the modern push to privatize and colonize space through their respective companies, SpaceX and Blue Origin. Their visions differ slightly, with Musk preferring to colonize Mars, while Bezos has more interest in building space colonies in orbit. In 2016, Musk claimed he would begin sending rockets to Mars in 2018. That never happened, but it hasn’t ended his obsession. Musk is determined to make humans a multi-planetary species, framing our choice as either space colonization or the risk of extinction. Bezos says that Earth is the best planet in our solar system, but if we don’t colonize space we doom ourselves to “stasis and rationing.” These framings serve the interests of these billionaires, and make it seem like colonizing space is an obvious and necessary choice when it isn’t. It ignores their personal culpability and the role of the capitalist system they seek to reproduce in causing the problems they say we need to flee in the first place. Billionaires have a much greater carbon footprint than ordinary people, with Musk flying his private jet all around the world as he claims to be an environmental champion. Amazon, meanwhile, is courting oil and gas companies with cloud services to make their business more efficient, and Tesla is selling a false vision of sustainability that purposely serves people like Musk, all while capitalism continues to drive the climate system toward the cliff edge. Colonizing space will not save us from billionaire-fueled climate dystopia. But these billionaires do not hide who would be served by their futures. Musk has given many figures for the cost of a ticket to Mars, but they’re never cheap. He told Vance the tickets would cost $500,000 to $1 million, a price at which he thinks “it’s highly likely that there will be a self-sustaining Martian colony.” However, the workers for such a colony clearly won’t be able to buy their own way. Rather, Musk tweeted a plan for Martian indentured servitude where workers would take on loans to pay for their tickets and pay them off later because “There will be a lot of jobs on Mars!” Bezos is even more open about how the workforce will have to expand to serve his vision, but has little to say about what they’ll be doing. His plan to maintain economic “growth and dynamism” requires the human population to grow to a trillion people. He claims this would create “a thousand Mozarts and a thousand Einsteins” who would live in space colonies that are supposed to house a million people each, with the surface of Earth being mainly for tourism. Meanwhile, industrial and mining work would move into orbit so as not to pollute the planet, and while he doesn’t explicitly acknowledge it, it’s likely that’s where you’ll find many of those trillion workers toiling for their space overlord and his descendants. Space Shouldn’t Serve Capitalists In 1978, Murray Bookchin skewered a certain brand of futurism that sought to “extend the present into the future” and desired “multinational corporations to become multi-cosmic corporations.” Much of this future thinking obsesses about possible changes to technology, but seeks to preserve the existing social and economic relations — “the present as it exists today, projected, one hundred years from now,” as Bookchin put it. That’s at the core of the space billionaires’ vision for the future. Space has been used by past US presidents to bolster American power and influence, but it was largely accepted that capitalism ended at the edge of the atmosphere. That’s no longer the case, and just as past capitalist expansions have come at the expense of poor and working people to enrich a small elite, so too will this one. Bezos and Trump may have a public feud, but that doesn’t mean that their mutual interest isn’t served by a renewed US push into space that funnels massive public funds into private pockets and seeks to open celestial bodies to capitalist resource extraction. This is not to say that we need to halt space exploration. The collective interest of humanity is served by learning more about the solar system and the universe beyond, but the goal of such missions must be driven by gaining scientific knowledge and enhancing global cooperation, not nationalism and profit-making. Yet that’s exactly what the space billionaires and American authoritarians have found common cause in, with Trump declaring that “a new age of American ambition has now begun” at a NASA press briefing just hours before cities across the country were placed under curfew last week. Before space can be explored in a way that benefits all of humankind, existing social relations must be transformed, not extended into the stars as part of a new colonial project.

#### Growing inequality spurs populism and international conflict- reducing inequality solves completely- the K can’t turn case

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[Thomas, and Ronald Rogowski, UCLA political science professor, "Rising Inequality As a Threat to the Liberal International Order," International Organization, 75.2, 4-12-21, https://www.cambridge.org/core/journals/international-organization/article/rising-inequality-as-a-threat-to-the-liberal-international-order/4CDE05DEB3AB076CE338E1AA4A9C8087, accessed 6-27-21]

The rise of top-heavy inequality—earnings concentration in a very thin layer of elites—calls into question our understanding of the distributional effects of the Liberal International Order. Far more people lose from globalization, and fewer gain, than traditional economic models suggest. We review three modern trade theories (neo-Heckscher-Ohlin-Stolper-Samuelson or H-O-S-S, new new trade theory, and economic geography) that each arrive at the conclusion of top-heavy inequality by introducing some form of unit heterogeneity—an assumption that the actors we once treated as identical actually differ from one another in important ways. Heterogeneity allows the gains from globalization to concentrate in a narrow segment of workers with superlative talents, extraordinarily productive firms, or heavily agglomerated cities. An analysis of European voting data shows that shocks from trade and migration elicit populist opposition only where the top 1 percent have gained the most. With few politically feasible alternatives to protectionism, most notably the failure of democracies to redistribute income, our analysis predicts a persistence of public support for antiglobalization parties, especially those on the Right.

Presiding over the November 2016 meeting of the International Political Economy Society, which followed that year's US presidential election by only three days, David Lake began by saying, “To our theories, this result unfortunately comes as no surprise.” And indeed the field at large has believed that the growing “populist”1 backlash against the Liberal International Order (LIO)—not just the Trump victory but Brexit, the election of illiberal governments in Hungary, Poland, Turkey, the Philippines, and Brazil (to name only a few), and growing support for anti-immigrant and illiberal parties and candidates in many other democracies—has followed almost inevitably from the very changes the LIO has wrought, including of course increased trade and migration but also one major concomitant, rising economic inequality within states. According to our traditional economic theories,2 advanced and even middle-income countries are abundantly endowed with human capital, and poorly endowed with low-skill labor. And it is a rudimentary implication of international economics that, in those countries, expanded trade—or, even more, immigration of low-skill workers—will benefit the highly skilled and harm the less educated. Inequality will rise, and—perhaps the most prescient conclusion of the traditional analysis—partisanship will correlate increasingly with possession of human capital: opposition to the LIO will be strongest among the least educated and will decrease monotonically with more years of schooling.

The evidence, which we survey briefly, admits of no doubt that in almost all of the wealthier (and not a few semiwealthy) countries, inequality has risen, often quite sharply; returns on education3 have risen markedly; and education, even more than occupational status, has emerged as one of the most important predictors of electoral support for antiglobalization parties. What our theories however did not anticipate, and so far cannot explain, may well prove to have been even more important:

1. Not all who are well endowed in human capital, but chiefly a very thin upper layer—the top 1 percent, or even 0.1 percent—have harvested most of the gains from globalization.

2. The antiglobalization movements we observe

adopt a populist rhetoric that often excoriates not just globalization or immigration but also allegedly nefarious elites, who conspire, both domestically and across borders, to enrich each other at the expense of their fellow citizens;4

benefit chiefly parties of the radical Right; and

have in important cases attracted non-negligible support among university-educated segments of the electorate, albeit far less than among the less skilled.5

We suggest that the extreme inequality and the anomalies are related, and that some insights from recent work in international economics may help explain them. Three advances in trade theory predict extreme inequality. “New new” trade theory (NNTT), with its emphasis on superstar firms, offers a natural framework. So too does an “enriched” neo-H-O-S-S (Heckscher-Ohlin-Stolper-Samuelson) perspective that explores how superstar workers arise in the context of heterogeneous talent.6 Finally, economic geography, explored thoroughly by Broz, Frieden, and Weymouth in this issue, shows how globalization gives rise to superstar cities.7 These three trade theories predict top-heavy inequality primarily by allowing for unit heterogeneity—an assumption that the actors our traditional theories treated as identical actually differ in important ways. Firms within sectors differ in productivity, workers within a factor class differ in innate talents, and regions within countries differ in agglomeration economies.

