## 1

#### Interpretation and Violation: The affirmative must defend the desirability of the hypothetical implementation of a just government recognizing an unconditional worker’s right to strike. This doesn’t entail a specific method of engaging in the topic, just that the affirmative must derive offense from a legal recognition of it. They don’t.

#### Resolved requires policy action

Louisiana State Legislature (<https://www.legis.la.gov/legis/Glossary.aspx>) Ngong

**Resolution**

**A legislative instrument** that generally is **used for** making declarations, **stating policies**, and making decisions where some other form is not required. A bill includes the constitutionally required enacting clause; a resolution **uses the term "resolved".** Not subject to a time limit for introduction nor to governor's veto. ( Const. Art. III, §17(B) and House Rules 8.11 , 13.1 , 6.8 , and 7.4 and Senate Rules 10.9, 13.5 and 15.1)

**Vote Neg –**

#### Limits – aff gets to choose literally anything they want, which justifies infinite variations of affirmatives that are impossible for the neg to prep against, ensuring they’ll always be ahead and use competition standards like perms to erase neg ground. Key to fairness since we need to predict arguments to be able to make viable responses. Additionally, cutting negs to every possible aff wrecks small schools, which has a disparate impact on under-resourced and minority debaters – kills inclusion which is a prerequisite to engaging in your method and turns case.

#### TVA- your aff just with government implementation- any DA to it proves workable clash under our interp

#### Testing – topical debate allows in depth analysis of tangible solutions for real world problems. Abstracting to arbitrary advocacies deteriorates from those skills, making debate meaningless. They turn the debate into a monologue where the negative debater is robbed of opportunities to learn which turns aff solvency to their method since I can’t engage. Advocacy skills controls the internal link to education and outweighs on portability since it is applicable to the real world.

#### Fairness is an impact –

#### 1] probability – your ballot can’t solve their impacts but it can solve mine – debate can’t alter subjectivity, but can rectify skews in this round

#### 2] internal link turns every impact – a limited topic promotes in-depth research and engagement which is necessary to access all of their education

#### 3] comes before substance – deciding any other argument in this debate cannot be disentangled from our inability to prepare for it – any argument you think they’re winning is a link, not a reason to vote for them, since it’s just as likely that they’re winning it because we weren’t able to effectively prepare to defeat it. This means they don’t get to weigh the aff and proves you should be epistemically suspect of their truth claims.

#### No impact turns or RVIs

#### [1] Perfcon – if T’s bad and you vote for them on that arg, you’re voting on T.

#### [2] Substance – if T’s bad then we should try debating on substance – impact turns force me to go for T since I need to defend my position.

#### Theory is competing interps – a) reasonability is arbitrary and so is any brightline they set, b) norming – competing interps causes a race to the top where we find the best possible norm for debate instead of setting a brightline and testing how abusive we can be without violating.

#### Drop the debater on T – a) indicts the aff advocacy so drop the argument would be dropping the aff anyways, b) deter future abuse and set good norms.

## 2

#### Permissibility and presumption negate – [a] the resolution indicates the aff has to prove an obligation, and permissibility would deny the existence of an obligation [b] Statements are more often false than true because any part can be false. This means you negate if there is no offense because the resolution is probably false.

#### Ethics must begin a priori:

#### [1] Uncertainty – our experiences are inaccessible to others which allows people to say they don’t experience the same, however a priori principles are universally applied to all agents.

#### [2] Bindingness – I can keep asking “why should I follow this” which results in skep since obligations are predicated on ignorantly accepting rules. Only reason solves since asking “why reason?” requires reason which concedes its authority and equally proves agency as constitutive

#### That means we must universally will maxims— any non-universalizable norm justifies someone’s ability to impede on your ends.

#### Thus, the standard is consistency with the categorical imperative.

#### Prefer the standard: [a] freedom is the key to the process of justification of arguments. Willing that we should abide by their ethical theory presupposes that we own ourselves in the first place. Thus, it is logically incoherent to justify the neg arguments/standard without first willing that we can pursue ends free from others

#### Negate:

#### 1] Strikes violate individual autonomy by exercising coercion.

Gourevitch 18 [Alex; Brown University; “The Right to Strike: A Radical View,” American Political Science Review; 2018; [https://sci-hub.se/10.1017/s0003055418000321]](https://sci-hub.se/10.1017/s0003055418000321%5d//SJWen) Justin

\*\*Edited for ableist language

Every liberal democracy recognizes that workers have a right to strike. That right is protected in law, sometimes in the constitution itself. Yet strikes pose serious problems for liberal societies. They involve violence and coercion, they often violate some basic liberal liberties, they appear to involve group rights having priority over individual ones, and they can threaten public order itself. Strikes are also one of the most common forms of disruptive collective protest in modern history. Even given the dramatic decline in strike activity since its peak in the 1970s, they can play significant roles in our lives. For instance, just over the past few years in the United States, large illegal strikes by teachers ~~paralyzed~~ froze major school districts in Chicago and Seattle, as well as statewide in West Virginia, Oklahoma, Arizona, and Colorado; a strike by taxi drivers played a major role in debates and court decisions regarding immigration; and strikes by retail and foodservice workers were instrumental in getting new minimum wage and other legislation passed in states like California, New York, and North Carolina. Yet, despite their significance, there is almost no political philosophy written about strikes.1 This despite the enormous literature on neighboring forms of protest like nonviolence, civil disobedience, conscientious refusal, and social movements.

The right to strike raises far more issues than a single essay can handle. In what follows, I address a particularly significant problem regarding the right to strike and its relation to coercive strike tactics. I argue that strikes present a dilemma for liberal societies because for most workers to have a reasonable chance of success they need to use some coercive strike tactics. But these coercive strike tactics both violate the law and infringe upon what are widely held to be basic liberal rights. To resolve this dilemma, we have to know why workers have the right to strike in the first place. I argue that the best way of understanding the right to strike is as a right to resist the oppression that workers face in the standard liberal capitalist economy. This way of understanding the right explains why the use of coercive strike tactics is not morally constrained by the requirement to respect the basic liberties nor the related laws that strikers violate when using certain coercive tactics.

