# 1NC Triples

## Off

### 1NC

Extra-T

#### Extra-topicality is a voting issue- they defend global orbital counter-operations.

#### That un-limits the topic and allows the affirmative to tack on infinite, unpredictable planks to solve core DAs and permute CPs which undermines rigorous clash and testing. It also allows them to claim advantages from offense not intrinsic to the resolution. That turns all their offense- it makes us worse at rigorously contesting the method of the affirmative and its desirability as a political strategy outside of debate. Counter-interp- you can read the aff as just “appropriation is unjust” which solves all their offense.

#### Reject the team- this indicts the whole aff. Reject the arg also encourages theory-baiting and doesn’t deter future abuse. Use competing interpretations- reasonability is arbitrary, invites intervention, and collapses since we need a brightline. No RVIs- they’re illogical and bait theory.

### 1NC

Space col DA

#### I agree – private appropriation of outer space expands cap into a limitless frontier and that’s awesome.

#### Prefer objective indicators – human cognition drastically inflates the importance of perception in analysis.

Pinker 19

(Steven Pinker is an experimental cognitive psychologist and a popular writer on language, mind, and human nature. His books include "The Language Instinct," "How the Mind Works," and "The Blank Slate."Pinker is the Johnstone Family Professor of Psychology at Harvard University, and his academic specializations are visual cognition and developmental linguistics. His experimental subjects include mental imagery, shape recognition, visual attention, children's language development, regular and irregular phenomena in language, the neural bases of words and grammar, as well as the psychology of cooperation and communication, including euphemism, innuendo, emotional expression, and common knowledge.), “One thing to change: Anecdotes aren’t data”, The Harvard Gazette, 6/21/19, NCS, <https://news.harvard.edu/gazette/story/2019/06/focal-point-harvard-professor-steven-pinker-says-the-truth-lies-in-the-data/>

QUESTION: What is one thing wrong with the world that you would change, and why? Too many leaders and influencers, including politicians, journalists, intellectuals, and academics, surrender to the cognitive bias of assessing the world through anecdotes and images rather than data and facts. Our president assumed office with a dystopian vision of American “carnage” in an era in which violent crime rates were close to historical lows. His Republican predecessor created a massive new federal department and launched two destructive wars to protect Americans against a hazard, terrorism, that most years kills fewer people than bee stings and lightning strikes. In the year after the 9/11 attacks, 1,500 Americans who were scared away from flying perished in car crashes, unaware that a Boston-LA air trip has the same risk as driving 12 miles. One death from a self-driving Tesla makes worldwide headlines, but the 1.25 million deaths each year from human-driven vehicles don’t. Small children are traumatized by school drills that teach them how to hide from rampage shooters, who have an infinitesimal chance of killing them compared with car crashes, drownings, or, for that matter, non-rampage killers, who slay the equivalent of a Sandy Hook and a half every day. Several heavily publicized police shootings have persuaded activists that minorities are in mortal danger from racist cops, whereas three analyses (two by Harvard faculty, Sendhil Mullainathan and Roland Fryer) have shown no racial bias in police shootings. “How do we change this destructive statistical illiteracy and disdain for data?” Many people are convinced that the country is irredeemably racist, sexist, homophobic, and sexually assaultive, whereas all of these scourges are in steady decline (albeit not quickly enough). People on both the right and left have become cynical about global institutions because they think that the world is becoming poorer and more war-torn, whereas in recent decades global measures of extreme poverty and battle deaths have plummeted. People are terrified of nuclear power (the most scalable form of carbon-free energy) because of images of Three Mile Island (which killed no one), Fukushima (which killed no one; the deaths were caused by the tsunami and a panicked, unnecessary evacuation), and Chernobyl (which killed fewer people than are killed by coal every day). They imagine that fossil fuels can be replaced by solar energy, without doing the math on how many square miles would have to be tiled with solar panels to satisfy the world’s vastly growing thirst for electricity. And they think that voluntary sacrifices, like unplugging laptop chargers, are a sensible way to deal with climate change. How do we change this destructive statistical illiteracy and disdain for data? We need to make “factfulness” (as Hans, Ola, and Anna Rosling call it) an inherent part of the culture of education, journalism, commentary, and politics. An awareness of the infirmity of unaided human intuition should be part of the conventional wisdom of every educated person. Guiding policy or activism by conspicuous events, without reference to data, should come to be seen as risible as guiding them by omens, dreams, or whether Jupiter is rising in Sagittarius.

#### And, the role of the ballot is to vote for the debater who best defends free markets in outer space from the luxury communists. All DAs prove it impact turns their role of the ballot.

#### The warrants for their role of the ballot obviously all beg the question of whether capitalism is actually bad and worth resisting and therefore cannot be dis-entangled from the rest of the debate, so you shouldn’t vote on artificial ROTB preclusion

#### Privatization is necessary for space colonization – disruptions kill that potential

Thiessen ‘20 – writes a twice-weekly column for The Post on foreign and domestic policy. He is a fellow at the American Enterprise Institute, and the former chief speechwriter for President George W. Bush. (Marc A., "SpaceX’s success is one small step for man, one giant leap for capitalism," Washington Post, 6-1-2020, https://www.washingtonpost.com/opinions/2020/06/01/spacexs-success-is-one-small-step-man-one-giant-leap-capitalism/, Accessed 1-6-2021, )

It was one small step for man, one giant leap for capitalism. Only three countries have ever launched human beings into orbit. This past weekend, SpaceX became the first private company ever to do so, when it sent its Crew Dragon capsule into space aboard its Falcon 9 rocket and docked with the International Space Station. This was accomplished by a company Elon Musk started in 2002 in a California strip mall warehouse with just a dozen employees and a mariachi band. At a time when our nation is debating the merits of socialism, SpaceX has given us an incredible testament to the power of American free enterprise. While the left is advocating unprecedented government intervention in almost every sector of the U.S. economy, from health care to energy, today Americans are celebrating the successful privatization of space travel. If you want to see the difference between what government and private enterprise can do, consider: It took a private company to give us the first space vehicle with touch-screen controls instead of antiquated knobs and buttons. It took a private company to give us a capsule that can fly entirely autonomously from launch to landing — including docking — without any participation by its human crew. It also took a private company to invent a reusable rocket that can not only take off but land as well. When the Apollo 11 crew reached the moon on July 20, 1969, Neil Armstrong declared “the Eagle has landed.” On Saturday, SpaceX was able to declare that the Falcon had landed when its rocket settled down on a barge in the Atlantic Ocean — ready to be used again. That last development will save the taxpayers incredible amounts of money. The cost to NASA for launching a man into space on the space shuttle orbiter was $170 million per seat, compared with just $60 million to $67 million on the Dragon capsule. The cost for the space shuttle to send a kilogram of cargo into to space was $54,500; with the Falcon rocket, the cost is just $2,720 — a decrease of 95 percent. And while the space shuttle cost $27.4 billion to develop, the Crew Dragon was designed and built for just $1.7 billion — making it the lowest-cost spacecraft developed in six decades. SpaceX did it in six years — far faster than the time it took to develop the space shuttle. The private sector does it better, cheaper, faster and more efficiently than government. Why? Competition. Today, SpaceX has to compete with a constellation of private companies — including legacy aerospace firms such as Orbital ATK and United Launch Alliance and innovative start-ups such as Blue Origin (which is designing a Mars lander and whose owner, Jeff Bezos, also owns The Post) and Virgin Orbit (which is developing rockets than can launch satellites into space from the underside of a 747, avoiding the kinds of weather that delayed the Dragon launch). In the race to put the first privately launched man into orbit, upstart SpaceX had to beat aerospace behemoth Boeing and its Starliner capsule to the punch. It did so — for more than $1 billion less than its competitor. That spirit of competition and innovation will revolutionize space travel in the years ahead. Indeed, Musk has his sights set far beyond Earth orbit. Already, SpaceX is working on a much larger version of the Falcon 9 reusable rocket called Super Heavy that will carry a deep-space capsule named Starship capable of carrying up to 100 people to the moon and eventually to Mars. Musk’s goal — the reason he founded SpaceX — is to colonize Mars and make humanity a multiplanetary species. He has set a goal of founding a million-person city on Mars by 2050 complete with iron foundries and pizza joints. Can it be done? Who knows. But this much is certain: Private-sector innovation is opening the door to a new era of space exploration. Wouldn’t it be ironic if, just as capitalism is allowing us to explore the farthest reaches of our solar system, Americans decided to embrace socialism back here on Earth?

#### Happens by 2050s---solves every impact BUT degrowth disrupts progress

Drake '16 – a science journalist and contributing writer at National Geographic. She earned an A.B. in biology, psychology, and dance at Cornell University, worked in a clinical genetics lab at The Johns Hopkins University School of Medicine, then returned to Cornell for her Ph.D. in genetics and development. (Bynadia, "Elon Musk: A Million Humans Could Live on Mars By the 2060s," Science, 9-27-2016, https://www.nationalgeographic.com/science/article/elon-musk-spacex-exploring-mars-planets-space-science, Accessed 6-10-2021)

In perhaps the most eagerly anticipated aerospace announcement of the year, SpaceX founder Elon Musk has revealed his grand plan for establishing a human settlement on Mars. In short, Musk thinks it’s possible to begin shuttling thousands of people between Earth and our smaller, redder neighbor sometime within the next decade or so. And not too long after that—perhaps 40 or a hundred years later, Mars could be home to a self-sustaining colony of a million people. “This is not about everyone moving to Mars, this is about becoming multiplanetary,” he said on September 27 at the International Astronautical Congress in Guadalajara, Mexico. “This is really about minimizing existential risk and having a tremendous sense of adventure.” Musk’s timeline sounds ambitious, and that's something he readily acknowledges. “I think the technical outline of the plan is about right. He also didn’t pretend that it was going to be easy and that they were going to do it in ten years,” says Bobby Braun, NASA’s former chief technologist who’s now at Georgia Tech University. “I mean, who’s to say what’s possible in a hundred years?” And for those wondering whether we should go at all, the reason for Musk making Mars an imperative is simple. “The future of humanity is fundamentally going to bifurcate along one of two directions: Either we’re going to become a multiplanet species and a spacefaring civilization, or we’re going be stuck on one planet until some eventual extinction event,” Musk told Ron Howard during an interview for National Geographic Channel’s MARS, a global event series that premieres worldwide on November 14. “For me to be excited and inspired about the future, it’s got to be the first option. It’s got to be: We’re going to be a spacefaring civilization.” Mars Fleet Though he admitted his exact timeline is fuzzy, Musk thinks it’s possible humans could begin flying to Mars by the mid-2020s. And he thinks the plan for getting there will go something like this: It starts with a really big rocket, something at least 200 feet tall when fully assembled. In a simulation of what SpaceX calls its Interplanetary Transport System, a spacecraft loaded with astronauts will launch on top of a 39-foot-wide booster that produces a whopping 28 million pounds of thrust. Using 42 Raptor engines, the booster will accelerate the assemblage to 5,374 miles an hour. Overall, the whole thing is 3.5 times more powerful than NASA’s Saturn V, the biggest rocket built to date, which carried the Apollo missions to the moon. Perhaps not coincidentally, the SpaceX rocket would launch from the same pad, 39A, at Kennedy Space Center in Cape Canaveral, Florida. The rocket would deliver the crew capsule to orbit around Earth, then the booster would steer itself toward a soft landing back at the launch pad, a feat that SpaceX rocket boosters have been doing for almost a year now. Next, the booster would pick up a fuel tanker and carry that into orbit, where it would fuel the spaceship for its journey to Mars. Once en route, that spaceship would deploy solar panels to harvest energy from the sun and conserve valuable propellant for what promises to be an exciting landing on the Red Planet. As Musk envisions it, fleets of these crew-carrying capsules will remain in Earth orbit until a favorable planetary alignment brings the two planets close together—something that happens every 26 months. “We’d ultimately have upward of a thousand or more spaceships waiting in orbit. And so the Mars colonial fleet would depart en masse,” Musk says. The key to his plan is reusing the various spaceships as much as possible. “I just don’t think there’s any way to have a self-sustaining Mars base without reusability. I think this is really fundamental,” Musk says. “If wooden sailing ships in the old days were not reusable, I don’t think the United States would exist.” Musk anticipates being able to use each rocket booster a thousand times, each tanker a hundred times, and each spaceship 12 times. At the beginning, he imagines that maybe a hundred humans would be hitching a ride on each ship, with that number gradually increasing to more than 200. By his calculations, then, putting a million people on Mars could take anywhere from 40 to a hundred years after the first ship launches. And, no, it would not necessarily be a one-way trip: “I think it’s very important to give people the option of returning,” Musk says. Colonizing Mars After landing a few cargo-carrying spacecraft without people on Mars, starting with the Red Dragon capsule in 2018, Musk says the human phase of colonization could begin. For sure, landing a heavy craft on a planet with a thin atmosphere will be difficult. It was tough enough to gently lower NASA’s Curiosity rover to the surface, and at 2,000 pounds, that payload weighed just a fraction of Musk’s proposed vessels. For now, Musk plans to continue developing supersonic retrorockets that can gradually and gently lower a much heavier spacecraft to the Martian surface, using his reusable Falcon 9 boosters as a model. And that’s not all these spacecraft will need: Hurtling through the Martian atmosphere at supersonic speeds will test even the most heat-tolerant materials on Earth, so it’s no small task to design a spacecraft that can withstand a heated entry and propulsive landing—and then be refueled and sent back to Earth so it can start over again. The first journeys would primarily serve the purpose of delivering supplies and establishing a propellant depot on the Martian surface, a fuel reservoir that could be tapped into for return trips to Earth. After that depot is set up and cargo delivered to the surface, the fun can (sort of) begin. Early human settlers will need to be good at digging beneath the surface and dredging up buried ice, which will supply precious water and be used to make the cryo-methane propellant that will power the whole enterprise. As such, the earliest interplanetary spaceships would probably stay on Mars, and they would be carrying mostly cargo, fuel, and a small crew: “builders and fixers” who are “the hearty explorer type,” Musk said to Howard. “Are you prepared to die? If that’s OK, then you’re a candidate for going.” While there will undoubtedly be intense competition and lots of fanfare over the first few seats on a Mars-bound mission, Musk worries that too much emphasis will be placed on those early bootprints. “In the sort of grander historical context, what really matters is being able to send a large number of people, like tens of thousands if not hundreds of thousands of people, and ultimately millions of tons of cargo,” he says.

