**FWRK**

**The standard is maximizing expected wellbeing.**

**1] Actor spec—governments must use util because they don’t have intentions and are constantly dealing with tradeoffs—**

**2] Death is bad and outweighs – a] agents can’t act if they fear for their bodily security which constrains every ethical theory, b] it destroys the subject itself – kills any ability to achieve value in ethics since life is a prerequisite which means it’s a side constraint since we can’t reach the end goal of ethics without life**

**3] Pleasure and pain are the starting point for moral reasoning—they’re our most baseline desires and the only things that explain the intrinsic value of objects or actions**

**Moen 16**, Ole Martin (PhD, Research Fellow in Philosophy at University of Oslo). "An Argument for Hedonism." Journal of Value Inquiry 50.2 (2016): 267.

Let us start by observing, empirically, that **a widely shared judgment about intrinsic value** and disvalue **is that pleasure is intrinsically valuable and pain is intrinsically disvaluable**. On virtually any proposed list of intrinsic values and disvalues (we will look at some of them below), pleasure is included among the intrinsic values and pain among the intrinsic disvalues. This inclusion makes intuitive sense, moreover, for **there is something undeniably good about the way pleasure feels and something undeniably bad about the way pain feels**, and neither the goodness of pleasure nor the badness of pain seems to be exhausted by the further effects that these experiences might have. “Pleasure” and “pain” **are** here **understood inclusively**, as encompassing anything hedonically positive and anything hedonically negative. 2 The special value statuses of pleasure and pain are manifested in how we treat these experiences in our everyday reasoning about values. If you tell me that you are heading for the convenience store**, I might ask: “What for**?” This is a reasonable question, for when you go to the convenience store you usually do so, not merely for the sake of going to the convenience store, but for the sake of achieving something further that you deem to be valuable. You might answer, for example: “To buy soda.” This answer makes sense, for soda is a nice thing and you can get it at the convenience store. I might further inquire, however: “What is buying the soda good for?” This further question can also be a reasonable one, for it need not be obvious why you want the soda. You might answer: “Well, I want it for the pleasure of drinking it.” If I then proceed by asking “But what is the pleasure of drinking the soda good for?” the discussion is likely to reach an awkward end. **The reason is that the pleasure is not good for anything further; it is simply that for which going to the convenience store and buying the soda is good**. 3 As Aristotle observes: “**We never ask** [a man] **what** his **end is in being pleased, because we assume that pleasure is choice worthy in itself**.”4 Presumably, a similar story can be told in the case of pains, for if someone says “This is painful!” we never respond by asking: “And why is that a problem?” We take for granted that **if something is painful, we have a sufficient explanation of why it is bad**. If we are onto something in our everyday reasoning about values, it seems that **pleasure and pain are both places where we reach the end of the line in matters of value**. Although **pleasure and pain thus seem to be good candidates for intrinsic value and disvalue**, several objections have been raised against this suggestion: (1) that pleasure and pain have instrumental but not intrinsic value/disvalue; (2) that pleasure and pain gain their value/disvalue derivatively, in virtue of satisfying/frustrating our desires; (3) that there is a subset of pleasures that are not intrinsically valuable (so-called “evil pleasures”) and a subset of pains that are not intrinsically disvaluable (so-called “noble pains”), and (4) that pain asymbolia, masochism, and practices such as wiggling a loose tooth render it implausible that pain is intrinsically disvaluable. I shall argue that these objections fail. Though it is, of course, an open question whether other objections to P1 might be more successful, I shall assume that if (1)–(4) fail, we are justified in believing that P1 is true itself a paragon of freedom—there will always be some agents able to interfere substantially with one’s choices. The effective level of protection one enjoys, and hence one’s actual degree of freedom, will vary according to multiple factors: how powerful one is, how powerful individuals in one’s vicinity are, how frequent police patrols are, and so on. Now, we saw above that what makes a slave unfree on Pettit’s view is the fact that his master has the power to interfere arbitrarily with his choices; in other words, what makes the slave unfree is the power relation that obtains between his master and him. The difﬁculty is that, in light of the facts I just mentioned, there is no reason to think that this power relation will be unique. A similar relation could obtain between the master and someone other than the slave: absent perfect state control, the master may very well have enough power to interfere in the lives of countless individuals. Yet it would be wrong to infer that these individuals lack freedom in the way the slave does; if they lack anything, it seems to be security. A problematic power relation can also obtain between the slave and someone other than the master, since there may be citizens who are more powerful than the master and who can therefore interfere with the slave’s choices at their discretion. Once again, it would be wrong to infer that these individuals make the slave unfree in the same way that the master does. Something appears to be missing from Pettit’s view. If I live in a particularly nasty part of town, then it may turn out that, when all the relevant factors are taken into account, I am just as vulnerable to outside interference as are the slaves in the royal palace, yet it does not follow that our conditions are equivalent from the point of view of freedom. As a matter of fact, we may be equally vulnerable to outside interference, but as a matter of right, our standings could not be more different. I have legal recourse against anyone who interferes with my freedom; the recourse may not be very effective—presumably it is not, if my overall vulnerability to outside interference is comparable to that of a slave— but I still have full legal standing.68 By contrast, the slave lacks legal recourse against the interventions of one speciﬁc individual: his master. It is that fact, on a Kantian view—a fact about the legal relation in which a slave stands to his master—that sets slaves apart from freemen. The point may appear trivial, but it does get something right: whereas one cannot identify a power relation that obtains uniquely between a slave and his master, the legal relation between them is undeniably unique. A master’s right to interfere with respect to his slave does not extend to freemen, regardless of how vulnerable they might be as a matter of fact, and citizens other than the master do not have the right to order the slave around, regardless of how powerful they might be. This suggests that Kant is correct in thinking that the ideal of freedom is essentially linked to a person’s having full legal standing. More speciﬁcally, he is correct in holding that the importance of rights is not exhausted by their contribution to the level of protection that an individual enjoys, as it must be on an instrumental view like Pettit’s. Although it does matter that rights be enforced with reasonable effectiveness, the sheer fact that one has adequate legal rights is essential to one’s standing as a free citizen. In this respect, Kant stays faithful to the idea that freedom is primarily a matter of standing—a standing that the freeman has and that the slave lacks. Pettit himself frequently insists on the idea, but he fails to do it justice when he claims that freedom is simply a matter of being adequately (and reliably) shielded against the strength of others. As Kant recognizes, the standing of a free citizen is a more complex matter than that. One could perhaps worry that the idea of legal standing is something of a red herring here—that it must ultimately be reducible to a complex network of power relations and, hence, that the position I attribute to Kant differs only nominally from Pettit’s. That seems to me doubtful. Viewing legal standing as essential to freedom makes sense only if our conception of the former includes conceptions of what constitutes a fully adequate scheme of legal rights, appropriate legal recourse, justiﬁed punishment, and so on. Only if one believes that these notions all boil down to power relations will Kant’s position appear similar to Pettit’s. On any other view—and certainly that includes most views recently defended by philosophers—the notion of legal standing will outstrip the power relations that ground Pettit’s theory.