#### 3] The aff homogenizes all strikes as an unconditional right which is unethical.

Loewy 2K, Erich H. "Of healthcare professionals, ethics, and strikes." Cambridge Q. Healthcare Ethics 9 (2000): 513. (Erich H. Loewy M.D., F.A.C.P., was born in Vienna, Austria in 1927 and was able to escape first to England and then to the U.S. in late 1938. He was initially trained as a cardiologist. He taught at Case Western Reserve and practiced in Cleveland, Ohio. After 14 years he devoted himself fully to Bioethics and taught at the University of Illinois for 12 years. In 1996 he was selected as the first endowed Alumni Association Chair of Bioethics at the University of California Davis School of Medicine and has taught there since.) JG

It would seem then that the ethical considerations for workers striking in an industry such as a shoe factory or a chain grocery store are quite different from the ethical considerations for workers in sanitation, police, or fire departments, or for professionals such as teachers or those involved directly in healthcare. Even in the latter “professional” category, there are subtle but distinct differences of “rights” and obligations. However, one cannot conclude that for workers in essential industries strikes are simply ethically not permissible, whereas they are permissible for workers in less essential industries. Strikes, by necessity, injure another, and injuring another cannot be ethically neutral. Injuring others is prima facie ethically problematic—that is, unless a good and weighty argument for doing so can be made, injuring another is not ethically proper. Striking by a worker, in as much as doing so injures another or others, is only a conditional right. A compelling ethical argument in favor of striking is needed as well as an ethical argument in favor of striking at the time and in the way planned. It remains to delineate the conditions under which strikes, especially strikes by workers in essential industries and even more so by persons who consider themselves to be “professionals,” may legitimately proceed and yet fulfill their basic purpose.

#### 4] Free-riding: strikes are a form of free-riding since those who don’t participate still reap the benefits.

Dolsak and Prakash 19 [Nives and Aseem; We write on environmental issues, climate politics and NGOs; “Climate Strikes: What They Accomplish And How They Could Have More Impact,” 9/14/19; Forbes; <https://www.forbes.com/sites/prakashdolsak/2019/09/14/climate-strikes-what-they-accomplish-and-how-they-could-have-more-impact/?sh=2244a9bd5eed>] Justin

While strikes and protests build solidarity among their supporters, they are susceptible to collective action problems. This is because **the goals that strikers pursue tend to create non-excludable benefits**. That is, benefits such as climate protection can be enjoyed by both strikers and non-strikers. Thus, large participation in climate strikes will reveal that in spite of free-riding problems, a large number of people have a strong preference for climate action.

## 3

#### CP: A just government ought to recognize an unconditional right of workers’ souls to strike except for the souls of police officers.

Samantha **Michaels**, Sept/Oct-**2020**, *Samantha Michaels is a reporter at Mother Jones,* "If you want to defund the police, start with their unions," Mother Jones, https://www.motherjones.com/crime-justice/2020/08/police-unions-minneapolis/ //SR

As the year 1990 came to an end, a fight broke out during a New Year’s Eve celebration at the Juke Box Saturday Night bar in downtown Minneapolis. A 21-year-old white student grabbed Michael Sauro from behind. Sauro, an off-duty white police officer working as a bouncer, handcuffed the man, dragged him to the kitchen, and then repeatedly drove his steel-toed paratrooper boots into his groin and head. Sauro had been a cop for 15 years and had a long record of citizen complaints against him, most of them about excessive force. “I was dealing with animals,” he would later tell a reporter when asked about the people he’d beaten. “I mean, my dog is more human than them.” But he had never been disciplined. Four years after the bar fight, a court found that Sauro had used excessive force against the student, and it awarded $700,000 to him, then the largest civil award settlement in the city’s history. By then, Sauro had racked up 32 citizen complaints, though none had been sustained. The mayor finally fired him. But his absence from the police department was short-lived. With the help of his union, the Police Officers’ Federation of Minneapolis, Sauro appealed to an arbitrator, who soon forced the city to rehire him with back pay. “These arbitrators always rule in favor of the police. It’s absolute and utter BS,” says Robert Bennett, an attorney who represented the victim and has sued the department dozens of times. A few months later, the police chief fired Sauro a second time for punching a Black student in the face near the Juke Box Saturday Night bar after the same New Year’s Eve party. Again, an arbitrator forced the department to rehire him. Then-Mayor Sharon Sayles Belton expressed her disappointment. “Allegations of abuse around Mike Sauro do not help create a climate of trust and respect,” she said. Sauro was rehired in 1997 and stayed on the force for nearly two more decades. Eventually, his bosses put him in charge of the sex crimes unit, where women accused his team of failing to investigate some of their rape cases. In 2018, Amber Mansfield said he ignored her complaint that a man she knew had choked and raped her. “Sometimes victims have to take some responsibility for their decisions and their actions,” he told a reporter at the time. In 2019, after Sauro retired, an internal review found 1,700 untested rape kits at the department dating back to the 1990s. (Sauro disputes this finding.) Three decades after Sauro beat the man at the bar, the Minneapolis police union is fighting to protect another set of officers accused of violence. On Memorial Day, Derek Chauvin knelt on the neck of George Floyd for nearly nine minutes, even after Floyd said he couldn’t breathe and went unconscious. Three officers who were with Chauvin never intervened. As Floyd’s death thrust the nation into protest, Mayor Jacob Frey described the city’s police union as a “nearly impenetrable barrier” to disciplining officers for racism and other misconduct, partly because of the legal protections it bargained for. “We do not have the ability to get rid of many of these officers that we know have done wrong in the past,” Frey told the podcast the Daily in June. Police unions are at the center of questions about what will happen to Chauvin and the three officers who watched as Floyd was suffocated. And they are also key to understanding why officers across the country escape discipline time and again after beating or killing people. As other labor unions have shrunk in recent years, membership in police unions has remained high. While the Black Lives Matter movement encouraged people to document police brutality on camera and demand accountability, police unions, which now have hundreds of thousands of members, have pushed back in almost every way imaginable—by overturning firings, opposing the use of body cameras, and lobbying to keep their members’ disciplinary histories sealed. All of which can make officers feel invincible when they commit acts of violence. A forthcoming research paper from the University of Victoria in Canada found that after police officers formed unions—generally between the 1950s and the 1980s—there was a “substantial” increase in police killings of Black and Brown people in the United States. Within a decade of gaining collective bargaining rights, officers killed an additional 60 to 70 civilians of all races per year collectively, compared with previous years, an increase that researchers say may be linked to officers’ belief that their unions would protect them from prosecution. A working paper from the University of Chicago found that complaints of violent misconduct by Florida sheriffs’ offices jumped 40 percent after deputies there won collective bargaining rights in 2003. Police unions, like all unions, were designed to protect their own. But unlike other labor unions, they represent workers with the state-sanctioned power to use deadly force. And they have successfully bargained for more job security than what’s afforded to most workers, security they can often rely on even after committing acts of violence that would likely get anyone else fired or locked up. And yet, in the broader push to reform the criminal justice system, police unions have remained largely untouchable, both by the broader labor movement, which has avoided criticizing their bargaining process, and by politicians on both sides of the aisle, who have accepted millions of dollars in campaign donations from them. Democrats don’t want to come down against unions, and Republicans, who are normally happy to attack unions, don’t want to mess with the police. When former Wisconsin Gov. Scott Walker destroyed collective bargaining rights for his state’s public sector unions in 2011, he left police unions mostly unscathed. The AFL-CIO, the country’s largest labor coalition, has referred to police unions as rightful beneficiaries in the movement for workers’ rights.

