We can cover the aff situation – in the words of olivia pope, it’s handled.

## 1

#### CP Text: Space faring nations should enter into a prior and binding consultation with the International Court of Justice over [plan].

#### Advisory opinions from ICJ are necessary to clarify and develop international space law and they say yes.

Simpson and Johnson 17 [Michael Simpson, International Space University · Space Policy and Law; Business and Management, Chris Johnson is the Space Law Advisor at the Secure World Foundation, a non-governmental organization (NGO) focused on the sustainable uses of outer space. Christopher does research, writes, and speaks about international and national space law with a special focus on peaceful uses of outer space, emerging governance challenges with non-traditional space activities, and identifying and characterizing deficiencies in existing space law., September 2017, Lacunae and Silence in International Space Law – A Hypothetical Advisory Opinion from the International Court of Justice, ResearchGate, https://www.researchgate.net/publication/320596144\_Lacunae\_and\_Silence\_in\_International\_Space\_Law\_-\_A\_Hypothetical\_Advisory\_Opinion\_from\_the\_International\_Court\_of\_Justice 12-16-2021] rohan

* lacunae = situation where there is no applicable law
* non liquet = no answer from governing system

Since international space law has developed for at least 60 years in an environment devoid of judicial opinions on live controversies, it lacks the judicial contribution to clarification and elaboration of terms and principles normally enjoyed by a body of law. For this reason, advisory opinions may be particularly useful in this area. The mechanism for seizing the Court also appears to be favorably developed. In the nuclear weapons case, the ICJ turned down a 1993 request from the World Meteorological Organization on the grounds that WMO, acting ultra vires lacked standing. Only when the UN General Assembly later made the request in its own name did the Court take up the question. Since many of the questions amenable to illumination through advisory opinions are within the remit of the UN Committee for the Peaceful Uses of Outer Space (UNCOPUOS), which itself reports through Fourth Committee to the General Assembly, the procedural pathway to a UNGA request is both established and clear. Equally as helpful is that UNCOPUOS operates by consensus. Thus, early requests for clarification, could easily establish that the necessary political will to seek increased clarity was present and permit to begin with less controversial concepts. Once the efficacy of advisory opinions to clarify elements of space law is established, the General Assembly could possibly decide to forward more challenging issues even where consensus in COPUOS could not be expected. III. NON-LIQUET AT THE ICJ. It is a general principle of law at both the national and international level (indeed inherited from ancient Roman law) that when asked to deliver a judgement, a court knows the law (Iura novit curia). So it should seem as an unexpected and rare surprise when a court does not, indeed, know the law. In the Nuclear Weapons advisory opinion, the Court considered the existing law applicable to the threat or use of nuclear weapons, and their treatment under the various sources and bodies of law. The Court was asked to consider “is the threat or use of nuclear weapons in any circumstances permitted under international law?” However, the Court slightly rephrased that question merely to “determine the legality or illegality of the threat or use of nuclear weapons.”11 In seeking an answer, the Court looked to custom and to treaties, and looking to a diverse field of special regimes of international law, including the law of armed conflict (LOAC) a.k.a. International Humanitarian Law (IHL) (including jus ad bellum and jus in bellow), environmental law, and human rights law. However, the law, as a system and as a whole, was weighed and found wanting. The Court concluded: 11 20 Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, I.C.J. Reports (1996) p. 226, 238 para. 97. Accordingly, in view of the present state of international law viewed as a whole, as examined above by the Court, and of the elements of fact at its disposal, the Court is led to observe that it cannot reach a definitive conclusion as to the legality or illegality of the use of nuclear weapons by a State in such circumstance of self-defense, in which its very survival would be at stake. Non liquet, meaning, it is not clear, is where a court finds the law insufficient, and does not permit a conclusion one way or the other regarding the issue it is presented with. 12 IV. SPACE LAW, LACUNAE, AND NON-LIQUET The idea that gaps in the law or uncertainty with its provisions can render judicial decisions impossible, difficult, or unwise is at least as old as Roman law. As such the concepts of lacunae and non liquet still bear the Latin names that would have been familiar to lawyers and legal scholars throughout the Roman Empire. As explained by Mark Bogdansky, non liquet can be extended to cover both the case where no legal rule can be found that applies to a case under consideration and to the case where lack of clarity in the facts or in a principle of law makes it impossible to discern clearly the implications of that principle in light of the facts presented. Bogdansky refers to the former situation as ontological non liquet and to the latter as epistemological. We will use lacunae to refer to apparent gaps in international space law and will confine our use of “non liquet” to situations where a principle has been articulated but is not clear. Definitions become extremely important in discussing the impact of lacunae and non liquet on international space law. Note for example the list of lacunae in José Monserrat Filho’s excellent paper, “Space Law In The Light Of Bobbio's Theory Of Legal Ordering,” IAC-12.E7. 5. 6.

1. Definition of “space object”, “space debris”, “space activities”, “space launching”;

2. Binding “Space Debris Mitigation Guidelines”;

3. Prohibition of all kind of weapons in Earth orbits;

4. Definition and delimitation of the outer space;

5. Regulation of commercialization of space activities;

6. Environmental damage in Liability Convention;

7. Industrial exploitation of lunar natural resources;

8. Remote sensing activities in the XXI century;

9. Satellite data as evidence in criminal proceedings;

10. The use of nuclear power sources in space;

11. The human presence in space.

12

While items 2, 3, 6, and 11 fit clearly into our definition of lacunae, the others represent cases where legal principles have been articulated, but are subject to substantial disagreement as to their application to various fact situations. Where lacunae exist, the utility of advisory opinions is greatly constrained. The foundational principles of positivism and sovereignty that are key pillars of international law do not lend themselves to judicial activism in creating legal rules in the absence of political action to create them. On the other hand, where a situation of non liquet emerges from disagreement over definitions or the application of a legal principle to a particular situation, an advisory opinion could have either one of two beneficial outcomes. In the first case an advisory opinion could clarify the meaning of terms where uncertainty exists. This situation would require strong arguments to support the opinion and justify it. It might be elaborated on the basis of original intent reflected in the travaux préparatoires, clear patterns of application of terms and principles in the action of States parties to the agreements where uncertainty exists or lack of clarity is perceived, or lucid reasoning by analogy to similar situations where greater certainty can be demonstrated. The second case could result from an opinion that clarification cannot be provided and that the matter remains non liquet. In this case, there would be an unambiguous signal that political/ diplomatic action would be required to clarify the issues in dispute. Take for example the hypothetical example of a case seeking clarification of the non-appropriation clause of the Outer Space Treaty. A non liquet in such a case would leave those wishing to assert that a prohibition against off Earth mining existed in international law without a legal vindication of their position while those wishing to engage in such mining would face uncertainty because the Court had not ruled definitively that non appropriation did not apply to them. Since the mining advocates would be ~~handicapped~~ by uncertainty in their approaches to potential investors, both sides would have an incentive to seek a political resolution with the compromises that was likely to entail.

#### International space legal regime are needed to solve space war - malleable laws are key in outer space.

Hart 21 [Amalyah Hart, Amalyah Hart is a science journalist based in Melbourne, 11-19-2021, "Do we need new space law to prevent space war", Cosmos Magazine, https://cosmosmagazine.com/people/society/space-law-to-prevent-space-war/] simha