None of this suggests, of course, that rising inequality is the only, or even necessarily the most important, cause of the growing popular backlash against the LIO. Skill-biased technological innovation and resistance to cultural change also matter, as we discuss more fully later. We do find, however, at least from a cursory analysis of European elections, that backlash against shocks from immigration and imports is conditional on high inequality, disappearing where inequality is low; and we suspect that rising “top-heavy” inequality is related to a particularly prominent strain, within the antiglobalization movements, of anti-elite and anti-expert sentiment.

We go on to suggest why rising inequality matters, not only as a source of opposition to the LIO but as an impediment to economic growth and an exacerbant of domestic polarization and international conflict.

We assess the implications of top-heavy inequality for the LIO. What remedies have been proposed? And if they lack sufficient political support, what sources of resilience can sustain the LIO under top-heavy inequality? Relatedly, we return to the question of why antiglobalization sentiment has benefited the political Right more than the Left. Finally, we chart a course for future research on models of top-heavy inequality, and discuss how they illuminate “blind spots” in the literature on international political economy.

First, however, we survey briefly the extent of growing economic inequality in advanced economies and its seeming relation, chiefly through a human-capital channel, to antiglobalization and anti-elite attitudes and voting.

Convergence Across Countries, Divergence Within Them

The triumph of the LIO in the 1980s and 1990s—the collapse of Communism, the dismantling of trade barriers, the strengthening of institutions of international governance—coupled with, and facilitated by, breakthrough innovations in transport, communication, and finance, affected economic inequality in two ways that standard factor-endowment theories predicted: inequality declined significantly between countries, thus beginning to erode three centuries of the Great Divergence between rich and poor nations; but inequality within countries, especially among the advanced economies, increased almost as sharply.

Between countries. As late as 1990, the richest 10 percent of the world's population earned on average over ninety times what the poorest decile received; only twenty years later, that ratio had fallen to sixty-five times,8 or only slightly more than the within-country ratio of Brazil, where in 2008 the average income of the richest decile was about fifty times that of the poorest.9

Within countries. Beginning even earlier, inequality of incomes, whether measured as the Gini index or the share of total income accruing to the top decile, has risen in virtually all of the advanced economies,10 and indeed in many of the middle-income ones.11 Bourguignon notes that the collapse of the Soviet empire and the opening of China, India, and Latin America injected roughly “a billion workers, for the most part unskilled, into international competition.”12 That will have drastically lowered the global capital-labor ratio and hence further raised returns on human and physical capital, while reducing those on low-skill labor, in virtually all but the poorest, most labor-abundant countries.

In short, across much of the globe, the enormous overall gains from trade have benefited the highly skilled, the inventive entrepreneurs, and the owners of capital; the incomes of the less skilled and the capital-poor have risen more slowly, stagnated, or actually declined—exactly the development whose early manifestations alarmed Dani Rodrik two decades ago.13

Surely not all of the rise in inequality stems from globalization.14 Many analyses attribute much of the widening within-country gap—in the US, perhaps as much as four-fifths15—not to globalization but to skill-biased technological innovation.16 Bourguignon contends, to be sure, that innovation has been largely endogenous to globalization: wider markets and intensified competition have raised the returns on cost-reducing innovation.17 Cheaper labor, however, whether from offshoring or the competition of low-wage imports, might be expected to curtail the demand for labor-saving technologies, not to increase it.18 A stronger case is implied by “new new” trade theory: if managerial pay correlates closely with firm size, and if the most successful firms in a globalized economy tend to be the largest, it follows that globalization contributes directly to the rise in top incomes.19 Perhaps most importantly, however, whatever skill-biased innovation may have contributed to the gains of the top quintile or decile, it can say little about the gains of the top 1, or 0.1, percent of the distribution.20 Trade, as we argue, can more readily explain those disproportionate gains.

Rising Skills Premia

Also consistent with mainstream theory were the rising returns on education and the widening gap between high- and low-skill workers’ attitudes toward trade and migration. Exactly as theory would lead us to expect, antiglobalization sentiment rose sharply, and was increasingly concentrated, among voters with the least human capital—that is, the less educated.

Returns on education have indeed risen sharply. In the US in the 1970s, workers with a college degree earned only about a quarter more than ones of comparable ethnicity and age who had completed only high school; by 2010, that gap had risen to almost 50 percent.21 The “raw” difference in annual earnings (i.e., without controlling for ethnicity and age) between college graduates and those who have completed only high school is now 64 percent in the US, and on average in the OECD economies 45 percent.22

At the same time, less educated voters have mobilized strongly against globalization in almost all of the advanced economies. In the US, whites with less than a college education, having up to the year 2000 differed little in their partisanship from whites with university degrees, began to tilt Republican in the early 2000s23 and supported Trump in 2016 by a margin of more than two to one (64 to 28 percent).24 In the Brexit referendum, similarly, 70 percent of voters with only a General Certificate of Secondary Education, roughly equivalent to a US high-school diploma, supported leaving the European Union, while those with university degrees voted by almost the same margin (68 percent) to remain.25 And a recent International Monetary Fund working paper finds that since 2002 tertiary (i.e., university or equivalent) education has correlated, more than any other single variable, with not voting for a populist party in European parliamentary elections—an effect that has grown only stronger since 2012.26

The Riddle of the 1 Percent

In many ways, then, a standard factor-proportions picture of globalization's distributional and political effects holds up. What it cannot explain, as economists have by now noted repeatedly,27 is why so much of the bounty has gone to the top 1 percent and why even the remainder of the top decile, let alone the highly educated generally, have benefited comparatively little. This pattern is reflected in average real income trends since 1991 across five advanced economies (Figure 1). Much of the real income growth of the top 10 percent owes to gains by the top 1 percent (compare panels 1 and 2); the next 9 percent (i.e., the remainder of the top decile) have seen a comparatively paltry increase. At the same time, the incomes of next 9 percent, which stagnate or even decline after about 2000, mirror those of the middle 40 percent (compare panels 2 and 3). Taken together, the three panels demonstrate the extent to which a narrow elite has risen above the rest of society's otherwise skilled workers.

Haskel and colleagues more vividly make this case in the US with data on returns on education, finding that the median income of the top 1 percent had risen by 60 percent between 1990 and 2010, while the returns on university education, even for holders of advanced degrees, had declined in real terms after about 2000, virtually erasing their modest gains from the previous decade.28

The seemingly inexorable rise of the 1 percent, when contrasted with the relative stagnation of the rest of the top decile, and of owners of human capital in the middle 40 percent, raises at least three questions. Can our standard theories be modified to explain this “top-heavy” form of inequality? Would such a modified theory still provide a plausible link to globalization? And does such a theory help us understand the simultaneously anti-elitist and antiglobalization character of recent populist movements?