#### Strikes empower unions.

Erin **Corbett**, 6-23-**2020**, *Freelance journalist and writer on politics, feminism, and social justice. Seen in MSN, Yahoo, VICE, Fortune, People Magazine, Bustle, The Daily Dot, Alternet, Money, The Trace, Rewire.News, Daily Hampshire Gazette, and more*. "Police Are Going On Strike. Should Anyone Care?," https://www.refinery29.com/en-us/2020/06/9874441/police-going-on-strike-walkout-reason //SR

Atlanta police officers across the city last week staged a “sick-out” in protest after the Fulton County district attorney brought charges against the two officers who shot and killed Rayshard Brooks. The Atlanta police department did not confirm how many people called in sick, but “confirmed a larger-than-usual number of absent officers.” In three of the police department’s six zones, officers were not responding to calls, and many refused to leave their stations unless another officer required backup. A similar scene played out in Buffalo, New York where 57 officers quit an elite police unit in protest after two officers were suspended for pushing an elderly man during an anti-police brutality protest. Likewise, in Philadelphia and New York City police are rumored to start calling in sick during protests, and organizing work slowdowns. As protests continue nationwide against racist policing, with calls now to defund and abolish policing — and as officers face punishment for using lethal force against civilians and brutalizing protesters — more and more of them are in talks to walk off the job. In effect, the cops are protesting the protests against them. But what’s the point of protests led by police officers, and what do they actually accomplish, especially amid ongoing national calls to abolish policing altogether? Police have organized work slowdowns in the past in response to institutional action being taken against them. As The Daily Beast reports, when local governments take action against police over misconduct, particularly when these incidents are caught on video and go viral, “cops can feel like they’re being punished for carrying out orders in a way their superiors secretly condoned.” In other words, they feel like scapegoats for following orders and then being met with public pressure to be held accountable. Work slowdowns are generally organized to sway public opinion of the police force. But in a moment of national unrest in response to police brutality, a police-led protest may not be the best tactic to gain public support. “It doesn’t seem to be a particularly well thought through strategy,” Dennis Kenney, a professor of criminal justice at John Jay College told Refinery29. “The idea behind it is to express dissatisfaction with the way they perceive they are being treated. It seems a bit of a misplaced activity this time.” Kenney further explained that police-organized protests at this moment is a “very different ballgame from the perspective of their unions” because they aren’t focused around a labor dispute. Instead, the entire country is engaging in a conversation about the very existence of these agencies. “It seems self-defeating,” said Kenney. Police have historically organized strikes for a variety of reasons and with different results. Perhaps the most famous police protest was the Boston police strike in 1919 when 80 percent of the city’s police protested to organize a union. During the work stoppage the city experienced more robberies.

#### Solves the aff- no every worker key ev- and police will shut down social movements and unions if they have right to strike

#### Yes offense under their framing- police unions are a product of a capitalist society that causes massive violence to black and brown bodies- their souls are corrupt and full of hate.

## Case

#### Extinction o/w under your FW- it’s the biggest form of violence because it kills souls, prevents connection between bodies and affective relations, comes as a prior question to unconscious death because it’s a question of how our brains are oriented

#### Cap is good:

#### 1] It’s sustainable – data proves we’re entering the golden age

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

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

#### 2] Tech dematerialization secures sustainability.

**McAfee 19**, \*Andrew Paul McAfee, a principal research scientist at MIT, is cofounder and codirector of the MIT Initiative on the Digital Economy at the MIT Sloan School of Management; (2019, “More from Less: The Surprising Story of How We Learned to Prosper Using Fewer Resources and What Happens Next”, https://b-ok.cc/book/5327561/8acdbe)

There is **no shortage** of examples of dematerialization. I chose the ones in this chapter because they illustrate a set of fundamental principles at the intersection of business, economics, innovation, and our impact on our planet. They are:

We do want more all the time, but **not more resources**. Alfred Marshall was right, but William Jevons was wrong. Our wants and desires keep growing, evidently without end, and therefore so do our economies. But our use of the earth’s resources **does not**. We do want more beverage options, but we don’t want to keep using more aluminum in drink cans. We want to communicate and compute and listen to music, but we don’t want an arsenal of gadgets; we’re happy with a single smartphone. As our population increases, we want more food, but we don’t have any desire to consume more fertilizer or use more land for crops.

Jevons was correct at the time he wrote that total British demand for coal was increasing even though steam engines were becoming much more efficient. He was right, in other words, that the price elasticity of demand for coal-supplied power was greater than one in the 1860s. But he was wrong to conclude that this would be permanent. Elasticities of demand can change over time for several reasons, the most fundamental of which is **technological change**. Coal provides a clear example of this. When fracking made natural gas much cheaper, total **demand** for coal in the United States **went down** even though its price decreased.

With the help of **innovation** and **new technologies**, economic growth in America and other rich countries—growth in all of the wants and needs that we spend money on—has become **decoupled** from resource **consumption**. This is a recent development and a **profound** one.

