# Wiki Doc Doubles

## 1NC

### 1NC – FW – Info Reflexivity

#### Interpretation – affs must defend hypothetical enactment of a United States federal government policy that substantially increases prohibitions on anticompetitive business practices by the private sector by at least expanding the scope of its core antitrust laws

#### Resolved means to enact a policy by law.

Words & Phrases 64. [Words and Phrases; 1964; Permanent Edition]

Definition of the word “resolve,” given by Webster is “to express an opinion or **determination by resolution or vote**; as ‘it was resolved **by the legislature**;” It is of similar force to the word “enact,” which is defined by Bouvier as **meaning “to establish by law”**.

#### The United States federal government is the national government in DC.

Black’s Law 4. [Black’s Law Dictionary, 8th Edition, June 1, 2004, pg.716]

Federal government. 1. A **national government** that exercises some degree of control over smaller political units that have surrendered some degree of power in exchange for the right to participate in national politics matters – Also termed (in federal states) **central government**. 2. **the U.S. government** – Also **termed national government**. [Cases: United States -1 C.J.S. United States - - 2-3]

#### ‘Core antitrust laws’ means Sherman, Clayton, and FTC

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At the federal level, there are three core antitrust laws: (1) the Sherman Act, in which Section 1 outlaws "every contract, combination, or conspiracy in [unreasonable] restraint of trade," and Section 2 outlaws any "monopolization, attempted monopolization, or conspiracy or combination to monopolize";1 (2) the Federal Trade Commission Act, which prohibits "unfair methods of competition" and "unfair or deceptive acts or practices";2 and (3) Section 7 of the Clayton Act, which prohibits mergers and acquisitions where the effect "may be substantially to lessen competition, or to tend to create a monopoly."3 Criminal violations of the Sherman Act carry a maximum penalty of a $100 million fine for corporations, and a maximum penalty of 10 years in prison and a $1 million fine for individuals. A prevailing plaintiff in a civil suit can recover treble damages and attorneys' fees. But federal law currently does not provide for civil penalties when the government brings an antitrust case, only injunctive relief.

#### That’s key to predictability -- only an interp grounded in relevant legal literature gives debaters the basis to prepare negatives and affirmatives guaranteed to clash. There are a few impacts –

#### First is competitive equity – without predictable preparation and a stable stasis point, there is an aff side bias that destroys the competitive nature of the activity and participation – equity is obviously an impact because debate is a game that is key to the aff – if not, just vote neg

#### Second is information reflexivity --

#### The process of debate around a predictable governmental plan best creates the conditions for informed learning and well-rounded information gathering through a holistic research approach – the impact is information reflexivity – issues of factual evidence are difficult to resolve and require informed processes and information vetting to counter problematic premises that result in material violence like the Iraq war – only a model of debate that encourages 2nd and 3rd level argument testing, considers unintended consequences, and promotes conditional and dynamic argumentation will foster well informed decisions and self-efficacy

Leek 16. [Danielle R. Leek, Johns Hopkins University Advanced Academic Programs instructor, Director of Academic Innovation and Distance Education at Bunker Hill Community College, former executive director of the communications center and professor of communications at Grand Valley State University, “Policy debate pedagogy: a complementary strategy for civic and political engagement through service-learning,” Communication Education, 65:4, 401-405]

In policy debate, students are asked to consider whether a particular course of action should be taken, generally by state institutions such as the United States federal government, or its respective branches, such as the Supreme Court or the Congress (Snider & Schnurer, 2002). A policy debate can involve any institutional actor or agent such as the Federal Emergency Management Agency, the United Nations, the International Criminal Court, and so on. Questions of policy can address broad global issues, such as “Should the United States federal government sign a new nuclear treaty with Iran?” Or they might consider narrow rules for legal action, such as“Should the Michigan Department of Treasury require individuals to pay taxes online?” When connected to a service-learning experience, educators might set aside time for students to debate a relevant policy question. Using previous examples, students working on the health campaign might also be asked to debate the question, “Should the City of Grand Rapids provide mobile health clinics in the downtown area?” Chemistry students could debate, “Should the federal government require a universal science curriculum in all high schools?” No matter the topic, students should have the opportunity to engage multiple perspectives on the question, including speaking on the affirmative to support a new policy and on the negative in opposition to a change in the status quo. Students may be asked to work with one or more partners to research and develop materials that can be used in their speeches or in question-and-answer periods related to their arguments.

Especially for readers familiar with extracurricular policy debate competitions in high schools or college, this depiction of what policy debate entails may seem overly simplistic. Yet, even basic consideration of policy issues related to a service-learning experience can improve a student’s odds of political learning. Through policy debate, students can develop information literacy and learn how to make critical arguments of fact. This experience is politically empowering for students who will also build confidence for political engagement.

Information literacy

While there are many definitions of information literacy, the term generally is understood to mean that a student is “able to recognize when information is needed, and have the ability to locate, evaluate, and use effectively the information needed” for problem-solving and decision-making (Spitzer, Eisenberg, & Lowe, 1998, p. 19). Information exists in a variety of forms, in visual data, computer graphics, sound-recordings, film, and photographs. Information is also constructed and disseminated through a wide range of sources and mediums. Therefore, “information literacy” functions as a blanket term which covers a wide range of more specific literacies. Critiques of service-learning’s knowledge-building power, such as those articulated by Eby (1998) and Colby (2008), are challenging both the emphasis the pedagogy places on information gained through experience and the limited scope of political information students are exposed to in the process.

Policy debate can augment a student’s civic and political learning by fostering extended information literacies. Snider and Schnurer (2002) identify policy debate as an especially research intensive form of oral discussion which requires extensive time and commitment to learn the dimensions of a topic. Understanding policy issues calls for contemplating a range of materials, from traditional news media publications to court proceedings, research data, and institutional propaganda. Moreover, the nature of policy debate, which involves public presentation of arguments on two competing sides of a question, motivates students to go beyond basic information to achieve a more advanced level of expertise and credibility on a topic (Dybvig & Iverson, n.d.). This type of work differs from traditional research projects where students gather only the materials needed to support their argument while neglecting contrary evidence. Instead, the “debate research process encourages a kind of holistic approach, where students need to pay attention to the critics of their argument because they will have to respond to those attacks” (Snider & Schnurer, 2002, p. 32). In today’s attention economy, cultivating a sensibility for well-rounded information gathering can also aid students in recognizing when and how the knowledge produced in their social environments can be effectively translated to specific contexts. The “cultural shift in the production of data” which has followed the emergence of Web 2.0 technologies means that all students are likely “prosumers”—that is, they consume, produce, and coproduce information online all at the same time (Scoble, 2011).

Coupling service- learning with policy debate calls on students to apply information across registers of public engagement, including their own service efforts and their own public argumentation, in and outside of their debates. Information is used in the service experience, which in turn, informs the use of information in debates, where students then produce new information through their argumentation. The process is what Bruce (2008) refers to “informed learning,” or “using information in order to learn.” When individuals move from learning how to gather materials for a task to a cognitive awareness and understanding of how the information-seeking process shapes their learning, they are engaged in informed learning. Through this process, students can come to recognize that information management and credibility is deeply disciplinary and historically contextual (Bruce & Hughes, 2010). This understanding, combined with practical experience in locating information, is a critical missing element in contemporary political engagement. Over 20 years ago, Graber (1994) argued that one of the biggest obstacles to political engagement was not apathy, but a gap between the way news media presents information during elections, and the type of information voters need and will listen to during electoral campaigns. The challenge extends beyond elections into policy-making, especially as younger generations continue to revise their notions of citizenship away from institutional politics towards more social forms of activism (Bennett, Wells, & Freelon, 2011). For students to effectively practice more expressive forms of citizenship they need experience managing the breadth of information available about issues they care about. As past research indicates a strong correlation between service-learning experience and the motivation and desire for post-graduation service, it seems likely that students who debate about policy issues related to service areas will continue their informed learning practices after they have left the classroom (Soria & Thomas-Card, 2014).

Arguing facts

In addition to building information literacies, students who combine policy debate with service-learning can practice “politically relevant skills,” which will help them have confidence for political engagement in the future. As Colby (2008) explains, this confidence should be tempered by tolerance for difference and differing opinions. On the surface, debating about institutional politics might seem counterintuitive to this goal. Politicians and the press have a credibility problem among college-aged students, and this leaves younger generations less inclined to feel obligated to the state or to look to traditional modes of policymaking for social change (Bennett et al., 2011; Manning & Edwards, 2014). This lack of faith in government and media outlets also makes political argument more difficult (Klumpp, 2006). Whereas these institutions once served as authoritative and trustworthy sources of information, the credibility of legislators and journalists has decreased over the last 40 years or so. Today, politicians and pundits are viewed as political actors interested in spectacle, power, and profit rather than truth-seeking or the common good.

While some political controversies are rooted in competing values, Klumpp (2006) explains that arguments about policy are more often based in fact. Indeed, when engaged in public arguments over questions of policy, people tend to “invoke the authority of facts to support their positions.” Likewise, “the governmental sphere has developed elaborate legal and deliberative processes in recognition of the power of facts as the basis for a decision.” Yet, while shared values are often quickly agreed upon, differences over fact are more difficult to resolve. Without credible institutions of authority that can disseminate facts, public deliberation requires more time, information-gathering, evaluation, and reasoning. The Bush administration’s decision to take military action in Iraq, for example, was presumably based on the “fact” that Saddam Hussein had acquired weapons of mass destruction. This has now become a classic example of poor policy-making grounded in faulty factual evidence.