The week before last, a UN panel approved the creation of a working group to discuss next-generation laws to prevent the militarisation of space. The move comes as space 2.0 seems to be going into hyper-drive, with countries and corporations racing to claim their stake in the final frontier. It’s timely, as the potential for friction is gathering by the day, with China, India, Russia and the US testing anti-satellite missiles on their own satellites and creating worrisome clouds of debris. This week’s destruction by Russia of its “dead” satellite, Cosmos 1408, underlined the issue. Meanwhile, the orbital space around Earth is becoming jammed with machinery; currently, there are 3,372 active satellites whizzing around Earth, but in one or two decades that number is set to leap to potentially 100,000 or more. And that’s ignoring the space stations, telescopes and spyware already in orbit as countries flex their aerospace muscles. It’s a cosmic fracas. And contested territory is prime fodder for international disputes, as we know. It’s these kinds of disputes the group of UK diplomats who proposed the UN motion want to prevent, by coming to an agreed-upon set of norms for behaviour in space. Space law: what are the issues at stake? The current international framework for law in space is the UN’s 1967 Outer Space Treaty (OST), which sets governing principles for the exploration of space, including that space should be free for use by all nations, that celestial bodies like the Moon should be used exclusively for peaceful purposes, and that outer space should not be subject to national appropriation. Under international law, any and all objects being launched into space must be registered to avoid collisions. On top of these global laws, each nation-state has its own legal framework around the registering and launching of objects into space. But as technology evolves and new opportunities arise, are these old laws equipped to govern new problems? The UN’s 1967 Outer Space Treaty sets governing principles for the exploration of space, including that space should be free for use by all nations. “There exists an incredible amount of applicable law already, and it has served us really well,” says space law expert Steven Freeland, an emeritus professor at Western Sydney University and professorial fellow at Bond University. Freeland is vice-chair of a UN Committee on the Peaceful Uses of Outer Space (COPUOS) working group that is developing laws around the exploitation of resources in space. “There’s a lot of law at the multilateral level that then filters down to other layers of bilateral or ‘minilateral’ agreements and national laws. But clearly things move so quickly with technology, we’re doing so many more things in space that were beyond the contemplation of the drafters of the original treaties. Ideally we need more.” Freeland says there are myriad complex, interconnected issues in space that need tighter laws. These include the increasing militarisation of space; the proliferation of satellites, which can lead to overcrowding of “popular” orbits and increased demand for radio-wave spectra; ethical issues around human spaceflight; and the possible extraction of resources on celestial bodies like the Moon. Resource exploitation It might sound like science fiction, but mining in outer space is looking increasingly likely in the not-too-distant future. In September 2020, NASA announced that it would award contracts to private companies for the extraction and purchase of lunar regolith (rock matter) from the surface of the Moon, which could be mined and then studied in situ by the company, before the data and rights are transferred to the space agency. The move heralds what our space-based future might look like, with private companies mining celestial bodies for their precious resources. In our solar system, composed of millions of celestial bodies both large and small, the opportunities for cashing in look potentially endless – provided technology advances to the level of practical spaceflight. “Most wars on Earth have historically been fought over a quest for resources,” says Freeland, “so it’s incredibly important [to have appropriate space laws].” Just last month, scientists announced the discovery of two extraordinarily metal-rich near-Earth asteroids (NEAs), comprised of roughly 85% metals like iron, nickel and cobalt, which are thought to exceed Earth’s entire known metallic reserves. These three highly valuable metals, often known as the “iron triad”, are particularly critical for the energy supply chain and a renewable energy future; they’re used to build lithium-ion batteries, electrochemical capacitators for storing energy, and nano-catalysts for use in the energy sector. Under the OST, outer-space resources cannot be appropriated by nations, but the law and principle around the commercial use of space resources is less clear. The 1979 Moon Treaty holds that any celestial body is under the jurisdiction of the international community and therefore subject to international law. The treaty outlaws the military use of any celestial body as well as providing a legal framing for the “responsible” exploitation of celestial resources. But, to date, no space-capable nation has ratified the treaty. Militarisation That brings us to the militarisation of space. As technology advances, the potential avenues for weapons that cross the border from terrestrial to cosmic continue to proliferate. So, what laws protect us from a space war? “The issues about security in space have historically been dealt with by the CD, the Conference of Disarmament, but more recently the UK has led discussions at the United Nations that effectively seek to change the diplomatic language and thinking about space security,” says Freeland. Currently, the principles for governing space under the OST forbid the military use of space, but space is already used for military purposes such as surveillance, and some missiles carve a path through outer space on their journeys to their targets. As it currently stands, the only weapons found in space are the TP-82 Cosmonaut survival pistols that Russian astronauts regularly take on board the Soyuz spacecraft, intended to protect them from a potential wild animal attack if they are forced to emergency land in “off-the-map” territory. But as technology proliferates, the opportunities for space-based militarisation also grow. The existing laws were drafted long before many of these technologies were even dreamed up. The most worrisome technologies currently being trialled are anti-satellite missiles. “We have this strategic competition going on amongst the major powers,” says Gilles Doucet, a space security consultant based in Canada who worked for 35 years with the Canadian Department of National Defence. Doucet is both an engineer and an expert in space law. “They all wish to be dominant and make sure that their national security is secured by controlling, or at least not having other people control, outer space.” But what kinds of defence technologies are being developed in space? Doucet says the most worrisome technologies currently being trialled are anti-satellite missiles of the sort that Russia deployed earlier this week. Known as direct-ascent anti-satellite missiles (DA-ASAT), they can destroy satellites in low Earth orbit. “This essentially looks a lot like ballistic missile defence, but it’s happening in outer space against satellites,” he says. In fact, DA-ASAT technology is dependent on the same technology used for midcourse ballistic missile defence – the technology that the US, for example, deploys to defend itself from potential ballistic missile attacks on North America. These missiles fly at altitudes of around 3,000 to 4,000 kilometres, well within the low-Earth orbit many satellites operate in. This technology is being developed and tested by the US, China, India and Russia. “Destroying another country’s satellites would only occur in an armed conflict scenario,” Doucet says. “It would be because the other country’s satellite is providing an important military role – for example, a GPS satellite for directing munitions or an imagery satellite for locating your forces.” Other military applications in space, Doucet says, include the jamming of satellite communications and navigation, as well as interference with some GNSS signals, of which GPS – the satellite navigation system we all use for things like Google Maps – is one. Satellite jamming can have major disruptive potential. “You might be conducting an operation in a conflict – let’s say you wish to target a certain facility. Your missile system or your drone-launching missiles rely on GPS to guide them,” Doucet says. “So if you’re on the other end of it wanting to protect yourself, then you’ll send out jamming signals.” But while these signals can help defend a military target, Doucet says many satellites provide services for military and civilian companies and organisations at once. In this case, jamming a satellite’s signal may also interfere with civilian services it provides, including aircraft and ship navigation, car mapping, even timing signals for financial transactions. This means satellite jamming has major disruptive potential. And there are other areas where satellite technology could have duplicitous or combative potential. “Close proximity operations seem to get countries a bit upset,” says Doucet. Close proximity operations, as the name suggests, involve satellites moving close to other satellites. “One reason might be intelligence or inspection, just to take close images to understand how it’s built. But you may be getting close to intercept signals or to interfere with signals. “So that is a concern, because it’s one thing to get close for passively collecting information, but if you’re close you may also be in a position to interfere.” What might new space law systems look like? “We have a lot of space systems that are dual use, that have the potential to do harm,” Doucet says. “I’d like to see some transparency on the mission, on what you’re doing, to help alleviate concerns. “That might sound like a small step, but to militaries it’s actually a really big step to provide transparency.” Doucet says he’d also like to see clarification of the existing principles for space law already set out in the OST and other treaties. In fact, he’s currently working on the MILAMOS Project, developing a Manual on International Law Applicable to Military Uses of Outer Space at Canada’s McGill University. “I would like to see the existing legal regime being given a bit of life,” he says. “We’ve got tremendously good outer space principles, but over several decades countries have kind of refused to give them life because it’s too controversial. “The third thing I’d like to see is the major space powers sit down and talk. They’re all potentially losers if this keeps going down this path. I don’t think there’s a winner in a space war.” For all these complex problems, Doucet is cautiously optimistic about our chances of avoiding a space war. “I don’t think the issue about space security is as unique as people think,” he says. “Yes, it’s a very unique domain, but the actors are all the same, the interests are all the same. It’s the same people that have struggled over ballistic missile proliferation, nuclear weapons proliferation, treaties about the high seas, about aviation and all kinds of things. “So, we shouldn’t think this is an unsolvable problem. We may take lessons from how we’ve managed to agree to disagree in other areas beyond national jurisdiction.” Freeland agrees that even if international tensions may simmer at home, it’s in the best interest of major global powers to come to agreements about laws in space. “When it comes to these really big issues, particularly issues that have the propensity to go horribly wrong if we follow an irresponsible path, in the end it’s in [governments’] common interest to agree to the rules of the road,” he says. “The important element is that they have had the opportunity to buy in on the framing of those rules.“I think we need to be optimistic. With a great deal of caution, cool heads will prevail.”

## 2

#### Ethics begin a posteriori.

#### 1. Knowledge is based on experience – I wouldn’t know 2+2=4 without experience of objects nor the color red without some experience of color. We can’t obtain evidence of goodness without experience.

#### 2. Indifference – Even if there are apriori moral truths, I can choose to ignore them. Cognition is binding – if I put my hand on a hot stove, I can’t turn off my natural aversion to it.

#### The meta-ethic is moral substitutability - only it can explain reasons for acting.

Sinnott-Armstrong 92 [Walter, professor of practical ethics. “An Argument for Consequentialism” Dartmouth College Philosophical Perspectives. 1992.]

A moral reason to do an act is consequential if and only if the reason depends only on the consequences of either doing the act or not doing the act. For example, a moral reason not to hit someone is that this will hurt her or him. A moral reason to turn your car to the left might be that, if you do not do so, you will run over and kill someone. A moral reason to feed a starving child is that the child will lose important mental or physical abilities if you do not feed it. All such reasons are consequential reasons. All other moral reasons are non-consequential. Thus, a moral reason to do an act is non-consequential if and only if the reason depends even partly on some property that the act has independently of its consequences. For example, an act can be a lie regardless of what happens as a result of the lie (since some lies are not believed), and some moral theories claim that that property of being a lie provides amoral reason not to tell a lie regardless of the consequences of this lie. Similarly, the fact that an act fulfills a promise is often seen as a moral reason to do the act, even though the act has that property of fulfilling a promise independently ofits consequences. All such moral reasons are non-consequential. In order to avoid so many negations, I will also call them 'deontological'. This distinction would not make sense if we did not restrict the notion of consequences. If I promise to mow the lawn, then one consequence of my mowing might seem to be that my promise is fulfilled. One way to avoid this problem is to specify that the consequences of an act must be distinct from the act itself. My act of fulfilling my promise and my act of mowing are not distinct, because they are done by the same bodily movements.10 Thus, my fulfilling my promise is not a consequence of my mowing. A consequence of an act need not be later in time than the act, since causation can be simultaneous, but the consequence must at least be different from the act. Even with this clarification, it is still hard to classify some moral reasons as consequential or deontological,11 but I will stick to examples that are clear. In accordance with this distinction between kinds of moral reasons, I can now distinguish different kinds of moral theories. I will say that a moral theory is consequentialist if and only if it implies that all basic moral reasons are consequential. A moral theory is then non-consequentialist or deontological if it includes any basic moral reasons which are not consequential. 5. Against Deontology So defined, the class of deontological moral theories is very large and diverse. This makes it hard to say anything in general about it. Nonetheless, I will argue that no deontological moral theory can explain why moral substitutability holds. My argument applies to all deontological theories because it depends only on what is common to them all, namely, the claim that some basic moral reasons are not consequential. Some deontological theories allow very many weighty moral reasons that are consequential, and these theories might be able to explain why moral substitutability holds for some of their moral reasons: the consequential ones. But even these theories cannot explain why moral substitutability holds for all moral reasons, including the non-consequential reasons that make the theory deontological. The failure of deontological moral theories to explain moral substitutability in the very cases that make them deontological is a reason to reject all deontological moral theories. I cannot discuss every deontological moral theory, so I will discuss only a few paradigm examples and show why they cannot explain moral substitutability. After this, I will argue that similar problems are bound to arise for all other deontological theories by their very nature. The simplest deontological theory is the pluralistic intuitionism of Prichard and Ross. Ross writes that, when someone promises to do something, 'This we consider obligatory in its own nature, just because it is a fulfillment of a promise, and not because of its consequences.'12 Such deontologists claim in effect that, if I promise to mow the grass, there is a moral reason for me to mow the grass, and this moral reason is constituted by the fact that mowing the grass fulfills my promise. This reason exists regardless of the consequences of mowing the grass, even though it might be overridden by certain bad consequences. However, if this is why I have a moral reason to mow the grass, then, even if I cannot mow the grass without starting my mower, and starting the mower would enable me to mow the grass, it still would not follow that I have any moral reason to start my mower, since I did not promise to start my mower, and starting my mower does not fulfill my promise. Thus, a moral theory cannot explain moral substitutability if it claims that properties like this provide moral reasons.

#### Non-consequentialist moral theories fail to explain.

Sinnott-Armstrong 92 [Walter, professor of practical ethics. “An Argument for Consequentialism” Dartmouth College Philosophical Perspectives. 1992.]

Of course, there are many other versions of deontology. I cannot discuss them all. Nonetheless, these examples suggest that it is the very nature of deontological reasons that make **deontological theories unable to explain moral substitutability**. This comes out clearly if we start from the other side and ask which properties create the moral reasons that are derived by moral substitutability. **What gives me a moral reason to start the mower is the consequences of starting the mower.** Specifically**, it has the consequence that I am able to mow the grass.** This reason cannot derive from the same property as my moral reason to mow the lawn unless what gives me a moral reason to mow the lawn is *its* consequences. **Thus any non-consequentialist moral theory will have to posit two distinct kinds of moral reasons: one for starting the mower, and another for mowing the grass. Once these kinds of reasons are separated, we need to understand the connection between them. But this connection cannot be explained by the substantive principles of the theory**. That is why all deontological theories must lack the explanatory coherence which is a general test of adequacy for all theories.

#### 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. SM

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.

#### The standard is maximizing expected well-being.

Consequentialism SPEC: NEC (necessary enabler consequentialism) – all moral reasons for acts are provided by facts that the acts are necessary enablers for preventing death.

#### 1. Only consequentialism explains degrees of wrongness—if I break a promise to meet up for lunch, that is not as bad as breaking a promise to take a dying person to the hospital. Only the consequences of breaking the promise explain why the second one is much worse than the first. Intuitions outweigh—they’re the foundational basis for any argument and theories that contradict our intuitions are most likely false even if we can’t deductively determine why.

#### 2. Actor specificity:

#### a. No act-omission distinction—governments are responsible for everything in the public sphere so inaction is implicit authorization of action: they have to yes/no bills, which means everything collapse to aggregation.

#### b. No intent-foresight distinction – the actions we take are inevitably informed by predictions from certain mental states, meaning consequences are a collective part of the will.

#### c. Actor-specificity comes first since different agents have different ethical standings. Takes out util calc indicts since they’re empirically denied and link turns them because the alt would be no action.

#### 3. Extinction comes first under any framework.

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)

#### a. Gateway issue - we need to be alive to assign value and debate competing moral theories- extinction literally ends the debate on “ought”.

#### b. moral theories were formulated prior to the Anthropocene and human capacity for collective death so they cannot be relied on in situations of existential risk.

#### c. no coherent moral theory can allow for extinction because it means the end of value.

#### 4. Intuitions ow – if a very well justified, logical theory concluded "genocide” you wouldn’t say “huh I guess genocide is good” you would abandon it – also proves death outweighs because it’s counterintuitive to say extinction of the whole world doesn’t matter.