**5]** Extinction first

**Pummer 15** [Theron, Junior Research Fellow in Philosophy at St. Anne's College, University of Oxford. “Moral Agreement on Saving the World” Practical Ethics, University of Oxford. May 18, 2015] AT

**There appears to be lot of disagreement in moral philosophy. Whether these many apparent disagreements are deep and irresolvable, I believe there is at least one thing it is reasonable to agree on right now**, whatever general moral view we adopt**: that it is very important to reduce the risk that all intelligent beings on this planet are eliminated by an enormous catastrophe, such as a nuclear war.** How we might in fact try to reduce such existential risks is discussed elsewhere. My claim here is only that **we – whether we’re consequentialists, deontologists, or virtue ethicists – should all agree that we should try to save the world.** According to consequentialism, we should maximize the good, where this is taken to be the goodness, from an impartial perspective, of outcomes. **Clearly one thing that makes an outcome good is that the people in it are doing well. There is little disagreement here.** If the happiness or well-being of possible future people is just as important as that of people who already exist, and if they would have good lives, it is not hard to see how **reducing existential risk is easily the most important thing in the whole world. This is for the familiar reason that there are so many people who could exist in the future – there are trillions upon trillions… upon trillions. There are so many possible future people that reducing existential risk is arguably the most important thing in the world, even if the well-being of these possible people were given only 0.001% as much weight as that of existing people.** Even on a wholly person-affecting view – according to which there’s nothing (apart from effects on existing people) to be said in favor of creating happy people – the case for reducing existential risk is very strong. As noted in this seminal paper, **this case is strengthened by the fact that there’s a good chance that many existing people will, with the aid of life-extension technology, live very long and very high quality lives. You might think what I have just argued applies to consequentialists only. There is a tendency to assume that, if an argument appeals to consequentialist considerations (the goodness of outcomes), it is irrelevant to non-consequentialists. But that is a huge mistake.** **Non-consequentialism is the view that there’s more that determines rightness than the goodness of consequences or outcomes; it is not the view that the latter don’t matter.** Even John Rawls wrote, “**All ethical doctrines worth our attention take consequences into account in judging rightness. One which did not would simply be irrational, crazy.**” **Minimally plausible versions of deontology and virtue ethics must be concerned in part with promoting the good, from an impartial point of view.** **They’d thus imply very strong reasons to reduce existential risk**, at least when this doesn’t significantly involve doing harm to others or damaging one’s character. What’s even more surprising, perhaps, is that even if our own good (or that of those near and dear to us) has much greater weight than goodness from the impartial “point of view of the universe,” indeed even if the latter is entirely morally irrelevant, we may nonetheless have very strong reasons to reduce existential risk. **Even egoism, the view that each agent should maximize her own good, might imply strong reasons to reduce existential risk.** It will depend, among other things, on what one’s own good consists in. If well-being consisted in pleasure only, it is somewhat harder to argue that egoism would imply strong reasons to reduce existential risk – perhaps we could argue that one would maximize her expected hedonic well-being by funding life extension technology or by having herself cryogenically frozen at the time of her bodily death as well as giving money to reduce existential risk (so that there is a world for her to live in!). I am not sure, however, how strong the reasons to do this would be. But views which imply that, if I don’t care about other people, I have no or very little reason to help them are not even minimally plausible views (in addition to hedonistic egoism, I here have in mind views that imply that one has no reason to perform an act unless one actually desires to do that act). **To be minimally plausible, egoism will need to be paired with a more sophisticated account of well-being.** To see this, it is enough to consider, as Plato did, the possibility of a ring of invisibility – **suppose that, while wearing it, Ayn could derive some pleasure by helping the poor, but instead could derive just a bit more by severely harming them. Hedonistic egoism would absurdly imply she should do the latter. To avoid this implication, egoists would need to build something like the meaningfulness of a life into well-being**, in some robust way, where this would to a significant extent be a function of other-regarding concerns (see chapter 12 of this classic intro to ethics). But **once these elements are included, we can (roughly, as above) argue that this sort of egoism will imply strong reasons to reduce existential risk.** Add to all of this Samuel Scheffler’s recent intriguing arguments (quick podcast version available here) that most of what makes our lives go well would be undermined if there were no future generations of intelligent persons. On his view, my life would contain vastly less well-being if (say) a year after my death the world came to an end. So obviously if Scheffler were right I’d have very strong reason to reduce existential risk. **We should also take into account moral uncertainty.** **What is it reasonable for one to do, when one is uncertain not (only) about the empirical facts, but also about the moral facts?** I’ve just argued that **there’s agreement among minimally plausible ethical views that we have strong reason to reduce existential risk – not only consequentialists, but also deontologists, virtue ethicists, and sophisticated egoists should agree.** But **even those (hedonistic egoists) who disagree should have a significant level of confidence that they are mistaken, and that one of the above views is correct. Even if they were 90% sure that their view is the correct one** (and 10% sure that one of these other ones is correct), **they would have pretty strong reason, from the standpoint of moral uncertainty, to reduce existential risk.** Perhaps most disturbingly still, **even if we are only 1% sure that the well-being of possible future people matters, it is at least arguable that, from the standpoint of moral uncertainty, reducing existential risk is the most important thing in the world.** Again, this is largely for the reason that there are so many people who could exist in the future – there are trillions upon trillions… upon trillions. (For more on this and other related issues, see this excellent dissertation). Of course, it is uncertain whether these untold trillions would, in general, have good lives. It’s possible they’ll be miserable. **It is enough for my claim that there is moral agreement in the relevant sense if**, at least given certain empirical claims about what future lives would most likely be like, **all minimally plausible moral views would converge on the conclusion that we should try to save the world.** While there are some non-crazy **views that place significantly greater moral weight on avoiding suffering than on promoting happiness**, for reasons others have offered (and for independent reasons I won’t get into here unless requested to), they nonetheless **seem to be fairly implausible views.** And **even if things did not go well for our ancestors, I am optimistic that they will overall go fantastically well for our descendants, if we allow them to. I suspect that most of us alive today – at least those of us not suffering from extreme illness or poverty – have lives that are well worth living, and that things will continue to improve.** Derek Parfit, whose work has emphasized future generations as well as agreement in ethics, described our situation clearly and accurately: “We live during the hinge of history. **Given the scientific and technological discoveries of the last two centuries, the world has never changed as fast.** We shall soon have even greater powers to transform, not only our surroundings, but ourselves and our successors. **If we act wisely in the next few centuries, humanity will survive its most dangerous and decisive period.** Our descendants could, if necessary, go elsewhere, spreading through this galaxy…. **Our descendants might, I believe, make the further future very good. But that good future may also depend in part on us. If our selfish recklessness ends human history, we would be acting very wrongly.**” (From chapter 36 of On What Matters)

**C1 – Satellite Conflict**

**Currently, entrepreneurs are pushing for privatization of space travel with increasing success**

**Thompson 20** [(Clive, author of Coders: The Making of a New Tribe and the Remaking of the World, a columnist for Wired magazine, and a contributing writer to The New York Times Magazine) “Monetizing the Final Frontier The strange new push for space privatization,” December 3, 2020 <https://newrepublic.com/article/160303/monetizing-final-frontier>] TDI