Heterogeneous Workers, Firms, and Regions: Three Ways Globalization Affects Top-Heavy Inequality

We argue that the top-heavy inequality we observe is consistent with three recent advances in trade theory. Each highlights how the bulk of globalization's gains concentrate in a narrow subset of superstar workers, superstar firms, or superstar cities. An “enriched” H-O-S-S model shows how globalization concentrates wages in a small share of highly talented workers. New new trade theory implies that globalization concentrates profits in a few multinational corporations. Finally, economic geography, extensively reviewed by Broz, Frieden, and Weymouth (in this issue), predicts that globalization concentrates economic growth in a few metropolitan regions.29 By producing far more extreme inequality than traditional models suggest, these theories may help explain the puzzling composition of antiglobalization interests and why these movements adopt a populist tone that demonizes elites.

In presenting these advances, we spare the reader their mathematical exposition and instead focus on their sometimes subtle intuitions. We then explore their similarities and differences, as well as how they illuminate the puzzles of LIO backlash.

Neo-H-O-S-S

The first advance injects new life into the increasingly disesteemed, yet still heavily used, factor-endowments framework of Heckscher-Ohlin and Stolper-Samuelson. It turns out that modest enhancements introduced by Haskel and colleagues yield productive insights into the puzzles of LIO backlash.30 The key amendment introduces heterogeneous workers with varying degrees of innate talent. To state briefly the salient and surprising implications of that model, a drop in the relative price of labor-intensive goods, whether induced by globalization or by technology, can not only reduce the wages of low-skill workers, as in traditional models, but also distribute almost all of the resultant gains to a thin layer of highly talented people—and, at least as importantly, induce stagnation, or actual decline, in the earnings of highly skilled but less talented workers.31 And, once we observe that such a shift is both quite recent and plausibly linked to globalization, we may have shed some light on (a) the rabidly anti-elitist and antiglobalization tinge of the populist movements, (b) why such movements have recently peaked, and (c) why they gain (and may well continue to gain) support not only from the “usual suspects” among low-skill workers but also from those with moderate or even relatively high endowments of human capital.32

For those who appreciate a more rigorous introduction, we offer a graphical exposition of the “richer” H-O-S-S model in online Appendix A2. More intuitively, the key to understanding that model is what happens to high-skill workers when the relative price of capital rises.33 First consider the unsurprising fact that within most firms, sectors, and professions, some workers possess natural talent while the majority are perfectly average. Naturally, the most talented employees are far more productive than their average colleagues, even when everyone works with the same amount of capital. In Hollywood, for example, all actors may read the same script, but only A-list talent like Meryl Streep, Denzel Washington, or Tom Hanks can turn that script into an Oscar-winning performance.

In the classic model, trade lowers wages and raises the relative cost of capital; in the enriched model, the owners of capital make up for that higher cost by lowering the wages of mediocre employees and raising the wages of superstars. Capital owners become less able to afford mediocre workers whose productivity cannot keep up with rising capital costs. Instead, they hire the superstars, whose superior productivity can more than cover the increased costs of capital.

Consider the Hollywood example that Haskel and colleagues used, where film scripts represent intellectual capital, indeed the most important form of capital for the entertainment industry. As the world's tastes and purchasing power increase demand for Hollywood entertainment, the price of scripts rises—those of stellar scripts, most of all. As that price rises, studios or streaming services become less and less likely to hire actors of only middling quality to perform such a script. The studios’ investment in a high-quality script will pay off, and bring their film the requisite audience, only if it stars actors of extremely high talent: Robert Downey Jr., Scarlett Johansson, or Samuel L. Jackson (or all three in the same film!).34

Admittedly, this analysis assumes, rather than explains, that we can attribute the rise of the top 1 percent to differences in talent but a lot of evidence supports the thesis. For one thing, in almost all countries—including such improbable cases as France and Spain—half to two-thirds of the income of the top 1 percent consists of salaries (compensation for work). Rarely, in any present-day advanced economy, do returns on capital constitute more than a quarter of the incomes of the top 1 percent (in the US, it is less than 15 percent), Thomas Piketty's arguments notwithstanding.35 As one observer notes, “The fact that so many of [today's] top earners work for a living is striking,”36 given that a century ago the great majority of elite incomes came from investments in property, bonds, or equities. For another, the model accurately predicts the kind of “fractal” inequality that so far has seemed to prevail almost everywhere in advanced and semi-advanced economies.37 That is, inequality seems to have grown not only between, but within firms and occupations: the top lawyers, academics, physicians, middle managers, and even shop floor workers, have begun to earn far more than the median member of their profession, or even the median co-worker of equal qualifications in their firm.

Once we grant that such differences in talent can become important, the model suggests that any globalization-induced rise in the relative price of capital-intensive goods (or, equivalently, decline in the relative price of labor-intensive products) in advanced economies will depress (or threaten to depress) the wages not only of low-skill workers but also of high-skill ones of less than superlative talent. It thus raises the prospect that the growing resistance to global markets may be embraced, sooner rather than later, not only by low-skill workers but by a growing segment of those with higher education or advanced training.

New New Trade Theory

“New new” trade theory (NNTT) offers an alternative firm-centric view of top-heavy inequality.38 Whereas neo-H-O-S-S focuses on how workers of different talents select into different sectors, NNTT focuses on how firms of different productivity levels sort into import-export activities. One of its salient implications is that increases in foreign trade concentrate the distribution of profits into the largest and most productive firms in each sector.39

The intuition is simple: import and export activities require large upfront costs, such as setting up global logistics networks and investing overseas—costs that only the largest firms can afford. The benefits of trade, access to larger markets, for example, then make these large firms even larger, which subsequently allows them to out-compete their smaller domestic rivals. Armed with global economies of scale, superstars like Walmart and Amazon flood the domestic market with low-cost goods and services. This squeezes out the smallest firms, for example, local mom-and-pop establishments, while reducing the profits of the midsize firms, whose middling productivity permits them to sell only domestically. In sum, NNTT implies, and offers evidence to show, that superstar firms in each sector reap the lion's share of the gains from globalization.

In its earliest formulation, NNTT implied no wage inequality, because it assumed workers to be homogeneous. Recent advances draw implications for wage inequality by allowing some profits to pass through to workers—what the literature calls rent-sharing. One modification allows firms to screen, and bargain over quasi-rents with, workers of varying abilities.40 More productive exporting firms pay higher wages to attract higher-ability talent. In the end, rent-sharing allows inequality in firm profits to spill over into inequality in workers’ wages.41

NNTT implies that globalization-induced inequality should manifest itself principally at the level of the firm, pulling up the compensation of all workers in the larger and more successful firms, and leaving behind all of those employed in smaller, domestically oriented firms (or those unemployed through the demise of the smallest firms). This is exactly what Helpman and colleagues find in Brazil, where 70 percent of overall inequality occurs within sectors and occupational categories; similar results were obtained by Akerman and co-authors in an analysis of wage inequality in Sweden from 2000 to 2007.42

Economic Geography

Economic geography explores the origins and effects of one of society's most readily observable features: the unequal distribution of economic activity across space, a phenomenon commonly called agglomeration.43 Broz, Frieden, and Weymouth (in this issue) document how globalization's effects appear most clearly at the level of communities, and operate through the mechanisms specified by economic geography.44 Here we complement their account by situating economic geography within only the broader set of trade models that contribute to extreme inequality. Globalization, we contend, exacerbates regional inequality by inflicting economic stagnation and decline on all but a handful of superstar cities. The mechanism works through the joint effect of agglomeration forces and trade costs. Globalization facilitates the lowering of trade costs (not just those of transportation and communication, but also costs imposed by tariff policies), and this frees up firms to locate in the places that confer the greatest advantage.