#### 5. Bindingness – Util is the only prescriptive moral theory since pain and pleasure are intrinsically binding and guide action. That outweighs if a ethical theory has no reason to guide action than anyone could say “why not” and not follow the theory only binding ethics can be applicable. Anything else devolves to skepticism since we can’t generate obligations absent grounds for accepting them.

#### 6. Phenomenal introspection - it’s the most epistemically reliable - historical moral disagreement over internal conceptions of morality such as questions of race, gender, class, religion, etc prove the fallibility of non-observational based ethics - introspection means we value happiness because we can determine that we each value it - just as I can observe a lemon’s yellowness, we can make those judgements about happiness.

#### 7. Theoretically prefer util – its DTA.

#### a. Ground – every impact functions under util whereas other ethics flow to one side exclusively.

#### b. Topic lit – most articles are written through the lens of util because they’re crafted for policymakers and the general public who take consequences to be important, not philosophy majors. Key to fairness and education.

## 3

#### Private companies are set to mine in space – new tech and profit motives make space lucrative.

Gilbert 21, (Alex Gilbert is a complex systems researcher and PhD student in Space Resources at the Colorado School of Mines, “Mining in Space is Coming”), 4-26-21, Milken Institute Review, https://www.milkenreview.org/articles/mining-in-space-is-coming // MNHS NL

Space exploration is back. after decades of disappointment, a combination of better technology, falling costs and a rush of competitive energy from the private sector has put space travel front and center. indeed, many analysts (even some with their feet on the ground) believe that commercial developments in the space industry may be on the cusp of starting the largest resource rush in history: mining on the Moon, Mars and asteroids. While this may sound fantastical, some baby steps toward the goal have already been taken. Last year, NASA awarded contracts to four companies to extract small amounts of lunar regolith by 2024, effectively beginning the [era of commercial space mining](https://payneinstitute.mines.edu/wp-content/uploads/sites/149/2020/09/Payne-Institute-Commentary-The-Era-of-Commercial-Space-Mining-Begins.pdf). Whether this proves to be the dawn of a gigantic adjunct to mining on earth — and more immediately, a key to unlocking cost-effective space travel — will turn on the answers to a host of questions ranging from what resources can be efficiently. As every fan of science fiction knows, the resources of the solar system appear virtually unlimited compared to those on Earth. There are whole other planets, dozens of moons, thousands of massive asteroids and millions of small ones that doubtless contain humungous quantities of materials that are scarce and very valuable (back on Earth). Visionaries including Jeff Bezos [imagine heavy industry moving to space](https://www.fastcompany.com/90347364/jeff-bezos-wants-to-save-earth-by-moving-industry-to-space) and Earth becoming a residential area. However, as entrepreneurs look to harness the riches beyond the atmosphere, access to space resources remains tangled in the realities of economics and governance. Start with the fact that space belongs to no country, complicating traditional methods of resource allocation, property rights and trade. With limited demand for materials in space itself and the need for huge amounts of energy to return materials to Earth, creating a viable industry will turn on major advances in technology, finance and business models. That said, there’s no grass growing under potential pioneers’ feet. Potential economic, scientific and even security benefits underlie an emerging geopolitical competition to pursue space mining. The United States is rapidly emerging as a front-runner, in part due to its ambitious Artemis Program to lead a multinational consortium back to the Moon. But it is also a leader in creating a legal infrastructure for mineral exploitation. The United States has adopted the world’s first spaceresources law, recognizing the property rights of private companies and individuals to materials gathered in space. However, the United States is hardly alone. Luxembourg and the United Arab Emirates (you read those right) are racing to codify space-resources laws of their own, hoping to attract investment to their entrepot nations with business-friendly legal frameworks. China reportedly views space-resource development as a national priority, part of a strategy to challenge U.S. economic and security primacy in space. Meanwhile, Russia, Japan, India and the European Space Agency all harbor space-mining ambitions of their own. Governing these emerging interests is an outdated treaty framework from the Cold War. Sooner rather than later, we’ll need [new agreements](https://issues.org/new-policies-needed-to-advance-space-mining/) to facilitate private investment and ensure international cooperation. Back up for a moment. For the record, space is already being heavily exploited, because space resources include non-material assets such as orbital locations and abundant sunlight that enable satellites to provide services to Earth. Indeed, satellite-based telecommunications and global positioning systems have become indispensable infrastructure underpinning the modern economy. Mining space for materials, of course, is another matter. In the past several decades, planetary science has confirmed what has long been suspected: celestial bodies are potential sources for dozens of natural materials that, in the right time and place, are incredibly valuabl**e**. Of these, water may be the most attractive in the near-term, because — with assistance from solar energy or nuclear fission — H2O can be split into hydrogen and oxygen to make rocket propellant, facilitating in-space refueling. So-called “rare earth” metals are also potential targets of asteroid miners intending to service Earth markets. Consisting of 17 elements, including lanthanum, neodymium, and yttrium, these critical materials (most of which are today mined in China at great environmental cost) are required for electronics. And they loom as bottlenecks in making the transition from fossil fuels to renewables backed up by battery storage. The Moon is a prime space mining target. Boosted by NASA’s mining solicitation, it is likely the first location for commercial mining. The Moon has several advantages. It is relatively close, requiring a journey of only several days by rocket and creating communication lags of only a couple seconds — a delay small enough to allow remote operation of robots from Earth. Its low gravity implies that relatively little energy expenditure will be needed to deliver mined resources to Earth orbit. The Moon may look parched — and by comparison to Earth, it is. But recent probes have confirmed substantial amounts of water ice lurking in [permanently shadowed craters](http://lroc.sese.asu.edu/posts/1105) at the lunar poles. Further, it seems that solar winds have implanted significant deposits of helium-3 (a light stable isotope of helium) across the equatorial regions of the Moon. Helium-3 is a potential fuel source for second and third-generation fusion reactors that one hopes will be in service later in the century. The isotope is packed with energy (admittedly hard to unleash in a controlled manner) that might augment sunlight as a source of clean, safe energy on Earth or to power fast spaceships in this century. Between its water and helium-3 deposits, the Moon could be the resource stepping-stone for further solar system exploration. Asteroids are another near-term [mining target](https://foreignpolicy.com/2016/04/28/the-asteroid-miners-guide-to-the-galaxy-space-race-mining-asteroids-planetary-research-deep-space-industries/). There are all sorts of space rocks hurtling through the solar system, with varying amounts of water, rare earth metals and other materials on board. The asteroid belt between the orbits of Mars and Jupiter contains most of them, many of which are greater than a kilometer in diameter. Although the potential water and mineral wealth of the asteroid belt is vast, the long distance from Earth and requisite travel times and energy consumption rule them out as targets in the near term. The prospects for space mining are being driven by technological advances across the space industry. The rise of reusable rocket components and the now-widespread use of off-the-shelf parts are lowering both launch and operations costs. Once limited to government contract missions and the delivery of telecom satellites to orbit, private firms are now emerging as leaders in developing “NewSpace” activities — a catch-all term for endeavors including orbital tourism, orbital manufacturing and mini-satellites providing specialized services. The space sector, with a market capitalization of $400 billion, could grow to as much as $1 trillion by 2040 as private investment soars.

#### Private entity appropriation is key to sustained space exploration.

**Brehm 15**, Andrew. (Andrew R. Brehm is a litigator who focuses his practice on a broad range of legal issues for clients in the transportation and recreation industries. Mr. Brehm litigates a variety of disputes including those involving catastrophic injury, disfigurement and wrongful death, commercial contracts, and construction defects. Mr. Brehm also represents clients on labor employment related issues in class action and FLSA collective action cases. Mr. Brehm’s complex litigation work frequently involves litigation that addresses independent contractor issues and other labor and employment issues impacting the transportation industry. PROFILE Mr. Brehm is actively involved in the various local and regional bar associations. Prior to joining Scopelitis. Garvin, Light, Hanson & Feary, Mr. Brehm spent two years as a judicial clerk for The Honorable Rebecca F. Dallet and the Honorable Christopher R. Foley of the Milwaukee County Circuit Court. While in law school, Mr. Brehm’s note on private property rights in outer space was selected for publication by the Wisconsin International Law Journal. Mr. Brehm served as managing editor for the law journal.) "Private Property in Outer Space: Establishing a Foundation for Future Exploration." University of Wisconsin Law School Digital Repository, 2015, repository.law.wisc.edu/s/uwlaw/media/77012.//JQ

In modem times, space exploration has consistently been viewed as a vehicle for societal advancement in terms of technology, science, and knowledge of our universe. Until recently, however, we have been almost entirely unaware of the economically and commercially valuable resources in outer space. Now, through years of increasingly advanced space exploration and scientific research, we have begun to gain an understanding of the true value of these resources. For example, asteroids are rich in ruthenium, rhodium, osmium, iridium, and platinum.' These elements are extremely rare on Earth and are important materials in developing electronics? As such, each of these platinum group elements draws a high market price, creating incentives to explore space for entrepreneurs and investors alike.'

There is little doubt that the private space race is underway. Even with much uncertainty surrounding private property rights and international space law, the discovery of valuable resources in outer space has led to the emergence of various private companies seeking to capitalize in an untapped market. In 2012, a group of billionaire investors, including Google executives Larry Page and Eric Schmidt, Hollywood director James Cameron, and Ross Perot, Jr., announced the launch of Planetary Resources, a private company that intends to mine resource-rich asteroids.' In addition to the valuable platinum group elements contained in asteroids, Planetary Resources hopes to mine hydrogen fuels from the asteroids that can be used to launch deeper space expeditions.5 In January 2013, Deep Space Industries formed with a similar mission to extract and harvest materials from asteroids, and an end goal of using the materials to support outer space communities and fuel further exploration.6 In 2011, Microsoft billionaire Naveen Jain announced the creation of Moon Express, a private space exploration entity that plans to mine for platinum and titanium on the Moon.7

Additionally, in 2011, venture start-up Shackleton Energy Company launched fund-raising efforts, ultimately seeking to mine the Shackleton Crater in the Moon's south pole for fuels to propel deeper space expeditions.8 Other private space mining start-ups have followed suit.9

Each of these private entities has the potential to propel space exploration and technological advances in the pursuit of a deeper understanding of our cosmos. Further, the short-term benefit of private space expeditions is exponential in terms of lowering the cost of electronics, lessening the taxpayer burden of funding space activities, and incentivizing more advanced levels of space exploration.1° Without a clear system of private property acquisition in outer space, however, the private space race is not likely to get far off of the ground. The celestial resources that have incentivized numerous space-mining start-ups have little or no value to investors if mining companies cannot establish legal rights to the resources mined. Without the legal right to use water and hydrogen mined from celestial bodies, and to alienate platinum group elements, the potential profitability of private space expeditions collapses along with the goals of deeper space exploration and settlement. Now more than ever, the issue of private property rights in outer space has significant real-world implications.