For longtime enthusiasts of NASA’s human spacefaring, it was a singularly auspicious moment. Ever since NASA’s space shuttles were mothballed in 2011, the agency had no American-owned way of getting people into space. It had been paying the Russian government to fly U.S. astronauts up and back, on Russia’s Soyuz spacecraft. But this flight was different**. It was the first time humans had flown in a rocket and a capsule made by a private-sector company: SpaceX, the creation of the billionaire Elon Musk.** The launch was also a SpaceX branding bonanza. The astronauts rode up to the rocket in a Tesla, Musk’s fabled luxury electric car; when they’d reached orbit, they broadcast a live video in which they thanked SpaceX for making the flight happen, and showed off the sleek capsule—a genuine marvel of engineering, with huge touch screen control panels that looked rather like the ones inside a Tesla itself**. Over the next few years, NASA will pay Musk and SpaceX $2.6 billion to ferry astronauts to and from the space station six times.** For the feds, this price tag is remarkably cheaper than the space shuttle, which cost over $1 billion per flight. In his speech after the launch, Trump lauded the cost savings that SpaceX had realized on the government’s behalf. SpaceX, he announced, “embodies the American ethos of big thinking and risk-taking.... Congratulations, Elon.” **For Musk, though, the launch was more than just a technical success, and is bigger even than the $2.6 billion contract. It cements him as a leading player in what might seem the unlikeliest stage of the final frontier’s exploration—the privatization of space. Private-sector activity in space travel is accelerating dramatically—rocketing, one might say. For decades, ever since people first headed for orbit in the 1960s, spaceflight had been mostly the preserve of governments.** States were the only actors with the money and technical acumen to blast things into the vacuum and get them safely down again. **The private sector didn’t have NASA’s know-how, nor—more important—a business plan that could rationalize the massive outlay of capital required to operate in space. In the last few years, that calculus has changed dramatically. A generation of “New Space” entrepreneurs has begun launching rockets and satellites. Some seek to flood the planet with fast, cheap mobile-phone signals; others want to manufacture new products in zero gravity, harnessing the novel physics of such conditions to engineer substances that can’t be made in Earth’s gravity**. Further afield, they’re aiming to harvest water on the moon and even mine asteroids**. Backing this burst of entrepreneurial fervor are many billionaires who made their money in the early Wild West of the internet, including Amazon’s Jeff Bezos, with dreams of building space colonies, and Musk, the former PayPal titan who hopes to personally make it to Mars. Barack Obama’s administration made the first major overtures to the space privatizers, signing legislation that paved the way for today’s space boom. But the real land rush has occurred under Trump, via a flurry of executive orders designed to give private firms greater access to “low-Earth orbit.” Trump officials have even touted the idea of privatizing the $100 billion space station itself**—the last signature NASA-sponsored human spacecraft project still aloft. When Trump’s transition team in 2017 pondered the handoff of low-Earth orbit to the private sector, it concluded: “**This may be the biggest and most public privatization effort America has ever conducted.**” Or as Texas GOP Senator Ted Cruz—at the time the chairman of the Space, Science, and Competitiveness Subcommittee—put it in 2018: “**I predict the first trillionaire will be made in space.”** The burst of activity and high-tech acumen thrills many space fans. But it is making many others quite nervous. Opening up space to a frenzy of private actors could, they agree, produce measurable benefits back on planet Earth—making crucial scientific research, environmental monitoring, and everyday communication cheaper. But the critics are quick to note as well that **the history of privatization is spotty at best, with plenty of civically brutal knock-on effects: concentrations of monopolistic power, enfeebled democratic control, and widespread environmental degradation. We’ve seen all those problems appear on Earth as all manner of traditional social goods, from education and housing to pension plans and mass transit, have been targeted for private-sector control. Next up, it seems, is the great beyond.**

**Scenario 1 is debris -**

**Asteroid mining spikes the risk of satellite-dust collisions**

**Scoles 15** [(Sarah Scoles, freelance science writer, contributor at Wired and Popular Science, author of the books Making Contact and They Are Already Here) “Dust from asteroid mining spells danger for satellites,” New Scientist, May 27, 2015, <https://www.newscientist.com/article/mg22630235-100-dust-from-asteroid-mining-spells-danger-for-satellites/>] TDI

* Study this is citing – Javier Roa, Space Dynamic Group, Applied Physics Department, Technical University of Madrid. Casey J Handmer, Theoretical Astrophysics, California Institute of Technology. Both PhD Candidates. “Quantifying hazards: asteroid disruption in lunar distant retrograde orbits,” arXiv, Cornell University, May 14, 2015, <https://arxiv.org/pdf/1505.03800.pdf>

NASA chose the second option for its [Asteroid Redirect Mission](http://www.nasa.gov/content/what-is-nasa-s-asteroid-redirect-mission/), which aims to [pluck a boulder from an asteroid’s surface](https://www.newscientist.com/article/dn27243-rock-grab-from-asteroid-will-aid-human-mission-to-mars) and relocate it to a stable orbit around the moon. But **an asteroid’s gravity is so weak that it’s not hard for surface particles to escape into space**. Now a **new model warns that debris shed by such transplanted rocks could intrude where many defence and communication satellites live** – in geosynchronous orbit.

According to [Casey Handmer](http://www.caseyhandmer.com/) of the California Institute of Technology in Pasadena and Javier Roa of the Technical University of Madrid in Spain, **5 per cent of the escaped debris will end up in regions traversed by satellites. Over 10 years, it would cross geosynchronous orbit 63 times on average. A satellite in the wrong spot at the wrong time will suffer a damaging high-speed collision with that dust.**

The **study also looks at the “catastrophic disruption” of an asteroid 5 metres across or bigger**. Its **total break-up into a pile of rubble would increase the risk to satellites by more than 30 per cent** ([arxiv.org/abs/1505.03800](http://arxiv.org/abs/1505.03800)).

**Space dust wrecks satellites and debris exponentially spirals**

**Intagliata 17** [(Christopher Intagliata, MA Journalism from NYU, Editor for NPRs All Things Considered, Reporter/Host for Scientific American’s 60 Second Science) “The Sneaky Danger of Space Dust,” Scientific American, May 11, 2017, <https://www.scientificamerican.com/podcast/episode/the-sneaky-danger-of-space-dust/>] TDI

**When tiny particles of space debris slam into satellites, the collision could cause the emission of hardware-frying radiation**, Christopher Intagliata reports. Aside from all the satellites, and the space station orbiting the Earth, there's a lot of **trash circling the planet**, too. Twenty-one thousand [baseball-sized chunks](https://www.scientificamerican.com/article/orbital-debris-space-fence/) of debris, [according to NASA](https://www.orbitaldebris.jsc.nasa.gov/faq.html). But that **number's dwarfed by the number of small particles. There's hundreds of millions of those.** "And those **smaller particles tend to be going fast**. Think of picking up a grain of sand at the beach, and that would be on the large side. But **they're going 60 kilometers per second**." **Sigrid Close, an applied physicist and astronautical engineer at Stanford University**. Close says that whereas **mechanical damage—like punctures—is the worry with the bigger chunks, the dust-sized stuff might leave more insidious, invisible marks on satellites—by causing electrical damage**. "We also think this phenomenon can be attributed to some of the failures and anomalies we see on orbit, that right now are basically tagged as 'unknown cause.'" **Close and her colleague Alex Fletcher modeled this phenomenon mathematically, based on plasma physics behavior**. And here's what they think happens. **First, the dust slams into the spacecraft. Incredibly fast. It vaporizes and ionizes a bit of the ship—and itself. Which generates a cloud of ions and electrons, traveling at different speeds. And then: "It's like a spring action, the electrons are pulled back to the ions, ions are being pushed ahead a little bit. And then the electrons overshoot the ions, so they oscillate, and then they go back out again.”** **That movement of electrons creates a pulse of electromagnetic radiation**, which Close says could be the culprit for some of that electrical damage to satellites. The study is in the journal Physics of Plasmas. [Alex C. Fletcher and Sigrid Close, [Particle-in-cell simulations of an RF emission mechanism associated with hypervelocity impact plasmas](http://aip.scitation.org/doi/full/10.1063/1.4980833)]

**Increased space debris makes future space exploration impossible**

**Webb 18** [(Amy Webb is a professor at the NYU Stern School of Business and is the chief executive of the Future Today Institute, a strategic foresight and research group in Washington, D.C.), “Space Oddities: We Need a Plan to Stop Polluting Space Before It’s Too Late” WIRED Science April 12, 2018 https://www.wired.com/story/we-need-a-plan-to-stop-polluting-space-before-its-too-late/] TDI