This shortcoming is precisely why policy debate is a valuable complement to servicelearning activities. Not only can students use their developing literacies to better understand social problems, they can also learn to access a broader range of knowledge sources, thereby mitigating the absence of fact-finding from traditional institutions. Furthermore, policy advocacy gives students experience testing the reasoning underlying claims of fact. Issues of source credibility, analogic comparisons, and data analysis are three examples of the type of critical thinking skills that students may need to apply in order to engage a question of policy (Allen, Berkowitz, Hunt, & Louden, 1999). While the effect may be to undermine government action in some instances, in others students will gain a better understanding of when and where institutional activities can work to make change. As students gain knowledge about the relationship between institutional structures and the communities they serve, they grow confidence in their ability to engage in future conversations about policy issues. Zwarensteyn’s (2012) research highlights these sorts of effects in high school students who engage in competitive policy debate. Zwarensteyn theorizes that even minimal increases in technical knowledge about politics can translate to significant increases in a student’s sense of self-efficacy. Many students start off feeling very insecure when it comes to their mastery of institutional politics; policy debate helps overcome that insecurity. Moreover, because training in policy debate encourages students to address issues as arguments rather than partisan positions, it encourages them to engage policy-making without the hostility and incivility that often characterizes today’s political scene. Indeed, it is precisely that perceived hostility and incivility that prompts many young people to avoid politics in the first place.

I do not mean to imply that students who debate about their service-learning experiences will draw homogenous conclusions about policies. Quite the contrary. Students who engage in service-learning still bring their personal visions and history to bear on their debates. As a result, students will often have very different opinions after engaging in a shared debate experience. More importantly, the practice of debating should operate to particularize students’ knowledge of community partners and clients, working against the destructive generalizations and power dynamics that can result when students feel privileged to serve less fortunate “others.” For civic and political engagement through service-learning to be meaningful and productive, it must do more to challenge students’ concepts of the homogenous “we” who helps “them.” Seligman (2013) argues that this civic spirit can be cultivated through the core pedagogical principle of a “shared practice,” which emphasizes the application of knowledge to purpose (p. 60). Policy debate achieves this outcome by calling on students to consider and reconsider their understanding of themselves, institutions, community, and policy every time the question “should” may arise. As Seligman writes:

… the orientation of thought to purpose (having an explanation rest at a place, a purpose) is of extreme importance. We must recognize that the orientation of thought to purpose is to recognize moving from providing a knowledge of, to providing a knowledge for. This means that in the context of encountering difference it is not sufficient to learn about (have an idea of) the other, rather it means to have ideas for certain joint purposes—for a set of “to-does.” A purpose becomes the goal towards which our explanations should be oriented. (p. 61)

Put another way, policy debate challenges students “to maintain a sense of doubt and to carry on a systematic and protracted inquiry” in the process of service-learning itself (Seligman, 2013, p. 60). This is precisely the type of complex, ongoing, reflective inquiry that John Dewey had in mind.

Political engagement through policy debate

This essay began with a discussion of the growing attention to civic engagement programs in higher education. The national trend is to accomplish higher levels of student civic responsibility during and after their time in college through service-learning experiences tied to curricular learning objectives. A challenge for service-learning scholars and teachers is to recognize a distinction between civic activities that are accomplished by helping others and political activities that require engagement with the collective institutional structures and processes that govern social life. Both are necessary for democracy to thrive. Policy debate pedagogy can help service-learning educators accomplish these dual objectives.

To call policy debate a pedagogy rather than just a style of debate is purposeful. A pedagogy is a praxis for cultivating learning in others. The pedagogy of service-learning helps students to know and engage social conditions through physical engagement with their environments and communities. Policy debate pedagogy leads students to know and engage these same social conditions while also challenging them to apply their knowledge for the purpose of political advocacy. These pedagogies are natural compliments for cultivating student learning. Therefore, future studies should explore how well service-learning combined with policy debate can resolve concerns that policy debate alone does not go far enough to invest students with political agency (Mitchell, 1998). The present analysis suggests the potential for such an outcome is likely.

Moreover, research is clear that the civic effects of service-learning as an instructional method are improved simply by increasing the amount of time spent on in-class discussion about the service work students do (Levesque-Bristol, Knapp, & Fisher, 2010). Policy debates related to students’ service can accomplish this goal and more. Policy debates can also facilitate the political learning students need to build their political efficacy and capacity for political engagement. Through informed learning about the political process—especially in the context of service practice—students develop literacies that will extend beyond the classroom. Using this knowledge in reasoned public argument about policy challenges invites students to move beyond cynical disengagement towards a productive recognition of their own potential voice in the political world.

Policy debate pedagogy brings unique elements to the process of political learning. By emphasizing the conditional and dynamic nature of political arguments and processes, debates can work to relieve students of the misconception that there is a single “right answer” for questions about policy-making and politics, especially during election time. The communication perspective on policy debates also highlights students’ collective involvement in the ever-changing field of political terms, symbols, and meanings that constitute interpretations of our social world. In fact, the historical roots of the term “communication” seem to demand that speech and debate educators call for such emphasis on political learning. “To make common,” the Latin interpretation of communicare, situates our discipline as the heart of public political affairs (Peters, 1999). Connecting policy debate to service-learning helps highlight the common purpose of these approaches in efforts to promote civic engagement in higher education.

#### You should also filter their impacts through predictable testability and model comparison -- debate inherently judges relative truth value by whether or not it gets answered -- a combination of a less predictable case neg, the burden of rejoinder, and them starting a speech ahead will always inflate the value of their impacts, which makes non-arbitrarily weighing whether they should have read the 1ac in the first place impossible within the structure of a debate round so even if we lose framework, vote neg on presumption. They also create a moral hazard that leads to affs only about individual self-care so even if you think this aff is answerable, the ones they incentivize are not, so assume the worst possible affirmative when weighing our impacts.

## Case

### 1NC – Decoupling

#### It’s key to CCS – link-turns every impact.

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

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

#### IEA studies and empirics prove that universal decoupling is occuring --- global emissions have stalled for years despite consistent growth

**Riti** et. al **17** [Joshua Sunday Riti, School of Economics, Huazhong University of Science and Technology, Department of Economics, Faculty of Social Sciences, University of Jos, “Decoupling CO2 emission and economic growth in China: Is there consistency in estimation results in analyzing environmental Kuznets curve?”, Journal of Cleaner Production Volume 166, 10 November 2017, Pages 1448-1461, Science Direct]

According to the International Energy Agency (IEA), universal carbon dioxide-greenhouse gas related emissions shows some stability in 2015 at approximately 32.1 Gt for the second year in a row, validating the decoupling of global greenhouse gas emissions and economic growth (Enerdata, 2015; Itskos et al., 2016). The stalling of global emissions is no surprise, as this is in line with the slowing trend in annual emission growth over the past three years, starting from 2.0% in 2013 to 1.1% in 2014 and further down to 0.1% in 2015. A similar trend of declining growth in global emissions could also be seen from 2010 to 2012, starting from 5.7% down to 0.7%. It is debatable whether the plateaued emission level will continue and results from structural changes (Jackson et al., 2016; Qi et al., 2016; Green and Stern, 2016). In 2009, a stronger global downward trend of 1.0% was recorded, compared to 2008 levels, but this was due to the global economic downturn. Stalling in emissions is not coupled with the GDP trend, as global GDP kept up with an annual growth of 3.0% in 2015 compared to 2014. A more structural change with a shift away from carbon-intensive activities, particularly in China but also in the United States, contributed considerably to this trend. This achievement was made possible through the global investment in energy efficiency which increased by 6% in 2015 (IEA, 2010) and the rise in the proportion of renewables in the generation of power. It is estimated that the share of renewables was around 90 percent of the latest power generation in year 2015, with power from wind alone responsible for over 50 percent.

### 1NC – Transition

#### Growth is locked in --- a transition would have to literally remake everything

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

Economic growth, as an attribute of market capitalism, has structural properties – it is needed to stabilise modern societies as it provides employment, public sector provision through tax revenues, rising wages, and hence social stability (Petridis et al., 2015: 178, Rosa et al., 2017). Economic growth is organised around and shapes a range of tightly coupled structures, including institutions, norms, discourses, culture, technologies, competences, identities, etc. Historically speaking, growth is a fairly recent phenomenon which only picked up in the 19th century together with the industrialisation of Western economies. In a co-evolutionary process, a range of institutions developed which are now coupled to a growth-based capitalist economy, including the nation state, representative democracy, the rule of law and current legal, financial, labour market, education, research, and welfare systems. These are based on philosophies which emerged to justify and give meaning to these institutions, for instance on individualism, freedom, justice, sovereignty, or power. The embeddedness of the growth-based capitalistic economic system in these co-evolved institutions and ways of thinking makes it difficult to transition to a degrowth system because the change of the economic system would need to involve a parallel transformation of those coupled systems. In Luhmann’s words, the constitution of the current system “defuturises” (Luhmann, 1976: 141) the future, it reduces the “openness” of the future; “path dependency” or even “lock-in” are related expressions that capture this idea. Two examples which directly link to people’s wellbeing can illustrate this point: the relationship between welfare states and growth, and between growth and people’s mind-sets and identities.