The literature identifies many advantages to urban agglomerations. Large cities increase access to suppliers of intermediate inputs, as well as to transportation infrastructure, large pools of specialized talent, and diverse consumers. Moreover, they facilitate the exchange of information about changes in competition, technology, and consumer tastes.45 Some locations also offer a fixed advantage such as access to deep ports or natural resources. Overall, large cities exist and continue to grow because they confer some large basket of benefits on those who locate there.46 The link to globalization seems obvious: the cheaper transportation becomes, and the farther tariff barriers fall, the easier it is for firms and workers to realize the benefits of agglomeration.

For regional inequality to speak to the puzzle of earnings inequality, it must be true that changes in regional growth both reflect and pass through to the wages of resident workers. We find this plausible and consistent with evidence of the stark spatial inequality in returns on skills. A growing literature documents the “end of spatial wage convergence” since 1980, with the bulk of wage gains going to high-skill workers concentrating in just a handful of large cities.47 However, enormous wage inequality within the largest cities suggests that between-region inequality provides only a partial picture. In reality, heterogeneity among workers and firms likely overlaps with, and is accentuated by, the effects of large cities.

Notable Similarities and Differences

All three advances in trade theory point to the same pessimistic outcome, that globalization produces extreme inequality, where a narrow segment of society benefits to the exclusion of the rest. Each theory identifies a different set of “superstars” within this narrow segment: workers with superlative talents, extraordinarily productive firms, or urban agglomerations. Despite varying mechanisms, each arrives at the conclusion of extreme inequality by introducing some form of unit heterogeneity—an assumption that the actors we once treated as identical actually differ from one another in important ways. Workers of similar education differ in innate talent; firms in the same sector vary in productivity; and regions in the same country vary in their advantages of agglomeration. This heterogeneity suggests a radically different perspective on the politics of globalization, one where we should not be surprised that populist protectionist movements arise; that they vilify elites; or that, despite finding their base constituency among low-skill workers, they enjoy nontrivial support from high-skill workers across many sectors.

We highlight two differences among these theories. First, they arrive at the implication of extreme inequality by varying degrees of theoretical complexity. In this regard, neo-H-O-S-S offers a clear advantage: its general framework requires no added assumptions about heterogeneous firms, economies of scale, locational mobility, or rent sharing.

Second, and at least as important, is the empirical accuracy of key theoretical assumptions. In the case of NNTT, evidence for the crucial rent-sharing assumption is decidedly mixed.48 For economic geography, countries almost certainly differ in the degree to which factors are spatially mobile. The neo-H-O-S-S model of differently talented workers will enjoy the most traction in longer-run analyses of wage outcomes, where factors are fully mobile across sectors and regions. Overall, the evident variance in empirical support for different modeling assumptions should caution users to validate these assumptions in their particular research contexts.

Finally, these unit heterogeneity models are not mutually exclusive—they likely reinforce one another in interesting ways. The most talented workers can earn the highest wage by working for the largest firms that can afford them. Regional agglomeration facilitates this advantageous match by locating these superstar workers and superstar firms in the same city. Thus, the top-heavy inequality we observe may very well arise at the intersection of heterogeneous workers, firms, and regions.

Hypothesis

Under any of the three trade theories described here, globalization produces top-heavy inequality, wherein a thin margin of workers benefits while the rest are left behind. This drives a populist strain of backlash that views globalization as a struggle of the masses versus the elites. To our mind, this casts a different light on recent research that sees the backlash as a response to shocks from immigration or imports. To state our key hypothesis:

H when top-heavy inequality is high, shocks from trade, whether in goods, services, or factors of production, increase public support for populist parties. 49 In the absence of top-heavy inequality, however, such shocks have no effect on support for populism. 50

This assumes that inequality reflects the long-run wage effects of trade and migration. That is, if our trade theories accurately predict wage outcomes, then we should observe extreme, or top-heavy, inequality. As previously discussed, even though much of the inequality we observe does reflect trade patterns, inequality also derives from other sources, such as technological change.51

Inequality and Antiglobalization: Evidence from European Elections

We offer a very preliminary test of this hypothesis in the context of two recent studies of populist far-right vote shares in Europe. Their wide empirical coverage, spanning between them twenty-eight countries over twenty-six years (1988 to 2014), affords a high degree of external validity, at least among economically developed nations in recent decades. Also, the two studies focus on different aspects of globalization-related shocks, one on immigration and the other on imports. Finally, both papers offer rigorous research designs. In further examining and extending their findings, we introduce as few modifications as possible to the original designs.

Immigration and Inequality

The study by Georgiadou, Rori, and Roumanias (hereafter GRR) requires the least modification.52 It explores the role of immigration shocks and inequality in all national and European Parliament elections in the twenty-eight member states of the European Union between 2000 and 2014. In particular, the authors study, at the level of Eurostat's NUTS-2 regions,53 the vote shares obtained by “populist radical right” parties,54 which rose dramatically in the wake of the 2008–09 financial crisis (from 0.05 to 0.15 mean vote share across all countries).

In their original analysis, GRR find a positive association between right-populist vote share and both inequality and immigration, controlling for unemployment, immigration, and economic growth.55 Figure 2 replicates this result under the model labeled GRR2018.56

IO2020 extends that model simply by interacting their measures of inequality and immigration. We report the coefficients in standardized units for visual comparability and ease of interpretation. These models are also posted in Table A2 in the online appendix. Two findings follow from our analysis. First, GRR's original finding remains intact: an increase of one standard deviation in national-level inequality, all else equal, is associated with a 2.8-percentage-point increase in populist vote shares (p < .01). Since this exercise holds immigration constant, it suggests that inequality independently undermines support for the LIO. This likely reflects, as we discuss later in the paper, inequality's well-known effects on economic growth, polarization, and external conflict.

Second, our interaction model produces strong evidence for our key hypothesis, that surges in populist support from immigration shocks (which GRR found to have a modest and imprecisely estimated effect) are important but highly conditional on the level of inequality: magnifying backlash at extreme levels and nullifying backlash at lower levels. We visualize this result in a marginal effects plot in Figure 3. The differences in magnitudes are impressive. A one-standard-deviation (0.3 percentage point) increase in the share of migrants in the local population is associated with precisely zero change in vote shares for populist parties at even moderate levels of inequality (Gini < 0.29). At high levels of inequality (Gini > 0.34), the same one-standard-deviation increase in the share of migrants relates to a twenty-point increase in vote share for populist parties. These magnitudes are striking, given that the average NUTS-2 vote share for these parties is 6 percent, with a maximum of 54 percent. Rising immigration, it seems, poses a populist threat to the LIO only when paired with an income distribution that is, or has become, highly unequal.