**Space is our next dumping ground.** As many as 170 million fragments of metal and astro debris necklace Earth. That includes 20,000 pieces larger than a softball, and 500,000 about the size of a marble, according to NASA. Old satellites, like Tiangong-1, are the biggest and highest-profile lumps of rubbish, but most of it comes from rocket parts and even lost astronaut tools. **Size doesn’t always matter—a fleck of paint, orbiting at a high velocity, cracked the Space Shuttle's windshield.** This **debris will pose a navigation hazard for many centuries to come**. At least 200 objects roar back into the atmosphere each year, including pieces of solar panels and antennas and fragments of metal. All of them pose dangers for future astronauts: **One plum-sized piece of gnarled space trash traveling faster than a speeding bullet could rip a five-foot hole into a spacecraft.** And that collision, then, would hatch its own spectacle of shrapnel, which would join the rushing river of junk already circling the planet. It’s not just Americans doing the dumping. China and Russia each have dozens of decommissioned satellites overhead, though the US certainly does it with style. Like everyone, I marveled at the successful launch of SpaceX’s Falcon Heavy rocket, whose cargo included Elon Musk’s Tesla Roaster and a mannequin driver named Starman. I’ll admit, I teared up listening to David Bowie as the rockets separated from the payload. It was an incredible technological achievement, one proving that the system could someday transport people and goods—perhaps real cars, and real people—into space. Now that Tesla and its driver are overhead, in America’s junkyard in the sky. To be sure, space is big. Really big. Most debris soars about 1,250 miles above the Earth’s surface, so you have better odds scoring a seat on Virgin Galactic’s maiden voyage than witnessing Starman crash into your next door neighbor’s house. But it’s our behavior back here on Earth—our insistence on sending things up, without really thinking how to safely contain or send them back down—that should concern you. We weren’t always so short-sighted. Ancient Native Americans lived by the Seventh Generation Principal, a way of long-term thinking that considered how every decision would affect their descendants seven generations into the future. In Japan, Buddhist monks devoted part of their daily rituals and work to ensuring the longevity of their communities, even planting and tending to bamboo forests, which would eventually be harvested, treated and used to repair temple roofs many decades hence. With each new generation, we live life faster than our ancestors. As a result, we spend less time thinking about the farther future of humanity. **We now have our sights set on colonizing** Mars, mining asteroids for research and commerce, **and venturing out to the furthest reaches of our galaxy. Space is no longer the final frontier; we’re already exploring it. Our current approach is about getting there**, rather than considering what “getting there” could mean for future generations of humans, not to mention other life in the universe.Where all that junk winds up isn’t something we can predict accurately. We could be unintentionally wreaking havoc on civilizations far away from Earth, catalyzing future intergalactic wars. Or, we might cause far less scintillating problems. Space junk could start to behave in unpredictable ways, reflecting sunlight the wrong direction, or changing our atmosphere, or impacting the universe in ways that don’t fit into our current understanding of physics. Last week—30 years after my friends and I created an imaginary net to capture space debris—SpaceX launched RemoveDEBRIS, its own prototype, an experimental net to collect junk in orbit. It’s a neat idea, but even as middle schoolers, we knew it was an impractical one. Individual nets can’t possibly scale to address the hundreds of millions of particles of debris already in orbit. The challenge is that all of our space agencies are inextricably tied to national governments and militaries. Seeking a global agreement on how to mitigate debris would involve each country divulging exactly what it was launching and when—an unlikely scenario. **The private sector could collaborate to build grand-scale orbital cleaners, but their commercial interests are driven by immediate launches. Given all the planned launches in our near future, we don’t have much time to wait.** We must learn to be better stewards of our own planet—and commit to very long-term thinking—before we try to colonize any others.

**Early warning satellites going dark signals attacks – causes miscalc and goes nuclear**

**Orwig 16** [(Jessica, MS in science and tech journalism from Texas A&M, BS in astronomy and physics from Ohio State) “Russia says a growing problem in space could be enough to spark a war,” Insider,’ January 26, 2016, <https://www.businessinsider.com/russia-says-space-junk-could-spark-war-2016-1>] TDI

NASA has already warned that the large amount of space junk around our planet is growing beyond our control, but now a **team of Russian scientists has cited another potentially unforeseen consequence of that debris: War.** Scientists estimate that anywhere from 500,000 to 600,000 pieces of human-made space debris between 0.4 and 4 inches in size are currently orbiting the Earth and traveling at speeds over 17,000 miles per hour. **If one of those pieces smashed into a military satellite it "may provoke political or even armed conflict between space-faring nations,"** Vitaly Adushkin, a researcher for the Institute of Geosphere Dynamics at the Russian Academy of Sciences, reported in a paper set to be published in the peer-reviewed journal Acta Astronautica, which is sponsored by the International Academy of Astronautics. **Say, for example, that a satellite was destroyed or significantly damaged in orbit — something that a 4-inch hunk of space junk could easily do traveling at speeds of 17,500 miles per hour**, Adushkin reported. (Even smaller pieces no bigger than size of a pea could cause enough damage to the satellite that it would no longer operate correctly, he notes.) **It would be difficult for anyone to determine whether the event was accidental or deliberate. This lack of immediate proof could lead to false accusations, heated arguments and, eventually, war, according to Adushkin and his colleagues.** A politically dangerous dilemma **In the report, the Adushkin said that there have already been repeated "sudden failures" of military spacecraft in te last two decades that cannot be explained. "So, there are two possible explanations," he wrote. The first is "unregistered collisions with space objects." The second is "machinations" [deliberate action] of the space adversary.** "**This is a politically dangerous dilemma**," he added. **But these mysterious failures in the past aren't what concerns Adushkin most. It's a future threat of what experts call the cascade effect that has Adushkin and other scientists around the world extremely concerned. The Kessler Syndrome** In 1978, American astrophysicist Donald Kessler predicted that the amount of space debris around Earth would begin to grow exponentially after the turn of the millennium. **Kessler 's predictions rely on the fact that over time, space junk accumulates. We leave most of our defunct satellites in space, and when meteors and other man-made space debris slam into them, you get a cascade of debris. The cascade effect — also known as the Kessler Syndrome — refers to a critical point wherein the density of space junk grows so large that a single collision could set off a domino effect of increasingly more collisions.** For Kessler, this is a problem because it would "create small debris faster than it can be removed," Kessler said last year. And this cloud of junk could eventually make missions to space too dangerous. **For Adushkin, this would exacerbate the issue of identifying what, or who, could be behind broken satellites.** The future **So far, the US and Russian Space Surveillance Systems have catalogued 170,000 pieces of large space debris (between 4 and 8 inches wide) and are currently tracking them to prevent anymore dilemmas like the ones Adushkin and his colleagues cite in their paper.** But it's not just the large objects that concern Adushkin, who reported that even small objects (less than 1/3 of an inch) could damage satellites to the point they can't function properly. Using mathematical models, Adushkin and his colleagues calculated what the situtation will be like in 200 years if we continue to leave satellites in space and make no effort to clean up the mess. They estimate we'll have: 1.5 times more fragments greater than 8 inches across 3.2 times more fragments between 4 and 8 inches across 13-20 times more smaller-sized fragments less than 4 inches across **"The number of small-size, non-catalogued objects will grow exponentially in mutual collisions,"** the researchers reported.