#### Squo private companies are willing to invest, but the plan crosses a perception barrier which destroys investment.

Shaw 13 - Lauren E, J.D. from Chapman University School of Law, ”Asteroids, the New Western Frontier: Applying Principles of the General Mining Law of 1872 to Incentive Asteroid Mining”, JOURNAL OF AIR LAW AND COMMERCE, Volume 78, Issue 1, Article 2, <https://scholar.smu.edu/cgi/viewcontent.cgi?article=1307&context=jalc> // recut MNHS NL

To some, the mining of asteroids might sound like the premise of a science fiction novel' or the solution to the heartwrenching, fictional scenario depicted in the film Armageddon.2 To others, it evokes a fantastical idea that may come to fruition in a distant reality. However, impressively funded companies have plans to send spacecraft to begin prospecting on asteroids within the next two years.' The issues associated with the mining of asteroids should be addressed before these plans are set in motion. Much has been written about the issues that might arise from allowing nations to own these space bodies and the minerals they contain; one such issue is the impact on international treaties.4 However, little has been written about the applicability of preexisting mining laws-which provide a basic property right scheme for the private sector-such as the General Mining Law of 1872 (Mining Law) to the management of asteroid mining.' The literature to date on how to legally address asteroid mining is minimal.' The articles that do address it propose the creation of different systems, such as a "property rights-based system that relies on the doctrine of first possession"7 or an international authority that would regulate mining operations.' Implementing a scheme that offers ownership of extracted resources without bestowing complete sovereignty is necessary to avoid an impending legal limbo-that is, an outer space "Wild West" equivalent where there is neither certainty nor security in who owns what.9 If private sector miners of asteroids know this right already exists, they will have more incentive to extract resources.' 0 This, in turn, would increase the chances of successful missions, resulting in numerous scientific and explorative benefits, along with the potential replenishment of key elements that are becoming increasingly depleted on Earth yet are still needed for modern industry. Scientists speculate that key elements needed for modern industry, including platinum, zinc, copper, phosphorus, lead, gold, and indium, could become depleted on Earth within the next fifty to sixty years." Many of these metals, such as platinum, are chemical elements that, unlike oil or diamonds, have no synthetic alternative.12 Once the reserves on Earth are mined to complete depletion, industries will be forced to recycle the existing supply of minerals, which will result in increased costs due to increased scarcity.' 3 However, evidence is accumulating that asteroids only a few hundred thousand miles away from Earth may be composed of an abundance of natural resources-including many of the minerals being mined to depletion on Earth-that could lead to vast profits." Most of the minerals being mined on Earth, including gold, iron, platinum, and palladium, originally came from the many asteroids that hit the Earth after the crust cooled during the planet's formation.'

#### Commercial mining solves extinction from scarcity, climate, terror, war, and disease.

Pelton 17—(Director Emeritus of the Space and Advanced Communications Research Institute at George Washington University, PHD in IR from Georgetown).. Pelton, Joseph N. 2017. The New Gold Rush: The Riches of Space Beckon! Springer. Accessed 8/30/19.

Are We Humans Doomed to Extinction? What will we do when Earth’s resources are used up by humanity? The world is now hugely over populated, with billions and billions crammed into our overcrowded cities. By 2050, we may be 9 billion strong, and by 2100 well over 11 billion people on Planet Earth. Some at the United Nations say we might even be an amazing 12 billion crawling around this small globe. And over 80 % of us will be living in congested cities. These cities will be ever more vulnerable to terrorist attack, natural disaster, and other plights that come with overcrowding and a dearth of jobs that will be fueled by rapid automation and the rise of artifi cial intelligence across the global economy. We are already rapidly running out of water and minerals. Climate change is threatening our very existence. Political leaders and even the Pope have cautioned us against inaction. Perhaps the naysayers are right. All humanity is at tremendous risk. Is there no hope for the future? This book is about hope. We think that there is literally heavenly hope for humanity. But we are not talking here about divine intervention. We are envisioning a new space economy that recognizes that there is more water in the skies that all our oceans. Th ere is a new wealth of natural resources and clean energy in the reaches of outer space—more than most of us could ever dream possible. There are those that say why waste money on outer space when we have severe problems here at home? Going into space is not a waste of money. It is our future. It is our hope for new jobs and resources. The great challenge of our times is to reverse public thinking to see space not as a resource drain but as the doorway to opportunity. The new space frontier can literally open up a “gold rush in the skies.” In brief, we think there is new hope for humanity. We see a new a pathway to the future via new ventures in space. For too long, space programs have been seen as a money pit. In the process, we have overlooked the great abundance available to us in the skies above. It is important to recognize there is already the beginning of a new gold rush in space—a pathway to astral abundance. “New Space” is a term increasingly used to describe radical new commercial space initiatives—many of which have come from Silicon Valley and often with backing from the group of entrepreneurs known popularly as the “space billionaires.” New space is revolutionizing the space industry with lower cost space transportation and space systems that represent significant cost savings and new technological breakthroughs. “New Commercial Space” and the “New Space Economy” represent more than a new way of looking at outer space. These new pathways to the stars could prove vital to human survival. If one does not believe in spending money to probe the mysteries of the universe then perhaps we can try what might be called “calibrated greed” on for size. One only needs to go to a cubesat workshop, or to Silicon Valley or one of many conferences like the “Disrupt Space” event in Bremen, Germany, held in April 2016 to recognize that entrepreneurial New Space initiatives are changing everything [ 1 ]. In fact, the very nature and dimensions of what outer space activities are today have changed forever. It is no longer your grandfather’s concept of outer space that was once dominated by the big national space agencies. The entrepreneurs are taking over. The hopeful statements in this book and the hard economic and technical data that backs them up are more than a minority opinion. It is a topic of growing interest at the World Economic Forum, where business and political heavyweights meet in Davos, Switzerland, to discuss how to stimulate new patterns of global economic growth. It is even the growing view of a group that call themselves “space ethicists.” Here is how Christopher J. Newman, at the University of Sunderland in the United Kingdom has put it: Space ethicists have offered the view that space exploration is not only desirable; it is a duty that we, as a species, must undertake in order to secure the survival of humanity over the longer term. Expanding both the resource base and, eventually, the habitats available for humanity means that any expenditure on space exploration, far from being viewed as frivolous, can legitimately be rationalized as an ethical investment choice. (Newman) On the other hand there are space ethicists and space exobiologists who argue that humans have created ecological ruin on the planet—and now space debris is starting to pollute space. Th ese countervailing thoughts by the “no growth” camp of space ethicists say we have no right to colonize other planets or to mine the Moon and asteroids—or at least no right to do so until we can prove we can sustain life here on Earth for the longer term. However, for most who are planning for the new space economy the opinion of space philosophers doesn’t really fl oat their boat. Legislators, bankers, and aspiring space entrepreneurs are far more interested in the views of the super-rich capitalists called the space billionaires. A number of these billionaires and space executives have already put some very serious money into enterprises intent on creating a new pathway to the stars. No less than five billionaires with established space ventures—Elon Musk, Paul Allen, Jeff Bezos, Sir Richard Branson, and Robert Bigelow—have invested millions if not billions of dollars into commercializing space. They are developing new technologies and establishing space enterprises that can bring the wealth of outer space down to Earth. This is not a pipe dream, but will increasingly be the economic reality of the 2020s. These wealthy space entrepreneurs see major new economic opportunities. To them space represents the last great frontier for enterprising pioneers. Th us they see an ever-expanding space frontier that offers opportunities in low-cost space transportation, satellite solar power satellites to produce clean energy 24h a day, space mining, space manufacturing and production, and eventually space habitats and colonies as a trajectory to a better human future. Some even more visionary thinkers envision the possibility of terraforming Mars, or creating new structures in space to protect our planet from cosmic hazards and even raising Earth’s orbit to escape the rising heat levels of the Sun in millennia to come. Some, of course, will say this is sci-fi hogwash. It can’t be done. We say that this is what people would have said in 1900 about airplanes, rocket ships, cell phones and nuclear devices. The skeptics laughed at Columbus and his plan to sail across the oceans to discover new worlds. When Thomas Jefferson bought the Louisiana Purchase from France or Seward bought Alaska, there were plenty of naysayers that said such investment in the unknown was an extravagant waste of money. A healthy skepticism is useful and can play a role in economic and business success. Before one dismisses the idea of an impending major new space economy and a new gold rush, it might useful to see what has already transpired in space development in just the past five decades. The world’s first geosynchronous communications satellite had a throughput capability of about 500 kb / s. In contrast, today’s state of the art Viasat 2 —a half century later— has an impressive throughput of some 140 Gb/s. Th is means that the relative throughput is nearly 300,000 greater, while its lifetime is some ten times longer (Figs. 1.1 and 1.2 ). Each new generation of communications satellite has had more power, better antenna systems, improved pointing and stabilization, and an extended lifetime. And the capabilities represented by remote sensing satellites , meteorological satellites , and navigation and timing satellites have also expanded their capabilities and performance in an impressive manner. When satellite applications first started, the market was measured in millions of dollars. Today commercial satellite services exceed a quarter of a billion dollars. Vital services such as the Internet, aircraft traffi c control and management, international banking, search and rescue and much, much more depend on application satellites. Th ose that would doubt the importance of satellites to the global economy might wish to view on You Tube the video “If Th ere Were a Day Without Satellites?” [ 2 ]. Let’s check in on what some of those very rich and smart guys think about the new space economy and its potential. (We are sorry to say that so far there are no female space billionaires, but surely this, too, will come someday soon.) Of course this twenty-fi rst century breakthrough that we call the New Space economy will not come just from new space commerce. It will also come from the amazing new technologies here on Earth. Vital new terrestrial technologies will accompany this cosmic journey into tomorrow. Information technology, robotics, artificial intelligence and commercial space travel systems have now set us on a course to allow us humans to harvest the amazing riches in the skies—new natural resources, new energy, and even totally new ways of looking at the purpose of human existence. If we pursue this course steadfastly, it can be the beginning of a New Space renaissance. But if we don’t seek to realize our ultimate destiny in space, Homo sapiens can end up in the dustbin of history—just like literally millions of already failed species. In each and every one of the five mass extinction events that have occurred over the last 1.5 billion years on Earth, some 50–80 % of all species have gone the way of the T. Rex, the woolly mammoth, and the Dodo bird along with extinct ferns, grasses and cacti. On the other hand, the best days of the human race could be just beginning. If we are smart about how we go about discovering and using these riches in the skies and applying the best of our new technologies, it could be the start of a new beginning for humanity. Konstantin Tsiokovsky, the Russian astronautics pioneer, who fi rst conceived of practical designs for spaceships, famously said: “A planet is the cradle of mankind, but one cannot live in a cradle forever.” Well before Tsiokovsky another genius, Leonardo da Vinci, said, quite poetically: “Once you have tasted flight, you will forever walk the earth with your eyes turned skyward, for there you have been, and there you will always long to return.” The founder of the X-Prize and of Planetary Resources, Inc., Dr. Peter Diamandis, has much more brashly said much the same thing in quite diff erent words when he said: “The meek shall inherit the Earth. The rest of us will go to Mars.” The New Space Billionaires Peter Diamandis is not alone in his thinking. From the list of “visionaries” quoted earlier, Elon Musk, the founder of SpaceX; Sir Richard Branson, the founder of Virgin Galactic; and Paul Allen, the co-founder of Microsoft and the man who financed SpaceShipOne, the world’s first successful spaceplane have all said the future will include a vibrant new space economy. Th ey, and others, have said that we can, we should and we soon shall go into space and realize the bounty that it can offer to us. Th e New Space enterprise is today indeed being led by those so-called space billionaires , who have an exciting vision of the future. They and others in the commercial space economy believe that the exploitation of outer space may open up a new golden age of astral abundance. They see outer space as a new frontier that can be a great source of new materials, energy and various forms of new wealth that might even save us from excesses of the past. Th is gold rush in the skies represents a new beginning. We are not talking about expensive new space ventures funded by NASA or other space agencies in Europe, Japan, China or India. No, these eff orts which we and others call New Space are today being forged by imaginative and resourceful commercial entrepreneurs. Th ese twenty-fi rst century visionaries have the fortitude and zeal to look to the abundance above. New breakthroughs in technology and New Space enterprises may be able to create an “astral life raft” for humanity. Just as Columbus and the Vikings had the imaginative drive that led them to discover the riches of a new world, we now have a cadre of space billionaires that are now leading us into this New Space era of tomorrow. These bold leaders, such as Paul Allen and Sir Richard Branson, plus other space entrepreneurs including Jeff Bezos of Amazon and Blue Origin, and Robert Bigelow, Chairman of Budget Suites and Bigelow Aerospace, not only dream of their future in the space industry but also have billions of dollars in assets. These are the bright stars of an entirely new industry that are leading us into the age of New Space commerce. These space billionaires, each in their own way, are proponents of a new age of astral abundance. Each of them is launching new commercial space industries. They are literally transforming our vision of tomorrow. These new types of entrepreneurial aerospace companies—the New Space enterprises—give new hope and new promise of transforming our world as we know it today. The New Space Frontier What happens in space in the next few decades, plus corresponding new information technologies and advanced robotics, will change our world forever. These changes will redefi ne wealth, change our views of work and employment and upend almost everything we think we know about economics, wealth, jobs, and politics. Th ese changes are about truly disruptive technologies of the most fundamental kinds. If you thought the Internet, smart phones, and spandex were disruptive technologies, just hang on. You have not seen anything yet. In short, if you want to understand a transition more fundamental than the changes brought to the twentieth century world by computers, communications and the Internet, then read this book. There are truly riches in the skies. Near-Earth asteroids largely composed of platinum and rare earth metals have an incredible value. Helium-3 isotopes accessible in outer space could provide clean and abundant energy. There is far more water in outer space than is in our oceans. In the pages that follow we will explain the potential for a cosmic shift in our global economy, our ecology, and our commercial and legal systems. These can take place by the end of this century. And if these changes do not take place we will be in trouble. Our conventional petro-chemical energy systems will fail us economically and eventually blanket us with a hydrocarbon haze of smog that will threaten our health and our very survival. Our rare precious metals that we need for modern electronic appliances will skyrocket in price, and the struggle between “haves” and “have nots” will grow increasingly ugly. A lack of affordable and readily available water, natural resources, food, health care and medical supplies, plus systematic threats to urban security and systemic warfare are the alternatives to astral abundance. The choices between astral abundance and a downward spiral in global standards of living are stark. Within the next few decades these problems will be increasingly real. By then the world may almost be begging for new, out of- the-box thinking. International peace and security will be an indispensable prerequisite for exploitation of astral abundance, as will good government for all. No one nation can be rich and secure when everyone else is poor and insecure. In short, global space security and strategic space defense, mediated by global space agreements, are part of this new pathway to the