#### Life on earth is doomed – countless eventualities and unforeseen dangers.

Meyer 16

(Robinson Meyer is a staff writer at The Atlantic. He is the author of the newsletter The Weekly Planet, and a co-founder of the COVID Tracking Project at The Atlantic.), "Human Extinction Isn't That Unlikely", The Atlantic, 4/29/16, NCS, https://www.theatlantic.com/technology/archive/2016/04/a-human-extinction-isnt-that-unlikely/480444/

Nuclear war. Climate change. Pandemics that kill tens of millions. These are the most viable threats to globally organized civilization. They’re the stuff of nightmares and blockbusters—but unlike sea monsters or zombie viruses, they’re real, part of the calculus that political leaders consider everyday. A new report from the U.K.-based Global Challenges Foundation urges us to take them seriously. The nonprofit began its annual report on “global catastrophic risk” with a startling provocation: If figures often used to compute human extinction risk are correct, the average American is more than five times likelier to die during a human-extinction event than in a car crash. Partly that’s because the average person will probably not die in an automobile accident. Every year, one in 9,395 people die in a crash; that translates to about a 0.01 percent chance per year. But that chance compounds over the course of a lifetime. At life-long scales, one in 120 Americans die in an accident. Yet the risk of human extinction due to climate change—or an accidental nuclear war, or a meteor—could be much higher than that. The Stern Review, the U.K. government’s premier report on the economics of climate change, assumed a 0.1-percent risk of human extinction every year. That may sound low, but it adds up when extrapolated to century-scale. Across 100 years, that figure would entail a 9.5 percent chance of human extinction. And that number might even underestimate the risk. Another Oxford survey of experts from 2008 posited the annual extinction risk to be a higher figure, 0.2 percent. And the chance of dying from any major global calamity is also likely higher. The Stern Review, which supplies the 9.5-percent number, only assumed the danger of species-wide extinction. The Global Challenges Foundation’s report is concerned with all events that would wipe out more than 10 percent of Earth’s human population. “We don’t expect any of the events that we describe to happen in any 10-year period. They might—but, on balance, they probably won’t,” Sebastian Farquhar, the director of the Global Priorities Project, told me. “But there’s lots of events that we think are unlikely that we still prepare for.” For instance, most people demand working airbags in their cars and they strap in their seat-belts whenever they go for a drive, he said. We may know that the risk of an accident on any individual car ride is low, but we still believe that it makes sense to reduce possible harm. So what kind of human-level extinction events are these? The report holds catastrophic climate change and nuclear war far above the rest, and for good reason. On the latter front, it cites multiple occasions when the world stood on the brink of atomic annihilation. While most of these occurred during the Cold War, another took place during the 1990s, the most peaceful decade in recent memory: In 1995, Russian systems mistook a Norwegian weather rocket for a potential nuclear attack. Russian President Boris Yeltsin retrieved launch codes and had the nuclear suitcase open in front of him. Thankfully, Russian leaders decided the incident was a false alarm. Climate change also poses its own risks. As I’ve written about before, serious veterans of climate science now suggest that global warming will spawn continent-sized superstorms by the end of the century. Farquhar said that even more conservative estimates can be alarming: UN-approved climate models estimate that the risk of six to ten degrees Celsius of warming exceeds 3 percent, even if the world tamps down carbon emissions at a fast pace. “On a more plausible emissions scenario, we’re looking at a 10-percent risk,” Farquhar said. Few climate adaption scenarios account for swings in global temperature this enormous. Other risks won’t stem from technological hubris. Any year, there’s always some chance of a super-volcano erupting or an asteroid careening into the planet. Both would of course devastate the areas around ground zero—but they would also kick up dust into the atmosphere, blocking sunlight and sending global temperatures plunging. (Most climate scientists agree that the same phenomenon would follow any major nuclear exchange.) Yet natural pandemics may pose the most serious risks of all. In fact, in the past two millennia, the only two events that experts can certify as global catastrophes of this scale were plagues. The Black Death of the 1340s felled more than 10 percent of the world population. Eight centuries prior, another epidemic of the Yersinia pestis bacterium—the “Great Plague of Justinian” in 541 and 542—killed between 25 and 33 million people, or between 13 and 17 percent of the global population at that time. No event approached these totals in the 20th century. The twin wars did not come close: About 1 percent of the global population perished in the Great War, about 3 percent in World War II. Only the Spanish flu epidemic of the late 1910s, which killed between 2.5 and 5 percent of the world’s people, approached the medieval plagues. Farquhar said there’s some evidence that the First World War and Spanish influenza were the same catastrophic global event—but even then, the death toll only came to about 6 percent of humanity. The report briefly explores other possible risks: a genetically engineered pandemic, geo-engineering gone awry, an all-seeing artificial intelligence. Unlike nuclear war or global warming, though, the report clarifies that these remain mostly notional threats, even as it cautions: [N]early all of the most threatening global catastrophic risks were unforeseeable a few decades before they became apparent. Forty years before the discovery of the nuclear bomb, few could have predicted that nuclear weapons would come to be one of the leading global catastrophic risks. Immediately after the Second World War, few could have known that catastrophic climate change, biotechnology, and artificial intelligence would come to pose such a significant threat.

#### Solves international cooperation, resources, and existential risks.

Green 21 [Brian Patrick Green, director of technology ethics at the Markkula Center for Applied Ethics, Santa Clara University, “Space Ethics,” 2021, Rowman, pp. 5, EA]

Space activities are also a key way of promoting international cooperation and global awareness. While the international competition of the “space race” fueled one nation all the way to the Moon, shortly afterward, the Apollo-Soyuz program announced a thawing of this competition and commenced a period of cooperation between the United States of America and the Union of Soviet Socialist Republics. Currently the International Space Station continues this cross-national cooperation in space, with five space agencies (representing Canada, the European Space Agency nations, Japan, Russia, and the United States) participating. In addition to cooperation in space exploration itself, the perspective given from space has itself helped to produce some feelings of unity on Earth, with the famous “Blue Marble” and “Earthrise” pictures showing Earth’s oneness and scientific discoveries supported by space science, such as those related to climate change, helping to promote international cooperation to address these problems.

Gaining access to new critical resources may be another reason to go into space. Earth is a finite planet, and certain elements on Earth are very rare in the planetary crust, particularly platinum group metals that are very dense and siderophilic (iron-loving) and so have tended to sink toward the core over the natural history of the planet. However, asteroids and other objects in space (for example, planets, comets, and moons) can sometimes have these elements in abundance and in more available locations, making them potentially excellent sources for these valuable materials. Now-defunct asteroid-mining startup Planetary Resources once estimated that one “platinum-rich 500 meter wide asteroid contains . . . 1.5 times the known world-reserves of platinum group metals (ruthenium, rhodium, palladium, osmium, iridium, and platinum).” 7 In addition to returning elements to a resource-hungry Earth, further exploration and development of space will require access to resources that are not purely sourced from Earth. In particular, it will be necessary to gain access to water, which is relatively rare in the inner solar system and which would be far too costly to transport in any significant amounts from the Earth’s surface.

Another reason that humans may want to explore space would be to create a “backup Earth” to hedge against global catastrophic and existential risks (risks that may cause widespread disaster or human extinction, respectively) on our home planet. 8 Earth has always been a dangerous place for humans, with asteroid impacts, supervolcanic eruptions, pandemic disease, and other natural hazards threatening civilization. Now, in addition to these natural threats, human-made hazards such as nuclear weapons, climate change, biotechnology, nanotechnology, and artificial intelligence may threaten not only the viability of technological civilization but perhaps the survival of human life itself. A serious global-scale catastrophe could set back civilization many decades or centuries, and the worst disasters could cause human extinction. In one scenario, in which 100 percent of humanity dies, all of human effort for all of history would be for nothing. However, were the same global catastrophe to happen to Earth, yet humans were a multiplanetary species with just one self-sustaining settlement off-Earth, it would not result in the end of human civilization or human extinction. Instead while the same unimaginable fate would befall the Earth (certainly no mere triviality, with perhaps the deaths of 99.999 percent of all humans and possibly the destruction of the ecosphere and everything in it), at least all of human and planetory history would not be for nothing. Human life and culture would go on elsewhere, as well as other Earth species. This is a dire fate, but less terrible than the first.

#### Independently brings infinite expected value – outweighs.

Baum 16 [Seth D. Baum, Executive Director of the Global Catastrophic Risk Institute, “The Ethics of Outer Space: A Consequentialist Perspective,” 2016, Springer, pp. 115-116, EA]

Space colonization is notable because it may be able to bring utterly immense increases in intrinsic value. Early colonies might start small, given that other planets and moons have inhospitable environments. However, it may be possible to build large indoor colonies or create more hospitable outdoor environments (i.e., terraforming). Even just on other planets and moons in the Solar System, space colonies could multiply the total area available for human habitation. And there are many more planets around other stars, as ongoing research on exoplanets is now learning. One recent study estimates 22 % of Sun-like stars have Earth-like exoplanets (Petigura et al. 2013), implying billions to tens of billions of potentially habitable planets across the galaxy.

Opportunities at any given star may also be quite a bit greater than those available only on planets. Earth only receives about one two-billionth of the Sun’s radiation. To collect all the Sun’s radiation, humanity would need a Dyson swarm (named after Dyson 1960), which is a series of structures that surrounds a star, collecting its radiation to power a civilization. A Dyson swarm around the Sun could potentially enable a civilization a billion times larger than is possible on Earth. Likewise, Dyson swarms around one billion stars would bring humanity approximately 1018 (one billion–billion) times more energy per unit time.