Materials cost money that companies locked in competition would rather **not spend**. The root of Jevons’s mistake is simple and **boring**: resources cost **money**. He realized this, of course. What he didn’t sufficiently realize was how strong the **incentive** is for a company in a contested market to **reduce** its spending on **resources** (or anything else) and so eke out a bit more profit. After all, a penny saved is a penny earned.

Monopolists can just pass costs on to their customers, but companies with a lot of competitors can’t. So American farmers who battle with each other (and increasingly with tough rivals in other countries) are eager to cut their spending on land, water, and fertilizer. Beer and soda companies want to minimize their aluminum purchases. Producers of magnets and high-tech gear run away from REE as soon as prices start to spike. In the United States, the 1980 Staggers Act removed government subsidies for freight-hauling railroads, forcing them into **competition** and **cost cutting** and making them all the more eager to not have expensive railcars sit idle. Again and again, we see that **competition** spurs **dematerialization**.

There are multiple paths to dematerialization. As profit-hungry companies seek to use fewer resources, they can go down four main paths. First, they can simply find ways to use **less** of a **given material**. This is what happened as beverage companies and the companies that supply them with cans teamed up to use less aluminum. It’s also the story with American farmers, who keep getting bigger harvests while using less land, water, and fertilizer. Magnet makers found ways to use fewer rare earth metals when it looked as if China might cut off their supply.

Second, it often becomes possible to **substitute** one resource for **another**. Total US coal consumption started to decrease after 2007 because fracking made natural gas more attractive to electricity generators. If nuclear power becomes more popular in the United States (a topic we’ll take up in chapter 15), we could use both less coal and less gas and generate our electricity from a small amount of material indeed. A kilogram of uranium-235 fuel contains approximately 2–3 million times as much energy as the same mass of coal or oil. According to one estimate, the total amount of energy that humans consume each year could be supplied by just seven thousand tons of uranium fuel.

Third, companies can use **fewer molecules** overall by making better use of the materials they **already own**. Improving CNW’s railcar utilization from 5 percent to 10 percent would mean that the company could cut its stock of these thirty-ton behemoths in half. Companies that own expensive physical assets tend to be fanatics about getting as much use as possible out of them, for clear and compelling financial reasons. For example, the world’s commercial airlines have improved their load factors—essentially the percentage of seats occupied on flights—from 56 percent in 1971 to more than 81 percent in 2018.

Finally, some materials get replaced by **nothing** at all. When a telephone, camcorder, and tape recorder are separate devices, three total microphones are needed. When they all collapse into a smartphone, only one microphone is necessary. That smartphone also uses no audiotapes, videotapes, compact discs, or camera film. The iPhone and its descendants are among the world champions of dematerialization. They use vastly less metal, plastic, glass, and silicon than did the devices they have replaced and don’t need media such as paper, discs, tape, or film.

If we use more renewable energy, we’ll be replacing coal, gas, oil, and uranium with **photons** from the **sun** (solar power) and the **movement** of **air** (wind power) and water (hydroelectric power) on the earth. All three of these types of power are also among dematerialization’s **champions**, since they use up essentially **no resources** once they’re up and running.

I call these four paths to dematerialization slim, swap, optimize, and evaporate. They’re not mutually exclusive. Companies can and do pursue all four at the same time, and all four are going on all the time in ways both obvious and subtle.

Innovation is **hard** to **foresee**. Neither the fracking revolution nor the world-changing impact of the iPhone’s introduction were well understood in advance. Both continued to be underestimated even after they occurred. The iPhone was introduced in June of 2007, with no shortage of fanfare from Apple and Steve Jobs. Yet several months later the cover of Forbes was still asking if anyone could catch Nokia.

Innovation is not **steady** and **predictable** like the orbit of the Moon or the accumulation of interest on a certificate of deposit. It’s instead inherently jumpy, uneven, and **random**. It’s also **combinatorial**, as Erik Brynjolfsson and I discussed in our book The Second Machine Age. Most new technologies and other innovations, we argued, are combinations or recombinations of preexisting elements.

The iPhone was “just” a cellular telephone plus a bunch of sensors plus a touch screen plus an operating system and population of programs, or apps. All these elements had been around for a while before 2007. It took the vision of Steve Jobs to see what they could become when combined. Fracking was the combination of multiple abilities: to “see” where hydrocarbons were to be found in rock formations deep underground; to pump down pressurized liquid to fracture the rock; to pump up the oil and gas once they were released by the fracturing; and so on. Again, none of these was new. Their effective combination was what changed the world’s energy situation.

Erik and I described the set of innovations and technologies available at any time as **building blocks** that ingenious people could combine and recombine into useful new configurations. These new configurations then serve as more blocks that later innovators can use. Combinatorial innovation is exciting because it’s unpredictable. It’s not easy to foresee when or where powerful new combinations are going to appear, or who’s going to come up with them. But as the number of both building blocks and innovators increases, we should have **confidence** that more breakthroughs such as fracking and smartphones are ahead. Innovation is highly decentralized and largely uncoordinated, occurring as the result of **interactions** among **complex** and **interlocking** social, technological, and economic systems. So it’s going to keep surprising us.

As the Second Machine Age progresses, dematerialization **accelerates**. Erik and I coined the phrase Second Machine Age to draw a contrast with the Industrial Era, which as we’ve seen transformed the planet by allowing us to overcome the limitations of muscle power. Our current time of great progress with all things related to **computing** is allowing us to **overcome** the **limitations** of our mental power and is **transformative** in a different way: it’s allowing us to **reverse** the Industrial Era’s bad habit of taking **more** and **more** from the earth every year.

Computer-aided design tools help engineers at packaging companies design generations of aluminum cans that keep getting lighter. Fracking took off in part because oil and gas exploration companies learned how to build **accurate** computer **models** of the rock formations that lay deep underground—models that predicted where hydrocarbons were to be found.

Smartphones took the place of many separate pieces of gear. Because they serve as GPS devices, they’ve also led us to print out many fewer maps and so contributed to our current trend of using less paper. It’s easy to look at generations of computer paper, from 1960s punch cards to the eleven-by-seventeen-inch fanfold paper of the 1980s, and conclude that the Second Machine Age has caused us to chop down ever more trees. The year of peak paper consumption in the United States, however, was 1990. As our devices have become more capable and interconnected, always on and always with us, we’ve sharply turned away from paper. Humanity as a whole probably hit peak paper in 2013.