Imports and Inequality

That inequality mediates shocks from immigration raises the obvious parallel question: does it similarly mediate import-related shocks? To this end, we repeat the earlier analysis, this time employing the data set from Colantone and Stanig (hereafter CS), who examine “China trade shocks” in the European context: fifteen Western European countries over the years 1988 to 2007.57 They report strong effects of Chinese imports on vote shares for radical Right parties58 at the level of the electoral district.59 We replicate their principal results, including their two-stage least squares estimators,60 in specifications 1 and 2 of Table A3 (in the online appendix).

The CS data set does not include a measure of income inequality. To test our interactive hypothesis, we employ inequality measures from the World Inequality Database.61 We report top 1 percent shares of post-tax income at the country level.62 We also apply logarithmic transformations to address issues of fit resulting from extreme outliers.63 Finally, we adopt a multilevel estimator that serves our particular data needs.64 The results rely on this preferred hierarchical estimator.65 Table A3 (in the online appendix) documents how these modifications affect the original CS findings.66

The results for import shocks closely mirror those for immigration. Figure 4 plots the coefficients of our preferred model (IO2020) alongside a baseline model in CS (CS2018). As expected, the positive association between Chinese imports and populist vote shares is highly conditioned by inequality. The coefficient on the China shock remains significant only when interacted with top-1-percent income shares. The marginal effects plot in Figure 5 translates this into real-world terms. At low to medium top-heavy inequality (top 1 percent shares < 0.09), a one-standard-deviation increase in imports (approximately 170 EUR per NUTS-2 worker) relates to no statistically significant change in district vote shares for populist parties—that is, no populist backlash from rising imports. However, in countries where the top 1 percent earns approximately 10 percent or more of national income, the same magnitude of imports is associated with a 25-to-50-percent increase in district vote shares, on average, for right-populist parties.

In combination with the results from immigration shocks, this analysis provides strong support for our hypothesis that the politics of LIO backlash are best understood from the perspective of the three recent advances in trade theory that predict top-heavy inequality. Trade in goods, or in factors of production, in the context of heterogeneous firms, workers, and regions, produces top-heavy inequality that, we argue, sets the stage for a particularly populist form of backlash. We provide suggestive evidence from European elections that is largely consistent with this; migration and imports drive support for populist parties only where we observe high inequality.

Possible Remedies and Sources of Resilience

An optimistic reading of this analysis is that national redistribution provides an effective remedy against right-populist backlashes. This finding is consistent with the “compensation hypothesis,” that government redistribution to globalization's losers increases public support for trade.67 Our paper contributes to this literature by suggesting that redistribution targeted at top-heavy inequality (superstar earners, regions, and firms) to the benefit of otherwise skilled workers in smaller firms and cities would be especially effective.

However, democracies famously fail to address rising inequality with redistribution.68 This leads us to a more pessimistic conclusion that, even though lower inequality increases support for globalization, there is little evidence that governments will redistribute in countries with already high top-heavy inequality. We therefore agree with Atkinson that more redistribution of the large gains from globalization would be both possible and effective; but mass support for it, paradoxically, is weak.69 There is hope for other policy suggestions, as well. Investment in education, even if it could achieve the requisite political support, would fail to address the central problem: outsized gains from “superstar” talent, cities, and firms. Global forms of redistribution, such as the world “Tobin tax” on cross-border financial transactions, promise to tax capital without encouraging capital flight. However, such visions have been dismissed as “utopian.”70 They would also raise the substantial issues of global governance that Rodrik's “globalization trilemma” has highlighted: who would enact such a tax, and to whom would the revenues flow?71

Instead, governments are far more likely to enact protection—restrictions on imports and immigration that reduce welfare but undeniably also reduce inequality. Williamson shows that the choking-off of US immigration from the 1920s to the 1960s contributed significantly to the “great leveling” of American inequality, including the Great Migration of African Americans out of the US South, as Northern employers began to substitute Black for immigrant labor.72 Restricting low-wage imports would of course have a similar effect. These options offer the losers from globalization only a larger slice of a (likely much) smaller pie.

### FW

#### Vote aff to prioritize the slow violence and everyday war against disenfranchised populations. You are conditioned to discount structural violence because it occurs outside of traditional risk frames, which normalizes state-sanctioned violence.

Hunt 18

(Dallas Hunt, PhD Candidate, University of British Columbia, Canada., Chapter 10 “Of course they count, but not right now”: Regulating precarity in Lee Maracle’s Ravensong and Celia’s Song, in Biopolitical Disaster Edited by Jennifer L. Lawrence and Sarah Marie Wiebe, 2018 Routledge, JKS)

“There is a hierarchy to care”: theoretical concerns and applications

In Frames of War (an extension and preoccupation with similar issues she outlines in her text Precarious Life), Judith Butler focuses on the ways in which particular, violent perceptions of everyday life are normalized and propagated as legible or granted “intelligibility” (through numbers, statistics, etc.). According to Butler, Frames of War follows on from Precarious Life ... especially its suggestion that specific lives cannot be apprehended as living. If certain lives do not qualify as lives or are, from the start, not conceivable as lives within certain epistemological frames, then these lives are never lived nor lost in the full sense. (2010: 1) For Butler, then, a primary concern is how these intelligibilities allow “a state to wage its wars without instigating a popular revolt” (xvi). Although Butler is writing within the context of the Iraq War and the “War on Terror,” her insights on precarity and modes of state violence exceed their immediate rele- vance. Indeed, as is clear below, the notions of war and settler-colonialism and the biopolitical rationalities they allow are eminently applicable to a local, Canadian context. The frames of war, Butler argues, are not circumscribed to combat zones with the mobilization of weapons. Instead, to Butler, “perceptual weapons” are acting on populations consistently to naturalize violences and enlist citizens to tacitly consent to (and, in some cases, actively participate in) violent forms that authorize dehumanization: “[w]aging war ... begins with the assault on the senses; the senses are the first target of war” (xvi). These perceptual violences resonate with Rob Nixon’s formulation of “slow violence” as well. To Nixon, slow violence is “a violence that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all” (2011: 3). Further, and “[c]rucially, slow violence is often not just attritional but also exponential, operating as a major threat multiplier; it can fuel long-term, proliferating conflicts in situations where the conditions for sustaining life become increasingly but gradually degraded” (4). Conditioning the senses or what is intelligible, then, functions as the way in which state violences are legitimized, as the frames of war dictate the “sensuous parameters of reality itself” (ix). According to Butler, the task at hand is not only to “understand ... these frames, where they come from and what kind of action they perform” (2010: 83), but also to find and articulate “those modes of representation and appearance that allow the claim of life to be made and heard” (81). While Butler is exam- ining conditions of precarity, (in)security, and disposability in the context of “the War on Terror,” and Palestine–Israel, her examination of an imperial/ colonial power exerting force and enacting violence on vulnerable and racialized populations (and in the process producing and reproducing these vulnerable populations) can be fruitfully employed in the Canadian context, though not without some alteration. Although we may not perceive the more mundane, i.e. non-military, violences visited upon Indigenous communities as “war” strictly speaking, Sora Han’s oft-cited phrase that we must think of the United States (and settler-colonial nations more broadly) not “at war” but “as war” is useful here (cited in Simpson 2014: 153, emphasis in original). If we view the biopolitical man- agement of Indigenous populations and Indigenous territories as rationalities rooted in the organizing frame of settler-colonialism, then the states of emer- gency putatively thought to be produced through war are “structural, not eventful” – that is to say, war is the very condition of settler-colonialism and not a by-product of it (154). Indeed, the largest ever domestic deployment of military forces in North America took place within Canada, in the context of the so-called “Oka crisis.” As Audra Simpson writes, the “highest number of troops in the history of Indigenous-settler relations in North America was deployed to Kanehsatà:ke, as this was the most unambiguous form of exceptional relations, that of warfare. There were 2,650 soldiers deployed...” (2014: 152). And, as Roxanne Dunbar-Ortiz and others have noted, Western imperial powers still refer to “enemy territories” abroad as “Indian Country” and to “wanted terrorists” as “Geronimo” (2014: 56). I follow the lineages of these Indigenous theorists who view settler-colonialism as a kind of permanent war, drawing parallels between the so-called everyday violences (displacement, sexual violence) inflicted upon Indigenous peoples in the US and Canada and the death-delivering reaches of empire embodied by the West more globally. Or, to echo Mink, the transformer/shapeshifter narrating the events in Mara- cle’s Celia’s Song: “This is war” (2014: 9). For Butler, there are varying tactics for distributing “precarity” differently, or what she describes as “that politically induced condition in which certain populations suffer from failing social and economic networks of support,” producing a “maximized precariousness for populations ... who often have no other option than to appeal to the very state from which they need protec- tion” (2010: 26). In the depictions provided in her writing, as well as that of Maracle, violence is deployed not only as “an effort to minimize precarious- ness for some and to maximize it for others,” but also as a mode of shaping the perceptions of citizens in order to make such acts legible, and hence, in a sense justifiable (Butler 2010: 54). Ultimately what Butler is advocating for is a new ethico-political orientation, one with the potential to disrupt the violent regimes of the sensible, as well as the ways in which precarity is currently allocated and distributed. Paraphrasing Jacques Rancière, Jeff Derksen also advocates for political movements that disrupt “regimes of the sensible”: “a politics of the aesthetic could ... redistribute and rethink the possibility of the subject (potentially an isolated figure) within the present and within a com- munity to come” (2009: 73). In sum, Butler’s text illustrates the ways in which State-sanctioned (and induced) precarity “perpetuate[s] a way of dividing lives into those that are worth defending, valuing, and grieving when they are lost, and those that are not quite lives” (2010: 42), as well as the resistive practices that might disrupt the naturalization of “differential distribution[s] of pre- carity” (xxv). The remainder of the chapter considers to what extent Mara- cle’s texts offer such a disruption of the mundane frames of settler-colonial war within the context of an exceptional moment (an epidemic), and asks how her work gestures toward the alternatives that might be offered by Indigenous frames.