Space colonies could also increase the amount of time available for human civilization. Earth will remain habitable for a few billion more years (O’Malley-James et al. 2014). Stars will continue shining for about 1014 more years (Adams 2008). That gives us an additional 105 times more energy, for a total of 1023 times more energy than is available on Earth. After the stars fade, other energy sources may be available. And even if our current universe eventually becomes uninhabitable, it may be possible to move to other universes (Kaku 2005). The physics here is speculative, but it cannot be ruled out, and hence there is a nonzero chance of a literally infinite opportunity for space colonization (Baum 2010a).

Whether the opportunity is infinite or merely, say, 1023 times larger than what can be done on Earth, the opportunity is clearly immense. As long as space colonization is an improvement (Sect. 8.3.1), then it would seem that the consequentialist should prioritize space colonization. The sooner space colonization begins, the more of its immense opportunity can be gained. Indeed, Ćirković (2002) estimates 5 × 1046 human lifetimes are lost for every century in which space colonization is delayed.

#### Capitalism is sustainable---recent data proves we’re entering the golden age

Hausfather 21 – a climate scientist and energy systems analyst whose research focuses on observational temperature records, climate models, and mitigation technologies. He spent 10 years working as a data scientist and entrepreneur in the cleantech sector, where he was the lead data scientist at Essess, the chief scientist at C3.ai, and the cofounder and chief scientist of Efficiency 2.0. He also worked as a research scientist with Berkeley Earth, was the senior climate analyst at Project Drawdown, and the US analyst for Carbon Brief. He has masters degrees in environmental science from Yale University and Vrije Universiteit Amsterdam and a PhD in climate science from the University of California, Berkeley. (Zeke, "Absolute Decoupling of Economic Growth and Emissions in 32 Countries," Breakthrough Institute, 4-6-2021, https://thebreakthrough.org/issues/energy/absolute-decoupling-of-economic-growth-and-emissions-in-32-countries, Accessed 4-11-2021, )

The past 30 years have seen immense progress in improving the quality of life for much of humanity. Extreme poverty — the number of people living on less than $1.90 per day — has fallen by nearly two-thirds, from 1.9 billion to around 650 million. Life expectancy has risen in most of the world, along with literacy and access to education, while infant mortality has fallen. Despite perceptions to the contrary, the average person born today is likely to have access to more opportunities and have a better quality of life than at any other point in human history. Much of this increase in human wellbeing has been propelled by rapid economic growth driven largely by state-led industrial policy, particularly in poor-to-middle income countries. However, this growth has come at a cost: between 1990 and 2019, global emissions of CO2 increased by 56%. Historically, economic growth has been closely linked to increased energy consumption — and increased CO2 emissions in particular — leading some to argue that a more prosperous world is one that necessarily has more impacts on our natural environment and climate. There is a lively academic debate about our ability to “absolutely decouple” emissions and growth — that is, the extent to which the adoption of clean energy technology can allow emissions to decline while economic growth continues. Over the past 15 years, however, something has begun to change. Rather than a 21st century dominated by coal that energy modelers foresaw, global coal use peaked in 2013 and is now in structural decline. We have succeeded in making clean energy cheap, with solar power and battery storage costs falling 10-fold since 2009. The world produced more electricity from clean energy — solar, wind, hydro, and nuclear — than from coal over the past two years. And, according to some major oil companies, peak oil is upon us — not because we have run out of cheap oil to produce, but because demand is falling and companies expect further decline as consumers increasingly shift to electric vehicles. The world has long been experiencing a relative decoupling between economic growth and CO2 emissions, with the emissions per unit of GDP falling for the past 60 years. This is the case even in countries like India and China that have been undergoing rapid economic growth. But relative decoupling alone is inadequate in a world where global CO2 emissions need to peak and decline in the next decade to give us any chance at limiting warming to well below 2℃, in line with Paris Agreement targets. Thankfully, there is increasing evidence that the world is on track to absolutely decouple CO2 emissions and economic growth — with global CO2 emissions potentially having peaked in 2019 and unlikely to increase substantially in the coming decade. While an emissions peak is just the first and easiest step towards eventually reaching the net-zero emissions required to stop the world from continuing to warm, it demonstrates that linkages between emissions and economic activity are not an immutable law, but rather simply a result of our current means of energy production. In recent years we have seen more and more examples of absolute decoupling — economic growth accompanied by falling CO2 emissions. Since 2005, 32 countries with a population of at least one million people have absolutely decoupled emissions from economic growth, both for terrestrial emissions (those within national borders) and consumption emissions (emissions embodied in the goods consumed in a country). This includes the United States, Japan, Mexico, Germany, United Kingdom, France, Spain, Poland, Romania, Netherlands, Belgium, Portugal, Sweden, Hungary, Belarus, Austria, Bulgaria, El Salvador, Singapore, Denmark, Finland, Slovakia, Norway, Ireland, New Zealand, Croatia, Jamaica, Lithuania, Slovenia, Latvia, Estonia, and Cyprus. Figure 1, below, shows the declines in territorial emissions (blue) and increases in GDP (red). To qualify as having experienced absolute decoupling, we require countries included in this analysis to pass four separate filters: a population of at least one million (to focus the analysis on more representative cases), declining territorial emissions over the 2005-2019 period (based on a linear regression), declining consumption emissions, and increasing real GDP (on a purchasing power parity basis, using constant 2017 international $USD). We chose not to include 2020 in this analysis because it is not particularly representative of longer-term trends, and consumption and territorial emissions estimates are not yet available for many countries. There is a wide range of rates of economic growth between 2005-2019 among countries experiencing absolute decoupling. Somewhat counterintuitively, there is no significant relationship between the rate of economic growth and the magnitude of emissions reductions within the group. While it is unlikely that there is not at least some linkage between the two factors, there are plenty of examples of countries (e.g., Singapore, Romania, and Ireland) experiencing both extremely rapid economic growth and large reductions in CO2 emissions. One of the primary criticisms of some prior analyses of absolute decoupling is that they ignore leakage. Specifically, the offshoring of manufacturing from high-income countries over the past three decades to countries like China has led to “illusory” drops in emissions, where the emissions associated with high-income country consumption are simply shipped overseas and no longer show up in territorial emissions accounting. There is some truth in this critique, as there was a large increase in emissions embodied in imports from developing countries between 1990 and 2005. After 2005, however, structural changes in China and a growing domestic market led to a reversal of these trends; the amount of emissions “exported” from developed countries to developing countries has actually declined over the past 15 years. This means that, for many countries, both territorial emissions and consumption emissions (which include any emissions “exported” to other countries) have jointly declined. In fact, on average, consumption emissions have been declining slightly faster than territorial emissions since 2005 in the 32 countries we identify as experiencing absolute decoupling. Figure 2, below, shows the change in consumption emissions (teal) and GDP (red) between 2005 and 2019. There is a pretty wide variation in the extent to which these countries have reduced their territorial and consumption emissions since 2005. Some countries — such as the UK, Denmark, Finland, and Singapore – have seen territorial emissions fall faster than consumption emissions, while the US, Japan, Germany, and Spain (among others) have seen consumption emissions fall faster. Figure 3 shows reductions in consumption and territorial emissions for each country, with the size of the dot representing the size of the population in 2019. Absolute decoupling is possible. There is no physical law requiring economic growth — and broader increases in human wellbeing — to necessarily be linked to CO2 emissions. All of the services that we rely on today that emit fossil fuels — electricity, transportation, heating, food — can in principle be replaced by near-zero carbon alternatives, though these are more mature in some sectors (electricity, transportation, buildings) than in others (industrial processes, agriculture).

#### Extinction categorically outweighs all other impacts.

Seth D. **Baum &** Anthony M. **Barrett 18**. Global Catastrophic Risk Institute. 2018. “Global Catastrophes: The Most Extreme Risks.” Risk in Extreme Environments: Preparing, Avoiding, Mitigating, and Managing, edited by Vicki Bier, Routledge, pp. 174–184.

2. What Is GCR And Why Is It Important? Taken literally, a global catastrophe can be any event that is in some way catastrophic across the globe. This suggests a rather low threshold for what counts as a global catastrophe. An event causing just one death on each continent (say, from a jet-setting assassin) could rate as a global catastrophe, because surely these deaths would be catastrophic for the deceased and their loved ones. However, in common usage, a global catastrophe would be catastrophic for a significant portion of the globe. Minimum thresholds have variously been set around ten thousand to ten million deaths or $10 billion to $10 trillion in damages (Bostrom and Ćirković 2008), or death of one quarter of the human population (Atkinson 1999; Hempsell 2004). Others have emphasized catastrophes that cause long-term declines in the trajectory of human civilization (Beckstead 2013), that human civilization does not recover from (Maher and Baum 2013), that drastically reduce humanity’s potential for future achievements (Bostrom 2002, using the term “existential risk”), or that result in human extinction (Matheny 2007; Posner 2004). A common theme across all these treatments of GCR is that some catastrophes are vastly more important than others. Carl Sagan was perhaps the first to recognize this, in his commentary on nuclear winter (Sagan 1983). Without nuclear winter, a global nuclear war might kill several hundred million people. This is obviously a major catastrophe, but humanity would presumably carry on. However, with nuclear winter, per Sagan, humanity could go extinct. The loss would be not just an additional four billion or so deaths, but the loss of all future generations. To paraphrase Sagan, the loss would be billions and billions of lives, or even more. Sagan estimated 500 trillion lives, assuming humanity would continue for ten million more years, which he cited as typical for a successful species. Sagan’s 500 trillion number may even be an underestimate. The analysis here takes an adventurous turn, hinging on the evolution of the human species and the long-term fate of the universe. On these long time scales, the descendants of contemporary humans may no longer be recognizably “human”. The issue then is whether the descendants are still worth caring about, whatever they are. If they are, then it begs the question of how many of them there will be. Barring major global catastrophe, Earth will remain habitable for about one billion more years 2 until the Sun gets too warm and large. The rest of the Solar System, Milky Way galaxy, universe, and (if it exists) the multiverse will remain habitable for a lot longer than that (Adams and Laughlin 1997), should our descendants gain the capacity to migrate there. An open question in astronomy is whether it is possible for the descendants of humanity to continue living for an infinite length of time or instead merely an astronomically large but finite length of time (see e.g. Ćirković 2002; Kaku 2005). Either way, the stakes with global catastrophes could be much larger than the loss of 500 trillion lives. Debates about the infinite vs. the merely astronomical are of theoretical interest (Ng 1991; Bossert et al. 2007), but they have limited practical significance. This can be seen when evaluating GCRs from a standard risk-equals-probability-times-magnitude framework. Using Sagan’s 500 trillion lives estimate, it follows that reducing the probability of global catastrophe by a mere one-in-500-trillion chance is of the same significance as saving one human life. Phrased differently, society should try 500 trillion times harder to prevent a global catastrophe than it should to save a person’s life. Or, preventing one million deaths is equivalent to a one-in500-million reduction in the probability of global catastrophe. This suggests society should make extremely large investment in GCR reduction, at the expense of virtually all other objectives. Judge and legal scholar Richard Posner made a similar point in monetary terms (Posner 2004). Posner used $50,000 as the value of a statistical human life (VSL) and 12 billion humans as the total loss of life (double the 2004 world population); he describes both figures as significant underestimates. Multiplying them gives $600 trillion as an underestimate of the value of preventing global catastrophe. For comparison, the United States government typically uses a VSL of around one to ten million dollars (Robinson 2007). Multiplying a $10 million VSL with 500 trillion lives gives $5x1021 as the value of preventing global catastrophe. But even using “just" $600 trillion, society should be willing to spend at least that much to prevent a global catastrophe, which converts to being willing to spend at least $1 million for a one-in-500-million reduction in the probability of global catastrophe. Thus while reasonable disagreement exists on how large of a VSL to use and how much to count future generations, even low-end positions suggest vast resource allocations should be redirected to reducing GCR. This conclusion is only strengthened when considering the astronomical size of the stakes, but the same point holds either way. The bottom line is that, as long as something along the lines of the standard riskequals-probability-times-magnitude framework is being used, then even tiny GCR reductions merit significant effort. This point holds especially strongly for risks of catastrophes that would cause permanent harm to global human civilization. The discussion thus far has assumed that all human lives are valued equally. This assumption is not universally held. People often value some people more than others, favoring themselves, their family and friends, their compatriots, their generation, or others whom they identify with. Great debates rage on across moral philosophy, economics, and other fields about how much people should value others who are distant in space, time, or social relation, as well as the unborn members of future generations. This debate is crucial for all valuations of risk, including GCR. Indeed, if each of us only cares about our immediate selves, then global catastrophes may not be especially important, and we probably have better things to do with our time than worry about them. While everyone has the right to their own views and feelings, we find that the strongest arguments are for the widely held position that all human lives should be valued equally. This position is succinctly stated in the United States Declaration of Independence, updated in the 1848 Declaration of Sentiments: “We hold these truths to be self-evident: that all men and 3 women are created equal”. Philosophers speak of an agent-neutral, objective “view from nowhere” (Nagel 1986) or a “veil of ignorance” (Rawls 1971) in which each person considers what is best for society irrespective of which member of society they happen to be. Such a perspective suggests valuing everyone equally, regardless of who they are or where or when they live. This in turn suggests a very high value for reducing GCR, or a high degree of priority for GCR reduction efforts.