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

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

3.2. Implications of rapidly transforming social systems

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

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

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

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

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

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

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

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

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

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

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

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

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

### 1NC - Financialization

#### No impact—it’s limited in scope and explanatory power.

Christophers 15 [Brett Christophers, Institute for Housing and Urban Research, Uppsala University, "The limits to financialization", 2015, https://journals.sagepub.com/doi/pdf/10.1177/2043820615588153?casa\_token=4407uJ-wcLQAAAAA:3q8k\_qDLMivKZsd3w8OeaOMjvjgkfOhElVeopTgh2vIJODGiA68K2mHVfSbpf9R-agJkrqQiNXJBDw]

‘Financialization’ meaningfully entered the lexicon of the cultural–economic and political–economic literatures on capitalism later than either globalization or neoliberalization. Roughly speaking, if globalization was the new buzzword of the 1990s and neoliberalization—or, in form rather than process terms, neoliberalism—of the 2000s, then financialization is very much the buzzword of the 2010s, although of course neoliberalization has been conceptualized as handmaiden, not replacement, of globalization and financialization, in turn, of both. To be sure, pivotal statements on and conceptualizations of financialization appeared well in advance of the 2010s, and we shall revisit many of these here. But it is in the past half-dozen years—those, not coincidentally, coming after the onset of the global financial crisis—that financialization has seemingly taken root in the critical scholarly vocabulary and consciousness. A Google Scholar search, for example, yields 170 hits for financialization (or financialisation) between 1996 and 2000, 1088 between 2001 and 2005, 5790 between 2006 and 2010, and 12,010 between 2011 and the midpoint of 2014.1

In response to, and in the face of, this mushrooming financialization literature, the present article constitutes, essentially, a call for caution. With scholars from various disciplinary constituencies having enthusiastically invoked the concept in attempting to understand contemporary capitalism and its specificities, and with a critical mass of increasingly breathless and boosterish scholarship on the phenomenon having crystallized, now is the time, the article submits, to pause, breathe in, and carefully (re)evaluate. Are we—not just geographers but other scholarly communities to have invested in financialization—comfortable with our collective, if contested, theorization of the concept? Is it working for us as we want and need it to? Should we simply plow ahead with mobilization and elaboration of the concept broadly along the lines we have been tracing to date?

Having reviewed the state of the field, the article argues that caution is not just advisable but necessary. It makes this case by invoking a multiply constituted idea of limits. Financialization, it suggests, is limited, both conceptually and empirically. As such, in continuing to use the concept—as surely for the foreseeable future we, as a constellation of scholarly communities, will—it is essential to recognize such limits and to think through their implications for the ways we use the concept and for the work that we expect it to do for us. The limits are sufficiently substantive, and their implications sufficiently material, to warrant a tempering of enthusiasm, if not a turn away from the concept altogether. More specifically, we need to be much more wary of relying on the concept and of mobilizing it for the purposes of both categorization and explanation.

The article proceeds in five sections, which respectively correspond to and delineate the five connected types of limits that attach to financialization. The first such limits are analytic. For a concept to be analytically valuable, it should be possible for scholars to invoke it in such a way that it brings recognizability and clarity to the particular topic of analysis; the critical properties or dynamics of the empirical object of investigation are foregrounded, if not comprehensively accounted for, simply by the use of a term whose reproducible coherence offers ready-made analytical expedience and insight. For a variety of reasons, however, not least unchecked and promiscuous conceptual reiteration, the idea of financialization has by now largely lost any coherence that it previously enjoyed: increasingly standing only for a vague notion of ‘the (increased) contemporary importance of finance’, its enrolment today risks raising more questions than it answers.

Does this then mean that the concept is valueless and that it has facilitated no scholarly progress? Absolutely not. But, the article goes on to argue, there are crucial limits to its positive contributions, not least—as discussed in the ‘Theoretic limits’ section—of a theoretic nature. Here the argument is that there are very real limits to the depth and range of genuinely new conceptual insights generated by the positing and theorization of financialization. The central concern in this regard, to be clear, is not so much with the sophistication, rigor, or novelty of theorizations of financialization per se, although as we shall see there are legitimate questions to be asked here, too. Rather, our main concern is with the limits to the power of financialization and its conceptualization to meaningfully advance our theoretical understanding of capitalism’s cultural and political economies more generally.

The third section discusses limits of a very different type. One of, if not the most important contribution of the financialization discourse and ‘movement’ has been of a strategic nature. It has served to make finance a more acceptable, indeed more obligatory, object of study for a range of scholarly communities for whom it historically represented something of an unmentionable and unknowable other. In the process, it has also helped bringing those communities into productive conversation with one another. In other words, it—financialization—has served vital strategic purposes. Yet there are limits to this strategic function, which the third section of the article identifies and reflects critically upon. If financialization’s great contribution has been to alert new constituencies to the significance, broadly defined, of finance, at what point can we say that this contribution is more or less complete?

The latter question of finance’s significance— economic, political, and cultural—is considered explicitly in the article’s fourth section. It argues that notwithstanding the self-evident and demonstrable importance of finance to contemporary social life on all manner of axes, its significance nonetheless risks being overstated, and arguably already has been in influential financialization accounts. The scale of finance’s significance is one aspect of such potential overstatement, and the historical novelty thereof is another. In attempting to understand and account for the possibility of such overstatement, meanwhile, the article invokes, once more, the central trope of limits: a susceptibility to exaggerate finance’s contemporary significance is embedded, it submits, in the limited nature of the optics brought to bear upon contemporary ‘financialized’ phenomena.

To recognize that exaggeration of financialization’s reality as a historical–geographical set of phenomena is conceivable is to recognize, at the same time, that there are material limits—fifth, and finally—to the various processes referred to with that term. In other words, financialization-as- ‘thing(s)’ is no less limited—or, better, no less required to confront limits to its conditions of possibility and its scope for intensification or extension— than financialization-as-concept. But these limits, the article’s last substantive section argues, have ordinarily not been recognized and critically reflected upon, and nor, therefore, have their implications for the discourse of financialization actively been considered. Recognizing and robustly conceptualizing these empiric limits, it is therefore argued, is in fact an indispensable component of the simultaneous process of working through financialization’s analytic and theoretic limits.

### 1NC – War

#### Growth solves war – data

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

CONFLICT AND TRADE TODAY

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

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

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

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

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

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

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

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

### 1NC – Space Turn

#### Profit and growth are key to space colonization---extinction.

Kovic '19 [Marko; March 2019; co-founder president of the Zurich Institute of Public Affairs Research; "The future of energy," https://osf.io/preprints/socarxiv/aswz9/download]

Ideally, the mitigation of climate risks will coincide with and contribute to the development of improved or even entirely novel sources of energy that will increase the long-term chances of humankind’s survival by means of space colonization. This is not an unrealistic expectation, given that the mitigation of climate risks consists, to a large degree, of replacing fossil fuels with other, less harmful sources of energy. However, some climate change mitigation strategies might actually harm the long-term prospects of humankind.

First, it is possible that dominant climate change mitigation strategies will actively exclude any form of nuclear energy from the repertoire of climate-friendly energy sources. Existing and experimental (molten salt) fission reactors could play a significant role in replacing carbon-heavy energy sources, but pro-environmental attitudes often overlap with anti-nuclear sentiments [65]. As a result, and in combination with other problems such as large-scale market failures of existing fission reactors (one of the reasons being that generating electricity from fossil fuels is cheaper) [66], nuclear fission does not currently have significant standing as a “cleantech” contribution to climate change mitigation. From a long-term perspective, an unfavorable view of nuclear energy in the context of climate change might mean that technological progress in the areas of nuclear fission and fusion might come to a halt (for example, due to explicit bans or implicit disincentives). If such a scenario came to be, our attempts at colonizing space would almost certainly fail: There are currently no alternatives to fission and fusion, and it is highly improbable that Solar power alone could suffice for sustaining extraterrestrial habitats.

Second, there is some probability that climate change mitigation strategies will change the social order towards a degrowth philosophy. Degrowth is a vague socio-economic concept and social movement that, in general, calls for a contraction of the global and national economies by means of lower production and consumption rates, and, to some degree, to more profound changes to the “capitalist” system of economic production [67]. Degrowth or degrowth-like approaches are being actively considered as climate risk mitigation strategies [68, 69], and degrowth would almost certainly be a highly effective measure for mitigating climate change. After all, if we were to drastically reduce or even completely eliminate the (industrial) sources of greenhouse gases, the amount of greenhouse gases that are being emitted would accordingly drastically sink. From the long-term perspective of humankind’s survival, degrowth is problematic in at least two ways. First, there is a risk that the general contraction of economic activity would also slow or eliminate progress in the domain of energy, which would, in turn, reduce the probability of successful space colonization due to an absence of suitable energy sources. Second, and more fundamental: If degrowth were to become a dominant societal paradigm, it is uncertain whether the long-term survival of humankind by means of space colonization would be regarded a desirable goal. In a literal sense, establishing extraterrestrial colonies would mean growth; the size of the total human population would grow, and the area of space-time that humans occupy would grow.

In a more philosophical sense, degrowth might even be antithetical to space colonization. Even though both degrowth and space colonization have a similar moral goal – increasing wellbeing – , the ends to that goal are very different. Within degrowth philosophy, the goal is, metaphorically speaking, not to “live beyond our means”: We should strive for “ecological balance”, and such a state should increase the average wellbeing. But the frame of reference is the status quo; Earth and humankind as we know it today. Space colonization, on the other hand, operates with a much larger frame of reference: All the future generations of humans (and other sentient beings) who could enjoy wellbeing if we succeed in colonizing space – and who will categorically be denied that wellbeing if we fail to colonize space [70]. The goal of space colonization as a moral project is not to live beyond our means, but to actively redefine and expand what our means are through scientific and technological progress.