## CASE

#### **Capitalism is inevitable, adaptive, and alternatives are comparatively worse.**

[Meltzer](http://public.tepper.cmu.edu/facultydirectory/FacultyDirectoryProfile.aspx?id=98) 09 Dr. Allan H. Meltzer, economist and professor of Political Economy at Carnegie Mellon University’s Tepper School of Business in Pittsburgh (The eighth lecture in the 2008-2009 Bradley Lecture series, 3/9/2009, “There is no better alternative than capitalism”, [http://hiram7.wordpress.com/2009/03/12/there-is-no-better-alternative-than-capitalism/)//](http://hiram7.wordpress.com/2009/03/12/there-is-no-better-alternative-than-capitalism/)//jk)

**There is no better alternative than capitalism** as a social system **for providing growth and personal freedom. The alternatives offer less freedom and lower growth. The “better alternatives” that people imagine are almost always someone’s idea of utopia**. Libraries are full of books on utopia. **Those that have been tried have not survived** or flourished. **The most common reason for failure is that one person or group’s utopian ideal is unsatisfactory for others** who live subject to its rules. Either the rules change or they are enforced by authorities. Capitalism, particularly democratic capitalism, includes the means for orderly change. **Critics of capitalism look for viable alternatives to support. They do not recognize that**, unlike Socialism, **capitalism is adaptive, not rigid. Private ownership of the means of production flourishes in many different cultures**. Recently **critics of capitalism discovered the success of Chinese capitalism as an alternative to American capitalism. Its main feature is mercantilist policies supported by rigid controls on capital**. China’s progress takes advantage of an American or western model–the open trading system–and the willingness of the United States to run a current account balance. China is surely more authoritarian than Japan or western countries, a political difference that previously occurred in Meiji Japan, Korea, and Taiwan. Growth in these countries produced a middle class followed by demands for political freedom. China is in the early stages of development following the successful path pioneered by Japan, Korea, Taiwan, Hong Kong, and others who chose export-led growth under trade rules. Sustained economic growth led to social and political freedom in Japan, Korea, and Taiwan. Perhaps China will follow. **Capitalism continues to spread. It is the only system humans have found in which personal freedom, progress, and opportunities coexist. Most of the faults and flaws on which critics dwell are human faults, as Kant recognized. Capitalism is the only system that adapts to all manner of cultural and institutional differences. It continues to spread and adapt and will for the foreseeable future.**

#### Capitalist growth is sustainable.

Rune **Westergård 18**. Entrepreneur, Engineer and Author, founder of the technical consulting company CITEC. 2018. “Real and Imagined Threats.” One Planet Is Enough, Springer International Publishing, pp. 71–80. CrossRef, doi:10.1007/978-3-319-60913-3\_7.