**Nuke war causes extinction – it won’t stay limited**

**Edwards 17** [(Paul N. Edwards, CISAC’s William J. Perry Fellow in International Security at Stanford’s Freeman Spogli Institute for International Studies. Being interviewed by EarthSky/card is only parts of the interview directly from Paul Edwards.) “How nuclear war would affect Earth’s climate,” EarthSky, September 8, 2017, earthsky.org/human-world/how-nuclear-war-would-affect-earths-climate] TDI

**We are not talking enough about the climatic effects of nuclear war**. The “nuclear winter” theory of the mid-1980s played a significant role in the arms reductions of that period. But with the collapse of the Soviet Union and the reduction of U.S. and Russian nuclear arsenals, **this aspect of nuclear war has faded from view. That’s not good. In the mid-2000s, climate scientists such as Alan Robock (Rutgers) took another look at nuclear winter theory. This time around, they used much-improved and much more detailed climate models than those available 20 years earlier.** They also tested the potential effects of smaller nuclear exchanges. The result: an exchange involving just 50 nuclear weapons — the kind of thing we might see in an India-Pakistan war, for example — could loft 5 billion kilograms of smoke, soot and dust high into the stratosphere. That’s enough to cool the entire planet by about 2 degrees Fahrenheit (1.25 degrees Celsius) — about where we were during the Little Ice Age of the 17th century. Growing seasons could be shortened enough to create really significant food shortages. So the climatic effects of even a relatively small nuclear war would be planet-wide. What about a larger-scale conflict? A **U.S.-Russia war currently seems unlikely, but if it were to occur, hundreds or even thousands of nuclear weapons might be launched. The climatic consequences would be catastrophic: global average temperatures would drop as much as 12 degrees Fahrenheit (7 degrees Celsius) for up to several years — temperatures last seen during the great ice ages. Meanwhile, smoke and dust circulating in the stratosphere would darken the atmosphere enough to inhibit photosynthesis, causing disastrous crop failures, widespread famine and massive ecological disruption. The effect would be similar to that of the giant meteor believed to be responsible for the extinction of the dinosaurs. This time, we would be the dinosaurs.** Many people are concerned about North Korea’s advancing missile capabilities. Is nuclear war likely in your opinion? At this writing, I think **we are closer to a nuclear war than we have been since the early 1960s**. In the North Korea case, both Kim Jong-un and President Trump are bullies inclined to escalate confrontations. President Trump lacks impulse control, and there are precious few checks on his ability to initiate a nuclear strike. We have to hope that our generals, both inside and outside the White House, can rein him in. North Korea would most certainly “lose” a nuclear war with the United States. But many millions would die, including hundreds of thousands of Americans currently living in South Korea and Japan (probable North Korean targets). Such vast damage would be wrought in Korea, Japan and Pacific island territories (such as Guam) that any “victory” wouldn’t deserve the name. Not only would that region be left with horrible suffering amongst the survivors; it would also immediately face famine and rampant disease. Radioactive fallout from such a war would spread around the world, including to the U.S. It has been more than 70 years since the last time a nuclear bomb was used in warfare. What would be the effects on the environment and on human health today? To my knowledge, most of the changes in nuclear weapons technology since the 1950s have focused on making them smaller and lighter, and making delivery systems more accurate, rather than on changing their effects on the environment or on human health. So-called “battlefield” weapons with lower explosive yields are part of some arsenals now — but **it’s quite unlikely that any exchange between two nuclear powers would stay limited to these smaller, less destructive bombs.**

**C2 – inequalities**

**Privatization just works to expand the capitalist order and neoliberalism**

**Shammas and Holen 19** [(Victor L, a sociologist working at the Department of Sociology and Human Geography, University of Oslo; Tomas B., independent scholar in Oslo, Norway) “One giant leap for capitalistkind: private enterprise in outer space,” 1-29-2019, pg. 5-6] TDI

**No longer terra nullius**, **space is now the new terra firma of capitalistkind**: **its naturalized terroir**, **its next necessary terrain**. **The logic of capitalism dictates that capital should seek to expand outwards into the vastness of space**, a point recognized by a recent ethnography of NewSpace actors (Valentine, 2016, p. 1050). **The operations of capitalistkind serve to resolve a series of** (potential) **crises of capitalism**, **revolving around the slow**, **steady decline of spatial fixes** (see e.g., Harvey, 1985, p. 51–66) **as they come crashing up against the quickly vanishing blank spaces remaining on earthly maps and declining** (terrestrial) **opportunities for profitable investment of surplus capital** (Dickens and Ormrod, 2007a, p. 49–78).

**A** ‘**spatial fix**' **involves the geographic modulation of capital accumulation**, **consisting in the outward expansion of capital onto new geographic terrains**, **or into new spaces**, **with the aim of filling a gap in the home terrains of capital**. Jessop (2006, p. 149) notes that **spatial fixes may involve a number of strategies**, **including the creation of new markets within the capitalist world**, **engaging in trade with non**-**capitalist economies**, **and exporting surplus capital to undeveloped or underdeveloped regions**. The first two address the problem of insufficient demand and the latter option creates a productive (or valorizing) outlet for excess capital. Capitalism must regularly discover, develop, and appropriate such new spaces because of its inherent tendency to generate surplus capital, i.e., capital bereft of profitable purpose. In Harvey’s (2006, p. xviii) terms, a spatial fix revolves around ‘geographical expansions and restructuring…as a temporary solution to crises understood…in terms of the overaccumulation of capital'. It is a temporary solution because these newly appropriated spaces will in turn become exhausted of profitable potential and are likely to produce their own stocks of surplus capital; while ‘capital surpluses that otherwise stood to be devalued, could be absorbed through geographical expansions and spatio-temporal displacements' (Harvey, 2006, p. xviii), this outwards drive of capitalism is inherently limitless: there is no end point or final destination for capitalism. Instead, **capitalism must continuously propel itself onwards in search of pristine sites of renewed capital accumulation**. In this way, Harvey writes, **society constantly** ‘**creates fresh productive powers elsewhere to absorb its overaccumulated capital**' (Harvey, 1981, p. 8).

Historically, **spatial fixes have played an important role in conserving the capitalist system**. As Jessop (2006, p. 149) points out, ‘The export of surplus money capital, surplus commodities, and/or surplus labour-power outside the space(s) where they originate enabled capital to avoid, at least for a period, the threat of devaluation'. But these new spaces for capital are not necessarily limited to physical terrains, as with colonial expansion in the nineteenth century; as Greene and Joseph (2015) note, **various digital spaces**, **such as the Internet**, **can also be considered as spatial fixes**: **the Web absorbs overaccumulated capital**, **heightens consumption of virtual and physical goods**, **and makes inexpensive**, **flexible sources of labor available to employers**. Greene and Joseph offer the example of online high-speed frequency trading as a digital spatial fix that furthers the ‘annihilation of space by time' first noted by Marx in his Grundrisse (see Marx, 1973, p. 524).

**Outer space serves at least two purposes in this regard**. In the short-to medium-term, **it allows for the export of surplus capital into emerging industries**, **such as satellite imaging and communication**. **These are significant sites of capital accumulation**: **global revenues in the worldwide satellite market in 2016 amounted to $260 billion** (SIA, 2017, p. 4). Clearly, much of this activity is taking place ‘on the ground'; it is occurring in the ‘terrestrial economy'. But all that capital would have to find some other meaningful or productive outlet were it not for the expansion of capital into space. Second, **outer space serves as an arena of technological innovation**, **which feeds back into the terrestrial economy**, **helping to avert crisis by pushing capital out of technological stagnation and innovation shortfalls**.

In short, **outer space serves as a spatial fix**. **It swallows up surplus capital**, **promising to deliver valuable resources**, **technological innovations**, **and communication services to capitalists back on Earth**. This places outer space on the same level as traditional colonization, analyzed in Hegel’s Philosophy of Right, which Hegel thought of as a product of the ‘inner dialectic of civil society', which drives the market to ‘push beyond its own limits and seek markets, and so its necessary means of subsistence, in other lands which are either deficient in the goods it has overproduced, or else generally backward in creative industry, etc.' (Hegel, 2008, p. 222). In this regard, **SpaceX and related ventures are not so very different from maritime colonialists and the trader**-**exploiters of the British East India Company.** But there is something new at stake. As the Silicon Valley entrepreneur Peter Diamandis has gleefully noted: ‘There are twenty-trillion-dollar checks up there, waiting to be cashed!' (Seaney and Glendenning, 2016). Capitalistkind consists in the naturalization of capitalist consciousness and practice, the (false) universalization of a particular mode of political economy as inherent to the human condition, followed by the projection of this naturalized universality into space—capitalist humanity as a Fukuyamite ‘end of history', the end-point of (earthly) historical unfolding, but the starting point of humanity’s first serious advances in space.