### 1NC – Studies

#### The transition is inevitable and gradual but growth now is key to prevent a crash. Also, their cards lack robust studies

Weiss 17 [Martin Weiss, European Commission – Joint Research Centre, Directorate C – Energy, Transport and Climate, Sustainable Transport Unit. Also Written by Claudio Cattaneo, Autonomous University of Barcelona, Barcelona Institute of Regional and Metropolitan Studies. Degrowth – Taking Stock and Reviewing an Emerging Academic Paradigm. March 15, 2017. https://www.sciencedirect.com/science/article/pii/S0921800916305900]

With the methodological limitations sketched in Section 2, the outcome of our review suggests that the history, concept, and rationale for degrowth are well explained. Yet, the largely descriptive academic discourse lacks rigid hypotheses testing through modelling and empirical assessments. By addressing the research questions and hypotheses identified in Section 5, the academic degrowth discourse could make an important contribution to the debate around a sustainable post-growth development (see also Escobar, 2015).

We expect that degrowth may only receive broader public support if the marginal benefits of the status quo become smaller than those of the next best degrowth scenario for large parts of the population. The degrowth discourse has qualitatively discussed the deficiencies of the status quo but spent little effort to quantify the costs of continued economic growth as well as the well-being benefits of degrowth.

Moreover, growth policies may not necessarily be abandoned on a finite planet earth. Instead, such policies may allow making maximum use of available resources (be it through expanded resource extraction, technological innovation, or increased commodification of society) in the short term, while in parallel enabling the development of means to cope with environmental limits in the long term. Drought in California arguably forced residential water consumption to decrease in 2014 by some 30% (Reese, 2015) without causing major social disruptions. Such a decrease may not have been achievable by appealing to voluntary frugality nor may have water-saving policies obtained sufficient public support by pointing out unsustainable water consumption. The observed water savings might be temporary but show the capacity of humans to adapt in face of acute resource shortage. The case also points to the importance of technology as a catalyst for factor substitution in production and consumption in response to environmental constraints.

To be successful, degrowth has to identify a concrete and inclusive development perspective (see Schwartzman, 2012) for the affluent and powerful elites and the marginalized poor. Direct benefits of degrowth might be experienced by consumers in areas where further growth has obviously become undesirable, such as in the health care industry as illustrated by Missoni (2015), in the food, nutrition and the agricultural sector, or in urban transportation. Degrowth could address psychological stress related to over consumption, long working hours, and the commodification of social relations and highlight the benefits of a simplified life style away from positional competition and towards more collaborative community development. Addressing life quality around resonant human interactions (Rosa, 2015) in face of increasing competition and individuation may be a viable angle to highlight the benefits of degrowth. Decreasing working time can mitigate environmental degradation (Knight et al., 2013; Fitzgerald et al., 2015) and provide a leverage point for virtually all other degrowth proposals. In fact, we would regard a decrease in working time as the single silver bullet through which degrowth can yield personal welfare gains, increase environmental sustainability, enhance democracy, and thus obtain the support of larger parts of the population. Yet, to be a fulfilling choice, reduced working time, and degrowth in more general, may hinge on a wider cultural recognition (see, e.g., Skidelsky and Skidelsky, 2012) that still appears to be hampered under the present societal conditions.

Kallis (2013) argues that societies have the capacity to steer social processes towards degrowth, thereby opposing the view of Sorman and Giampietro (2013) who consider that societies are destined to grow, crash, and adapt. We see a larger and more differentiated space of development to which the degrowth discourse contributes visions for both social and economic adaptation and the mitigation of environmental impacts. In a resource-constraint world, degrowth may occur as a gradual and locally-specific transition (Buch-Hansen, 2014). We argue with Ott (2012) in favor of political prudence through addressing specific problems with specific policies and against the pursuit of grand new utopias that often come with unintended consequences.

### 1NC – AT: Alt

#### Neolib is resilient – global resistance proves

Igor Guardiancich 17, Assistant Professor in the Department of Political Science and Public Management of the University of Southern Denmark, 3/3/2017, “Absorb, Coopt and Recast: Global Neoliberalism’s Resilience through Local Translation”, http://www.euvisions.eu/neoliberalisms-resilience-translation/

One powerful message permeating the book, and which gives a forceful explanation to Colin Crouch’s punchy title is that: “rather than a mass-produced, slightly shrunk, and off-the-rack ideological suit, neoliberalism is a bespoke outfit made from a dynamic fabric that absorbs local color” (5). Even under a full-out attack against some of its basic assumptions, such as the one unleashed in the immediate wake of the global financial crisis, neoliberalism proved resilient beyond its many architects’ wildest dreams. Its capacity to absorb, coopt and recast selected ideas of oppositional social forces has been the most valuable asset guaranteeing its survival. Again, the comparison of the responses to the crisis in Spain and Romania show such adaptability in full.¶ The socialist government of José Luis Rodríguez Zapatero tried to salvage the social-democratic legacies of the Spanish economy by engineering a Keynesian rescue package. Only later, when the disaster of the cajas became apparent and the emergency intensified, did conservative PM Mariano Rajoy embrace more deregulation in the labour market (inspired by the Hartz IV reform) and extensive cuts in the public sector under the strong external pressure of the European Central Bank and of international financial markets.¶ In Romania, local policymakers further radicalized in the aftermath of the Lehman Brothers’ crisis, thereby outbidding the IMF on austerity and structural reforms. Instead of shielding lower-income groups, the opposite strategy of upward redistribution was chosen. By heroically withstanding the external attempts at moderation, the Romanian economy retained an unenviable mix of libertarian achievements (flat-tax rates), experimental neoliberalism (privatized pensions) and mainstream neoliberal orthodoxy (sound finance, labour market deregulation, social policy targeting, privatization of all public companies). Pure laissez-faire ideas such as the replacement of the welfare state by a voluntary, private, Christian charity system were not unheard of.¶ Hence, through an insightful analysis of the ideational underpinnings of its local interpretations, this book shows us that, despite the challenges, neoliberalism is alive and kicking. Ban guides us through half a century of policymaking in Spain and Romania, and embeds his analysis within the related nuances of contemporary liberal economic thought. The research is a valuable addition to a growing literature on the origin of current ideational frames and comfortably sits alongside contemporary classics, such as Mark Blyth’s Austerity: The History of a Dangerous Idea.

### 1NC – AT: Endless War

#### Conflicts have discernable causes and resolutions---specific proposals are key---removing intervention as a tool is worse

Michael **Singh 19**, M.B.A., Harvard University (Baker Scholar); B.A., Princeton University, Lane-Swig Senior Fellow and managing director at The Washington Institute and a former senior director for Middle East affairs at the National Security Council, 11/6/19, “Why the talk of ‘endless wars’ misses the mark”, https://www.washingtonpost.com/opinions/2019/11/06/why-talk-endless-wars-misses-mark/

It’s a notion that is difficult to resist — who exactly is for “endless war,” after all? — and rooted in deep public frustration with the costly but seemingly fruitless interventions of the post-9/11 era. But as a guide to **policymaking**, opposition to **“forever wars”** is not useful. Such terms conflate three separate concerns, each of which demands separate consideration.

First and most fundamentally, opposition to “endless wars” reflects skepticism regarding the deployment of U.S. military forces overseas, and of intervention as a policy tool. According to the Defense Department, there are about 200,000 U.S. service members deployed overseas in nearly 170 different countries or territories — a remarkable number given that there are just 195 countries in the world.

Yet the differences among the United States’ various military missions are stark, and each deserves **independent scrutiny rather than blanket opposition** or, for that matter, knee-jerk support. It should be obvious that the 55,000 U.S. troops in Japan are engaged in different work than our 5,200 or so service members in Iraq. Less well-recognized, however, is how much even one combat mission in the Middle East differs from another.

At its height, the Iraq War involved almost 160,000 U.S. soldiers. The U.S. military mission in Syria, on the other hand, has involved roughly 2,000 soldiers who have rallied a local partner force 70,000-strong, enabled a coalition air campaign, and provided a platform for civilian stabilization activities. It was an altogether more economical deployment, and perhaps even a model for future interventions. Yet both President Trump and his critics have lumped Syria in with Iraq and Afghanistan as another example of “endless war.”

The second concern covered by the term “endless war” is the seeming overemphasis on the broader Middle East in U.S. foreign policy in recent decades; critics use the term to inveigh against involvement in Syria or Afghanistan far more often, than say, Somalia. As we engage in what seems an inevitable shift away from the Middle East, however, we will find that the real problem is less the prioritization of the Middle East than the heavily military focus of U.S. policy there.

External intervention in the region clearly hasn’t always promoted stability — just see post-2003 Iraq. And major wars aren’t the only problem. The United States also sends the lion’s share of our global security assistance — training and equipment — to the Middle East. Yet as events of the past several years attest, these programs have an underwhelming record of delivering security.

On their own, military intervention and security assistance can’t solve the deeper problems that drive conflict, such as stagnant economies or repressive political systems. Nor have they stemmed the growth of violent extremism, which has seen a manifold increase since the terrorist attacks of Sept. 11, 2001. Yet, ironically, even as we have grown weary of intervening, we have also decreased our commitment to promoting economic reform and political liberalization, or to the diplomatic leadership required to prevent conflicts or resolve them short of war.

Finally, worries about “endless war” often stem from a mismatch between stated U.S. objectives and the means we are willing to use to achieve them. This has been a bipartisan malady, and the causes are complex. Our immense military and economic advantages lead us to set unrealistic goals, and the impatience of our politics sometimes leads us to withdraw support even from achievable missions

Syria provides examples of both fallacies. One can fault President Barack Obama, who insisted that “Assad must go” but failed to devise a strategy that could come close to delivering such an outcome. But one can also fault Trump, who refused to spend even the funds that Congress appropriated for stabilization in northeastern Syria and who has reduced a successful 2,000-troop mission to one consisting of several hundred — apparently without scaling back its objectives.