## Case

### Cap Good

#### Industrial and post-industrial capitalism is literally the best thing that’s ever happened to education. This hijacks their pedagogy internal link to the ROB.

Grostic 16 (Director of Professional Learning, 2013 to Present Pete joined our team in the summer of 2013 after serving Kentwood Public Schools for 7 years as a High School Math teacher. He received his bachelor’s degree from Albion College, his Master’s degree in Educational Leadership and his Specialist in Education degree from Western Michigan University. As a member of our professional learning team, Pete brings a quiet confidence to his work with teachers. Our work in classroom transformation is a long journey with many ups and downs but Pete does a fabulous job of breaking down the most complex problems into their simplest forms in order to assist each teacher.), "enlightenment now: 3 ways education has improved", Curriculum By Design, NCS, 2016, https://cbdconsulting.com/enlightenmentnow/

I recently read Steven Pinker’s latest book: Enlightenment Now: The Case for Reason, Science, Humanism, and Progress. Pinker does a phenomenal job of showcasing just how far humanity has come in myriad ways. It’s well worth a read. Here’s the upshot: We live in the safest, wealthiest, and smartest time in the history of our planet. The world is better in almost every way: wealth distribution, health outcomes, social spending, wars, crime, racism, democracy, you name it. (Here’s a nice summary of the book if you’re interested, complete with the data to back up these claims.) What I really want to write about today is how education has improved. But first, a couple of quick examples that show just how far our civilization has come. Life expectancy: In the year 1800, the world’s life expectancy was 29 years (it was only 35 in the US if you’re wondering). By 2015, life expectancy had risen to 70 worldwide. Extreme poverty: Believe it or not, but in 1820, 89% of the world lived in extreme poverty. By 2015, that percentage had dropped to 10% worldwide. Pinker goes on and on with many more examples. Needless to say, we should all feel lucky to be alive here and now. There simply has never been a better time than now, despite what your nostalgia for the ’60s or ’80s might be telling you. The same can be said for education. The common narrative is that our system of education, both here in the US and worldwide, is on the decline. Well, it turns out that’s not what the facts say. Here are 3 ways that education has improved dramatically. Literacy – In the year 1500, rates of literacy were minuscule, roughly 10% of the world. By 1825, that rate had ticked up to… 11%. As of 2016, over 80% of the world is literate. That’s amazing. Basic Education – this is a measure of formal schooling. Believe it or not, only 22% of the world received some kind of formal education in 1870. In the US, that rate was much higher, but still only 80%. By 2010, over 75% of the world was educated formally; it’s nearly 100% in the US. IQ Gains – And we’re getting smarter. The average person in the world would score nearly 30 points higher on an IQ test today than they would in 1909 (that’s incredible!). Despite the narrative about diminishing US standing on test scores compared to the rest of the world, the TIMMS and NAEP assessments show that US students are getting smarter too (insofar as tests like those can actually measure intelligence). Doomsday narratives are arresting and get people’s attention. But when it comes to education, doomsday is quite far from the truth. We’re actually doing amazingly well. That isn’t to say that it’s time to kick our feet up and celebrate. All of those gains listed above came from hard work and ingenuity. There’s work left to do, to be sure. But for just a moment, feel free to zoom out and recognize just how far we’ve come.

#### It also impact turns every 1AC argument- there’s no impact to any of this imagination nonsense if we win it’s good

#### Growth solves war – data

Lin 17 [Oon Yong; 4/23/2017; International Economics at SUNY Buffalo, under the supervision of Dr. Sandeep Bhakshar, PhD in economics; “Conflict and Trade,” http://geoeconomics.net/2017/09/13/conflict-and-trade/]

CONFLICT AND TRADE TODAY

In the post-cold war era, actual conflicts are relatively few and far between especially between developed nations due to advances in military hardware [nuclear options]. Conflicts took on other forms such as economic warfare and proxy wars. Fortunately, advances in military technology were met with advances in international relations which led to the founding of intergovernmental organizations in the 20th-century.

Trade in the modern context can be examined through globalization which serves as an all-encompassing word that represented progress, cultural exchange and increased trade. Development took off in the 1980s to 1990s, most notably from 1990 to 1996, capital inflows to developing countries increased by a massive 600% (Stiglitz, 2006). The World Trade Organization was formed in 1995, absorbing the General Agreement on Tariffs and Trade [GATT], the organization enabled countries to have a combined platform to address international trade issues which developed and developing countries would both benefit in a world that was accelerating quickly in terms of trade.

China’s control of rare earth mineral exports in the global market and the usefulness of the WTO is an example worth observing. China has an effective 97% control of the rare-earth elements market (Müller, Schweizer, & Seiler, 2016). It posed an issue as the Chinese government applied export quotas, causing global firms that use these minerals to be fearful of a supply issue due to the concentration of the source. Rare earth metals were useful in many applications and that contributed to the concern, United States firms used them for several product developments ranging from technological turbines to lab purposes such as for their magnetic properties. In 2014, an argument was brought up to the World Trade Organization [WTO] by the European Union, United States, and Japan in 2012 about the control of rare earth exports (World Trade Organization, 2015). The timing was nearly 11 years after the accession of China to the WTO, the panel concluded in 2014 that China’s export tariffs on rare earth exports were inconsistent with their WTO obligations. A study conducted by Müller et. al. (2016) begs to differ and found that U.S. firms could have adopted defensive actions such as stockpiling these materials and that export control effects were not overtly damaging after China has joined the World Trade Organization. But it remained apparent that the Chinese government did use its policies to benefit Chinese firms at the expense of non-domestic companies before they had joined the WTO. On 20 May 2015, China responded to the WTO’s request to conform to its panel’s recommendations and to fulfill its obligations to WTO law. China accepted the panel’s judgment, and the issue was resolved amicably.

Bilateral agreements that increase cooperation through trade can also help reduce potential conflict. In 2010, a free trade agreement known as the Economic Framework Cooperation Agreement was initiated between ROC Taiwan and PRC China, details of the agreement were finalized in June 2013. The deal’s results were twofold, firstly Taiwan benefited from the trade potential that China provided. Secondly, the agreement led to reduced pressure by PRC China on ROC Taiwan’s agenda of pursuing free trade agreements with New Zealand and Singapore (Kan & Morrison, 2013). The change in China’s political stance during that time allowed ROC Taiwan to ink deals in quick succession, initially [ANZTEC] with New Zealand on the 10th of July 2013, and subsequently with Singapore [ASTEP] on 7th November 2013. Bernard Cole of the National War College in Washington, DC shares that the possibility of ROC Taiwan and PRC China conflict has been reduced (Navarro, 2016) and the de-escalation can be partially attributed to the constant flow of trade between both countries.

The most revolutionary organization for trade was the formation of the intergovernmental organization known as the European Union [EU]. The EU was founded after World War II [the deadliest war] to prevent future wars. The EU expressed the primary motivation for the formation, “The first steps were to foster economic cooperation: the idea being that countries that trade with one another become economically interdependent and so more likely to avoid conflict.” (European Union, 2017, para 2). At its founding the EU had six member countries, today it has 28 member countries some of which are fully committed to its economic and monetary union. Furthermore, the EU is at the forefront of democratic thought and champions a broad range of issues such as human rights, internet privacy, and democracy.

In support of the idea for the notion of trade and growth bringing peace to society, A Modern Peace? Schumpeter, the Decline of Conflict, and the Investment–War Trade-Off Professors Chatagnier and Castelli argues that

To sustain growth (a basic requirement for every industrialized economy), governments and entrepreneurs must reinvest profits in innovation. Political leaders also benefit, as they can extract more revenue from a richer society. Within industrialized economies, war threatens this virtuous mechanism of investment, innovation, profits, and taxes, rendering it materially unprofitable. (Chatagnier & Castelli, 2016)

Their argument was based on the assumptions that industrialized economies which have grown to generate additional revenue for society, in general, tends not to prefer wars as it was contrary to the needs of an industrialized economy (Jentleson, 2007). Advocating that an extra dollar spent on military expenditures is one less dollar spent on economic growth for the society. They found that over the last fifty years from 2016, wars were not profitable and that industrialization does indeed reduce a nation’s incentive to enter conflicts due to the economic changes of industrialization. Additionally, the authors recognized that trade between industrialized societies potentially leads to peaceful attitudes (Chatagnier & Castelli, 2016).

#### Cap is sustainable – innovation is key to solve the climate and the alt can’t solve

Karlsson 21 – (Rasmus, "Learning in the Anthropocene" Soc. Sci. 10, no. 6: 233. <https://doi.org/10.3390/socsci10060233> 18 June 2021)// gcd