As these examples indicate, computers and their kin help us with all four paths to **dematerialization**. Hardware, software, and networks let us slim, swap, optimize, and evaporate. I contend that they’re the **best tools** we’ve **ever invented** for letting us tread more **lightly** on our planet.

All of these principles are about the **combination** of technological **progress** and **capitalism**, which are the first of the two pairs of forces causing **dematerialization**.

#### 3] Yes absolute decoupling – consumption is declining

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

As both population and economic growth rates flatten out over the course of this century, it is likely that resource-productivity gains will overtake global economic growth rates, resulting in falling global demand for material resources over the long term. As a 2019 Breakthrough Institute report showed, global pasture land, the largest single human use of land, peaked in 2000 and continues to decline even as global beef production continues to rise. In a 2013 paper, Ausubel and colleagues argued that global cropland too appears close to peaking, even as global crop production continues to rise.

As with all growth curves, peak consumption of various material resources is not guaranteed to last. These trends could represent the top of a bell curve, the bottom of a new S-curve, or just a long plateau. But what they do demonstrate is that absolute decoupling of resources from economic growth is possible, even given a global economy today that still features robust population and income growth.

#### 4] The alternative locks in warming – its Try-Or-Die.

**Klein** 8/31/**21**, Opinion Writer at the New York Times, former Founder of Vox, and author of “Why We’re Polarized” (Ezra, “Transcript: Ezra Klein Answers Listener Questions” from ‘The Ezra Klein Show’ podcast, *The New York Times*, <https://www.nytimes.com/2021/08/31/podcasts/transcript-ezra-klein-ask-me-anything.html>, Accessed 09-1-2021)

But now let me talk about degrowth more in the terms of it is a direct political project, which is as an answer to climate change. I would cut this into a few pieces. Is degrowth necessary for addressing climate change? Is it the fastest way to address climate change? And is it desirable? It has to be at least one of those things to be the strategy you’d want to take. And I don’t think it is. Let’s start with necessary. Many countries in Europe, even the United States, are **growing while reducing their carbon footprint**. Now, you could say they’re not doing so fast enough depending on the country. But they could all do so much faster if there was enough political will to deploy more renewable technology, to tax carbon, to do a bunch of things that we have not been able to pass. So it is clearly true that we **can decouple growth and energy usage**. Hickel, to be fair, will say that that may be true. But given the speed at which we need to act, we can’t just be deploying renewable energy technology. It would also help the situation if we stopped using as much through material consumption. That is, I think, conceptually true and politically false. I mean, let’s just state that **speed** is, first and foremost, a **political problem**. There is a delta between where we are right now in terms of what we are doing on climate change and where we could be. That delta is big, and that delta gets bigger every year because it gets harder every year. And the time we have to act before we start getting some of the really truly catastrophic feedback loops in play is **shortening**. So you’re now talking here about the speed at which you can move politics. So for something to be faster, it doesn’t just need to be faster if you implemented it. It needs to be something you can implement such it **accelerates the politics** of radical climate action. And that’s where I think **degrowth** completely **falls apart**. And I have tried to look for the answer people give on this, and I’ve never found one that is convincing.

#### 5] People use low-cost fuels instead of renewables.

George MONBIOT 9. Fellowship and Professorships, Oxford. “Is There Any Point in Fighting to Stave Off Industrial Apocalypse.” *Guardian*. August 17. <http://www.guardian.co.uk/commentisfree/cif-green/2009/aug/17/environment-climate-change>.

The problem we face is not that we have too little fossil fuel but too much. As oil declines, economies will switch to tar sands, shale gas and coal; as accessible coal declines they’ll switch to ultra-deep reserves (using underground gasification to exploit them) and methane clathrates. The same probably applies to almost all minerals: we will find them, but exploiting them will mean trashing an ever greater proportion of the world’s surface. We have enough non-renewable resources of all kinds to complete our wreckage of renewable resources: forests, soil, fish, fresh water, benign weather. Collapse will come one day, but not before we have pulled everything else down with us.¶ And even if there were an immediate economic cataclysm, it’s not clear that the result would be a decline in our capacity for destruction. In east Africa, for example, I’ve seen how, when supplies of paraffin or kerosene are disrupted, people don’t give up cooking; they cut down more trees. History shows us that wherever large-scale collapse has occurred, psychopaths take over. This is hardly conducive to the rational use of natural assets.

#### 6] Capitalism solves war – its anti-imperialist.

Mousseau 19, Michael. "The end of war: How a robust marketplace and liberal hegemony are leading to perpetual world peace." International Security 44.1 (2019): 160-196. Props to DML for finding. (Professor in the School of Politics, Security, and International Affairs at the University of Central Florida)//Elmer

Is war becoming obsolete? There is wide agreement among scholars that war has been in sharp decline since the defeat of the Axis powers in 1945, even as there is little agreement as to its cause.1 Realists reject the idea that this trend will continue, citing states' concerns with the “security dilemma”: that is, in anarchy states must assume that any state that can attack will; therefore, power equals threat, and changes in relative power result in conflict and war.2 Discussing the rise of China, Graham Allison calls this condition “Thucydides's Trap,” a reference to the ancient Greek's claim that Sparta's fear of Athens' growing power led to the Peloponnesian War.3 This article argues that there is no Thucydides Trap in international politics. Rather, the world is moving rapidly toward permanent peace, possibly in our lifetime. Drawing on economic norms theory,4 I show that what sometimes appears to be a Thucydides Trap may instead be a function of factors strictly internal to states and that these factors vary among them. In brief, leaders of states with advanced market-oriented economies have foremost interests in the principle of self-determination for all states, large and small, as the foundation for a robust global marketplace. War among these states, even making preparations for war, is not possible, because they are in a natural alliance to preserve and protect the global order. In contrast, leaders of states with weak internal markets have little interest in the global marketplace; they pursue wealth not through commerce, but through wars of expansion and demands for tribute. For these states, power equals threat, and therefore they tend to balance against the power of all states. Fearing stronger states, however, minor powers with weak internal markets tend to constrain their expansionist inclinations and, for security reasons, bandwagon with the relatively benign market-oriented powers. I argue that this liberal global hierarchy is unwittingly but systematically buttressing states' embrace of market norms and values that, if left uninterrupted, is likely to culminate in permanent world peace, perhaps even something close to harmony. My argument challenges the realist assertion that great powers are engaged in a timeless competition over global leadership, because hegemony cannot exist among great powers with weak markets; these inherently expansionist states live in constant fear and therefore normally balance against the strongest state and its allies.5 Hegemony can exist only among market-oriented powers, because only they care about global order. Yet, there can be no competition for leadership among market powers, because they always agree with the goal of their strongest member (currently the United States) to preserve and protect the global order