There is no catch-all approach that will end the “endless wars.” One thing we clearly shouldn’t do, however, is to renounce military intervention as a policy tool. The use or the threat of military action has often been a force for **peace and stability** — see, for example, Cold War deployments to Europe, or the NATO mission in the Balkans during the 1990s. If we reduce interventions by ignoring problems around the world, our solace will be temporary as small, far-off crises grow into large, unavoidable ones.

The real antidote to “endless war” is more **disciplined policymaking**. The United States needs to adopt strategies that will reduce the need for interventions, reinvigorating our use of tools like diplomacy, deterrence, and economic statecraft. And when intervention becomes necessary — which it inevitably will — we should use force economically and with clear, realistic aims in mind. A less engaged **U**nited **S**tates benefits neither the world nor ourselves; a **U**nited **S**tates energetically committed to policies designed to prevent conflict will advance not only our own interests, but those of humanity writ large.

### 1NC – AT: Racial Capitalism

#### Racial capitalism fails as a theory.

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

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

### 1NC – Theory

**Theories are holistically false until proven otherwise – infallibility links harder critiques of humanist omnipotence**

**McConachie 7** [Brian, Chair of Theatre Arts at the University of Pittsburgh, "Falsifiable Theories for Theatre and Performance Studies", Theatre Journal 59.4 (2007), 553-577, MUSE]

Can the master theorists in our critical theory consensus make the same claim? All scientific assertions are potentially falsifiable through the use of the scientific method, but what experiments or logics would the master theorists accept as a basis for the falsifiability of their ideas? Looking at the theorists featured in Critical Theory and Performance, one might say that they represent a range of approaches that admit of greater or lesser degrees of falsifiability. At one end of the continuum, the theories of Bourdieu, Habermas, Gramsci, and Williams generally work within the falsifiability protocols of social science, which (though open to dispute) have been fairly well established for fifty years. When Raymond Williams's version of Gramsci's hegemony theory was gaining a curious audience among historians, its potential falsifiability was widely discussed.46 While **social scientists**, including historians, cannot apply falsifiability to their work with the same rigor as scientists who work with nonhuman subjects, **their standards concerning evidence, economy, and consistency are high.**47 Somewhere in the middle of the continuum of falsifiability, perhaps, are the psychoanalytic theories of Freud, their synthesis with semiotics in Lacan, and the many theorists who build their own ideas on some version of a psychoanalytic base. Their advocates often claim scientific validity for these theories. **Most psychologists**, however, **have rejected psychoanalysis and its spin-offs as unfalsifiable**. In her Psychoanalysis and Cognitive Science, for example, Wilma Bucci concludes that Freud's meta-psychology has not "been subject to the empirical evaluation and theory development that is necessary for a scientific field." Specifically, the type of systematic inference that is applied in cognitive science and in all modern science requires explicit **definitions** that limit the meaning of the **concepts**, correspondence rules mapping hypothetical constructs and intervening variables onto observable events, and means of assessing reliability of observation. Each of the indicators that analysts rely on to make inferences about the conscious and unconscious states

 of other persons (as [End Page 571] about one's own conscious states) must itself be **independently validated** as having the implications that are assumed.48 In defense, Freudians and Lacanians often claim that their theories are consonant with good science because their concepts have been scientifically validated in therapeutic sessions.49 **But clinical success**, however it is measured, **is not the same as empirical verification**. Just because "the talking cure" has been effective in some cases does not mean that Freud's or Lacan's explanation for why it worked is valid. Humans have had many explanations for fire over the centuries, but understanding why and how combustion really works must rely on recent physics and chemistry. At the other end of the continuum are theorists such as **Baudrillard**, Derrida, Féral, and other poststructuralists, whose radical skepticism challenges the ability of **science**

or any other discourse to provide a valid standard of falsifiability. The relativism of poststructuralism, including its challenges to empirical verification, defies any **protocols** that might stabilize knowledge based on the slippery signifiers provided by language. Despite what they take to be the inherent contradictions of textual assertions, poststructuralists from Lyotard to Derrida rely chiefly on **logic** and **argumentation** rather than **scientific** or **historical evidence**. Within the assumptions of poststructuralism, Derrida's gnomic remark, "There is nothing beyond the text," is simply unfalsifiable. The critic who wishes to rely on what Derrida might have meant in that statement, however, will have to ignore a great deal of good science in linguistics and evolutionary psychology to be able to assess the probable truth of Derrida's assertion.50 Brian Vickers challenges the **weak** scientific **credentials** of several of the master theorists that many humanist academics have embraced. As he points out with acerbity: Freud's work is **notoriously speculative**, a vast theoretical edifice elaborated with a mere pretense of corroboration, citing "clinical observations" which turn out to be false, with **contrary evidence suppressed, data manipulated**, building up over a forty-year period a **self-obscuring, self-protective mythology**. The system of Derrida, although disavowing systematicity, is based on several **unproven theses** about the nature of language which are supported by a **vast** expanding **web of idiosyncratic terminology**. . . . **Lacan's system**, even more vastly elaborated . . . **is a series of devices for evading accountability**. . . . Foucault places himself above criticism.51 Whether all of Vickers's charges are valid may be less important than his general point: he presents suggestive evidence that these master theorists tried to place their ideas beyond the protocols of falsifiability.

# 2NC

### FW

#### Should implies fiat – desirability requires testing it and they read a card for it – it is resolutional – even if it isn’t, defending a USFG action is which gives the core basis for neg ground

OED No Date

[Oxford English Dictionary, https://www.lexico.com/en/definition/should]

MODAL VERB should 1Used to indicate obligation, duty, or correctness, typically when criticizing someone's actions. ‘he should have been careful’ More example sentences Synonyms 1.1Indicating a desirable or expected state. ‘by now students should be able to read with a large degree of independence’ More example sentencesSynonyms 1.2Used to give or ask advice or suggestions. ‘you should go back to bed’ More example sentences 1.3I shouldUsed to give advice. ‘I should hold out if I were you’ More example sentences 2Used to indicate what is probable. ‘$348 million should be enough to buy him out’ More example sentences 3formal (expressing the conditional mood) referring to a possible event or situation. ‘if you should change your mind, I'll be at the hotel’

#### This is literally example 15b from the article: Should as feasibility is only one aspect of it AND The article title is using should in the context of desired state WHICH PROVES ITS CONCLUSION – lol – but I can’t even follow the link so I don’t know the other 15+ examples and the conclusion

Copley, 06 (Bridget, “**What *should* should mean?**”, semanticist jointly affiliated with the [CNRS](http://www.cnrs.fr) and [Université Paris 8](http://www.univ-paris8.fr), <http://copley.free.fr/copley.should.pdf>)

Example 15b: The beer should be cold by now**, but I have absolutely no idea whether it is.** The judgment for must in (15a) makes sense on the traditional view; if you use must, and thereby convey that on all of the most plausible epistemically possible worlds the beer is cold, it would be strange to then comment that you have no idea whether it is or not, giving rise to an instance of Moore’s Paradox.3 The question is why the sentence in (15b) is not also an instance of Moore’s Paradox. **By the traditional view of should, the speaker is conveying that on most of the most plausible epistemically accessible worlds, the beer is cold**. So if you utter (15b), there must be some reason why most of your most plausible epistemically accessible worlds are p-worlds. [The author defines a p-world as a world in which p is true – for instance, “the beer is cold.”] Perhaps you saw someone put the beer in the fridge. But the fact that there is some reason that the beer is cold on most of the worlds you are considering, is reason enough why you should not be able to assert that you have absolutely no idea if it is cold or not. You do have some idea.

#### **Anticompetitive practices are strategies that have anticompetitive effects**

Wells 16 – Executive Notes Editor, Washington University Global Studies Law Review, J.D., Washington University in St. Louis

Todd Wells, “Exploring the Space for Antitrust Law in the Race for Space Exploration,” Washington University Global Studies Law Review, Vol. 15, 2016, LexisNexis

Antitrust law attempts to fight anti-competitive actions. "Anticompetitive practices refer to a wide range of business practices in which a firm or group of firms may engage in order to restrict inter-firm competition to maintain or increase their relative market position and profits without necessarily providing goods and services at a lower cost or of higher quality." The Organization for Economic Cooperation and Development, Glossary of Statistical Terms, Anticompetitive Practices http://stats.oecd.org.proxy.library.georgetown.edu/glossary/detail.asp?ID=3145. Obviously, with such a broad definition of anticompetitive practices, many types of actions can fall under the regulation of anticompetitive law. This can cover forms of collusion, price fixing, bid rigging, bid suppression, complementary bidding, bid rotation, subcontracting, and market divisions. Price Fixing, Bid Rigging, and Market Allocation Schemes: What They Are and What to Look For, U.S. Dep't of Justice, http://www.justice.gov/atr/ public/guidelines/211578.htm. An even broader approach would put patents under antitrust law. "All of these developments, in Congress and the Courts, are in the spirit of harmonizing patent and antitrust law, generally in the direction of subsuming patent law under antitrust law. From the perspective of providing clarity and certainty for those who are the targets of patent and antitrust suits, harmonization has much appeal." Robin Feldman, Patent and Antitrust: Differing Shades of Meaning,13 Va. J.L. & Tech. 1, 7 (2008).