Unpacking this argument, it is perhaps useful to first recognize that, stable as the Holocene may have seemed from a human perspective, life was always vulnerable to a number of cosmic risks, such as bolide collisions, risks that only advanced technologies can mitigate. Similarly, the Black Death of the 14th century should serve as a powerful reminder of the extreme vulnerability of pre-industrial societies at a microbiological level. Nevertheless, it is reasonable to think of the Holocene as providing a relatively stable baseline against which the ecological effects of technological interventions could hypothetically be evaluated. With most human activities being distinctively local, nature would for the most part “bounce back” (even if the deforestation of the Mediterranean basin during the Roman period is an example of that not always being the case) while larger geophysical processes, such as the carbon cycle, remained entirely beyond human intentional control. Even if there has been some debate about what influence human activities had on the preindustrial climate (Ruddiman 2007), anthropogenic forcing was in any case both marginal and gradual. All this changed with the onset of the Great Acceleration by which humans came to overwhelm the great forces of nature, causing untold damage to fragile ecosystems and habitats everywhere, forever altering the trajectory of life on the planet (Steffen et al. 2011b). In a grander perspective, humanity may one day become an interplanetary species and thus instrumental in safeguarding the long-term existence of biological life, but for the moment, its impact is ethically dubious at best as the glaciers melt, the oceans fill up with plastics, and vast number of species are driven to extinction. Faced with these grim realities, it is of course not surprising that the first impulse is to seek to restore some kind primordial harmony and restrain human activities. Yet, it is important to acknowledge that, even if their aggregate impact may have been within the pattern of Holocene variability, pre-modern Western agricultural societies were hardly “sustainable” in any meaningful sense. Experiencing permanent scarcity, violent conflict was endemic (Gat 2013), and as much as some contemporary academics like to attribute all evils to “capitalism” (Malm 2016), pre-capitalist societies exhibited no shortage of religious intolerance and other forms of social domination. It is thus not surprising that some have argued the need to reverse the civilizational arc further yet and return to a preliterate hunter-gather existence (Zerzan 2008) even if this, obviously, has very little to do with existing political realities and social formations. Under Holocene conditions, the short-term human tragedy may have been the same, but it did not undermine the long-term ability of the planet to support life. In a world of eight billion people, already accumulated emissions in the atmosphere have committed the planet to significant warming under the coming centuries, with an increasing probability that committed warming already exceeds the 1.5-degree target of the Paris Agreement even if all fossil-fuel emissions were to stop today (Mauritsen and Pincus 2017). This means that sustained negative emissions, presumably in combination with SRM, will most likely be needed just to stabilize global temperatures, not to mentioning countering the flow of future emissions. According to the Intergovernmental Panel on Climate Change (IPCC), assuming that all the pledges submitted under the Paris Agreement are fulfilled, limiting warming to 1.5 degrees will still require negative emissions in the range of 100—1000 gigatons of CO2 (Hilaire et al. 2019, p. 190). The removal of carbon dioxide at gigaton scales from the atmosphere will presumably require the existence of an advanced industrial society since low-tech options, such as afforestation, will be of limited use (Gundersen et al. 2021; Seddon et al. 2020), especially in a future of competing land-uses. It is against this backdrop of worsening climate harms that the limits of “precaution”, at least as conventionally understood, become apparent. While degrowth advocates tend to insist that behavioral change, even explicitly betting on a “social miracle” (Kallis 2019, p. 195), is always preferable to any technological risk-taking (Heikkurinen 2018), that overlooks both the scope of the sustainability challenge and the lack of public consent to any sufficiently radical political project (Buch-Hansen 2018). While there may be growing willingness to pay for, say, an electric vehicle (Hulshof and Mulder 2020), giving up private automobile use altogether is obviously a different animal, to say nothing about a more fundamental rematerialization of the economy (Hausknost 2020). Again, the problem is one in which change either (a) remains marginal yet ecologically insufficient or (b) becomes sufficiently radical yet provokes a strong political counterreaction. A similar dynamic can be expected to play out at the international level where countries that remain committed to growth would quickly gain a military advantage. To make matters worse, there is also a temporal element to this dynamic since any regime of frugality and localism would have to be policed indefinitely in order to prevent new unsustainable patterns of development from re-emerging later on. All this begs the obvious question, if the political and economic enforcement of the planetary boundaries are fraught with such political and social difficulties, would it not be better to instead try to transcend them through technological innovation? Surprisingly, any high-energy future would most likely be subject to many of the same motivational and psychological constraints that hinder a low-energy future. While history shows that existing nuclear technologies could in theory displace all fossil fuels and meet the most stringent climate targets (Qvist and Brook 2015), it seems extremely unlikely, to put it mildly, that thousands of new reactors will be built over the course of the coming decades in response to climate change. Outside the world of abstract computer modelling, real world psychological and cultural inertia tends to ensure that political decision-making, at least for the most part, gravitates to what is considered “reasonable” and “common sense”—such as medium emissions electricity grids in which wind and solar are backed by biomass and gas—rather than what any utilitarian optimization scenario may suggest. Even if the global benefits of climate stabilization would be immense, the standards by which local nuclear risks are assessed, as clearly illustrated by the Fukushima accident which led to a worldwide retreat from nuclear energy despite only causing one confirmed death (which, though obviously regrettable, has to be put in relation to the hundred and thousands of people dying every year from the use of fossil fuels), underscores the uneven distribution of perceived local risks versus global benefits and the associated problem of socio-political learning across spatial scales. Almost two decades ago, Ingolfur Blühdorn identified “simulative eco-politics” as a key strategy by which liberal democracies reconcile an ever-heightened rhetoric of environmental crisis with their simultaneous defense of the core principles of consumer capitalism (Blühdorn 2007). Since then, declarations that we only have “ten years to save the planet” have proliferated, and so have seemingly bold investments in renewable energy, most recently in the form of US President Joseph Biden’s USD 2.25 trillion climate and infrastructure plan. Still, without a meaningful commitment to either radical innovation or effective degrowth, it is difficult to see how the deployment of yet more wind turbines or the building of new highways will in any way be qualitatively different from what Blühdorn pertinently described as sustaining “what is known to be unsustainable” (Blühdorn 2007, p. 253). However, all is not lost in lieu of more authentic forms of eco-politics. Independent of political interventions, accelerating technological change, in particular with regard to computing and intelligent machine labor, may one day make large-scale precision manipulation of the physical world possible in ways that may solve many problems that today seem intractable (Dorr 2016). Similarly, breakthroughs in synthetic biology may hold the key to environmentally benign biofuels and carbon utilization technologies. Yet, all such progress remains hypothetical and uncertain for now. Given what is at stake, there is an obvious danger in submitting to naïve technological optimism. What is less commonly recognized is that naïve optimism with regard to the prospects of behavioral change may be equally dangerous. While late-capitalist affluence has enabled many postmaterial identities and behaviors, such as bicycling, hobby farming, and other forms of emancipatory self-expression, a collapsing economy could quickly lead to a reversal back to survivalist values, traditional hierarchical forms of domination, and violence (Quilley 2011, p. 77). As such, it is far from obvious what actions would actually take the world as a whole closer to long-term sustainability. If sustainability could be achieved by a relatively modest reduction in consumption rates or behavioral changes, such as a ban on all leisure flights, then there would be a strong moral case for embracing degrowth. Yet, recognizing how farreaching measures in terms of population control and consumption restrictions that would be needed, the case quickly becomes more ambiguous. While traditional environmentalism may suggest that retreating from the global economy and adopting a low-tech lifestyle would increase resilience (Alexander and Yacoumis 2018), it may do very much the opposite by further fragmenting global efforts and slowing the pace of technological innovation. Without an orderly and functioning world trade system, local resources scarcities would be exacerbated, as seen most recently with the different disruptions to vaccine supply chains. In essence, given the lack of a stable Holocene baseline to revert to, it becomes more difficult to distinguish proactionary “risk-taking” from “precaution”, especially as many ecosystems have already been damaged beyond natural recovery. In this context, it is noteworthy that many of the technologies that can be expected to be most crucial for managing a period of prolonged overshoot (such as next-generation nuclear, engineering biology, large-scale carbon capture and SRM) are also ones that traditional environmentalism is most strongly opposed to. 3. Finding Indicators From the vantage point of the far-future, at least the kind depicted in the fictional universe of Star Trek, human evolution is a fairly straightforward affair along an Enlightenment trajectory by which ever greater instrumental capacity is matched by similar leaps in psychological maturity and expanding circles of moral concern. With the risk of sounding Panglossian, one may argue that the waning of interstate war in general and the fact that there has not been any major nuclear exchange in particular, does vindicate such an optimistic reading of history. While there will always be ups and downs, as long as the most disastrous outcomes are avoided, there will still be room for learning and gradual political accommodation. Taking such a longer view, it would nevertheless be strange if development was simply linear, that former oppressors would just accept moral responsibility or that calls for gender or racial justice would not lead to self-reinforcing cycles of conservative backlash and increasingly polarizing claims. Still, over the last couple of centuries, there is little doubt that human civilization has advanced significantly, both technologically and ethically (Pinker 2011), at least from a liberal and secular perspective. However, unless one subscribes to teleology, there is nothing inexorable with this development and, it may be that the ecological, social, and political obstacles are simply too great to ever allow for the creation of a Wellsian borderless world (Pedersen 2015) that would allow everyone to live a life free from material want and political domination. On the other hand, much environmental discourse tends to rush ahead in the opposite direction and treat the c limate crisis as ultimate evidence of humanity’s fallen nature when the counter-factual case, that it would be possible for a technological civilization to emerge without at some point endangering its biophysical foundations, would presumably be much less plausible. From an astrobiological perspective, it is easy to imagine how the atmospheric chemistry of a different planet would be more volatile and thus more vulnerable to the effects of industrial processes (Haqq-Misra and Baum 2009), leaving a shorter time window for mitigation. Nick Bostrom has explored this possibility of greater climate sensitivity further in his “vulnerable world hypothesis” (Bostrom 2019) and it begs to reason that mitigation efforts would be more focused in such a world. However, since climate response times are longer and sensitivity less pronounced, climate mitigation policies have become mired in culture and media politics (Newman et al. 2018) but also a statist logic (Karlsson 2018) by which it has become more important for states to focus on their own marginal emission reductions in the present rather than asking what technologies would be needed to stabilize the climate in a future where all people can live a modern life.

#### Cap is our only hope to combat climate change – CCS link turns every impact.

Graciela ‘16 (/16 – Professor of Economics and of Statistics at Columbia University and Visiting Professor at Stanford University, and was the architect of the Kyoto Protocol carbon market (being interviewed by Marcus Rolle, freelance journalist specializing in environmental issues and global affairs, “Reversing Climate Change: Interview with Graciela Chichilnisky,” http://www.globalpolicyjournal.com/blog/01/09/2016/reversing-climate-change-interview-graciela-chichilnisky)//cmr