What role, then, for the state? The frontiersmen of NewSpace tend to think of themselves as libertarians, pioneers beyond the domain of state bureaucracy (see Nelson and Block, 2018). ‘The government should leave the design work and ownership of the product to the private sector', the author of a 2017 report, Capitalism in Space, advocates. ‘The private companies know best how to build their own products to maximize performance while lowering cost' (Zimmerman, 2017, p. 27). One ethnographer notes that ‘politically, right-libertarianism prevails' amongst NewSpace entrepreneurs (Valentine, 2016, p. 1047–1048). Just as Donald Rumsfeld dismissed the opponents to the Iraq War as ‘Old Europe', so too are state entities’ interests in space exploration shrugged off as symptoms of ‘Old Space'. Elon Musk, we are told in a recent biography, unlike the sluggish Big State actors of yore, ‘would apply some of the start-up techniques he’d learned in Silicon Valley to run SpaceX lean and fast…As a private company, SpaceX would also avoid the waste and cost overruns associated with government contractors' (Vance, 2015, p. 114). This libertarianism-in-space has found a willing chorus of academic supporters. The legal scholar Virgiliu Pop introduces the notion of the frontier paradigm (combining laissez-faire economics, market competition, and an individualist ethic) into the domain of space law, claiming that this paradigm has ‘proven its worth on our planet' and will ‘most likely…do so in the extraterrestrial realms' as well (Pop, 2009, p. vi). This frontier paradigm is not entirely new: a ‘Columbus mythology', centering on the ‘noble explorer', was continuously evoked in the United States during the Cold War space race (Dickens and Ormrod, 2016, pp. 79, 162–164).

But **the entrepreneurial libertarianism of capitalistkind is undermined by the reliance of the entire NewSpace complex on extensive support from the state**, ‘**a public**-**private financing model underpinning long**-**shot start-ups**' that in the case of Musk’s three main companies (SpaceX, SolarCity Corp., and Tesla) has been underpinned by $4.9 billion dollars in government subsidies (Hirsch, 2015). In the nascent field of space tourism, Cohen (2017) argues that what began as an almost entirely private venture quickly ground to a halt in the face of insurmountable technical and financial obstacles, only solved by piggybacking on large state-run projects, such as selling trips to the International Space Station, against the objections of NASA scientists. The business model of NewSpace depends on the taxpayer’s dollar while making pretensions to individual self-reliance. The vast majority of present-day clients of private aerospace corporations are government clients, usually military in origin. Furthermore, the bulk of rocket launches in the United States take place on government property, usually operated by the US Air Force or NASA.13

This inward tension between state dependency and capitalist autonomy is itself a product of neoliberalism’s contradictory demand for a minimal, “slim” state, while simultaneously (and in fact) relying on a state reengineered and retooled for the purposes of capital accumulation (Wacquant, 2012). As Lazzarato writes, ‘To be able to be “laissez-faire”, it is necessary to intervene a great deal' (2017, p. 7). Space libertarianism is libertarian in name only: **behind every NewSpace venture looms a thick web of government spending programs**, **regulatory agencies**, **public infrastructure**, **and universities bolstered by research grants from the state**. SpaceX would not exist were it not for state-sponsored contracts of satellite launches. Similarly, in 2018, the US Defense Advanced Research Projects Agency (DARPA)—the famed origin of the World Wide Web—announced that it would launch a ‘responsive launch competition', meaning essentially the reuse of launch vehicles, representing an attempt by the state to ‘harness growing commercial capabilities' and place them in the service of the state’s interest in ensuring ‘national security' (Foust, 2018b).

This libertarianism has been steadily growing in the nexus between Silicon Valley, Stanford University, Wall Street, and the Washington political establishment, which tend to place a high value on Randian ‘objectivism' and participate in a long American intellectual heritage of individualistic ‘bootstrapping' and (allegedly) gritty self-reliance. But as Nelson and Block (2018, p. 189–197) recognize, one of the central symbolic operations of capitalistkind resides in concealing its reliance on the state by mobilizing the charm of its entrepreneurial constituents and the spectacle of space. There is a case to be made for the idea that SpaceX and its ilk resemble semi-private corporations like the British East India Company. The latter, “incorporated by royal charter from Her Majesty Queen Elizabeth I in 1600 to trade in silk and spices, and other profitable Indian commodities,” recruited soldiers and built a ‘commercial business [that] quickly became a business of conquest' (Tharoor, 2017). SpaceX, too, is increasingly imbricated with an attempt on the part of a particular state, the United States, to colonize and appropriate resources derived from a particular area, that of outer space; it, too, depends on the infrastructure, contracts, and regulatory environment that thus far only a state seems able to provide. Its private character, like that of the East India Company, is troubled by being deeply embedded in the state. As one commentator has observed of SpaceX, ‘If there’s a consistent charge against Elon Musk and his high-flying companies…it’s that they’re not really examples of independent, innovative market capitalism. Rather, they’re government contractors, dependent on taxpayer money to stay afloat' (cit. Nelson and Block, 2018, p. 189).

Perhaps this should not come as a surprise. As Bourdieu (2005, p. 12) observed, ‘**The economic field is**, more than any other, **inhabited by the state**, **which contributes at every moment to its existence and persistence**, **and also to the structure of the relations of force that characterize it**'. **The state lays out the preconditions for market exchanges**. **Under neoliberalism**, **the state is the preeminent facilitator of markets**. The neoliberal state is not so much a Minimalstaat, night watchman state, or slim state as it is the prima causa of market society (see, e.g., Wacquant, 2012). Similarly, in the political theory of Deleuze and Guattari, **any economic development presupposes the political differentiation caused by the state** (Deleuze and Guattari, 2004a, p. 237–238). Even in the global environment of contemporary capitalism, **the market cannot operate without the state becoming integrated with capitalism itself**, **as** ‘**it is the modern state that gives capitalism its models of realization**' (Deleuze and Guattari, 2004b, p. 480). **For capitalism to survive in outer space**, **the state must create a regulatory environment**, **subsidize infrastructure**, **and hand down contracts** – **in short**, **assemble outer space as a domain made accessible in legal**, **technical**, **and economic ways**.

**The impact is extinction and global structural violence**

William **Robinson 16**, UC Santa Barbra sociology professor, 4-12-2016, “Sadistic Capitalism: Six Urgent Matters for Humanity in Global Crisis,” http://www.truth-out.org/opinion/item/35596-sadistic-capitalism-six-urgent-matters-for-humanity-in-global-crisis)