#### Cap solves war on a massive scale

Dafoe 14, Political Science and International Economics (Allan & Nina Kelsey; assistant professor in political science at Yale & research associate in international economics at Berkeley; Journal of Peace Research, “Observing the capitalist peace: Examining market-mediated signaling and other mechanisms,” http://jpr.sagepub.com.proxy.lib.umich.edu/content/51/5/619.full)

Countries with liberal political and economic systems rarely use military force against each other. This anomalous peace has been most prominently attributed to the ‘democratic peace’ – the apparent tendency for democratic countries to avoid militarized conflict with each other (Maoz & Russett, 1993; Ray, 1995; Dafoe, Oneal & Russett, 2013).More recently, however, scholars have proposed that the liberal peace could be partly (Russett & Oneal, 2001) or primarily (Gartzke, 2007; but see Dafoe, 2011) attributed to liberal economic factors, such as commercial and financial interdependence. In particular, Erik Gartzke, Quan Li & Charles Boehmer (2001), henceforth referred to as GLB, have demonstrated that measures of capital openness have a substantial and statistically significant association with peaceful dyadic relations. Gartzke (2007) confirms that this association is robust to a large variety of model specifications. To explain this correlation, GLB propose that countries with open capital markets are more able to credibly signal their resolve through the bearing of greater economic costs prior to the outbreak of militarized conflict. This explanation is novel and plausible, and resonates with the rationalist view of asymmetric information as a cause of conflict (Fearon, 1995). Moreover, it implies clear testable predictions on evidential domains different from those examined by GLB. In this article we exploit this opportunity by constructing a confirmatory test of GLB’s theory of market-mediated signaling. We first develop an innovative quantitative case selection technique to identify crucial cases where the mechanism of market-mediated signaling should be most easily observed. Specifically, we employ quantitative data and the statistical models used to support the theory we are probing to create an impartial and transparentmeans of selecting cases in which the theory – as specified by the theory’s creators –makes its most confident predictions.We implement three different case selection rules to select cases that optimize on two criteria: (1) maximizing the inferential leverage of our cases, and (2) minimizing selection bias. We examine these cases for a necessary implication of market-mediated signaling: that key participants drew a connection between conflictual events and adverse market movements. Such an inference is a necessary step in the process by which market-mediated costs can signal resolve. For evidence of this we examine news media, government documents, memoirs, historical works, and other sources. We additionally examine other sources, such as market data, for evidence that economic costs were caused by escalatory events. Based on this analysis, we assess the evidence for GLB’s theory of market mediated costly signaling. Our article then considers a more complex heterogeneous effects version of market-mediated signaling in which unspecified scope conditions are required for the mechanism to operate. Our design has the feature of selecting cases in which scope conditions are most likely to be absent. This allows us to perform an exploratory analysis of these cases, looking for possible scope conditions. We also consider alternative potential mechanisms. Our cases are reviewed in more detail in the online appendix.1 To summarize our results, our confirmatory test finds that while market-mediated signaling may be operative in the most serious disputes, it was largely absent in the less serious disputes that characterize most of the sample of militarized interstate disputes (MIDs). This suggests either that other mechanisms account for the correlation between capital openness and peace, or that the scope conditions for market-mediated signaling are restrictive. Of the signals that we observed, strategic market-mediated signals were relatively more important than automatic market-mediated signals in the most serious conflicts. We identify a number of potential scope conditions, such as that (1) the conflict must be driven by bargaining failure arising from uncertainty and (2) the economic costs need to escalate gradually and need to be substantial, but less than the expected military costs of conflict. Finally, there were a number of other explanations that seemed present in the cases we examined and could account for the capitalist peace: capital openness is associated with greater anticipated economic costs of conflict; capital openness leads third parties to have a greater stake in the conflict and therefore be more willing to intervene; a dyadic acceptance of the status quo could promote both peace and capital openness; and countries seeking to institutionalize a regional peace might instrumentally harness the pacifying effects of liberal markets. The correlation: Open capital markets and peace The empirical puzzle at the core of this article is the significant and robust correlation noted by GLB between high levels of capital openness in both members of a dyad and the infrequent incidence of militarized interstate disputes (MIDs) and wars between the members of this dyad (Gartzke, Li & Boehmer, 2001). The index of capital openness (CAPOPEN) is intended to capture the ‘difficulty states face in seeking to impose restrictions on capital flows (the degree of lost policy autonomy due to globalization)’ (Gartzke & Li, 2003: 575). CAPOPEN is constructed from data drawn from the widely used IMF’s Annual Reports on Exchange Arrangements and Exchange Controls; it is a combination of eight binary variables that measure different types of government restrictions on capital and currency flow (Gartzke, Li & Boehmer, 2001: 407). The measure of CAPOPEN starts in 1966 and is defined for many countries (increasingly more over time). Most of the countries that do not have a measure of CAPOPEN are communist.2 GLB implement this variable in a dyadic framework by creating a new variable, CAPOPENL, which is the smaller of the two dyadic values of CAPOPEN. This operationalization is sometimes referred to as the ‘weak-link’ specification since the functional form is consonant with a model of war in which the ‘weakest link’ in a dyad determines the probability of war. CAPOPENL has a negative monotonic association with the incidence of MIDs, fatal MIDs, and wars (see Figure 1).3 The strength of the estimated empirical association between peace and CAPOPENL, using a modified version of the dataset and model from Gartzke (2007), is comparable to that between peace and, respectively, joint democracy, log of distance, or the GDP of a contiguous dyad (Gartzke, 2007: 179; Gartzke, Li & Boehmer, 2001: 412). In summary, CAPOPENL seems to be an important and robust correlate of peace. The question of why specifically this correlation exists, however, remains to be answered. The mechanism: Market-mediated signaling? Gartzke, Li & Boehmer (2001) argue that the classic liberal account for the pacific effect of economic interdependence – that interdependence increases the expected costs of war – is not consistent with the bargaining theory of war (see also Morrow, 1999). GLB argue that ‘conventional descriptions of interdependence see war as less likely because states face additional opportunity costs for fighting. The problem with such an account is that it ignores incentives to capitalize on an opponent’s reticence to fight’ (Gartzke, Li & Boehmer, 2001: 400.)4 Instead, GLB (see also Gartzke, 2003; Gartzke & Li, 2003) argue that financial interdependence could promote peace by facilitating the sending of costly signals. As the probability of militarized conflict increases, states incur a variety of automatic and strategically imposed economic costs as a consequence of escalation toward conflict. Those states that persist in a dispute despite these costs will reveal their willingness to tolerate them, and hence signal resolve. The greater the degree of economic interdependence, the more a resolved country could demonstrate its willingness to suffer costs ex ante to militarized conflict. Gartzke, Li & Boehmer’s mechanism implies a commonly perceived costly signal before militarized conflict breaks out or escalates: if market-mediated signaling is to account for the correlation between CAPOPENL and the absence of MIDs, then visible market-mediated costs should occur prior to or during periods of real or potential conflict (Gartzke, Li & Boehmer, 2001). Thus, the proposed mechanism should leave many visible footprints in the historical record. This theory predicts that these visible signals must arise in any escalating conflict, involving countries with high capital openness, in which this mechanism is operative Clarifying the signaling mechanism Gartzke, Li & Boehmer’s signaling mechanism is mostly conceptualized on an abstract, game-theoretic level (Gartzke, Li & Boehmer, 2001). In order to elucidate the types of observations that could inform this theory’s validity, we discuss with greater specificity the possible ways in which such signaling might occur. A conceptual classification of costly signals The term signaling connotes an intentional communicative act by one party directed towards another. Because the term signaling thus suggests a willful act, and a signal of resolve is only credible if it is costly, scholars have sometimes concluded that states involved in bargaining under incomplete information could advance their interests by imposing costs on themselves and thereby signaling their resolve (e.g. Lektzian & Sprecher, 2007). However, the game-theoretic concept of signaling refers more generally to any situation in which an actor’s behavior reveals information about her private information. In fact, states frequently adopt sanctions with low costs to themselves and high costs to their rivals because doing so is often a rational bargaining tactic on other grounds: they are trying to coerce their rival to concede the issue. Bargaining encounters of this type can be conceptualized as a type of war-of-attrition game in which each actor attempts to coerce the other through the imposition of escalating costs. Such encounters also provide the opportunity for signaling: when states resist the costs imposed by their rivals, they ‘signal’ their resolve. If at some point one party perceives the conflict to have become too costly and steps back, that party ‘signals’ a lack of resolve. Thus, this kind of signaling arises as a by-product of another’s coercive attempts. In other words, costly signals come in two forms: self-inflicted (information about a leader arising from a leader’s intentional or incidental infliction of costs on himself) or imposed (information about a leader that arises from a leader’s response to a rival’s imposition of costs). Additionally, costs may arise as an automatic byproduct of escalation towards military conflict or may be a tool of statecraft that is strategically employed during a conflict. The automatic mechanism stipulates that as the probability of conflict increases, various economic assets will lose value due to the risk of conflict and investor flight. However, the occurrence of these costs may also be intentional outcomes of specific escalatory decisions of the states, as in the case of deliberate sanctions; in this case they are strategic. Finally, at a practical level, we identify three different potential kinds of economic costs of militarized conflict that may be mediated by open capital markets: capital costs from political risk, monetary coercion, and business sanctions. T