#### Just says it is often capitalized to define the era of Prohibition – not other definitions of prohibit – plus other context of the resolution proves it requires law

Merriam Webster 21 – https://www.merriam-webster.com/dictionary/prohibition

Definition of prohibition

1: the act of prohibiting by authority

2: an order to restrain or stop

3 (often capitalized) : the forbidding by law of the manufacture, transportation, and sale of alcoholic liquors except for medicinal and sacramental purposes

#### Has to totally ban which requires law

James Lane Buckley 91, Judge on the United States Court of Appeals for the District of Columbia Court, BA and JD from Yale University, Former Undersecretary for Security Assistance at the State Department, Former United States Senator from New York, “Hazardous Waste Treatment Council v. Reilly”, United States Court of Appeals for the District of Columbia Circuit, 938 F.2d 1390, 1395-1396, 1991 U.S. App. LEXIS 16095, 7/26/1991, Lexis

Petitioners claim that the EPA considers a state law to "act as a prohibition" under the regulation only when it bans all treatment, storage, and disposal within a State, and they point to the ALJ's statement, based on his reading of the preamble to the regulations, 45 Fed. Reg. at 33,395, that the EPA "appears to have construed the phrase 'act as a prohibition' in [paragraph (b)] as equivalent to an outright ban or refusal to accept hazardous waste for treatment, storage, or disposal." ALJ Decision at 112. Petitioners contend that the regulation must embrace any law that would even indirectly, as in the instant case, prohibit any treatment facility; otherwise, a State could accomplish a total ban one facility at a time. Senate Bill 114, they charge, epitomizes the "NIMBY" syndrome: In response to the needs of the nation for treatment of hazardous waste, North Carolina has simply said, "Not in my backyard." By refusing to respond, petitioners urge, the EPA ignores its duty to monitor state programs.

Although, at oral argument, government counsel [\*\*13] attempted to defend the "ban on all treatment" position that petitioners ascribe to the EPA, that is not the basis on which the agency concluded that Senate Bill 114 did not act as a prohibition within the meaning of section 271.4(b). In explaining why the second condition of paragraph (b) had not been met, the Regional Administrator emphasized that of the 485 riparian miles available in North Carolina for a facility of the kind proposed by GSX, 333 remained available under the Act, and noted that a smaller plant could be built at the Laurinburg site. Final Decision at 2. We therefore construe the EPA's decision to mean that a state law "acts as a prohibition" on the treatment of hazardous wastes when it effects a total ban on a particular waste treatment technology within a State, and nothing more.

[\*1396] Such a construction is reasonable and merits deference. The language of paragraph (b), which uses the word "prohibit[]" rather than "impede[]" or "restrict[]" as in the case of paragraph (a), suggests that the former allows States greater latitude in regulating particular treatment facilities before a prohibition is found to exist. This is consistent with the preamble's expression of [\*\*14] a desire to encourage the development of state programs by avoiding the establishment of "very tight standards." See 45 Fed. Reg. at 33,385. Second, defining prohibition in terms of the ban of a particular technology falls well within the language of paragraph (b). Finally, we see nothing inconsistent between this construction and the language of the underlying statute, 42 U.S.C. § 6926(b), which merely asserts that a state program may not be authorized if "such program is not consistent with the Federal and State programs applicable in other States." This language allows the agency enormous latitude in structuring its own implementing regulations and in interpreting them.

#### “Expanding the scope” requires new claims beyond existing standards – they don’t by investigation – it’s the only definition that includes the term of art

Epstein 19 [Richard A., Laurence A. Tisch Professor of Law, The New York University School of Law, the Peter and Kirsten Bedford Senior Fellow, The Hoover Institution, the James Parker Hall Distinguished Service Professor of Law Emeritus and Senior Lecturer, the University of Chicago. This Article was presented at a conference sponsored by the Classical Liberal Institute and the Nebraska Law Review, Understanding the Visible: The Undisputed Facts and Disputed Law of Platform Antitrust, held on February 22 & 23, 2019 at the NYU Law School. For the record, I have advised Qualcomm on various antitrust matters over the years, including its current litigation with the FTC. My thanks to William Dawley and Joseph Scopelitis, NYU Law School Class of 2020 for their excellent research assistance., Nebraska Law Review, “SYMPOSIUM: Judge Koh's Monopolization Mania: Her Novel Antitrust Assault Against Qualcomm Is an Abuse of Antitrust Theory”, 98 Neb. L. Rev. 241] \*

The question then arose whether the violation of the Telecommunications Act counted as a violation of the antitrust laws as well. The statutory framework contained two key provisions. The Telecommunications Act was not allowed to preempt the operation of the antitrust laws: "nothing in this Act or the amendments made by this Act shall be construed to modify, impair, or supersede the applicability of any of the antitrust laws."64 By the same token, the status quo was preserved because the Telecommunications Act also did nothing to expand the scope of the antitrust laws. It did not create new claims going beyond existing antitrust standards. The creation of any additional antitrust standards would be equally inconsistent with the saving clause's mandate that nothing in the Telecommunications Act would "modify, impair, or supersede the applicability" of existing law.

#### 5 – Debate does not change the fundamental values of its participants, but it does trend them away from over-reliance on their initial, unvetted gut reactions to symbolic politics in favor of more complex, deep understandings of issues – that takes out their link turn and magnifies the link

Niemeyer 11 [Simon Niemeyer, Centre for Deliberative Global Governance, Research School of Social Sciences, The Australian National University. The Emancipatory Effect of Deliberation: Empirical Lessons from Mini-Publics. 2011. https://unige.ch/sciences-societe/socio/files/2114/0533/6108/002.pdf]

The results of the two case studies in this article suggest that deliberation does not fundamentally change individuals or inculcate a sense of moral duty. The particular values that prevailed in both issues were always present (and measurable), even if they were latent in expressed preferences. Before deliberation, most participants believed they were acting in the public interest,69 but good intentions alone are not sufficient to formulate civic-minded preferences. Predeliberative preferences were more strongly influenced by discourses associated with symbolic politics. Following deliberation, symbolic cues reduced the “cost” of arriving at a decision,70 but the cognitive shortcut resulted in positions that did not properly reflect participants’ overall subjectivity.

Before deliberation, symbolic politics—or at least the mere presence of potent symbols—distorted participants’ preferences. This process may be manipulative and overt, as in the case of the Bloomfield Track, or incidental, as in the case of the Fremantle Bridge. Deliberation successfully corrected the influence of symbolic politics because it provided both the incentive and the means to develop positions on an intersubjective set of recognized issues that extended beyond the narrow set of unhelpful symbolic ones. The mechanism whereby this occurred did not so much involve changing incentive structures, as predicted by institutional rational choice.71 Rather, it changed the decision pathway from a casual understanding of emotionally appealing content to a deeper understanding that allowed participants to better express their own subjectivity. The change was as much a function of stripping away the impact of symbolic arguments as it was due to participants’ increased ability and willingness to deal with issue complexity. This suggests that the transformative effect might be more easily replicated in the wider public sphere than is ordinarily supposed.

# 1NR

### Case

#### CCS is feasible but markets are key – answers every warrant – prefer quals

Burger et al. 16, J.D., executive director of the Sabin Center for Climate Change Law, Columbia University, won the Penny Pether Award for Law Scholarship, and Jessica Wentz, Staff Attorney and Associate Research Scholar, Sabin Center for Climate Change Law, writing on behalf of Amici, Roger Aines, PhD in geochemistry from Caltech and senior scientist (Lawrence Livermore National Laboratory); Sally Benson, PhD in materials science and mineral engineering, Professor in of Energy Resources Engineering, (Stanford University); S. Julio Friedmann, PhD in geology, served as the Principal Deputy Assistant Secretary at the DOE, former Chief Technologist, and currently Senior Advisor for Energy Innovation (Lawrence Livermore National Laboratory); Jon Gibbins, PhD in chemical engineering, Director of the United Kingdom CCS Research Centre (United Kingdom CCS Research Centre); Raghubir Gupta, PhD in chemical engineering, Vice President of RTI International’s Energy Technology Division (RTI International); Howard Herzog, Senior Research Engineer at the MIT Energy Initiative (Massachusetts Institute of Technology); Susan Hovorka, PhD in geology, Senior Research Scientist at the Bureau of Economic Geology, Jackson School of Geosciences (University of Texas at Austin); Meagan Mauter, PhD in chemical engineering, Assistant Professor in Civil Environmental Engineering and Engineering and Public Policy (Carnegie Mellon University); Ah-Hyung (Alissa) Park PhD in chemical and biomolecular engineering, Associate Director of the Lenfest Center for Sustainable Energy at Columbia University and the Lenfest Junior Professor in Applied Climate Science (Columbia University); Gary Rochelle, PhD in chemical engineering, professor at the University Of Texas Austin Department of Chemical Engineering (University of Texas at Austin); Jennifer Wilcox, PhD in chemical engineering, associate professor (Colorado School of Mines), December, ‘16

(Michael, Brief for Amici Curiae Carbon Capture and Storage Scientists in Support of Respondents, in State of North Dakota et al. v. EPA, December 21, No. 15-01381, \*language modified)