#### Prioritizing flashpoint conflicts and crises is a privileged form of impact calculus. Slow violence is rendered invisible under traditional moral frameworks because it happens at the level of the everyday.

Ahmann 18

(Ahmann, Chloe. "“It’s exhausting to create an event out of nothing”: Slow Violence and the Manipulation of Time." Cultural Anthropology 33, no. 1 (2018): 142–171. <https://doi.org/10.14506/ca33.1.06>, JKS)

Anthropologists have long been concerned with the experience of crisis as a moment of heightened social action, set apart from the “imponderabilia of actual life” (Malinowski 1984, 20). But crisis is a privileged designation—a moment of rupture—that incites action and brings contradictions to light (cf. Roitman 2013; Masco 2017). In an attempt to describe scenes that dispossess without ever breaching thresholds of eventfulness, scholars have also begun to attune to sluggish temporalities of suffering. Rob Nixon’s (2011) “slow violence,” Lauren Berlant’s (2011, 95) “slow death,” and Elizabeth Povinelli’s (2011, 4) “quasi-events,” for example, depend on forms of delay, deferral, attrition, and accumulation whose ordinariness is their violence. As Nixon (2011, 4) explains: “Violence is customarily conceived as an event that is immediate in time, explosive and spectacular in space, and as erupting into instant sensational visibility. We need, I believe, to engage a different kind of violence . . . incremental and accretive, its calamitous repercussions playing out across a range of temporal scales.” Slow forms of violence are not only environmental. In the shift from taking life to letting die, even Michel Foucault (2003) recognized that not all deaths are events. Encompassing chronic health conditions alongside milieus of cruddiness (Povinelli 2011), infirmity (Cazdyn 2012), and ruination (Stoler 2013), slow violence refers to a general wearing out, to “deterioration as a defining condition of . . . historical existence” (Berlant 2011, 95). But it also invokes a particular set of challenges. Neither spectacular nor instantaneous, and often proceeding at a speed that decouples suffering from its original causes, slow violence can be difficult to represent, even to perceive. And though many have acknowledged the consequences of inattention and the anesthetizing effects of routine, fewer have shed light on how people mired in the experience of slow violence themselves use time to maneuver politically. In this essay, I focus on the deliberate manipulations of time that characterize responses to slow violence and argue that this condition need not incapacitate its victims. Instead, it can invite creative forms of temporal arrangement, orchestration, and a phenomenon I term moral punctuation: an explicit marking of time that condenses protracted suffering and demands an ethical response, eschewing the delays of political caution and the painstaking work of ensuring scientific certainty. My goal, in other words, is not only to draw attention to the insidious nature of slow or invisible suffering but also to emphasize how affected groups occasionally work time to emphasize their vulnerability. Moreover, I focus on the importance of sustained collective action in the adaptation of time as strategy. In doing so, I join others working on the politics of pollution (e.g., Bullard 1990; Checker 2005) while making temporal tactics a more explicit object of ethnographic scrutiny. This focus challenges the impression that time and perceptibility are chiefly mechanisms of oppression. Instead—like expertise (Brown 1992; Allen 2003) and access to information (Fortun 2001)—they are overt objects of contestation among historically disenfranchised groups (see also Liboiron 2015).

### Underview:

#### 1. Beware the space industrial complex- “corporate innovations” are really government handouts that extend unequal social relations to the stars. Neg futurism should be viewed with extreme skepticism