#### Cap is key to space exploration and development

**Blundell 4** [John, director general of the Institute of Economic Affairs, “Mission to Mars must go private to succeed”, Feb 2, http://news.scotsman.com/marsexploration/Mission-to-Mars-must-go.2499794.jp]

Bush is not finding the billions himself. Rather the tab will be picked up by US taxpayers in perhaps 20 years’ time. **What arrests me is the** unchallenged **assumption that space exploration must be a nationalised industry**. The Soviet effort may be stalled but the Chinese seem committed to joining the race. The European Space Agency is a strange combination of nationalised bodies. NASA is a pure old-fashioned nationalised entity. I argue **we should relinquish the expectationthat space has to be limited to vast quangos.** The mindset we all share is an echo of the rivalry between the evaporated USSR and the still dynamic US. The first bleeps of the Sputnik galvanised the US into accelerating its space effort.   **What we need is capitalists in space. Capitalism needs property rights, enforcement of contracts and the rule of law.** The ideological tussle does not cease once we are beyond the ionosphere.   With the exception of Arthur C Clarke, **none of us imagined the entertainment potential from satellites**. Geostationary lumps of electronic gadgetry beam us our BSkyB television pictures. I remain in awe that Rupert Murdoch can place a device in the skies above Brazil that sends a signal to every home in each hemisphere. Who could have foreseen that mobile phones could keep us chattering without any wiring, or that global position techniques could plot where we all are to within a metre? **These are business applications. Business is already in space.**   Markets detect and apply opportunities that are not envisaged by even the most accomplished technicians. I’m not saying Murdoch has special competences. I imagine he is as baffled by digital miracles as I am. The point is that **companies define and refine what public bodies cannot achieve**. Lift the veil of course and all those **satellite firms are an intricate web of experts supplying ideas and services. We have an infant space market.**   What use will the Moon be? Is there value on Mars other than the TV rights? The answer is nobody can know. We can only make some guesses. The Spanish ships that set off for the US thought they would get to India. The Portuguese knew they’d reach China. The English followed them westwards seeking gold. In fact, they got tobacco. Events always confound expectations.   The arguments for putting men on Mars are expressly vague from President Bush. Perhaps he was really bidding for votes.   From my reading the **best results may be medical. Zero, or low, gravity techniques may allow therapies of which we are ignorant.** It seems facetious to suggest tourism may be a big part of space opportunity but as both the North and South poles are over-populated and there is a queue at the top of Mount Everest, a trip to the Sea of Tranquility may prove a magnet for the wealthy. **Instead of NASA’s grotesque bureaucracy it may be Thomas Cook will be a greater force for exploration.**   NASA could be a procurement body. It need not design and run all space ventures. It could sub-contract far more extensively. Without specialised engineering expertise it is not easy to criticise projects such as the shuttle. It seems to be excessively costly and far too fragile.   **There are private space entrepreneurs already.** They are tiddlers up against the mighty NASA. Yet Dan **Goldin, the NASA leader, says he favours the privatisation of space: "We can’t afford to do solar system exploration until we turn these activities over to the cutting edge private sector...**   "Some may say that commercialising portions of NASA’s functions is heresy. Others may think we are taking a path that will ruin the wonders of space. I believe that **when NASA can creatively partner, all of humankind will reap the benefits of access to open space".   Is it possible the Moon has a more noble future than merely a branch office of NASA? Is it tolerable that Mars could be a subsidiary of the USA? Could it be nominally a further state of the union? These are not silly questions. In time space will be defined by lawyers and accountants as property rights will need to be deliberated**.   One possibility may be that both environments are so hostile that Mars and the Moon will never be more than token pockets for humanity. On the evidence so far it is the orbiting satellites that have made us see the Earth through new eyes. **We can survey and explore the planet better from 200 miles up than stomping on the surface. The emerging commercial body of space law is derived from telecommunications law**.   It is perplexing and contrary to our immediate senses. How can you own or exchange something as intangible as digital messages bouncing off satellites? Yet we all pay our mobile phone bills.   **Many of the business results of space exploration are unintended consequences of NASA’s early adventures. Computer development would probably have been slower but for the need for instrumentation for Apollo**.   Are there prospects for Scottish firms in space? The prizes will not go to only the mega corporations. Perhaps Dobbies, the Edinburgh garden centre group, can create new roses by placing pots beyond gravity. Edinburgh University laboratories, or rather their **commercial spin offs, could patent new medicines**. Is it possible the genetic magicians at the Bush could hitch a ride into space and extend their discoveries?   NASA is a monopolist. All monopolies are bad for business. They only stunt opportunities. They blunt alternatives.   **By opening space to entrepreneurship we will be starting on what FA Hayek memorably describes as "a discovery procedure". Science is an open system. So is capitalism.**