GC: Green capitalism is a new economic system that values the natural resources on which human survival depends. It fosters a harmonious relationship with our planet, its resources and the many species it harbors. It is a new type of market economics that addresses both equity and efficiency. Using carbon negative technology™ it helps reduce carbon in the atmosphere while fostering economic development in rich and developing nations, for example in the U S., EU, China and India. How does this work? In a nutshell Green Capitalism requires the creation of global limits or property rights nation by nation for the use of the atmosphere, the bodies of water and the planet’s biodiversity, and the creation of new markets to trade these rights from which new economic values and a new concept of economic progress emerges updating GDP as is now generally agreed is needed. Green Capitalism is needed now to help avert climate change and achieve the goals of the 2015 UN Paris Agreement, which are very ambitious and universally supported but have no way to be realized within the Agreement itself. The Carbon Market and its CDM play critical roles in the foundation of Green Capitalism, creating values to redefine GDP. These are needed to remain within the world’s “CO2 budget” and avoid catastrophic climate change. As I see it, the building blocks for Green Capitalism are then as follows; (1) Global limits nation by nation in the use of the planet’s atmosphere, its water bodies and biodiversity - these are global public goods. (2) New global markets to trade these limits, based on equity and efficiency. These markets are relatives of the Carbon Market and the SO2 market. The new market create new measures of economic values and update the concept of GDP. (3) Efficient use of Carbon Negative Technologies to avert catastrophic climate change by providing a smooth transition to clean energy and ensuring economic prosperity in rich and poor nations. These building blocks have immediate practical implications in reversing climate change and can assist the ambitious aims of Paris COP21 become a reality. MR: What is the greatest advantage of the new generation technologies that can capture CO2 from the air? GC: These technologies build carbon negative power plants, such as Global Thermostat, that clean the atmosphere of CO2 while producing electricity. Global Thermostat is a firm that is commercializing a technology that takes CO2 out of air and uses mostly low cost residual heat rather than electricity to drive the capture process, making the entire process of capturing CO2 from the atmosphere very inexpensive. There is enough residua heat in a coal power plant that it can be used to capture twice as much CO2 as the plant emits, thus transforming the power plant into a “carbon sink.” For example, a 400 MW coal plant that emits 1 million tons of CO2 per year can become a carbon sink absorbing a net amount of 1 million tons of CO2 instead. Carbon capture from air can be done anywhere and at any time, and so inexpensively that the CO2 can be sold for industrial or commercial uses such as plastics, food and beverages, greenhouses, bio-fertilizers, building materials and even enhanced oil recovery, all examples of large global markets and profitable opportunities. Carbon capture is powered mostly by low (85°C) residual heat that is inexpensive, and any source will do. In particular, renewable (solar) technology can power the process of carbon capture. This can help advance solar technology and make it more cost-efficient. This means more energy, more jobs, and it also means economic growth in developing nations, all of this while cleaning the CO2 in the atmosphere. Carbon negative technologies can literally transform the world economy. MR: One final question. You distinguish between long-run and short-run strategies in the effort to reverse climate change. Would carbon negative technologies be part of a short-run strategy? GC: Long-run strategies are quite different from strategies for the short-run. Often long-run strategies do not work in the short run and different policies and economic incentives are needed. In the long run the best climate change policy is to replace fossil fuel sources of energy that by themselves cause 45% of the global emissions, and to plant trees to restore if possible the natural sources and sinks of CO2. But the fossil fuel power plant infrastructure is about 87% of the power plant infrastructure and about $45-55 trillion globally. This infrastructure cannot be replaced quickly, certainly not in the short time period in which we need to take action to avert catastrophic climate change. The issue is that CO2 once emitted remains hundreds of years in the atmosphere and we have emitted so much that unless we actually remove the CO2 that is already there, we cannot remain long within the carbon budget, which is the concentration of CO2 beyond which we fear catastrophic climate change. In the short run, therefore, we face significant time pressure. The IPCC indicates in its 2014 5th Assessment Report that we must actually remove the carbon that is already in the atmosphere and do so in massive quantities, this century (p. 191 of 5th Assessment Report). This is what I called a carbon negative approach, which works for the short run. Renewable energy is the long run solution. Renewable energy is too slow for a short run resolution since replacing a $45-55 trillion power plant infrastructure with renewable plants could take decades. We need action sooner than that. For the short run we need carbon negative technologies that capture more carbon than what is emitted. Trees do that and they must be conserved to help preserve biodiversity. Biochar does that. But trees and other natural sinks are too slow for what we need today. Therefore, negative carbon is needed now as part of a blueprint for transformation. It must be part of the blueprint for Sustainable Development and its short term manifestation that I call Green Capitalism, while in the long run renewable sources of energy suffice, including Wind, Biofuels, Nuclear, Geothermal, and Hydroelectric energy. These are in limited supply and cannot replace fossil fuels. Global energy today is roughly divided as follows: 87% is fossil, namely natural gas, coal, oil; 10% is nuclear, geothermal, and hydroelectric, and less than 1% is solar power — photovoltaic and solar thermal. Nuclear fuel is scarce and nuclear technology is generally considered dangerous as tragically experienced by the Fukushima Daichi nuclear disaster in Japan, and it seems unrealistic to seek a solution in the nuclear direction. Only solar energy can be a long term solution: Less than 1% of the solar energy we receive on earth can be transformed into 10 times the fossil fuel energy used in the world today. Yet we need a short-term strategy that accelerates long run renewable energy, or we will defeat long-term goals. In the short term as the IPCC validates, we need carbon negative technology, carbon removals. The short run is the next 20 or 30 years. There is no time in this period of time to transform the entire fossil infrastructure — it costs $45-55 trillion (IEA) to replace and it is slow to build. We need to directly reduce carbon in the atmosphere now. We cannot use traditional methods to remove CO2 from smokestacks (called often Carbon Capture and Sequestration, CSS) because they are not carbon negative as is required. CSS works but does not suffice because it only captures what power plants currently emit. Any level of emissions adds to the stable and high concentration we have today and CO2 remains in the atmosphere for years. We need to remove the CO2 that is already in the atmosphere, namely air capture of CO2 also called carbon removals. The solution is to combine air capture of CO2 with storage of CO2 into stable materials such as biochar, cement, polymers, and carbon fibers that replace a number of other construction materials such as metals. The most recent BMW automobile model uses only carbon fibers rather than metals. It is also possible to combine CO2 to produce renewable gasoline, namely gasoline produced from air and water. CO2 can be separated from air and hydrogen separated from water, and their combination is a well-known industrial process to produce gasoline. Is this therefore too expensive? There are new technologies using algae that make synthetic fuel commercially feasible at competitive rates. Other policies would involve combining air capture with solar thermal electricity using the residual solar thermal heat to drive the carbon capture process. This can make a solar plant more productive and efficient so it can out-compete coal as a source of energy. In summary, the blueprint offered here is a private/public approach, based on new industrial technology and financial markets, self-funded and using profitable greenmarkets, with securities that utilize carbon credits as the “underlying” asset, based on the KP CDM, as well as new markets for biodiversity and water providing abundant clean energy to stave off impending and actual energy crisis in developing nations, fostering mutually beneficial cooperation for industrial and developing nations. The blueprint proposed provides the two sides of the coin, equity and efficiency, and can assign a critical role for women as stewards for human survival and sustainable development. My vision is a carbon negative economy that represents green capitalism in resolving the Global Climate negotiations and the North–South Divide. Carbon negative power plants and capture of CO2 from air and ensure a clean atmosphere together innovation and more jobs and exports: the more you produce and create jobs the cleaner becomes the atmosphere. In practice, Green Capitalism means economic growth that is harmonious with the Earth resources.

#### Capitalism has drastically reduced structural violence by every empirical metric.

Swan 20

Josh Swan (Policy and Data Analyst for the City Region Economic and Development Institute of the University of Birmingham). “Capitalism and its Impact on Global Living Standards.” City REDI. 18 March 202. JDN. <https://blog.bham.ac.uk/cityredi/capitalism-and-its-impact-on-global-living-standards/>

Fundamentally, it must be said straight away that capitalism has been, and still is, an incredibly overwhelming positive force for the world and is easily the most successful economic system that has ever been produced. Since the time of Karl Marx, the embourgeoisement of populations has led to greater financial and social security, as well as fulfilling careers that were once reserved for the elite. With the right saving plan, many will buy their own home, start their own business, save for their pension and enjoy unprecedented levels of leisure time. Just in case you are still not convinced why this is the single greatest economic system ever invented, let us examine the past. Technology has created more jobs than it has destroyed in the colossal world population boom in the last 144 years. Work is more fulfilling as dull jobs have been automated and creative careers becoming more numerous. Incredible advances in medicine, accountancy and professional services were made under capitalism, and essential products like the television have seen a 98% fall in real-price since 1950. Some would say this is a prerequisite to materialism; the making of commodities to fulfil our happiness and needs. You may say, so what if televisions have fallen in value meaning every family, including poor families that live in a home, can afford one? This isn’t a real argument to say it is the best system in the world… this hasn’t made a huge difference to reprimanding the suffering of Humankind. Well, is it enough to say capitalism has dramatically reduced child mortality rates and vastly increased the lifespan of old age? If that was not so then how would we explain an exponential world population increase? Whilst medical science has been credited for a positive difference with these two areas, the innovative nature of capitalism and the wealth it generated was able to fund and foster scrutiny of medical ideas which led to successful research. For example, in the Soviet Union, the goal of the central planners was to “catch up with and surpass the West”. Despite the Soviet Union in 1986 having a population 14% larger than the United States, they had 73% more hospitals than the US (23,100 vs 6229), 69% more beds for patients, 48% more physicians and 99% more midwives. However, the average life expectancy was 64 and 73 for males and females in the Soviet Union compared to 71 and 78 for males and females in the United States. It may be telling that despite far fewer staff and hospitals, the United States outspent the Soviets by more than $184 billion in 1979 ($645 billion in today’s money) and the US government paid less than half this amount compared to the 92% share the Soviet Union planners contributed. Capitalism enabled the United States to mobilise and efficiently allocate its resources, as well as create far more efficient hospitals than its rival and was able to show a clear health benefit to its population as a result. Other areas of living standards have skyrocketed such as education (and female education), skills, information and social mobility. But most of all, capitalism as a form of trade and enterprise has been the engine in the immense reduction of world absolute poverty as The Guardian writes “In the past 200 years, extreme poverty has collapsed from a whopping 94% of the entire world population to less than 10% today”. 60,000 people are escaping extreme poverty every day because of trade. But if capitalism is so good, why are there huge swathes of populations still poor and suffering today? Capitalism isn’t the cause of this poverty but rather that there is a lack of capitalism that affects these areas. Government corruption, war, political instability and other structural problems prevent power being placed into the markets and operating efficiently in these areas.

#### The transition would be violent which is separate offense for us AND means that it would inevitably fail

**Koch** and Büchs **19** [Max Koch, Faculty of Social Sciences, Socialhögskolan, Lund University, Milena Büchs, Sustainability Research Institute, School of Earth and Environment, University of Leeds, “Challenges for the degrowth transition: The debate about wellbeing”, Futures Volume 105, January 2019, Pages 155-165, https://www.sciencedirect.com/science/article/pii/S0016328718300715#!]

3.2. Implications of rapidly transforming social systems

The social practices lens is also useful for thinking about possible wellbeing implications of rapid social change more generally, and a transition away from a growth-based economy specifically. While the concept of social practices inherently implies the possibility of change (with its focus on agency and creativity), it equally strongly highlights the structural aspects of practices which provide stability and orientation. During times of rapid social transitions, social norms and ‘mental infrastructures’ often lag behind, creating disorientation, social conflict, and negative impacts on wellbeing (Büchs & Koch, 2017: ch. 6).

Stability of structural dimensions of social practices offers orientation and some extent of predictability of how oneself and other people are likely to act in the future, providing a framework within which flexibility and change are possible. This orienting function of structural dimensions of practices is likely to be an important condition for people to form reasonably stable identities and relationships – key ingredients for wellbeing. Examples from classical and contemporary sociological and psychological research suggest that different speeds of changing social structures can establish misalignments and disruptions of social practices which can, in turn, negatively influence health and other wellbeing outcomes. For instance, in his classical study, Durkheim presents suicide at least partly as an outcome of a failure of cultural resources to provide meaning and orientation in the context of other, more rapid social changes (Durkheim, 2006; Vega & Rumbaut, 1991: 375). This idea also links to Bourdieu’s concept of the “hysteresis effect”. Here, Bourdieu emphasises that, especially during phases of social transition, people’s habitus and “objective” social circumstances can become disjointed: as a result of hysteresis, dispositions can be “out of line with the field and with the ‘collective expectations’ which are constitutive of its normality. This is the case, in particular, when a field undergoes a major crisis and its regularities (even its rules) are profoundly changed” (Bourdieu, 2000: 160). This can contribute to a deterioration of people’s wellbeing as it makes them feel “out of place” or let them be perceived that way, “plung[ing] them deeper into failure” (Bourdieu, 2000: 161) because they cannot make use of new opportunities or are mistreated or socially excluded by others.

Empirical research which partly builds on the idea of hysteresis has shown that wide-ranging organisational change can have a range of negative effects on people’s health and mortality (Ferrie et al., 1998; McDonough & Polzer, 2012). One study found that across 174 countries, several measures of wellbeing and social performance, including life satisfaction, health, safety and trust, voice and accountability, were highest in periods of economic stability, but lower in times of GDP growth or contraction (O’Neill, 2015); and other studies concluded that life expectancy can be negatively affected by both rapid economic growth and contraction (Notzon et al., 1998; Szreter, 1999).

Several scholars have recently highlighted the potential for social conflict inherent in (rapid) social change. For instance, Maja Göpel (2016: 49) remarks: “Unsurprisingly, the navigation or transition phase in shifting paradigms as well as governance solutions is marked by chaos, politicization, unease and power-ridden struggles”. Wolfgang Streeck has issued similar warnings (Streeck et al., 2016: 169). It is not difficult to see how such scenarios bear the potential of undermining some of the fundamental conditions that are necessary for the satisfaction of basic needs as discussed above, and hence the danger of generating substantial wellbeing losses for current and near-future generations.

In the current context, it is very difficult to imagine that we might be able to observe a rapid and radical cultural change in which people adopt identities and related lifestyles that value intrinsically motivated activities over pursuing satisfaction and status through careers and consumption. Even more worryingly, political events in Europe, the United States and elsewhere since the ‘Great Crash’ of 2008 indicate that times of negative or stagnant growth can provide a breeding ground for populist, nationalistic and anti-democratic movements. Economic insecurity, a perceived threat of established identities through migrants, and deep mistrust against ‘elite’ politicians are amongst the main explanations for previously unimaginable events such as the Brexit vote, Trump presidency, and recent electoral successes for far right-wing parties in a range of European countries.

#### Economic crises and the transition both trash the environment

**Nordhaus 20** [Ted Nordhaus is an American author, environmental policy expert, and the director of research at The Breakthrough Institute, “Must Growth Doom the Planet?”, https://www.thenewatlantis.com/publications/must-growth-doom-the-planet]

More recently, economic crises in relatively developed regions, such as Southeast Asia, the former Soviet Union, and Greece have led to serious environmental consequences, as economically struggling populations turned to forests for firewood and to illegal hunting and fishing for food, to devastating effect.

For this reason, degrowth offers no guarantee that environmental impacts will decline. This is all the more so as calls for degrowth are frequently coupled with demands for a return to simpler, less technological, and non-synthetic systems for the provision of food and energy and for production of material goods and services. Less affluent economies more dependent upon production systems that use less technology would substantially increase the resource demands associated with consumption, and would erode or even entirely offset the benefits of lower levels of consumption.