Savage 21

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In its promethean quest to conquer the heavens and transcend the limitations of earthly existence, the human race may be on the cusp of reaching an historic milestone: in this case, the successful launch of a giant barrel filled with pork into outer space. Thanks in large part to the giant corporate PR machines now in the fray, the burgeoning contest for dominance of the twenty-first century space travel market tends to be perceived in the loftiest of terms: saturated with futurist mythology and defined by grandiose pronouncements about asteroid mining, multiyear voyages to Mars, and interstellar colonization. But, as this week’s wrangling in Congress suggests, the accelerating rivalry between Elon Musk’s SpaceX and Jeff Bezos’ Blue Origin is destined to play out in a decidedly less than utopian fashion. The tell, as documented in a recent report from the Intercept, is an absurd $10 billion amendment to the sinisterly titled Endless Frontier Act introduced by Washington senator Maria Cantwell. Under the highly dubious auspices of funding scientific and technological research, the cash would almost certainly go straight to Blue Origin — which last month narrowly missed out on a lucrative contract to put astronauts on the moon, and just so happens to be based in Cantwell’s home state (the contract instead went to SpaceX, a move NASA has justified with the absolute howler that it was attempting to “preserve a competitive environment”). The question at hand may officially concern lunar exploration, but the whole episode looks like a textbook case of pork barrel politics run amok. In introducing a rival amendment intended to strip the bill of its absurd $10 billion handout to Blue Origin, the famously direct junior senator from Vermont simply had this to say: “It does not make a lot of sense to me that we would provide billions of dollars to a company owned by the wealthiest guy in America.” As is typically the case, Bernie Sanders had it right: Jeff Bezos’s wealth is by this point less an actual number than a matter for philosophical debate, and there is no tenable justification for handing him public money. He was equally right in using the occasion to question the whole idea of privately led space exploration: When we were younger, and Neil Armstrong made it to the Moon, there was incredible joy and pride in this country that the United States of America did something people had forever thought was impossible: we sent a man to the Moon … an extraordinary accomplishment for all of humanity, not just the United States…. I worry very much that what we are seeing now is two of the wealthiest people in this country — Elon Musk and Mr. Bezos — deciding that they are going to take control over our [efforts] to get to the Moon and, maybe, even the extraordinary accomplishment of getting to Mars…. I have a real problem that, to a significant degree, we are privatizing that effort…. This is something that … all of us should be part of, and not simply a private corporate undertaking. As the free market innovates its way to monopolistic control of the solar system by the Earth’s two richest men, it remains as yet unclear how far both technology and capitalism will actually allow the billionaire-dominated venture to go. Bezos and Musk, as you might expect, paint a utopian portrait of interplanetary colonies and abundant life flourishing off-world. Investors in speculative companies like Planetary Resources and Deep Space Industries, meanwhile, hope that the mining of precious metals from asteroids will unlock untold wealth and bring about a new industrial revolution. The most probable scenario for such efforts, of course, is also far more banal: a primary focus on control of vital infrastructure like satellites by large corporations and their billionaire owners. In the unlikely event that technology ever does allow interstellar colonization to be both possible and profitable, however, it’s safe to assume the result will look more like Blade Runner than Star Trek if people like Musk and Bezos are involved. There’s no reason to believe, after all, that extending the profit motive into outer space would yield a different set of social relations than the ones it already produces here on Earth (think orbital Tesla workhouses and overworked Amazon employees trying to relieve themselves in zero-g). Either way, this week’s absurd congressional wranglings over glorified handouts to the world’s two wealthiest men are as good a reminder as any that a privatized space race has far more to do with earthly vice than off-world utopia. Billionaires have already been allowed to devour much of the global economy. Must we let them own the solar system too?

#### 2. There is no such thing as “space philanthropy”- private actors are interested in self promotion, not saving humanity. Their efforts directly gut government programs to allow market capture

Riederer 18

(Rachel Riederer is a science and culture writer. <https://www.jacobinmag.com/2018/07/space-barons-review-elon-musk-bezos-thai-cave>, 7-19)

It is impossible for any reader living through the ravages of global warming to scan these sentiments without skepticism. If someone is going to invest enormous amounts of wealth and time in an engineering project, gathering together some of the smartest scientists on the planet to develop and test creative solutions to an intractable problem, in the interest of saving the future of humanity, how could you choose any focus but climate change? Davenport doesn’t ask, taking at face value the space barons’ declarations that they are motivated by planetary rescue. For those interested in the movement to privatize space exploration and space itself, The Space Barons does serve as a useful primer, laying out the timelines and geneses of these companies. But it stops short of posing critical questions about what it means for such enterprises to be privately held — a line of questioning that, given the history of labor problems and tendencies toward monopolization at the barons’ non-space companies Amazon and Tesla, might be very good questions to ask indeed. It instead leans heavily on colorful anecdotes about the companies’ founders and their philosophies. Bezos, obsessed with the accomplishments of NASA ever since he watched the moon landing at the age of five, commissions an underwater search party to recover the Apollo-era Saturn V rocket engines from the floor of the Atlantic. Branson evangelizes about the “life-changing” effects of experiencing space and trains for spaceflight in a spinning centrifuge, declaring the adventure “rather fun.” A young Musk floats an idea for a Martian greenhouse project straight out of the sci-fi of Kim Stanley Robinson, “a P.T. Barnum-like stunt” in which he would launch a greenhouse full of seeds and growing medium onto the surface of Mars and make the red planet bloom. A more seasoned Musk sues the US Air Force for the right to compete for national-security launches alongside established aerospace contractors like Boeing and Lockheed Martin. Running through all of these engineering and business adventures is the rivalry between Bezos and Musk. Both are working toward the same goal: developing and producing rockets that can be reused on multiple flights, making regular spaceflight more efficient. When SpaceX successfully launched — and then re-landed — the Falcon 9 for the first time, in December of 2015, Musk was ecstatic. Until he saw a tweet from Bezos offering his congratulations and saying “Welcome to the club!” Bezos had done the same, with his rocket, the New Shepard, the month before. Musk took the success of the Falcon 9 as validation of his long-term goals. “It really quite dramatically improves my confidence that a city on Mars is possible,” he said. “That’s what this is all about.” Well, it’s part of what this is all about. The desire to be beloved, to be seen as a great visionary rescuer, is what’s so grating about Musk’s recent public announcements of altruism, and it’s present throughout the history of all of the companies profiled in The Space Barons. In addition to amassing billions of dollars in personal wealth and living out their rocket-launching boyhood dreams, the space barons insist on framing their pursuits as inspirational and civic-minded. The tension in the recent dust-up over Musk’s unused Thai-cave rescue pods isn’t about whether Musk and his engineers created the rescue pods, but why. Was it a good-faith effort to help a group of desperate kids, or a megalomaniacal attempt to place himself and his companies at the center of a giant news story? Musk wants the answer to be simple, defending his behavior by insisting that “something’s messed up if this is not a good thing.” The space barons are fond of metaphors of exploration and frontiers. They compare themselves to Shackleton and Magellan. “The thing that actually gets me the most excited about it,” Musk says, “is that I just think it’s the grandest adventure I could possibly imagine. It’s the most exciting thing — I couldn’t think of anything more exciting, more fun, more inspiring than to have a base on Mars.” This enthusiasm is fine, of course. But it also shatters the notion that Musk and company are trying to thrust humanity into space to save us all from planetary disaster. Outer space, a flooded network of caves — anywhere dangerous and sparsely visited will draw to it both adventurers and rescuers. But their work proceeds differently, and someone who’s out for a grand adventure shouldn’t pretend to be a planetary EMT. Perhaps the worst thing about the space barons is that they’re burnishing their reputation by rushing into areas vacated by state divestment — divestment that in many cases, they themselves have helped promote. Witness Musk’s recent pledge to “fund fixing the water in any house in Flint that has water contamination” while lavishly contributing to the Republican Party. Musk and his brethren have hoovered up billions of dollars, funded plutocratic causes — and then balk when anyone raises a peep about their narcissistic antics. “They were driven by the business opportunities in space, by adventure, and by ego,” Davenport writes of the group he profiles. “[I]magine the Promethean legacies they’d leave after opening up the Final Frontier.” Yet Promethean legacy is a double-edge sword: the trickster who stole fire from the gods and gave it to mankind is as much a symbol of tragic consequences as of human progress.