Threatening reports about our ability to create disasters and even exterminate ourselves are not a new idea. A standard example is the British national economist Thomas Malthus in the early 19th century, who predicted that population growth would come to a halt because of starvation. Malthus calculated that the available food in the world couldn’t feed more than one billion people. He extrapolated the development from a still picture of his own time and couldn’t fathom that food production would increase tremendously thanks to new knowledge and technology. Our present food production is sufficient for seven times as many. Malthus didn’t pay attention to the fact that we live in a continuously changing civilisation, and the same kind of miscalculations are still made today. There are people who have even achieved the status of media superstars by presenting various dystopias and catastrophe scenarios. As early as 1968, Professor Paul Erlichs at Stanford University published the bestseller The Population Bomb, where he predicted that an imminent population explosion would result in hundreds of millions of deaths by starvation in the 1970s and 80s. Basically, he made the same mistake as Malthus, i.e. he treated knowledge and technology as if they were static phenomena. The most widely read environment report in the world, State of the World, was a loud whistle-blower when it was first published in the early 1980s. The Swedish version, Tillståndet i världen, was published yearly from 1984 and some years into the 2000s by the Worldwatch Institute Norden; I still have some of the early issues left. This report contains many valuable observations and suggestions, but also several basic analytical mistakes. In other words, it acts as an eye-opener, but it suffers from being tainted by political ideology. Its main weakness is that it doesn’t take the intrinsic driving forces of progress into account. State of the World was translated into most major languages and is, as already mentioned, the world’s most widely read environmental report. It has affected us all, directly or indirectly, through school and media. Even if the Swedish version I refer to was written some years ago, it is still worthy of discussion, firstly because it maintains an appearance of scientific validity, and secondly because it has served as a trendsetter for the general ideology which has been adopted by many later books and reports on the subject at hand. It still lives on as an engraved pattern in our conception of the world. In the report we can, for instance, read the following: A world where human desires and needs are fulfilled without the destruction of natural systems demands an entirely new economic order, founded on the insight that a high consumption level, population growth, and poverty are the powers behind the devastation of the environment. The rich have to reduce their consumption of resources so that the poor can increase their standard of living. The global economy simply works against the attempts to reduce poverty and protect the environment. We stubbornly insist to regard economic growth as synonymous with development, even though it makes the poor even poorer. Even if we up to this point have mainly described the environment revolution in economic terms, it is, in its most fundamental meaning, a social revolution: to change our values. Massive threat scenarios are still presented, for instance in the British scientist Tim Jackson’s book Prosperity Without Growth from 2009, which is one of the most widely read and frequently quoted works in this area. Tim Jackson, who is an economist and professor in sustainable development, explains how we humans are indulging in a ruthless pursuit of new-fangled gadgets in a consumption society running at full speed towards its doom. He also claims that material things in themselves cannot help us to flourish; on the contrary, they may even restrain our welfare. In other words, we cannot build our hopes that the economy, technology or science can help us to escape from the trap of Anthropocene, which has brought us to the brink of an ecological disaster. There are hundreds on books on this theme, and they all agree that the general state of the world is pure misery; everything is getting worse, the resources are being depleted, and that man will soon have destroyed the entire planet. The apparent reason for this, of course, is due to the consumption culture and the present financial system—which exposes man as a greedy, ruthless and ultimately weak creature. This attitude may serve a purpose as an eye-opener. But it is not very credible, and it may even be counterproductive. Of course, we can see a lot of problems ahead of us; but to solve them, we need the correct diagnostics instead of dubious doomsday prophesies. Focus: The Problem Since the focus of attention is so profoundly fixated on the problems in the climate and environmental debate, the progress already made—and the opportunities at hand—are often overshadowed. The example below will help to illustrate this point: In the year 2014, the Nobel Prize in physics was awarded to three scientists who had invented blue light emitting diodes—a technology that has made high-bright and energy-efficient LED lighting possible. As lighting accounts for 20% of the world’s total electrical consumption, this invention has the potential to radically reduce energy consumption and greenhouse gas emissions. In an interview made by the major Swedish daily newspaper Dagens Nyheter, one of the prize winners, Hiroshi Amano, says the following about energy-efficient, inexpensive and high-bright LED lights: “They are now being used all over the world. Even children in the developing countries can use this lighting to read books and study in the evenings. This makes me very very happy”. Shortly after this announcement, the news headlines declared that LED lighting was a threat to the environment. This statement was based on a report showing that LED lighting could be hazardous to flies and moths, which in turn might disturb the eco system. This is a typical example of how progress pessimists and, not least the media, think and act. In this case, they focused on a potential problem associated with LED lighting, and ignored the tremendous possibilities that the new technology offered to dramatically reduce greenhouse gases and thus spare the eco system (not to mention all the other advantages). Books and reports of the kind mentioned above tell us repeatedly about disasters, threats, problems, collapses and famines. On the other hand, they are notoriously silent about the great improvements actually made—the reduction of extreme poverty (not only as a percentage but also in absolute numbers), longer lifespans, dramatic global progress in education and healthcare, etc. The lack of positive media coverage on the environment means that many people believe that too little is being done, which is quite understandable considering the one-sided nature of the information they are presented with. Alarmist reporting almost always reminds me of pirates: they are unreliable and half their vision is blocked by their eye patches. It is vital that the media not only one-sidedly focus on the misery without presenting the progress made and suggesting constructive courses of action. The quality of our decisions in all respects depends on our knowledge, insight and attitude. Real and Imagined Threats Many people are convinced that the climate and environmental problems are growing. It is certainly true that our planet has its limitations, but many of the predictions from alarmist literature have been proven false. In the 1980s, the forest dieback was a frequently discussed subject. To quote the well-known German news magazine Der Spiegel, an “ecological Hiroshima” was imminent. Most experts at the time claimed that a wide-spread forest death seemed unavoidable. Additionally, the general mood of impending doom was augmented by the threat of a nuclear disaster during the cold war. I remember the pessimistic discussions among friends and how frequently the gloomy reports appeared in Swedish and Finnish television. The future of humankind appeared to be depressingly bleak. But the forest dieback never happened. On the contrary, the forest area has been constantly expanding in Europe, even during the entire period when the forest was believed to be dying. Today, only two thirds of the yearly accretion in Europe are cut down, according to the Natural Resource Institute in Finland. There are different opinions as to why the large-scale forest dieback didn’t occur. One theory is that the researchers’ evidence and conclusions had been incomplete and too hasty; the forest was actually never in danger. Others suggest that the emission limitations implemented prevented the disaster. My point is that the environmental catastrophe did not happen. Some other environmental problems, exaggerated or not, that have concerned us during the last decades have also disappeared from the immediate agenda: overpopulation, DDT, the ozone hole, heavy metals, lead poisoning, soot particles, the waste mountain, and the acidification of our lakes. Unfortunately, some environmental problems, like soot particles and waste, still remain in some areas, especially in poorer countries, where there are other, even worse problems that have yet to be resolved. The conclusion is, however, that we and our society in most cases have handled threatening situations quite well. When alarming symptoms are noted, scientists and other experts are summoned, and we act according to their diagnoses. It is no big deal that the diagnoses are sometimes wrong, as long as the side effects are not too severe. The main thing is that we do our best to avoid disasters, and on the whole, humankind has succeeded rather well this far. As individuals, we react very differently to various kinds of threats. The closer and more tangible the threat is, the more violent are the reactions—while distant and invisible symptoms, like the depletion of the ozone layer, concern us less. In the latter cases, we have to trust the scientists’ and later the politicians’ reactions. Does this mean that disasters are avoided thanks to war headlines, threats, and anxiety? I don’t think that this is the most important explanation; rather, it is factual and science-based information that produces effective results. But if exaggerated threat scenarios and reports of misery are needed to inspire the necessary political opinion, acquire research funding and create behavioural changes, we will have to live with that. The most important thing to remember in this context is that the actions shouldn’t cause more harm than the original problem itself. The risk with exaggerated threat and misery reporting is that it may inspire an over-reaction based on misleading diagnoses, or the opposite—a paralysing feeling of helplessness. It is necessary to take threats against the climate and the environment seriously, but not to a degree where our ability to reason and act is blocked by fear or anxiety. Many environmental debaters claim that the fall of the Inca and Roman empires were caused by the same causes that are now threatening our present civilisation—a short-sighted over-exploitation and rape of nature. Easter Island is another popular example. However, in my opinion it is both worthless and irresponsible to judge the world situation of today by copying the outcome of earlier cultural endeavours in history. The inhabitants of the Inca empire and Easter Island didn’t have anything even remotely comparable with the organisations, technology, medicine or general knowledge of today. It would be like comparing a case of appendicitis in the past to a case today. In pre-modern times, it was a fatal condition. In this day and age, it is cured by a simple routine operation. Today, humankind is conscious of the climate changes and other ecological challenges. And we also have the knowledge and resources needed to act. Facts, Propaganda and Hidden Messages During all the years I have followed the development of technology and society, I have repeatedly observed how a mishmash of serious research, political propaganda, and the hidden agendas of individuals have been distributed more or less randomly by the media. There are of course many different kinds of alarmism— everything from well-founded research reports to exaggerated prophesies of doom. It is far from simple to separate the wheat from the chaff. The actions taken against ozone depletion, lead emissions and the toxic chemical, dioxin, are all examples of how research has shown the way to successful results. Today, greenhouse gas emissions top the list of issues deserving our gravest attention, as it is a global phenomenon—just as the depletion of the ozone layer once was. There are also a considerable number of local environmental problems, such as drought, air pollution, forest depletion and overfishing. All of these are real threats that have to be acted upon, even though they are not global. However, I am always disturbed when a single global environmental issue is bundled with an assortment of several local issues, rather like a simplified trademark advertisement for the negative consequences of civilisation. This makes the information abstract and inaccurate, ignoring the fact that different locales require different solutions. Fear and alarmism are natural reactions that once protected us when we were living at the mercy of nature—they are evolutionary relics from our life in the savanna. Today, the same properties can be significant drawbacks. The transition from a primitive, animal-like state to the society we have today must, on the whole, be counted as a great success. But many people regard the same world as over-exploited, depleted, unjust, war-ridden and balancing on the brink of destruction. How can people living in the same epoch have so entirely different views of the world? In the sustainability debate, there is one faction dealing with the natural resources and ecosystems, and another focusing on the redistribution of wealth. There is even a third faction discussing a minimalistic lifestyle; for example, downshifting, with less work and less material welfare. When all these ingredients are mixed without discretion, the result is an anxiety soup that many have choked on. In a situation like that, we cannot expect any constructive initiatives to materialise. Instead, it would be far better to explore, research and discuss each dimension separately. What Is the Real State of the Planet? It is easy to generalise and say that we over-exploit the planet’s resources and pollute the world with our waste. But how many care to examine these statements in detail and ask exactly which resources are over-exploited? • Are fish becoming extinct? It is true that overfishing occurs in many places, which is, of course, unsustainable. However, this is not an unavoidable threat to the world’s total food resources. Fortunately, there are several examples of fish stocks that have either recovered or started to replenish once the fishing effort has been eased. • Is the air being poisoned? Many are convinced that the air we breathe is becoming dirtier all the time. But that isn’t true, at least not in the Western world. From the year 1990, emissions of sulphur dioxide have been reduced by 80%, nitrogen oxides by 44%, volatile organic substances by 55%, and carbon monoxide by 62%. Despite these dramatic improvements, 64% of Europeans believe that pollution is increasing. • Are the forests dying? It is a general belief that the forests in the developed countries are dwindling. But that isn’t true; on the contrary, the wooded areas are expanding. However, the forests are decreasing in the poor countries, where forestry and farming are still major sources of income, as they once were in the industrialised countries. • Are we drowning in waste? There are many who believe that we are surrounded by constantly growing mountains of waste. In the developed countries, the truth is that increasing amounts of waste are being recycled and the landfills are decreasing. • Will there be enough phosphorus? Phosphorus is an important nutrient in farming, extracted from phosphate ore. Many scientists fear that the finite natural resource of phosphate ore will become depleted in the future, which may jeopardise the world’s food supply. But there are already working solutions for this problem, such as by reclaiming phosphorus through digestion residues and sewage sludge. There are also technological solutions for the chemical extraction of phosphorus from polluted water—the remediation of lakes and rainwater by removing phosphorus is already a common procedure. Here we achieve a win-win situation—phosphorus is collected while preventing the eutrophication of lakes. • Will there be enough energy to go around? A common statement is that the earth’s population is too large, and that we consume too much energy with respect to the climate. This is one of those issues where we have to think in terms of symptoms, diagnoses, and medication. The symptoms are there for all to see: climate change. On the other hand, the diagnosis that we consume too much energy is wrong. The correct diagnosis is that we are not using the right technology; i.e. energy efficient power production without harmful emissions. Consequently, the correct statement would be that we consume energy that is produced by technologies that are harmful to the climate. The difference in wording is important. As the first diagnosis is “too high energy consumption”, the remedy will be to use a different medication than a diagnosis based on “the wrong technology”. Alarmist reporting can inspire bad decisions if the statements aren’t systematically reviewed and evaluated. It can also be misguiding to express environmental threats in general terms. Actions must be based on precise specific symptoms with corresponding diagnoses. If the doctor discovers that the patient is lame and suffers from a high fever, it doesn’t help to predict imminent death. Maybe the lameness and the fever have different causes altogether! A successful cure would probably include two different diagnoses with separate medications. Several recent surveys of the general conception of the world have been made— one is Project Ignorance by Gapminder and Novus in Sweden. One of the questions asked was whether CO2 emissions per capita and year had increased or decreased in the world during the last 40 years. The surveyed group was large and representative in order to give a fairly accurate picture of the common opinion. No less than 90% believed that CO2 emissions had increased. The truth is that they haven’t increased at all. It is important that decision makers on all levels learn how to see the wood from the trees. Decisions based on false preconditions can halt technological development, and thus also the development of the economy, welfare, and a healthier environment. The flow of innovations in the climate and environmental areas is accelerating rapidly.

#### Destruction of cap cant overcome all systems of neolib - crises cause elites to double down on austerity measures and structural adjustment that hasten privatization.

Peck and Theodore 19 Jamie Peck is Canada Research Chair in Urban & Regional Political Economy and Professor of Geography at the University of British Columbia, Canada. He is the Managing Editor of Environment and Planning A and the convenor of the Summer Institute in Economic Geography. Nik Theodore is a Professor, Urban Planning and Policy, Associate Dean for Faculty Affairs and Research, CUPPA. “Still Neoliberalism?” The South Atlantic Quarterly, 118, April 2019

--Always assumed to be on its last legs but comes back - 2008 seen as comprehensive repudiation but still kicking

--“No alternative” is the reigning ideology – solution was austerity measures, taax cuts, structural adjsmtnet across the global South, challenges to public service provision/social security/healthcare, and financial elites got bailed out/deregulated

--Changes come and go – Dodd Frank and liquidity shock requirements got repealed – Syrizas in Greece still got austerity medicine and then wrecked in 2019 election by conservatives

That neoliberalism remains a circulating if contestable term, after decades of fitful and fickle usage, might be considered an achievement of sorts. Repeatedly disowned, denigrated, and dismissed, it nevertheless refuses to go away— at least circumstantial evidence, perhaps, that there is indeed “some there there.” This is not the place to revisit the extended genealogy of this troubled signifier and its contested historical geography (see Peck 2010; Cahill et al. 2018), except to observe that its turbulent fortunes, perhaps especially in the period since the Wall Street crash of 2008, have been revealing, while at the same time adding new layers of mystification and puzzlement to what has been a never-less-than-checkered history. What was to be a particularly heavyhanded reboot of this history began in the thick of that last crisis, a little over a decade ago. Perhaps unsurprisingly, the Wall Street crash was at the time widely interpreted as both a comprehensive repudiation and a system failure of neoliberalism by key figures on the left, from Eric Hobsbawm to Naomi Klein, who read the moment as terminal for the rolling project of financial deregulation and for the small-state consensus more generally, a view that was echoed by center-left economists such as Joseph Stiglitz and, although not in so many words, by the likes of Paul Krugman. Rather more surprisingly, there were also some mainstream politicians on the right and left flanks of the center ground, from France’s Nicolas Sarkozy to Australia’s Kevin Rudd, who in this uniquely disorientating context were moved to utter the hitherto unspeakable term, albeit only to declare its graceless exit (see Erlanger 2008; Rudd 2009). A common refrain across much of the commentary at the time, when real economies around the world and the credibility of those charged with their stewardship were both in freefall, was that the much-maligned state would be (had to be) making a comeback—in its own way echoing the arch-neoliberal conceits of governmental withdrawal and free-market governance, as if the state had ever really gone away. Projects of neoliberalization, it has been fairly clear all along to those willing to see, have never been synonymous with a simple diminution, or withdrawal, of the state, but instead have been variously concerned with its capture and reuse, albeit in the context of a generalized assault on social-welfarist or leftarm functions, coupled with an expansion of right-arm roles and capacities in areas like policing and surveillance, incarceration and social control, and the military. Nevertheless, this kind of state project was widely believed to have met its end a decade ago in the Wall Street meltdown.

What followed certainly did not align with the script of a terminal, once-and-for-all collapse of neoliberalism represented (again, somewhat misleadingly) as a bracketable “era” of free-market governance. As if to affirm Thatcher’s premature dismissal that there was “no alternative” to market rule, what followed in the wake of the financial crisis was, far from a retreat of neoliberalism, more like an audacious exercise in doubling down. Longterm austerity measures were (re)imposed in nations rich and poor, including those countries once regarded as the tutelary “heartlands” of the project, and its proving grounds, the United States and the United Kingdom. A new generation of structural adjustment programs targeted not only populations across the global South but also Greece, Detroit, and elsewhere. There were sustained, if scattergun, assaults on many of the old targets—public services, public budgets, and public servants; social movements and labor unions; social security, socialized healthcare, and public-education systems; and undeserving classes, the poor, and racialized others. And all the while, financial and corporate elites got away with slaps on the wrist, if that, only to be compensated in due course with yet more deregulation and further rounds of tax cuts. This unapologetic mutation of late neoliberalism, back as it were from its own grave, may have been shorn of anything approaching credible claims to moral leadership and intellectual authority, but in this reconstituted form it would present a yet more brutal face in its dogged defenses of political power and institutional dominance, soon to be coupled with brazen reassertions of the manifestly dubious case for corporate liberty, financial freedom, and social-state retrenchment.