CCS IS AN ADEQUATELY DEMONSTRATED SYSTEM FOR REDUCING CO2 EMISSIONS FROM COAL-FIRED POWER PLANTS There is ample evidence to support EPA’s determination that CCS is an adequately demonstrated system for reducing CO2 emissions from coal-fired power plants. As detailed herein, **CCS technologies have been proven through decades of experience in industrial applications and are now being successfully deployed on a large scale to capture and permanently store CO2 emissions from power plants**. Petitioners’ assertion that CCS component technologies “exist only in highlysubsidized, pilot-scale, or experimental form” is simply **untrue.** State Petitioners’ Brief at 4. Petitioners also assert that CCS is not adequately demonstrated for power plants because there is no power plant that applies all of the components of the BSER, namely post-combustion capture, pipeline transport, and deep saline storage. Non-State Petitioners’ Brief at 49. But these components are highly modular and easily linked, and it is entirely appropriate to conclude that CCS is an 3 For more on the technology forcing elements of Section 111(b), see Brief for Amici Curiae Technological Innovation Experts in Support of Respondents. USCA Case #15-1381 Document #1652097 Filed: 12/21/2016 Page 16 of 46 7 adequately demonstrated system based on evidence that each component is adequately demonstrated. Moreover, as discussed below, there are a number of large-scale CCS systems in operation and under construction which prove that these components can be successfully integrated to meet the NSPS. In support of these arguments, this section: (a) reviews how CCS technologies have been successfully developed and scaled-up in the industrial context; (B) explains how existing CCS technologies, including those developed in the industrial context, are applied to power plants; and (C) describes the many CCS systems that are currently installed at power plants and industrial boilers. A. CCS Technologies Have Been Successfully Deployed and Scaled Up in Industrial Applications CCS technologies **have been successfully used in industrial applications for decades**, often in commercial contexts, and many large-scale, integrated CCS projects are now in operation or under construction. After decades of experience and hundreds of CCS projects, we know a great deal about CCS technologies, and there are no technical barriers to implementing CCS. S. Julio Friedmann, CO2 Capture and Sequestration, in Fossil Energy: Selected Entries from the Encyclopedia of Sustainability Science and Technology 597, 598 (2012). USCA Case #15-1381 Document #1652097 Filed: 12/21/2016 Page 17 of 46 8 1. Development of CCS Component Technologies CO2 capture technology was first invented in the 1930s to remove CO2 from natural gas. The process used then (chemical absorption), which is still in use today, involves the use of chemical solvents, typically amines, to **separate CO2 from other gases**. In the late 1970s and early 1980s, industrial sources began to use this process to separate CO2 from flue gas streams so that it could be sold in enhanced oil recovery (“EOR”) operations and other industrial applications. 4 Anand Rao & Edward Rubin, A Technical, Economic, and Environmental Assessment of Amine-Based CO2 Capture Technology for Power Plant GHG Control, 36 Environ. Sci. Technol. 4467, 4468 (2002). Chemical absorption technologies have been refined over the past 40 years and are now routinely used in post-combustion capture at power plants. The number and scale of CO2 capture operations have grown considerably in the past decade. There are hundreds of capture systems in operation, including 15 large-scale integrated CCS projects with capture rates that significantly exceed 4 The longest running flue gas capture project is the Searles Valley Minerals soda ash plant in California, which has operated since 1978. It uses post-combustion amine-based chemical absorption (the same capture technology underpinning the NSPS) to capture approximately 270,000 MT CO2 per year from the flue gas of a coal-fired boiler. The fact that the capture system is installed at an industrial boiler as opposed to a utility boiler has no bearing on the effectiveness of the technology. Report of the Interagency Task Force on Carbon Capture and Storage, 31 (2010), EPA-HQ-OAR-2013-0495-11416. USCA Case #15-1381 Document #1652097 Filed: 12/21/2016 Page 18 of 46 9 what would be required under the NSPS. 5 Capture technologies have expanded to include physical absorption, membrane separation, adsorption, and cryogenic separation as well as chemical absorption. All of these technologies can be used in power plants, but chemical absorption is the preferred method for post-combustion capture due to the advanced status of the technology. IEA, 20 Years of Carbon Capture and Storage: Accelerating Future Deployment (2016). CO2 that is captured for use or storage is typically transported via pipeline to the end use or storage site. Operators have decades of experience in CO2 pipeline transport, and there are now thousands of miles of CO2 pipelines in the U.S. 6 The development of permanent geologic CO2 storage technologies began in the early 1970s, when captured CO2 was first injected into oil wells to boost oil recovery in EOR operations. EOR operations have expanded significantly since then: worldwide, the number of CO2 EOR projects has increased from 40 projects in 1984 to 142 projects in 2012. Bruce Hill, Susan Hovorka & Steve Melzer, Geologic Carbon Storage Through Enhanced Oil Recovery, 37 Energy Procedia 6808, 6811 (2013). Use of CO2 in EOR has contributed to “rapid progress” in the evolution of both CO2 transport and geologic storage technologies. Sally Benson, 5 See Table 1, infra page 11, for a list of these systems. 6 See Section II(B)(2), infra page 17, for more information about U.S. CO2 pipeline infrastructure. USCA Case #15-1381 Document #1652097 Filed: 12/21/2016 Page 19 of 46 10 Overview of Geologic Storage of CO2, in Carbon Dioxide Capture for Storage in Deep Geologic Formations, 665 (2005). The CO2 EOR industry now has “a proven track record of safely injecting CO2 into geologic formations” for permanent storage. National Energy Technology Laboratory, Carbon Dioxide Enhanced Oil Recovery, 17 (2010). In the 1990s, researchers began to experiment with other CO2 storage methods. One of the best developed methods is deep saline storage, which relies on many of the same technologies used for EOR. There are now several large scale projects that have stored large quantities of CO2 in deep saline reservoirs without any CO2 leakage. 7 The IEA has concluded that deep saline storage, like EOR, is a proven method for permanent sequestration of CO2. IEA, CO2 Capture and Storage: A Key Carbon Abatement Option, 81 (2008). 2. Development of Large-Scale Integrated CCS Systems There are now fifteen large-scale integrated CCS projects in operation around the world, including the power sector project at Boundary Dam (see Table 1, next page). Global CCS Institute, The Global Status of CCS 2016 (2016). All of these projects have CO2 capture rates that exceed what would be required for a 500 7 These deep saline storage projects are further discussed in Section II(B)(3), infra page 19. USCA Case #15-1381 Document #1652097 Filed: 12/21/2016 Page 20 of 46 11 MW SCPC to achieve the NSPS. Roughly half of them use chemical absorption, demonstrating the viability of this capture technology. Table 1: Large-Scale Integrated CCS Systems8 Project Date CO2 Source Capture Pipeline Storage Rate MMT/yr\* Shute Creek (U.S.) 2010 – present Natural gas processing Cryogenic separation 460 km EOR 6-7 Century Plant (U.S.) 2010 – Present Natural gas processing Physical absorption 43 km EOR 5 Great Plains Synfuels (U.S.) 2000 – Present Coal gasification Physical absorption 315 km EOR 3 Val Verde Plant (U.S.) 1998 – Present Natural gas processing Physical absorption 130 km EOR 1.3 In Salah (Algeria) 2004 – 2011 Natural gas processing Chemical absorption 14 km Deep saline 1 – 1.2 Quest (Canada) 2015 – present Hydrogen production Chemical absorption 64 km Deep saline 1 Air Products (U.S.) 2013 – present Hydrogen production Vacuum swing adsorption 158 km EOR 1 Lost Cabin Gas (U.S.) 2013 – present Natural gas processing Physical absorption 374 km EOR 0.9 Sleipner (Norway) 1996 – present Natural gas processing Chemical absorption 240 km Deep saline 0.85 8 Data: Global CCS Institute, Large Scale CCS Projects, https://www.globalccsinstitute.com/projects/large-scale-ccs-projects, EPA-HQOAR-2013-0495-11650; MIT CCS Technologies Program, Project Database, https://sequestration.mit.edu/tools/projects/index.html. USCA Case #15-1381 Document #1652097 Filed: 12/21/2016 Page 21 of 46 12 Boundary Dam (Canada) 2014 – present Power generation Chemical absorption 66 km EOR / deep saline 0.8 Uthmaniyah (Saudi Arabia) 2015 – present Natural gas processing Chemical absorption 85 km EOR 0.8 Abu Dhabi (United Arab Emirates) 2016 – present Iron and steel production Chemical absorption 43 km EOR 0.8 Coffeyville Fertilizer (U.S.) 2013 – present Fertilizer production Physical absorption 112 km EOR 0.7 – 0.8 Snøhvit (Norway) 2008 – present Natural gas processing Chemical absorption 143 km Deep saline 0.7 Petrobas Santos Basin (Brazil) 2013 – present Natural gas processing Membrane separation N/A - direct injection EOR 0.7 Enid Fertilizer (U.S.) 1982 – present Fertilizer production Chemical absorption 225 km EOR 0.7 \* MMT = Million Metric Tons There are also a number of smaller projects and projects under development that further demonstrate the feasibility of integrated CCS.9 One notable example is the Archer Daniels Midland (“ADM”) Illinois Industrial CCS Project. During the initial phase of this project (November 2011-2014), ADM captured 1 MMT CO2 from its ethanol plant in Decatur, Illinois using a chemical absorption process. The CO2 was transported via pipeline to a deep saline storage site 1.6 km away. ADM 9 Power sector projects are discussed in Section II(C), infra page 24. USCA Case #15-1381 Document #1652097 Filed: 12/21/2016 Page 22 of 46 13 is now scaling up the system so that it will capture approximately 1 MMT per year, starting in early 2017. Global CCS Institute, Illinois Industrial CCS Project, https://www.globalccsinstitute.com/projects/illinois-industrial-carbon-capture-andstorage-project. B. CCS Technologies Developed in Industrial Contexts Can Be Used at Coal-Fired Power Plants Technologies that have been proven in the industrial sector can be used to capture, transport, and store CO2 from coal-fired power plants. Berend Smit, AhHyung (Alissa) Park, & Greeshma Gadikota, The Grand Challenges in Carbon Capture, Utilization, and Storage, 2(55) Front. Energy Res. 1 (2014). This section explains how each CCS component can be implemented at power plants. 