#### 3. No turns- space billionaires aren’t unique geniuses, they are accidents of history. Allowing them to control space guarantees the worst aspects of exploitative capitalism take over the galaxy

Spencer 19

(Keith A. Spencer is a senior editor at Salon who edits Salon's science and health vertical. His book, "A People's History of Silicon Valley: How the Tech Industry Exploits Workers, Erodes Privacy and Undermines Democracy," was released in 2018.  <https://www.salon.com/2019/07/28/earths-robber-barons-are-salivating-over-bringing-authoritarian-capitalism-to-space/>)

If the Nazis were to follow imperialism to the next logical step, and establish human colonies on other worlds — asteroids, moons, space stations, or on planets like Mars — a social and political system rooted in oppression, hierarchy and racial superiority would spread, like an infection, to other distant bodies where they would be far more difficult to extract. Part of that is due to an intractable communication problem: even between the most distant regions of Earth, the speed of light is not a noticeable constraint on the amount of time it takes to communicate. The same is not true in space. Authoritarians, of both the Nazi and the corporate variety, are not necessarily fond of free speech nor free communication; they are powerful tools for upsetting the social and political order. Even here in the United States, supposed bastion of liberal democracy, we've seen this play out before. In 2011, the Bay Area Rapid Transit (BART) public transit system suppressed communications networks in order to stifle dissent. As protests over the BART police shooting of Charles Blair Hill spread around the Bay Area, the regional transit system literally turned off the underground cell phone towers that would allow cell and data transmission while underground. The agency, unwisely, openly admitted it: "Organizers planning to disrupt BART service stated they would use mobile devices to coordinate their disruptive activities and communicate about the location and number of BART Police," the transit agency said. "A civil disturbance during commute times at busy downtown San Francisco stations could lead to platform overcrowding and unsafe conditions for BART customers, employees and demonstrators." The American Civil Liberties Union issued a harsh rebuke, and questioned whether the move was even legal for a government agency to do this. "All over the world, people are using mobile devices to protest oppressive regimes, and governments are shutting down cell phone towers and the Internet to stop them," said Michael Risher, a staff attorney for the American Civil Liberties Union of Northern California. "It's outrageous that in San Francisco, BART is doing the same thing." If this is how an American governmental agency behaves when confronted with the prospect of a legitimate peaceful protest, imagine how pro-Martian colonizer Elon Musk — who notoriously detests labor — will behave when his Martian dishwashers strike for higher wages. My point is, if you think that social and political struggles are difficult on Earth, where oxygen is free and the outside is traversable without an airtight suit, just wait until you see what happens when you bring humans to Mars — a planet where round-trip communication with Earth takes forty minutes at a minimum, and nighttime surface temperatures vary between -100 and -195° Fahrenheit. On our capitalist planet, there are no workers whose employers can threaten to leave them stranded, 80 million miles from home, if they don't do their bidding. On Mars, a disgruntled worker's employer could compel them to work by threatening to ever let them go home to Earth again. The potential for slavery on the red planet cannot be underestimated. Historically, the worst capitalist labor abuses on Earth happen to the most powerless workers in situations where no one is looking. Horrific tales of sexual harassment in Antarctica made sense inasmuch as its barrenness makes it an ideal place to be manipulative without anyone noticing. Mines, given their remote nature, are often rife with exploitation — and the history of miner treatment should give us pause as to how workers on Mars or on one of Jeff Bezos's space stations might be treated. This warning is prescient currently because of the intense focus of both government and private actors on the potential to privatize space travel. NASA Administrator Jim Bridenstine wants to create a "robust commercial marketplace" for space travel, has proposed a public-private partnership for the moon, and has spoken of privatizing the international space station. Elon Musk, one of NASA's suppliers in the brave new privatized world, is perfervid about building a Mars colony. Jeff Bezos, the richest human in the world, plans to build giant space stations; his rationale for space colonization is that "we are in the process of destroying this planet," something he actually stated with no palpable sense of irony. There are many who adulate Musk and Bezos, and view them as our generation's heroes. Yet the fact that these men honestly believe they are the ones to lead humans to space has nothing to do with any of their unique qualifications; it is due to a series of historical accidents that randomly thrusts sociopaths to the top of the capitalist food chain. Five decades of deregulation, neoliberal economic policy, and reduced taxation on the highest tax bracket have led us to a unique point in human history, where a few individuals are so wealthy that they have the ability to fund space travel. Again, this is not because these individuals are uniquely competent, nor qualified, to jumpstart colonization; it is an accident of history and economics that makes this situation possible. Nothing more. My fear with space colonization is that humans tend to think of it as inherently different than other political struggles, merely because humans haven't gone to space yet. The idea of space colonization as a cool, fun, exciting, sci-fi thing inhibits our ability to think critically about what it would actually mean to let a bunch of tech CEOs unilaterally colonize the solar system. There are precedents for the political aftereffects of space colonization: we have seen situations where a controlling institution tries to stifle communication on their property to prevent protest; we have seen how workers are exploited in cordoned spaces where their employers think no one is paying attention; we have seen how corporations entrap workers in hostile environments by giving them housing and food, and using that as a wedge to prevent dissent; and we have seen how corporations harvest the labor of the poor and vulnerable in order to avoid paying first-world wages to people who expect benefits. All of these scenarios seem likely to play out in our future if we don't fight back against the space imperialists. If you thought capitalism on Earth was horrific, wait till you see what it looks like in a vacuum

#### 4. Benefits of private space are delusions based on sci fi

Marx 19

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Imagine, for a moment, that you’re a billionaire who’s read science fiction your whole life. Your mind, deluded by your immense wealth, thinks that the only way to “deploy this much financial resource” is to invest in space instead of paying taxes so we can collectively solve the problems on Earth. When a fictional television show about space colonization is canceled in its third season, you swoop in to save the day because not only do you fund a space company, but you also own a massive streaming platform — and it needs content. After chatting with some of the cast, you email your team asking to announce the show’s renewal, and — ten minutes after they reply — you take the stage and are lauded by sci-fi fans across the internet for saving the day. This is exactly what happened when The Expanse was canceled by Syfy and quickly scooped up by Amazon Prime Video for a fourth season after a personal intervention by CEO Jeff Bezos. It’s hard to imagine having so much money that you could both fund a space race and the media that could inspire it all at the same time, but that’s exactly what he’s doing. Earlier this year, Bezos put forward his vision for space colonization, which involved growing the human population to over a trillion people living in colonies orbiting Earth. Bezos asserted population expansion would allow a flourishing of the arts, with the creation of “a thousand Mozarts and a thousand Einsteins,” and would help us avoid “stasis and rationing” on Earth for an economy of “growth and dynamism” in space. But Bezos’s vision completely ignores what the lives of the working class would look like in such a future. And he’s not the only billionaire making that mistake. SpaceX CEO Elon Musk also believes humanity must become a “multiplanetary species” by establishing a colony on Mars that will grow into a city of over a million within a few decades. By his telling, it would be governed by a direct democracy with all laws requiring 60 percent support to be enacted, but only 40 percent support to be repealed — a libertarian’s space fantasy. Bezos’s and Musk’s visions of life in space are afflicted by a misguided belief that humanity will have solved its social conflicts before taking to the stars. It’s a view that may have come from the social relations in Star Trek — another show that Bezos loves — but that franchise’s fictional world is one of postcapitalist abundance, not rampant capitalism.