#### Capitalism creates good subjectivities – it ingrains socially conscious and progressive values – prefer statistics.

Haidt 15 [Jonathan, social psychologist and professor at NYU. “How Capitalism Changes Conscience.” <https://www.humansandnature.org/culture-how-capitalism-changes-conscience>] JCH-PF

I agree that the planet can’t support ten billion people consuming at the level of today’s Americans. But I’d like to point out how capitalist development tends to change values and lifestyles in ways that might be reassuring to those who identify as left-leaning, politically, on social and environmental issues. The best research on how rising prosperity changes people comes from the World Values Survey (WVS), led by Ron Inglehart and Christian Welzel. The WVS has collected data on representative samples of people in many countries every six years or so since the early 1980s. They started with twenty countries and are now up to ninety-five countries in the sixth wave of research. They ask more than a hundred questions on topics such as religion, democracy, women’s rights, capitalism, and national priorities. After each wave, the authors compute the average scores within each country on each value question, and then they do a procedure called “multi-dimensional scaling” to create a two-dimensional map within which countries can be placed. The computer has no idea what the two dimensions mean—it simply aligns countries with similar value profiles, as you can see in the figure below. World Values Survey Graph Figure 2. The Inglehart-Welzel culture map. Based on wave 6 data, 2015. For more information see: www.worldvaluessurvey.org/WVSContents.jsp The authors of the WVS interpret the two dimensions, as follows: The vertical dimension runs from “traditional values” at the bottom (in which people report a high valuation on religion, ritual, hierarchy, and deference to authorities such as God and parents) to “secular rational” values, at the top (which are the opposite). The Horizontal dimension runs from “survival values” on the left (where people emphasize economic and physical security above all else) to “self-expression” values on the right (where people begin to value things beyond money—in particular they value autonomy and rights; they want the freedom to chart their own course in life, and get more out of life than financial wealth). The best way to understand the graph is to consider that nearly all societies used to be agricultural societies. Pre-industrial farming cultures generally have traditional and survival values (they cluster in the bottom left quadrant of the map). Life is hard and unpredictable, so you should do your duty, pray to the gods, and cling to your extended family for protection. But as countries industrialize and people leave the land and enter factories, wealth rises and values shift. Interestingly, countries don’t just move diagonally, from the poor quadrant (currently occupied by the Islamic and African nations) to the rich quadrant (anchored by Scandinavia, in the upper right). Rather, there is a two-step process. First, countries move upward, from traditional/survival values to secular/survival values. When money comes from fitting yourself into the routines of factory production, there’s little time or room for religious ritual. People express materialistic values in this quadrant—they want money, not just for security, but for the social prestige it can buy. This, I believe, is the step that gives capitalism a bad name in so many countries, particularly among intellectuals and artists. It sure looks like the capitalists are exploiting the workers (for the capitalists keep almost all of the surplus economic value created), and the workers are buying into it, going crazy for consumer goods, seemingly fueling the cycle of their own exploitation. But if you just wait a few generations, you usually get to the second step. Societies transition to more service-based jobs, which require (and foster) very different skills and values compared to factory jobs. Also, as societies get wealthier, life generally gets safer, not just due to reductions in disease, starvation, and vulnerability to natural disasters, but also due to reductions in political brutalization. People get rights. The net effect of rising security is to transform people’s values in ways that the modern political left should love. Welzel explains what happens when countries move to the right in Figure 2: Fading existential pressures open people’s minds, making them prioritize freedom over security, autonomy over authority, diversity over uniformity, and creativity over discipline. The generation raised with these “open minds” and “expressive values” starts caring about women’s rights, animal rights, gay rights, human rights, and environmental degradation. They start expecting more out of life than their parents did. When women have education and career prospects, they start having fewer children—so few, in fact, that if we set aside sub-Saharan Africa (which will be the last region to undergo this “demographic transition”), the population in the rest of the world will begin declining in just a few decades and will plummet in the twenty-second century. Shanghai City lights at night I recently returned from a three-month trip across Asia, and Welzel’s words were like the Rosetta stone for understanding the vast generation gap opening up in rapidly rising Asian nations. Most Asians under thirty-five have not experienced famine, war, or the fear of being abducted during the night. But most of their grandparents (or parents in some countries) grew up with such existential threats, and their values—the so called “Asian values” that prioritize authority over freedom—don’t sit well in the minds of today’s young people, who have moved to the right along the WVS spectrum. As people become richer and safer, their values change just as Welzel describes. Young people begin to demand more socially and environmentally responsible behavior from each other and from their governments. People and countries move in a direction that can only be described as progressive, or left leaning. That doesn’t mean that left-leaning political parties have an advantage—they often get out too far ahead, or too far leftward, of the average voter. And this process works only for social issues—not for economic issues such as taxation and the size of government. But the general consensus on social and environmental issues shifts leftward (politically), and this is my central point: Capitalism and the wealth it creates changes nature and humanity simultaneously. Any discussion of a “sustainable” or “resilient” future should acknowledge not only the devastation wrought by the industrial revolution and the consumer society but also the progressive environmental values, environmentally-friendly technologies, and shrinking populations that are the inevitable result of economic development. Capitalism changes conscience. Capitalism got us into this ecological mess, back when most people had materialist values and cared little for the environment. But as values and cultures shift toward post materialism all over the world, capitalism might just get us out.

#### Markets are good – they distribute goods and are responsible for a massive improvement in material quality of life for people around the world – that’s consistent with a focus on distributive energy justice.

Cooper 16 – (2016, Mark, “Energy Justice in Theory and Practice: Building a Pragmatic, Progressive Road Map,” T. Van de Graaf et al. (eds.), The Palgrave Handbook of the International

Lighting, heating, power and transportation are energy-intensive activities that receive a great deal of attention in the discussion of energy poverty and justice. Light, heat and power are central to defining the standard of living and, hence, the energy justice analysis. The direct link between energy consumption and income is also central to that discussion. Starting with the emergence of capitalism and accelerating in the industrial era, these four services exhibited a dramatic decline in cost, which made them affordable for an ever increasing number of people. I include three measures of the overall outcome of the economic development process—population growth, output per capita and energy consumption per capita. North ( 2005 , p. 89) points to population for an obvious reason: Statistical data … can get us part way in describing the magnitude of changes in the landscape. They provide dramatic evidence of the revolutionary changes in the human condition. Man’s subjugation of the uncertainties related to the physical environment is most clearly manifested in the explosive increases in population since the beginning of the modern age in the eighteenth century …. [T]his dramatic change along with major development in knowledge, technological progress, and scientifi c breakthroughs that contributed to this explosive development. The close correlation between GDP per capita and population is clear. GDP per capita and its growth have been the primary focal point of the analysis of economic growth and development for quite some time. The close correlation between GDP per capita and energy consumption per capita has also been a focal point of analysis. 12 The graph also identifi es several technologies that are widely seen as ushering in fundamental shifts in economic activity. An important and obvious point to be made is that these involve power and transportation technologies. Three of the recent examples involve energy—steam, internal combustion engine and electricity. Substituting mechanical power for human and animal power constitutes a major leap. The shift to electricity, considered a General Purpose Technology (Jovanovic and Rousseau 2005 ), 13 was one of the key factors in the second industrial revolution. Finally, at the bottom, the graph shows key developments in the structure of policy making. The nation-state was a key development that enabled the process of economic growth to gain traction (Acemoglu and Robinson 2012 , Figure 5). The Westphalian state was a key development. Eff orts to organize relations between states were the subject of a stream of treaties, but the graph shows the major eff orts to organize multilateral relations in the twentieth century. It is important to keep in mind that the graph is truncated. Prior to the year 1400, the rate of growth in the factors that affect material well-being was virtually nil. The data underscore the immense progress made in the material condition of society in the past three centuries. The dramatic change in the rates of progress is coincident with the emergence of capitalism and, in particular, the industrial revolution. The key message for the purpose of this analysis is strikingly clear. If we accept the proposition that human civilization dates back about 12 millennia, then the capitalist era is about 4% of human history. The industrial era covers the second half of that period. Measured by population, per capita income, heat, power, transportation, lighting, about 90 % of human progress has taken place in the most recent 2 % of human history, the very short period of capitalist industrialization. 14 The Virtuous Cycle of Progress and the Potential for Justice The progressive capitalist frame for a theory of justice launches from this dramatic change in the human condition. Obviously, it postdates much of the thinking of the ancient philosophers and early modern (preindustrial) political theorists who naturally make up a large part of the intellectual and cultural heritage of the Western concept of justice, as discussed at length the Global Energy Justice . There has been a dramatic transformation of the terrain of justice in three ways. • The capitalist industrial revolution has not only produced a dramatic improvement in the human condition, it has also created the possibility/ hope/expectation that there will be a massive and continuing improvement in the material well-being of people. Mankind has been freed from endless poverty and expects continuous economic growth and improvement in material conditions. • The improvement in material well-being comes with (and is in part dependent on) an increasing interdependence of economic activity (a refined division of labor and globalization). • Increasing wealth and improvements in communications (which are made possible by changes in energy technology, i.e. electrifi cation) have allowed more and more people to engage and participate more directly and forcefully in self-governance. In the capitalist industrial era we no longer have to treat human history as a kind of zero-sum, depleting resource story. The current generation should not be chastised for overconsuming scarce resources as long as it produces the means to maintain and improve the prospects of future generations. For the past quarter of a millennium, the groundwork for a much higher standard of living has been laid by each successive generation. Perez ( 2002 ) argues that capitalist development needs to be progressive in the sense I use the term. Technology is the fuel of the capitalist engine (Perez 2002 , p. 155). The potential for production and productivity grow this considerable. What is needed for its realization is a new space for the unhindered expansion of markets, favoring economics of scale and fostering a new wave of investment. this essentially means that adequate regulation … has to be established and an institutional framework favoring the real economy over the paper economy needs to be put in place … So the rhythm of potential grow this modulated by the qualitative dynamics of eff ective demand (Perez 2002 , pp. 114–116). Since market saturation is one of the main limits encountered in deploying the growth potential of a technology revolution, ensuring consistent extension of markets is the way to facilitate the pursuit of those goals. Consequently, it is progressive distribution and worldwide advances in development that can best guarantee a continued expansion of demand (Perez 2002 , p. 124). The impact of progressive capitalism on the terrain of justice involves more than simple progress. It also reflects the structure and process by which capitalism creates progress. Two key processes are involved. A discussion of these broad issues is beyond the scope of this chapter and has been off ered elsewhere (Cooper 2015 ). Here I emphasize two points that are central to the discussion of energy justice. • First, the explanation asserts that capitalism has given birth to recursive feedback loops, virtuous circles and cycles, of creative destruction and construction that creates a spiral of progress. • Second, the division of labor advances relentlessly, which ultimately increases human capital and promotes democratic equality. The stark contrast between the twenty-fi rst-century digital mode of production that is emerging and the twentieth-century mode of production described by Perez ( 2004 , 2009 ) underscores this process in several ways. First, the mass market production of the twentieth century was very much driven by fossil fuel consumption. The digital mode of production is much more dependent on electricity. Second, technologies are emerging to power more and more activity with electricity. Third, the heterogeneity of products creates niche markets. Fourth, the new division of labor is much more global and complex, shifting a great deal of activity and autonomy to the edge of the networks. The virtuous cycles of economic progress are interconnected in the sense that they tend to produce the key ingredients to solve the next great challenge that faces the economic system. Perez builds this into her model of capitalism by linking Schumpeter’s concept of creative destruction to the equally powerful process of creative construction. The result is a spiral of development. While analysis of this process is also beyond the scope of this chapter, one aspect of the current phase of development is critical to the discussion of energy justice. Industrial revolutions produce the ingredients necessary to solve the challenges that they faced. ^his is certainly true of the third industrial revolution in the energy sector, the electricity sector in particular. Dynamic technological development has produced the tools for the transformation of the energy sector that can solve the problem of climate change, while dealing with the challenge of energy justice. The central station model of base-load facilities combined with high cost peaking power and massive amounts of pollution, including greenhouse gas emissions, has been undercut by dramatically declining cost for distributed renewables and storage. The Information and Communications Technologies revolution has now made it possible to integrate and manage demand and supply rather than build central station, fossil-fuel-based powered facilities that passively follow load. Economic analyses of the cost of addressing energy justice that were off ered as it became a topic of increasing attention a decade ago are obsolete as a result of dramatic innovation and competition (Cooper 2014b ). An electricity sector centered on smaller scale, more flexible resources should facilitate and lower the cost of addressing both energy poverty and climate change. this technological revolution not only delivers aff ordable electricity, but it also does so in a manner that utilizes local resources and fosters local autonomy. As has always been the case, however, there is a struggle between the incumbent and the new entrant technologies over the speed and ultimate confi guration of the new system and which values will be expressed by the system. In short, the energy sector, in general, and the electricity sector, in particular, are at the “turning point” (Perez 2002 ) or “critical juncture” (Robinson and Acemoglu 2012 )\ of the “quarter-life crisis of the digital mode of production” (Cooper 2013b ). Political economy is about driving the economy in the right direction with policy. While the outcome is uncertain, the technological progress suggests that prospects are good for a successful deployment of the third industrial revolution. 3 A Broad Frame for Justice Building on the intense discussion of energy justice presented in the two books noted in the introduction, the theory of distributive justice off ered below is intended to provide a framework that makes the inclusion of progressive values and the policies that address energy poverty more compelling in the process of institutional recomposition that is taking place. Needless to say, this was the purpose of the Encyclical on climate change. The analysis makes several basic points that lead to an important conclusion— distributive justice is not an afterthought to a dynamic economic system, it is an indispensable, core ingredient of success: • Markets have a critical role as the driver of progress. • The state plays an equally critical role with policies to guide the economy toward a stable growth trajectory and in a progressive direction by placing constraints on property and the accumulation of power. • Egalitarian relationships are consistent with the need to advance the division of labor. • Autonomy and choice for individuals plays a critical role in promoting effi ciency and democracy. • The convergence and synergy between an inclusive market and an inclusive state is necessary for progress to continue.