#### Space k2 solve long-term extinction.

**Pelton 3** [Joseph N. Pelton is director of the Space & Advanced Communications Research Institute at George Washington University and executive director of the Arthur C. Clarke Foundation “COMMENTARY: Why Space? The Top 10 Reasons”, Sept 12, http://www.space.com/news/commentary\_top10\_030912.html]

Actually **the lack of a space program could get us all killed**. I dont mean you or me or my wife or children. I mean that **Homo sapiens as a species are** actually **endangered**. Surprising to some, **a well conceived space program may well be our only hope for long-term survival**. The right or wrong decisions about space research and exploration may be key to the futures of our grandchildren or great-grandchildren or those that follow.  Arthur C. Clarke, the author and screenplay writer for 2001: A Space Odyssey, put the issue rather starkly some years back when he said: The dinosaurs are not around today because they did not have a space program. He was, of course, referring to the fact that we now know **a quite largish meteor crashed into the earth, released poisonous** Iridium **chemicals into our atmosphere and created a killer cloud above the Earth that blocked out the sun for a prolonged period of time.  This could have been foreseen and averted with a sufficiently advanced space program**. But this is only one example of how space programs, such as NASAs Spaceguard program, help protect our fragile planet. **Without a space program we would not know about the large ozone hole in our atmosphere, the hazards of solar radiation, the path of killer hurricanes or many other environmental dangers**. But this is only a fraction of the ways that space programs are crucial to our future. Protection against catastrophic planetary accidents: It is easy to assume that an erratic meteor or comet will not bring destruction to the Earth because the probabilities are low. **The truth is we are bombarded from space daily. The dangers are greatest not from a cataclysmic collision, but from not knowing enough about solar storms, cosmic radiation and the ozone layer. An enhanced** Spaceguard **Program** **is** actually **a prudent course that could save our species in time.**

#### Bifo cherry picks examples and ignores broader social progress occurring in the status quo – dooms his analysis.

Sayarer 15 [Julian, “Cheer up ‘Bifo’—history hasn’t ended yet”]

Indeed, were it not that Berardi’s logic were so selective and its perspective so narrow, the book would be all the more disheartening. Fortunately, also conspicuous is an author who is himself struggling with the present, soothing his concerns with an easy, leftist lament that envisages no greater role for humans than that of the happy worker. He raises objections to algorithms (rather than—more helpfully—arguing that these tools might serve human ends), and wishes for a time when humans made ‘real objects.’ The book also advances an elementary critique of monetary systems that rightly illustrates the economy of faith that is currency, but seems only to conclude that some finite resource (such as gold and the gold standard it once underpinned) might in some way be an improvement. All of this is profoundly unfortunate, for few would deny that modern work patterns must be made fairer and more human. Early on, Berardi writes: “History has been replaced by the endless flowing recombination of fragmentary images… frantic precarious activity has taken the place of political awareness and strategy.” The ironic missed opportunity of Heroes is that in it, the author has produced only one further recombination: a pastiche of graphic events, mass shootings and assorted corporate abuses that fall victim to the same shallow lust for spectacle that Berardi devotes such worthy efforts to decry. Anders Breivik, Virginia Tech, the Aurora Killings, Japanese suicide patterns and much else besides—modern capitalism has had an enormously detrimental effect on the lives of billions, and yet a statistically irrelevant number of these sorrows and grievances culminate in either mass shootings or suicides. Berardi identifies the existence of an iceberg, and yet contents himself with describing only its very tip. He eschews the banal and the human to focus on the fast-sell of the sensational, prophesising some coming end rather than taking on the more trying but rewarding task of explaining how things persist when so much suggests they might fall apart. He explains exceptions delightfully, while seldom troubling himself with the rule itself, or the norm he condemns. It is this very tendency that must be redressed, as Berardi probably would agree. He affords no attention to peer to-peer lending, fossil fuel divestment, credit unions, ethical banking growth, worker co-ops, fair tax certification, communication expansion through cell phones and the internet, or innovations in mobile currency. All of these changes are potentially problematic developments that are of course vulnerable to the replication of old injustices. No less certainly, however, they offer evidence that the status quo Berardi describes is neither static nor condemned only to change the world for the worse.