Indeed, all over the world, poor populations dependent on lowproductivity technologies often require surprisingly large per capita resource footprints to sustain their meager consumption. One 2012 study in PNAS, for instance, found that the average West African requires the same amount of land as the average Northern European to support a diet that is much poorer calorically and offers much less dietary protein.

By contrast, over the last two centuries, a virtuous cycle of rising energy and resource productivity has allowed for unprecedented levels of human wellbeing. With that has come a growing population—not because people are having more children but because life expectancies are much higher. Greater prosperity has brought rising material consumption—not mainly because of conspicuous consumption in the wealthiest societies, but rather the agrarian, energy, and demographic transitions that have allowed much of the global population to escape rural poverty and achieve something approaching modern living standards.

Growing demand for material goods and services by a growing and increasingly affluent global population has increased the pressure on natural resources. But it has also led to innovation that has raised resource productivity. In this way, rising resource productivity has allowed for both continuing economic growth and the increasing environmental efficiency of the global economy.

Reversing those dynamics will not necessarily result in lower resource usage, or lower environmental impacts. Lowering demand for resources could as easily result in less-productive resource use as in reduced pressure on resources. The combination of large post-growth human populations, economic stagnation, and increasingly abundant natural resources might drive human societies toward less-productive technological systems. The end of growth, in this way, may do more harm to the planet than good.

### AT Racial Capitalism---1NC

#### Racial capitalism fails as a theory.

Go 21 – Professor of Sociology at the University of Chicago (Julian, “Three Tensions in the Theory of Racial Capitalism”, Sociological Theory, Vol. 39, No. 1, pp. 38-47, 2021)

What Is the “Race” in Racial Capitalism? We can now turn to the three tensions in the racial capitalism literature, beginning with the issue of race. This is critical. If the term racial capitalism is to have implications for social theory, it must offer rigorously defined concepts constituting a transposable conceptual apparatus. Surely one of those concepts would have to do with “race.” But what exactly is “race”? The problem is that “race” is not typically defined in the existing literature, so it is unclear whether other categories marking difference, such as ethnicity, are more appropriate than race. Should we be thinking about “ethnic capitalism” rather than racial capitalism? Robinson’s (2000) work is a prime example. Nearly all scholars claim that one of Robinson’s key contributions is to show that capitalism was forged from precapitalist racial divisions in Europe. Capitalism is “racial,” according to Robinson, “because racialism had already permeated Western feudal society,” and capitalism was built upon that racialism (Kelley 2017; Táíwò and Bright 1996). The problem is that Robinson himself was not entirely clear that precapitalist social differences were actually “racial.” On one hand, he did use the term race in his analysis. “Racism,” Robinson (2000:2; see also pp. 26–27, 66–67) wrote, served to structure “the ‘internal’ relations of European peoples” prior to capitalism, and capitalism seized on racism as it developed. On other hand, when discussing some of the presumably “racial” groups in feudal Europe, Robinson (2000:10–11) referred to linguistic rather than phenotypical differences, thus equating racial groups with linguistic groups. In fact, when discussing how migratory and immigrant labor formed the basis for the armies of the Absolutist states and for the production of value in early agrarian capitalism, he oscillated between calling them “races” and “ethnic” groups. For instance, Robinson (2000:23) used the phrase “ethnic divisions of sixteenth century immigrant labor,” and he referred to “national” differences when presumably speaking about premodern “racial” differences. Given these ambiguities, Robinson’s argument could be read differently from how it is conventionally taken. It is not that capitalism was built on prior racial differences; rather, capitalism served to racialize the preexisting ethnic division of labor, thereby turning religious, cultural, or linguistic differences into “racial” ones to legitimate its new exploitative structure. In this view, racialization—the process of turning groups into biological entities called “races”—was a part of modern capitalism, not its precursor (cf. Omi and Winant 1986). In some passages, Robinson (2000) said this exactly: “the tendency of European civilization through capitalism was thus not to homogenize but to differentiate—to exaggerate regional, subcultural, and dialectical differences into ‘racial’ ones” (p. 26). Of course, whether “race” preexisted capitalism does not alter the larger argument of the racial capitalism approach, which is that racial differentiation and capitalism are mutually supportive. Still, the tension in Robinson’s work manifests the deeper issue of whether “racial” capitalism refers to race or other identities. This issue permeates Walzer’s (2020) recent criticism of the racial capitalism concept. Walzer points to examples such as Russia and China, where capitalism does not rely on racial differences but rather on ethnic and religious differentiation. “It may be that Muslims are among the most exploited workers in Russia,” he wrote, “but they are mostly Caucasian (some of them the original Caucasians), so we would have to talk about religious capitalism—where Orthodox Christians, not white people, are the privileged group.” On this basis, Walzer rejected the racial capitalism concept as limited at best and analytically debilitating at worse. Skeptics of Walzer have offered a rebuke: his argument misses the global dimensions of capitalism. At issue is not whether racial stratification articulates with capitalism within any single country but whether it permeates the world-capitalist system. Proponents of this argument could readily assemble evidence to show that, on a global scale, the vast majority of the world’s proletariat, subproletariat, and dispossessed—whether cultivating grapes or coffee on the farms of the Americas, cleaning up office floors in London, or making clothes in the sweatshops of New Delhi—are, to borrow DuBois’s (1935) phrase, “yellow, brown and black.” Against Walzer, this would retain the main claim of the racial capitalism approach that race and capitalism are intertwined. Yet this scaling upward of capitalism to a global level brings its own complications. It carries the danger of what Bourdieu and Wacquant (1999) called “the cunning of imperialist [racialist] reason”: an analytic operation by which U.S.-centered scholars impose presumably U.S.-centric classifications (in this case, “race”) onto the rest of the world, thereby imposing racial classifications into contexts where they might not be operative. We would be obliged, for instance, to impose racial classifications onto Latin American contexts such as Brazil, where the salience of racial classifications is debatable (Loveman 1999; Wimmer 2015). In short, if we are to insist on the global character of racial capitalism, we must assume that analysts’ racial classifications are global as well. They may very well be, but racial capitalism’s founding texts, and more recent discussions, have not sufficiently problematized this tension.2 Can this tension be resolved? One way to do so is to raise the possibility that the racial capitalism concept works best for groups that have been undoubtedly racialized, such as members of the African diaspora in North America.3 Racial capitalism would thus refer mainly to the black ex-slave population, which has suffered some of the clearest and most virulent forms of racism. This might explain why the literature on racial capitalism has focused on African Americans and transatlantic slavery rather than other groups elsewhere in the world. Yet this seeming resolution would significantly reduce the scope of the racial capitalism concept. Racial capitalism would no longer depict a global system. Perhaps the best resolution is one that arrives through more reflexive research. We can explore how “race” is connected to capitalism in diverse sites and across historical periods, but we must be more conscious about whether we are referring to analysts’ definition of race or a category of practice. Put simply, we can arrive at a resolution only through careful research that more clearly defines “race.” The Inadequacy of Existing Theory A second tension in the racial capitalism literature has to do with the relationship between this literature and existing social theories of capitalism, in particular, Marxian theories of capitalism. Animating the racial capitalism approach is the claim that Marxian theories of capitalism are inadequate because they obfuscate the racial foundations of capitalism. For Robinson (2000), “Western Marxism . . . has proven insufficiently radical to expose and root out the racialist order that contaminates its analytic and philosophic applications” (p. 317). Historians’ use of the racial capitalism approach is premised on the idea that Marxism does not adequately acknowledge slavery’s role in capitalism or the ongoing importance of colonialism and “primitive accumulation,” which Marx presumably relegated to the margins of his theory (Smallwood 2018). This is exactly why scholars in this tradition insist on the term racial capitalism: because Marxian theory fails to theorize race, we must add the qualifier race to the signifier capitalism. But what if Marxian theory does in fact take into account race, slavery, imperialism, and colonialism, and proponents of the racial capitalism approach merely misread Marx? If so, the warrant, if not the entire premise, for Robinson’s and others’ work on racial capitalism would crater by an unfortunate misreading of Marxian theory. A number of scholars, in fact, already push against the notion that Marxist thought does not account for race, slavery, or colonialism. Drawing largely on Marx’s journalistic writings, they show that Marx not only discussed race, slavery, and colonialism but saw them as central for capitalism. According to this argument, Marx saw race as so crucial for capitalism that his theory saw the true proletariat as black, brown, and yellow—directly contrary to Robinson’s claim that Marxist theory only saw the white European proletariat as the true subject of history (Anderson 2010; Foster, Holleman, and Clark 2020; Ralph and Singhal 2019). If true, the racial capitalism literature is based on a “misguided reading of Marx” (Ralph and Singhal 2019:864). How might this apparent aporia in Marxian theory be resolved, if at all? It is imperative here to register a distinction between Marx’s theory of capital and his theory of capitalism. 4 The former is sketched in Marx’s mature social theory in Capital and related writings such as The Grundrisse (Postone 1996). These writings offer a formalized and abstract representation of the inner workings of capital, its accumulation, its contradictions, and its necessary demise through a series of central categories that capture the key elements of the capitalist system. At this level of abstraction, the main categories of the theory (e.g., “value,” “surplus value,” “concrete labor,” “abstract labor,” “capital,” “socially necessary labor time”) are devoid of any historical specificity or social content and as such can be applied to distinct historical phases or social formations (e.g., capitalism in the eighteenth-century transatlantic world or Russia in 1998, or the twenty-first-century global system). Categories of race, gender, or ethnicity are therefore not central, because they are too concrete. Alternatively, a theory of capitalism refers to capitalist development and dynamics in their empirical specificity. It is meant to explain and describe specific capitalist formations and developments as they really exist in the world, not their abstract conceptual form. This theory can be extracted from Marx’s journalistic writings and other essays, and it is here where issues such as slavery and ethnicity arise: the essays refer to real events and pressing issues in actually existing capitalism, such as the Civil War or the Irish question (Anderson 2010). But these observations or statements on concrete processes and relations such as slavery in actually existing capitalism—that is, Marx’s theory of capitalism—do not disturb or reconfigure his theory of capital, which remains focused on the relations of wage labor induced to a highly abstract level from his analysis of textile production. If and when he did discuss things such as slavery, such as in “The Working Day” section in Capital, he treated slavery as a passing phase or outside capital’s inner logic, a sort of heuristic to better apprehend and illuminate the latter (Marx [1867] 1906:328–30; on slavery as a heuristic, see Smallwood 2018). This distinction between Marx’s theory of capitalism and his theory of capital helps us better approach the debate generated by the racial capitalism literature. When Robinson or other proponents of the racial capitalism idea critique Marx’s theory for eliding or deliberately occluding race, slavery, and colonialism, they are critiquing his theory of capital, not his theory of capitalism. Here proponents of the racial capitalism approach are on solid ground. Marx’s theory of capitalism does take into account race, slavery, and colonialism, but his theory of capital renders these things marginal at best.5 Hence the warrant for the racial capitalism approach: because Marx’s theory of capital does not center race, the racial capitalism concept and the research and theorizing that go under its banner can fill the void. The concept may provide the basis for an alternative theory not only of racial capitalism but also of racialized capital. Necessity, Contingency, and Difference The final tension within racial capitalism is whether the interconnectedness of racial difference and capitalism is a logical or contingent necessity.6 If, as the racial capitalism literature suggests, slavery and its associated logics of racism have been crucial for the development of capitalism, and if global capitalism today remains intertwined with racial stratification, to what extent are these relations intrinsic to capitalism or accidental? Put differently, is capitalism necessarily racist (Fraser 2019; Lemann 2020)?7 For some, the relationship is only contingent. Walzer (2020) argued that in some countries, capitalism proceeds along just fine without racial difference, and if there is racial difference on a global scale, it is historically contingent. Although the vast majority of workers are nonwhite, Walzer suggested that this is not due to any intrinsic logic of capitalism but rather the accident of demographics (because most of the world is nonwhite, the majority of the world’s workers will be nonwhite). For this reason, Walzer suggested we disavow the racial capitalism concept. Alternatively, others claim that racism is indeed intrinsic to capitalism.8 There are two versions of this claim. One is that racism is necessary to divide the working class and legitimate the rule of the bourgeoisie. Racism is an ideological necessity of capitalism, justifying its unequal relations (Camp, Heatherton, and Karuka 2019; McCarthy 2016; Taylor 2016). “Capitalism requires inequality,” suggested Gilmore (2015), “and racism enshrines it.” A very different version, coming most predominantly from Fraser (2019), is that capitalism necessarily entails relations of exploitation and expropriation that feed off each other. Exploitation is the extraction of value from “free subjects” through wage labor. But expropriation, which includes slavery and colonialism, extracts value from racialized “dependent subjects” and is what enables exploitation to happen in the first place. Expropriation is “a necessary background condition for the exploitation of ‘workers’” (Fraser 2019) and therefore for capitalism itself. Capitalism is thus logically dependent upon racism.9 So what is the answer? Again, it helps differentiate between a theory of capital and a theory of capitalism. A theory of capitalism might demonstrate that race has been historically necessary for capitalist accumulation by reference to empirical reality: historically, capitalism and race have always been intertwined. But the claim that race is a logical necessity to capitalism would have to derive from a theory of capital, not from empirics alone. One would have to deduce, from the categories of Marx’s theory, the necessity of racism or racial differentiation in society. On this score, the arguments for the logical necessity of capitalism’s entanglements with race fall short. Consider the argument that racism is necessary for capitalism because capitalism requires racist ideology to divide the working class. This is a functionalist argument that is not functionalist enough, for it effaces the logical possibility of functional substitution. We may find that racism has historically always functioned to divide the working class, but in theory other “isms” could serve the same function. There is nothing inherent to the logic of capital that requires race to be the ideology of division (Lebowitz 2006:39).10 Why not ethnicity? Why not sexuality? Consider Fraser’s argument that expropriation is intrinsic to capitalism and that racial differentiation must be too. It is plausible and indeed persuasive to claim that expropriation is necessary for capitalism, but it is less persuasive to claim that racial difference is logically necessary for expropriation. Gender could easily serve as the main axis of dependent classification (and, to feminist-Marxist thought, it has served that function), as could ethnicity, religion, sexuality, or citizenship. Fraser would have to show that expropriation, and hence capitalism, requires a racial classification as opposed to other social categories. This is a task left unfulfilled.11 A different and possibly more productive route would be to reframe the issue as one of social difference rather than race. Is racism necessary for capitalism? There are good reasons, as just mentioned, to think not. But is social difference of various types (from race to gender to ethnicity) necessary for capitalism?12 This is more demonstrable, both empirically (by reference to actually existing capitalism) and theoretically (by reference to the logic of capital accumulation). For example, Fraser’s argument about expropriation could be reformulated in the following manner: expropriation is logically necessary for exploitation, which is in turn necessary for capital accumulation, and expropriation requires differentiation among workers. This differentiation could be along racial lines, or it could be along other lines such as gender, but differentiation there must be. Note that this argument logically insinuates a racial component but remains abstract enough to account for other possible identities across different capitalist formations. It can account for racialized slave labor in the eighteenth-century transatlantic world (where “race” was a key axis of differentiation), twentieth-century Russia (where ethnicity or religion might be the important axis), or gender across all these formations. This is just one possibility. There are others. Chakrabarty (1993), for instance, seized on Marx’s categories of “abstract” and “real” labor to write difference into Marx’s theoretical architecture. “Abstract labor” generated by capitalism refers to a homogeneity among different and otherwise incommensurable labors. It is the register of the juridical free subject. But “real” labor marks have heterogeneity that registers the incommensurability of different labors. It therefore refers to a difference that stands “only as a Derridean trace of something that cannot be enclosed” (Chakrabarty 1993:1096). Exactly how persuasive is Chakrabarty’s rereading remains to be seen. The point is that this effort, and others like it, speak to theoretical possibilities that the racial capitalism literature opens up but has yet to pursue thoroughly. More could be done.13