#### Exploitation is inevitable without markets, but at worst it’s only a short run effect of global capitalism. There’s a built-in incentive for equality in markets.

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Even if pre-modern human history was essentially defined by poverty, social domination, and violent conflict, it is still common to blame the prevalence of such ills on modernity. Yet, as many have rightly pointed out, what is difficult to explain is not underdevelopment but that development was at all possible. According to a progressive reading of history, the key driver behind the great acceleration of the last centuries has been the emergence of broad social investments (Lindert, 2004). While both Marxists and libertarians may think otherwise, equality is crucial for modern capitalism to function as it provides both consumers who can afford the goods of industrialism and producers who can create ever more sophisticated things of value to others. Whatever short-term gains that may be obtained through exploitation or other unequal forms of exchange, they are dwarfed by the long-term gains that come with greater measures of equality as clearly illustrated by the resounding economic success of welfare capitalism over the course of the twentieth century (Berman, 2006). The same of course holds true in a globalised economy. Rich countries may benefit in the short run from low consumer prices of imported goods but, for every Bangladesh that becomes a South Korea, the value of rising global demand and new export markets is obviously much greater.

#### Causes mass death - only capitalism enables a peaceful solution to poverty.

Rainer Zitelmann 21. German historian and author of “The Rich in Public Opinion.” "Violence Is History’s Great Economic Leveler." National Interest. 6-30-2021. https://nationalinterest.org/feature/violence-history%E2%80%99s-great-economic-leveler-188974

Another question that is all too rarely asked is: What would be the price of eliminating inequality? In 2017, the renowned Stanford historian and scholar of ancient history Walter Scheidel presented an impressive historical analysis of this question: The Great Leveler: Violence and the History of Inequality from the Stone Age to the Twenty-First Century. He concludes that societies that have been spared mass violence and catastrophes have never experienced substantial reductions in inequality. Substantial reductions in inequality have only ever been achieved as the result of violent shocks, primarily consisting of war, revolution, state failure and systems collapse, and plague. According to Scheidel, the greatest levelers of the twentieth century did not include peaceful social reforms, they were the two world wars and the communist revolutions. More than 100 million people died in each of the two world wars and in the communist social experiments. Total War as a Great Leveler World War II serves as Scheidel’s strongest example of “total war” leveling. Take Japan: In 1938, the wealthiest 1 percent of the population received 19.9 percent of all reported income before taxes and transfers. Within the next seven years, their share dropped by two-thirds, all the way down to 6.4 percent. More than half of this loss was incurred by the richest tenth of that top bracket: their income share collapsed from 9.2 percent to 1.9 percent in the same period, a decline by almost four-fifths. The declared real value of the income of the largest 1 percent of estates in Japan’s population fell by 90 percent between 1936 and 1945 and by almost 97 percent between 1936 to 1949. The top 0.1 percent of all estates lost even more during this period, 93 and 98 percent, respectively. During this period, the Japanese economic system was transformed as state intervention gradually created a planned economy that preserved only a facade of free-market capitalism. Executive bonuses were capped, rental income was fixed by the authorities, and between 1935 and 1943 the top income tax rate in Japan doubled. Significant leveling also took place in other countries during wartime. According to Scheidel’s analysis, the two world wars were among the greatest levelers in history. The average percentage drop of top income shares in countries that actively fought in World War II as frontline states was 31 percent of the prewar level. This is a robust finding because the sample consists of a dozen countries. The only two countries in which inequality increased during this period were also those farthest from the major theaters of war (Argentina and South Africa). Low savings rates and depressed asset prices, physical destruction and the loss of foreign assets, inflation and progressive taxation, rent and price controls, and nationalization all contributed in varying degrees to equalization. The wealth of the rich was dramatically reduced in the two world wars, whether countries lost or won, suffered occupation during or after the war, were democracies or run by autocratic regimes. The economic consequences of the two world wars were, therefore, devastating for the rich—a fact that stands in direct opposition to the thesis that it was capitalists that instigated the wars in pursuit of their own economic interests. Contrary to the popular perception that the lower classes suffered most in the wars, in economic terms it was the capitalists who were the biggest losers. Incidentally, the left-wing economist Thomas Piketty comes to a similar conclusion. In his book Capital in the Twenty-First Century, he argues that progressive taxation in the twentieth century was primarily a product of the two world wars and not of democracy. Poverty is Eliminated Peacefully The price of reducing inequality has thus usually involved violent shocks and catastrophes, whose victims have been not only the rich but millions and millions of people. Neither nonviolent land reforms nor economic crises nor democratization has had as great a leveling effect throughout recorded history as these violent upheavals. If the goal is to distribute income and wealth more equally, says historian Scheidel, then we simply cannot close our eyes to the violent ruptures that have so often proved necessary to achieve that goal. We must ask ourselves whether humanity has ever succeeded in equalizing the distribution of wealth without considerable violence. Analyzing thousands of years of human history, Scheidel’s answer is no. This may be a depressing finding for many adherents of egalitarian ideas. However, if we shift perspective, and ask not “How do we reduce inequality?” but “How do we reduce poverty?” then we can provide an optimistic answer: Not violent ruptures of the kind that led to reductions of inequality, but very peaceful mechanisms, namely innovations and growth, brought about by the forces of capitalism, have led to the greatest declines in poverty. Or, to put it another way: The greatest “levelers” in history have been violent events such as wars, revolutions, state and systems collapses, and pandemics, but the greatest poverty reducer in history has been capitalism. Before capitalism came into being, most of the world’s population was living in extreme poverty—in 1820, the rate stood at 90 percent. Today, it’s down to less than 10 percent. And the most remarkable aspect of all this progress is that, in the recent decades since the end of communism in China and other countries, the decline in poverty has accelerated to a pace unmatched in any previous period of human history. In 1981, the rate was still 42.7 percent; by 2000, it had fallen to 27.8 percent, and in 2021 it was only 9.3 percent.

#### No consistent link between economic freedom and inequality - capitalism net alleviates poverty.

Lazear 20, \*Edward P. Lazear was the Morris Arnold and Nona Jean Cox Senior Fellow at the Hoover Institution and the Davies Family Professor of Economics at Stanford University's Graduate School of Business.;(May 26th, 2020, “Socialism, Capitalism, And Income”, https://www.hoover.org/research/socialism-capitalism-and-income-0)

First, there is no evidence that, as a general matter, high-income groups benefit more from a move toward capitalism than low-income groups. The effect of changing state ownership and economic freedom on income is not larger for the rich than for the poor. Second, income growth is positively correlated across deciles. The situation is closer to a rising tide lifting all boats than to the fat man becoming fat by making the thin man thin. Finally, there is no consistent evidence across the large number of countries and time periods examined of any strong and widespread link between income growth and inequality. There are examples, like China, where income growth was coupled with large increases in inequality, but others like Chile, where strong income growth came about without much change in inequality, and South Korea, where inequality declined slightly as economic freedom and income grew over time. Transfers and redistribution present the most complex picture of state involvement. Transfers from rich to poor through the tax system are a luxury that only rich countries seem to be able to afford and are not a product of socialism per se. There is a very high correlation (-.67 in 2010) between contemporaneous median income and the low transfer index across countries. High transfer countries like those in Scandinavia and other rich parts of Europe have primarily private ownership and economic freedom more like what prevails in the United States than in socialist countries. The poor definitely—and unsurprisingly—seem to benefit from higher transfers at a point in time. But the high taxes that generally go along with transfers do result in low income growth for median and high-income groups within a given country over time. A similar pattern exists with respect to rule of law. The contemporaneous relation of rule of law to income is strong, but this seems to reflect the fact that countries that are wealthy demand rule of law rather than the reverse. Low state ownership at a point in time is a more consistent predictor of income growth within a country over the following decade than is rule of law at that same point in time. Finally, not all transitions are alike. The Eastern European countries and the former Soviet Union saw large transitory declines in incomes for all groups during their transition to the market and the poor were more adversely affected than the rich. In China, and to a lesser extent India, market reforms brought about almost uninterrupted income growth. Venezuela provides an opposite example, moving from a more market-oriented economy to a socialist one. Inequality fell slightly, but income growth was low for all groups and the poor have not regained the income levels that they had at the peak during the 1990s. The evidence suggests that it is economic shocks rather than transitions that disproportionately affect the poor. Transition from a command structure to the market is but one example of such a shock. In sum, most income groups benefit from moves away from socialist command structures to free-market capitalism, but transfers can at least in the short run improve the well-being of those worst off.