In these mean streets of globalized capitalism in crisis, it has become profitable to turn poverty and inequality into a tourist attraction. The South African Emoya Luxury Hotel and Spa company has made a glamorized spectacle of it. The resort recently advertised an opportunity for tourists to stay "in our unique Shanty Town ... and experience traditional township living within a safe private game reserve environment." A cluster of simulated shanties outside of Bloemfontein that the company has constructed "is ideal for team building, braais, bachelors [parties], theme parties and an experience of a lifetime," read the ad. The luxury accommodations, made to appear from the outside as shacks, featured paraffin lamps, candles, a battery-operated radio, an outside toilet, a drum and fireplace for cooking, as well as under-floor heating, air conditioning and wireless internet access. A well-dressed, young white couple is pictured embracing in a field with the corrugated tin shanties in the background. The only thing missing in this fantasy world of sanitized space and glamorized poverty was the people themselves living in poverty. The "luxury shanty town" in South Africa is a fitting metaphor for global capitalism as a whole. **Faced with a stagnant global economy, elites have managed to turn war, structural violence and inequality into opportunities for capital**, pleasure and entertainment. It is hard not to conclude that **unchecked capitalism has become** what I term "**sadistic** capitalism," in which the suffering and deprivation generated by capitalism become a source of aesthetic pleasure, leisure and entertainment for others. I recently had the opportunity to travel through several countries in Latin America, the Middle East, North Africa, East Asia and throughout North America. I was on sabbatical to research what the global crisis looks like on the ground around the world. Everywhere I went, **social polarization and political tensions have reached explosive dimensions**. Where is the crisis headed, what are the possible outcomes and what does it tell us about global capitalism and resistance? **This crisis is not like earlier structural crises of world capitalism, such as in the 1930s or 1970s. This one is fast becoming systemic**. The crisis of humanity shares aspects of earlier structural crises of world capitalism, but **there are six novel, interrelated dimensions to the current moment** that I highlight here, in broad strokes, as the "big picture" context in which countries and peoples around the world are experiencing a descent into chaos and uncertainty. **1) The level of global social polarization and inequality is unprecedented in the face of out-of-control, over-accumulated capital**. In January 2016, the development agency Oxfam published a follow-up to its report on global inequality that had been released the previous year. According to the new report, now just **62 billionaires** -- down from 80 identified by the agency in its January 2015 report -- **control as much wealth as one half of the world's population, and the top 1% owns more wealth than the other 99% combined**. Beyond the transnational capitalist class and the upper echelons of the global power bloc, **the richest 20 percent of humanity owns some 95 percent of the world's wealth, while the bottom 80 percent has to make do with just 5 percent. This** 20-80 divide of global society into haves and the have-nots is the **new global social apartheid**. **It is evident not just between rich and poor countries, but within each country**, North and South, **with** the rise of new affluent high-consumption sectors alongside the **downward mobility, "precariatization," destabilization and expulsion** of majorities. **Escalating inequalities fuel capitalism's chronic problem of over-accumulation**: The transnational capitalist class cannot find productive outlets to unload the enormous amounts of surplus it has accumulated, **leading to stagnation in the world economy. The signs of an impending depression are everywhere**. The front page of the February 20 issue of The Economist read, "The World Economy: Out of Ammo?" **Extreme levels of social polarization present a challenge to dominant groups**. They strive to purchase the loyalty of that 20 percent, while at the same time dividing the 80 percent, co-opting some into a hegemonic bloc and repressing the rest. Alongside the spread of frightening new systems of social control and repression is heightened dissemination through the culture industries and corporate marketing strategies that depoliticize through consumerist fantasies and the manipulation of desire. **As "Trumpism"** in the United States so well **illustrates, a**nother **strategy of co-optation is the manipulation of fear and insecurity among the downwardly mobile so** that **social anxiety is channeled toward scapegoated communities. This psychosocial mechanism of displacing mass anxieties** is not new, but it **appears to be increasing around the world in the face of the structural destabilization of capitalist globalization. Scapegoated communities are under siege**, such as the Rohingya in Myanmar, the Muslim minority in India, the Kurds in Turkey, southern African immigrants in South Africa, and Syrian and Iraqi refugees and other immigrants in Europe. As with its 20th century predecessor, **21st century fascism hinges on such manipulation of social anxiety at a time of acute capitalist crisis. Extreme inequality requires extreme violence and repression that lend to projects of 21st century fascism. 2) The system is fast reaching the ecological limits to its reproduction. We have reached several tipping points in** what environmental scientists refer to as **nine crucial "planetary boundaries." We have already exceeded** these **boundaries in** three areas -- **climate change, the nitrogen cycle and diversity loss**. There have been five previous mass extinctions in earth's history. While all these were due to natural causes, for the first time ever, human conduct is intersecting with and fundamentally altering the earth system. We have entered what Paul Crutzen, the Dutch environmental scientist and Nobel Prize winner, termed the Anthropocene -- a new age in which humans have transformed up to half of the world's surface. We are altering the composition of the atmosphere and **acidifying the oceans** at a rate that **undermines the conditions for life**. The ecological dimensions of global crisis cannot be understated. "We are deciding, without quite meaning to, which evolutionary pathways will remain open and which will forever be closed," observes Elizabeth Kolbert in her best seller, The Sixth Extinction. "No other creature has ever managed this ... The Sixth Extinction will continue to determine the course of life long after everything people have written and painted and built has been ground into dust." Capitalism cannot be held solely responsible. The human-nature contradiction has deep roots in civilization itself. The ancient Sumerian empires, for example, collapsed after the population over-salinated their crop soil. The Mayan city-state network collapsed about AD 900 due to deforestation. And the former Soviet Union wrecked havoc on the environment. However, **given capital's implacable impulse to accumulate profit and its accelerated commodification of nature, it is difficult to imagine that the environmental catastrophe can be resolved within the capitalist system. "Green capitalism" appears as an oxymoron**, as sadistic capitalism's attempt to turn the ecological crisis into a profit-making opportunity, along with the conversion of poverty into a tourist attraction. **3) The sheer magnitude of the means of violence is unprecedented**, as is the concentrated control over the means of global communications and the production and circulation of knowledge, symbols and images. We have seen the spread of frightening **new systems of social control and repression** that have **brought us into** the **panoptical surveillance society and** the age of **thought control**. This real-life Orwellian world is in a sense more perturbing than that described by George Orwell in his iconic novel 1984. In that fictional world, people were compelled to give their obedience to the state ("Big Brother") in exchange for a quiet existence with guarantees of employment, housing and other social necessities. Now, however, the corporate and political powers that be force obedience even as the means of survival are denied to the vast majority. Global apartheid involves the creation of "green zones" that are cordoned off in each locale around the world where elites are insulated through new systems of spatial reorganization, social control and policing. "Green zone" refers to the nearly impenetrable area in central Baghdad that US occupation forces established in the wake of the 2003 invasion of Iraq. The command center of the occupation and select Iraqi elite inside that green zone were protected from the violence and chaos that engulfed the country. Urban areas around the world are now green zoned through **gentrification, gated communities, surveillance systems, and state and private violence**. Inside the world's green zones, privileged strata avail themselves of privatized social services, consumption and entertainment. They can work and communicate through internet and satellite sealed off under the protection of armies of soldiers, police and private security forces. Green zoning takes on distinct forms in each locality. In Palestine, I witnessed such zoning in the form of Israeli military checkpoints, Jewish settler-only roads and the apartheid wall. In Mexico City, the most exclusive residential areas in the upscale Santa Fe District are accessible only by helicopter and private gated roads. In Johannesburg, a surreal drive through the exclusive Sandton City area reveals rows of mansions that appear as military compounds, with private armed towers and electrical and barbed-wire fences. In Cairo, I toured satellite cities ringing the impoverished center and inner suburbs where the country's elite could live out their aspirations and fantasies. They sport gated residential complexes with spotless green lawns, private leisure and shopping centers and English-language international schools under the protection of military checkpoints and private security police. In other cities, green zoning is subtler but no less effective. In Los Angeles, where I live, the freeway system now has an express lane reserved for those that can pay an exorbitant toll. On this lane, the privileged speed by, while the rest remain one lane over, stuck in the city's notorious bumper-to-bumper traffic -- or even worse, in notoriously underfunded and underdeveloped public transportation, where it may take half a day to get to and from work. There is no barrier separating this express lane from the others. However, a near-invisible closed surveillance system monitors every movement. If a vehicle without authorization shifts into the exclusive lane, it is instantly recorded by this surveillance system and a heavy fine is imposed on the driver, under threat of impoundment, while freeway police patrols are ubiquitous. Outside of the global green zones, **warfare and police containment have become normalized and sanitized** for those not directly at the receiving end of armed aggression. "Militainment" -- portraying and even **glamorizing war and violence as entertaining spectacles** through Hollywood films and television police shows, computer games and corporate "news" channels -- may be the epitome of sadistic capitalism. It **desensitizes, bringing about complacency and indifference**. In between the green zones and outright warfare are **prison industrial complexes, immigrant and refugee repression and control systems, the criminalization of outcast communities and capitalist schooling**. The omnipresent media and cultural apparatuses of the corporate economy, in particular, aim to **colonize the mind -- to undermine the ability to think critically and outside the dominant worldview. A neofascist culture emerges through militarism, extreme masculinization, racism and racist mobilizations against scapegoats**. **4) We are reaching limits to the extensive expansion of capitalism**. Capitalism is like riding a bicycle: When you stop pedaling the bicycle, you fall over. **If the capitalist system stops expanding** outward, **it enters crisis and faces collapse. In each earlier structural crisis, the system went through a new round of extensive expansion -- from** waves of **colonial conquest** in earlier centuries, **to the integration** in the late 20th and early 21st centuries **of the** former **socialist countries**, China, India and other areas that had been marginally outside the system. **There are no longer any new territories to integrate into world capitalism**. Meanwhile, the privatization of education, health care, utilities, basic services and public land are turning those spaces in global society that were outside of capital's control into "spaces of capital." Even poverty has been turned into a commodity. What is there left to commodify? Where can the system now expand? **With the limits to expansion comes a turn toward militarized accumulation -- making wars of endless destruction** and reconstruction **and expanding the militarization of social and political institutions so as to continue to generate new opportunities for accumulation in the face of stagnation. 5) There is the rise of a vast surplus population** inhabiting a "planet of slums," **alienated from the productive economy**, thrown into the margins and subject to these sophisticated systems of social control and destruction. **Global capitalism** has no direct use for surplus humanity. But indirectly, it holds wages down everywhere and **makes new systems of 21st century slavery possible**. These systems include **prison labor**, the forced recruitment of miners at gunpoint by warlords contracted by global corporations to dig up valuable minerals in the Congo, **sweatshops and exploited immigrant communities** (including the rising tide of immigrant female caregivers for affluent populations). Furthermore, the global working class is experiencing **accelerated "precariatization."** The "new precariat" **refers to** the proletariat that faces capital under today's unstable and precarious labor relations -- **informalization, casualization, part-time, temp, immigrant and contract labor**. As communities are uprooted everywhere, there is **a rising reserve army of immigrant labor**. The global working class is becoming divided into citizen and immigrant workers. The latter **are** particularly attractive to transnational capital, as the lack of citizenship rights makes them **particularly vulnerable, and therefore, exploitable**. The challenge for dominant groups is how to contain the real and potential rebellion of surplus humanity, the immigrant workforce and the precariat. **How can they contain the explosive contradictions of this system?** The 21st century megacities become the battlegrounds between mass resistance movements and the new systems of mass repression. Some **populations** in these cities (and also in abandoned countryside) **are at risk of genocide**, such as those in Gaza, zones in Somalia and Congo, and swaths of Iraq and Syria. 6) There is a disjuncture between a globalizing economy and a nation-state-based system of political authority. Transnational state apparatuses are incipient and do not wield enough power and authority to organize and stabilize the system, much less to impose regulations on runaway transnational capital. In the wake of the 2008 financial collapse, for instance, the governments of the G-8 and G-20 were unable to impose transnational regulation on the global financial system, despite a series of emergency summits to discuss such regulation. Elites historically have attempted to resolve the problems of over-accumulation by state policies that can regulate the anarchy of the market. However, in recent decades, transnational capital has broken free from the constraints imposed by the nation-state. The more "enlightened" elite representatives of the transnational capitalist class are now clamoring for transnational mechanisms of regulation that would allow the global ruling class to reign in the anarchy of the system in the interests of saving global capitalism from itself and from radical challenges from below. At the same time, the division of the world into some 200 competing nation-states is not the most propitious of circumstances for the global working class. Victories in popular struggles from below in any one country or region can (and often do) become diverted and even undone by the structural power of transnational capital and the direct political and military domination that this structural power affords the dominant groups. In Greece, for instance, the leftist Syriza party came to power in 2015 on the heels of militant worker struggles and a mass uprising. But the party abandoned its radical program as a result of the enormous pressure exerted on it from the European Central Bank and private international creditors. The Systemic Critique of Global Capitalism A growing number of transnational elites themselves now recognize that **any resolution to the global crisis must involve redistribution** downward of income. **However**, in the viewpoint of those from below, a **neo-Keynesian redistribution within the prevailing corporate power structure is not enough. What is required is a** redistribution of power downward and **transformation toward a system in which social need trumps private profit. A global rebellion against the transnational capitalist class has spread since the financial collapse of 2008. Wherever one looks, there is popular, grassroots and leftist struggle**, and the rise of new cultures of resistance: **the Arab Spring; the resurgence of leftist politics in Greece, Spain and elsewhere in Europe; the tenacious resistance of Mexican social movements following the Ayotzinapa massacre of 2014; the favela uprising in Brazil against the government's World Cup and Olympic expulsion policies; the student strikes in Chile; the remarkable surge in the Chinese workers' movement; the shack dwellers and other poor people's campaigns in South Africa; Occupy Wall Street, the immigrant rights movement, Black Lives Matter, fast food workers' struggle and the mobilization around the Bernie Sanders presidential campaign in the United States. This global revolt is spread unevenly and faces many challenges**. A number of these struggles, moreover, have suffered setbacks, such as the Greek working-class movement and, tragically, the Arab Spring. What type of a transformation is viable, and how do we achieve it? **How we interpret the global crisis is itself a matter of vital importance as politics polarize worldwide between a neofascist and a popular response. The systemic critique of global capitalism must strive to influence, from this vantage point, the discourse and practice of movements for a more just distribution of wealth and power. Our survival may depend on it.**