### AT Hyperreality

#### Their response to hyper-reality is flux and insurgency---this provides no ground for collective politics beyond their immediate surroundings---instead, you should endorse deliberation that creates pockets of slow time which contest hyperreality and re-politicize space policy

David McIvor 11, research associate at the Kettering Foundation, The Politics of Speed: Connolly, Wolin, and the Prospects for Democratic Citizenship in an Accelerated Polity, Polity (2011) 43, 58–83

In some ways Wolin's description of revolution seems to converge with Connolly's emphasis on speed as a means of creating a pluralistic ethos and ultimately political change. Yet Connolly, as I have argued above, has elided the intense requirements of slow time practice that support the possibility of successful, “rapid” change. Furthermore, Wolin finds that the tempos of frenetic agitation have “not vanished … [but] simply switched location.” The rise of corporate-driven capitalism has appropriated the revolutionary tempo through the “troika effect,” which unites capital, technology and science:

By enlisting technological innovation and scientific discovery and joining them with its own impulses, capital has produced an unprecedented form of power. The combination has quickened the rate of change throughout the world … . Globalized capital … may be said to monopolize agitation … thus corporate capital is the agitator, the exemplar of permanent revolution, of normalized agitation.85

Speedy agitation has been co-opted by corporate capital, which in turn “encourages change, elevates fashion to a norm, and … instructs an agitated populace that virtually every job and habitat are temporary.”86 This emphasis on flux and change disrupts the attachments that normally develop over time, including those related to vocation or community (and, by extension, those which lead to agitation). For Wolin, a hopeful politics today depends on whether or not “agitation … can find its bearings.”86 In order for this to occur the “appropriate tempo” of democratization must be identified. Since Wolin identifies this tempo as the slower one found at the local level of state, county, and municipality, we must wonder if he has not fallen into the nostalgic shackles that Connolly has already fit for him. Far from it. While recognizing the difficulty of frenetic agitation in a hurrying, racing world, Wolin thinks that such agitation can emerge from and alter the slower tempos of small-scale deliberation and debate occurring in local politics. Agitation can “educate … and energize” particularism, leading it to “challenge the center” in changed times. Democratic agitation “takes time” in that it must be nursed by patient deliberation, but it also “takes time” when, energized by such micro-political activities, it alters the status quo in powerful, lasting ways.

Again, Wolin does not look to slow time practices and local sites of action in order to flatten or exclude difference. According to Wolin, a leisurely pace and deliberation are “conditioned by the presence of differences and the attempt to negotiate them.”87 Democratic theory that emphasizes speed and dislocation, on the other hand, mimics the temporal rhythms of contemporary culture and economy at the expense of the tempos of deliberation and reflection that are important in themselves and insofar as they make possible the politics of a quicker pace. Some habits and practices are fundamental to the honoring and negotiating of plurality.

In order to develop these habits, Wolin wants to direct attention away from the state and towards localities with their particularities, peculiarities, and irregularities. On Wolin's reading, national politics is little more than a spectacle, and the citizen's role within that spectacle is often only as “a rooter limited to choosing sides.”88 Localities, on the other hand, remain venues that promise robust participation. As individuals slowly develop the habits related to partic

ipation—interpreting and coming to know one's environment and its other inhabitants, its multiple histories and overlapping concerns—their very being changes. “Politicalness” marks our capacity “to develop … into beings who know and value what it means to participate in and be responsible for the care and improvement of our common and collective life.”89 By nurturing this politicalness we begin to feel a tug of loyalty towards a common reality that had not heretofore existed. Wolin, in describing the early stages of the Free Speech Movement, referred to this experience as the “revival of a sense of shared destiny, of some common fate which can bind us into a people we have never been.”90 Of course, these assemblages are subject to the same “thousand natural shocks” to which all flesh is heir. Publics rise and fall; democratic moments remain momentary. Yet those who are honed by these experiences and who are dedicated to their recovery become what Wolin calls a “multiple civic self … one who is required to act the citizen in diverse settings: national, state, city or town, neighborhood, and voluntary association.”91 This is “perhaps the most complex conception of citizenship ever devised” yet “we have no coherent conception of it.”91 The multiple civic self is not modeled along republican or representative lines, which reduce participation to occasional ratification or refusal, and which filter popular power through elite-managed institutions. Nor, however, is it based on the radical democratic conception of citizenship as direct sharing in power. The complexities of what Wolin calls “the megastate” and the sheer size of the United States exceed what an Athens-styled radical democracy could manage. The multiple civic self is one capable of participating not simply in ~~his/her~~ locality but “intellectually and passionately in the controversies surrounding the megastate” in order to “reclaim” public space and insist upon “widened debate.”92 Wolin is not (only) a localist. Rather, he thinks that the skills and habits best acquired by consistent participation in our particular localities lay the groundwork for a form of citizenship attuned to the plural layers of political action and struggle in late-modern America. Moreover, the multiple civic self promotes the dispersal of power between local, state, and national bodies.93 Such diffusion re-establishes a separation of powers that forces slow-time negotiations upon the impatient megastate.94 The slowly developed habits of participation make possible a more robust form of democratic citizenship and, perhaps, fugitive democratic moments. These moments, in turn, can help to slow the world down.

Political theorists and social actors inspired by Wolin's example and worried about the inegalitarian consequences of social acceleration should look to start from his (so far underdeveloped) idea of the multiple civic self. Instead of refurbishing federal institutions or romanticizing the consequences of speed, we ought to attend primarily to what Wolin calls the “recurrent aspiration” of democracy: “to find room in which people can join freely with others to take responsibility for solving their common problems and thereby sharing the modest fate that is the lot of all mortals.”95 By pursuing solutions to mutual problems through concerted action, we as citizens can hone the craft of democratic participation—broadening our notions of self and learning to honor the differences we encounter within a shared space.96

The differences drawn above between Wolin and Connolly—and the choice that they seem to offer, Connolly or Wolin—may seem exaggerated, given the broad convergence between their normative interests and political concerns.97 Perhaps, then, a critical synthesis can be located between Wolin's efforts at nurturing democratic identity and Connolly's recent emphasis on generating a positive political resonance machine capable of promoting the use of inclusive goods while remaining attentive to difference and dissonance. For Connolly, the success of such movements will depend on cultivating the democratic virtues of what he calls “agonistic respect” and “critical responsiveness.” In fact, it is the latter two qualities, first articulated together in Neuropolitics, that form Connolly's recent conception of “bicameral citizenship,” which might be seen as a response or friendly rejoinder to Wolin's idea of the multiple civic self.98 Bicameralism comes from a “decent respect for the persistent diversity of the human condition” and results in a tolerance of ambiguity in our relationships and contestability in our creeds.99 The stubborn opacity of the world and the agonistic nature of political life can both become, on Connolly's reading, the basis for a generous acceptance of disagreement and difference. But the acceptance of such opacity would not necessarily come at the expense of a search for spaces of convergence or commonality—what Wolin calls the “sense of shared destiny.”

The dispositions of agonistic respect and critical responsiveness can clearly resonate with and reinforce the care and concern for the common that Wolin puts at the center of fugitive democracy. Yet these efforts, I would argue, need to be situated within a praxis whereby (seemingly anachronistic) habits of participation and engagement are nurtured in spite of the pressures of an accelerated society. For outside of these practices, what will inspire a commitment to the virtues relevant to democratic flourishing? What will make Connolly's virtues more compelling than resentment about the “illegible” social relations in “liquid” modernity? Connolly's under-theorization of the bonds of democratic identification and commitment seems a symptom of his sanguinity about the connection between speed and pluralism (“the acceleration of speed, though it contains counterpressures, amplifies trends towards diversity among multiple dimensions of being”).100 We ought to remain slightly skeptical, therefore, when Connolly writes, “acceleration prepares us for bicameralism” or asserts “it takes massive energy to turn us against pluralism.”101 We ought to ask whether this sanguine attitude is really justified by our understanding of the world around us. After all, since the fifteenth century, nearly 4,000 human languages have died out, and there have been similar crashes in biodiversity and methods of agricultural production since the rise of the steam engine. It seems that diversity of political, cultural, and ecological life is far from a given; one might say rather that it requires “massive energy” in order to persist.