**Space exploration isn’t going to be accessible – just because some people can go doesn’t mean it wont just be white cismen**

Lucianne **Walkowicz 21** (Lucianne Walkowicz, 9-15-2021, Don’t Count on Billionaires to Get Humanity into Space, Scientific American, <https://www.scientificamerican.com/article/dont-count-on-billionaires-to-get-humanity-into-space/> - //EaganAE

**The narrative that billionaire-funded spaceflight is making space more accessible is not true** beyond these specific, individual cases, however. If one argues that state-run astronaut selection processes are gatekeeping access to space, **then billionaires selecting crews (including themselves) only substitutes an even less transparent arbiter of access** in place of a national space agency. A gatekeeper lifting the velvet rope for outstanding individuals might create amazing experiences for those people but doesn’t remove the barrier itself. In a larger sense, **today’s billionaires not only inherited but continue to actively create a world rife with inequity—including barriers of racism, sexism and ableism that have long barred people like Funk, Proctor and Arceneaux from the astronaut corps. A world with billionaires in it—or orbiting it—is not an equitable one by definition.** Of course, I’d be remiss not to mention that a central element of Inspiration4 was a fundraising drive for St. Jude Children’s Research Hospital, which received a $50-million donation from Elon Musk toward its $200 million goal. Without a doubt, money going to a hospital that does incredible healing work is a good thing. But in the context of the immense wealth at play, it’s hard to forget that St. Jude could have received its entire fundraising goal without anyone ever leaving the planet. Besides his enthusiasm for space, Isaacman has something else in common with Bezos and Musk: he is one of the few people to become even more fabulously wealthy over the course of the pandemic. While Isaacman hasn’t disclosed what he paid Musk’s SpaceX for his trip into orbit, $200 million or more is a reasonable estimate. And though Musk’s $50-million donation sounds enormously generous for most of us, recall that his net worth is currently around $194 billion. So if you scale his donation to the median American’s net worth (around $97,680 on average, not accounting for the racial wealth gap or age differences), Musk gave the equivalent of about $25.