1. CO2 Capture There are three types of systems that can be used to capture CO2 from power plants: post-combustion systems, pre-combustion systems, and oxy-combustion systems. Heleen de Coninck & Sally M. Benson, Carbon Dioxide Capture and Storage: Issues and Prospects, 39 Annu. Rev. Environ. Resour. 243, 248 (2014); Jennifer Wilcox, Introduction to Carbon Capture, in Carbon Capture (2012). There are also different capture processes that can be deployed within these systems, the dominant ones being: chemical absorption, physical absorption, adsorption, and membrane separation. USCA Case #15-1381 Document #1652097 Filed: 12/21/2016 Page 23 of 46 14 The NSPS is based on the emissions reductions that could be achieved through a post-combustion capture system that captures a modest proportion of a plant’s overall emissions.10 In a post-combustion system, CO2 is removed after the combustion of fuel at a power plant or industrial source, typically through chemical absorption with an amine-based solvent. Post-combustion capture based on amine scrubbing is a “mature technology” that has been proven in many projects and is “the technology of choice for the first fossil fuel power plants with CO2 capture.” Eva Sanchez Fernandez et al., Operational Flexibility Options in Power Plants with Integrated Post-Combustion Capture, 48 Intl. J. Greenhouse Gas Control 275, 275 (2016). See also Dennis Leung et al., An Overview of Current Status of CO2 Capture and Storage Technologies, 39 Renewable & Sust. Energy Rev. 426 (2014) (finding that post-combustion capture is the most mature process for CO2 capture for new and existing power plants). Vendors now offer technology products specifically developed for large-scale post-combustion capture at power plants (often accompanied by performance guarantees). 11 10 As noted above, the NSPS does not mandate the use of any specific technology, and can be met by co-firing with natural gas or using a different CCS system. 11 These products include: Fluor Daniel Econamine FG Plus, Mitsubishi Heavy Industries KM-CDR, BASF/Linde OASE Blue, and Shell Cansolv. EPA, Technical Support Document: Literature Survey of Carbon Capture Technology, 10-11 (2015), EPA-HQ-OAR-2013-0495-11773. USCA Case #15-1381 Document #1652097 Filed: 12/21/2016 Page 24 of 46 15 The maturity of post-combustion capture technologies is due in large part to extensive experience with amine solvents. As noted above, amine-based absorption was first developed in the 1930s, and is currently the dominant capture technology in both industrial and power sector applications. Friedmann, supra, at 602. The cost and effectiveness of absorption-based capture systems has improved considerably in recent years due to advances in amine-based solvents. de Coninck & Benson, supra, at 248. See also Xiaomei Wu, The Advances of Post-Combustion CO2 Capture with Chemical Solvents, 63 Energy Procedia 1339 (2014); PaulEmmanuel Just, Advances in the Development of CO2 Capture Solvents, 37 Energy Procedia 314 (2013). Many companies continue to refine their amine-based capture systems to enhance performance and reduce costs.12 Researchers are also experimenting with new types of liquid and solid solvents that could lead to breakthroughs in absorption-based capture.13 Pre-combustion and oxy-combustion systems are not part of EPA’s BSER determination, but these systems can also be used to meet the NSPS. In precombustion systems, fossil fuel is partially oxidized in steam and oxygen under high temperature to produce hydrogen-rich syngas and then CO2 is separated from 12 These companies include: Mitsubishi, General Electric, Babcock and Wilcox, Aker Clean Carbon, HTC, and Huaneng. 13 See Section III, infra page 31. USCA Case #15-1381 Document #1652097 Filed: 12/21/2016 Page 25 of 46 16 the resulting syngas before it is burned to generate power. These systems are welldeveloped in the industrial applications such as coal-to-chemical facilities14 but they can only be deployed at gasification plants. Yeung et al., supra, at 429. In oxy-combustion, fuel is burned in oxygen instead of air, and the resulting flue gas consists mainly of CO2 and water vapor. The water vapor is then condensed and separated from CO2 through cooling. Although these two technologies have not deployed into power markets as rapidly as post-combustion, many experts agree that **pre-combustion and oxy-combustion could prove increasingly viable for carbon capture in the future.** There are also alternative capture processes, such as physical absorption, adsorption and membrane-based separation, which are not as mature as absorption and not yet considered an attractive option for large-scale CO2 capture (and thus not part of the BSER). 15 But advances in these processes may make them more attractive and cost-effective for power plants in the near term.16 This was 14 E.g., Eastman Chemical Company has successfully operated a pre-combustion system at its coal-to-chemicals facility in Kingsport, TN since 1984. The system captures approximately 200,000 MT CO2 / year. 15 Adsorption, which involves the use of solid sorbents to remove CO2 from flue gas, is not yet considered an attractive option because the capacity and CO2 selectivity of available adsorbents is low. Membrane-based capture, which involves the use of chemical membranes to separate CO2 from flue gas, is not yet preferred due to the complexity of these systems. 16 See Section III, infra 31. USCA Case #15-1381 Document #1652097 Filed: 12/21/2016 Page 26 of 46 17 highlighted recently by the US DOE in open stakeholder workshops that show many promising technologies for dramatic cost reductions. DOE, 2014 Transformational Carbon Capture Technology Workshop, https://www.netl.doe.gov/research/coal/carbon-capture/workshop-2014. 2. CO2 Transport As noted above, large-scale CO2 pipeline transport has been occurring for decades, primarily for the purpose of supplying CO2 to EOR operations and other industrial applications. There are currently 5,195 miles of dedicated CO2 pipelines in the U.S., which transport more than 68 million tons of CO2 per year to industrial uses and storage sites. DOE, A Review of the CO2 Pipeline Infrastructure in the U.S., DOE/NETL-2014/1681 (2015); U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration, Data & Statistics, http://phmsa.dot.gov/pipeline/library/data-stats. The overall length and capacity of existing CO2 pipeline infrastructure dwarfs what would be needed to transport the amount of CO2 captured by plants complying with the NSPS. 17 Thus there is no question that CO2 transport systems can be built on the scale necessary for compliance with the NSPS. 17 Existing capacity is equivalent to the capacity needed to transport CO2 from nearly 200 new 500 MW plants, each capturing 354,000 MT CO2 per year. USCA Case #15-1381 Document #1652097 Filed: 12/21/2016 Page 27 of 46 18 EPA used 100 km as a reference point for pipeline length when evaluating the technical and economic feasibility of the NSPS. 18 This figure does not reflect the maximum feasible distance for CO2 transport. The length of CO2 pipelines in North America ranges from 1.9 to 808 km. IEA, CO2 Pipeline Infrastructure, Report no. 2013/18 (2014). Many of these pipelines are over 200 km. Id. The longest of these pipelines, the Cortez Pipeline (808 km) transports approximately 20 MMT CO2 per year to an industry CO2 hub at Denver City, Texas, where it is then distributed for use in EOR operations. Id. Pipeline transportation represents a small proportion of CCS costs. To further reduce costs, plants could be sited close to storage sites or existing transport infrastructure (so as to tap into EOR markets and displace natural CO2 sources). 19 **Costs can also be reduced by building** CO2 collection pipelines and **hubs that serve multiple users** – an approach already taken by private companies in the development of EOR infrastructure. See de Coninck & Benson, supra, at 250 (noting that “[t]ransport of CO2 by pipeline benefits from economies of scale and favors collaborative hub-and-spoke transport systems rather than point-point 18 Petitioner EPA’s Brief at 33-34, n. 16. 19 Air Products is a good example: captured CO2 from a steam methane reformer is transported via a dedicated 21 km CO2 pipeline to the existing 515 km DenburyGreen pipeline for delivery to EOR operations, where it replaces natural CO2 sources. The Kemper County Integrated Gasification Combined Cycle (“IGCC”) CCS project will also connect to the Denbury-Green pipeline for delivery to EOR. USCA Case #15-1381 Document #1652097 Filed: 12/21/2016 Page 28 of 46 19 systems” and that “innovative financing schemes” can be used for multi-user pipelines). 3. CO2 Storage The mean estimate of geologic CO2 storage capacity in the U.S. is 3,000 gigatons CO2. USGS, National Assessment of Geologic Carbon Dioxide Storage Sources (2013), EPA-HQ-OAR-2013-0495-0044. This is enough to store the captured CO2 from approximately 85,000 500 MW coal-fired plants operating for 100 years (each capturing 354,000 MT CO2 / year).20 There are a variety of geologic storage options located throughout the U.S., including: deep saline aquifers, EOR sites, and “deep” or “unmineable” coal seams. CO2 can also be stored permanently through mineralization and conversion to usable materials. EPA based the NSPS on the feasibility of deep saline storage, but has also stated that entities can comply with the standard through other storage approaches, including through EOR. 80 Fed. Reg. 64589. The availability of these other storage options will make it much easier and cheaper for some units to comply with the 20 As a point of reference, there are less than 1,000 coal-fired power plants in the U.S. (average capacity: 315 MW), and only a few planned units; thus, theoretical storage capacity is orders of magnitude larger than what would be needed to store CO2 emissions from both planned and existing units. IEA, Electricity, https://www.eia.gov/electricity/data.cfm. USCA Case #15-1381 Document #1652097 Filed: 12/21/2016 Page 29 of 46 20 NSPS. EPA has thus taken a conservative approach in determining the technical viability and costs of CO2 storage in the United States. Deep saline storage is an excellent option for sequestering CO2 emissions. Deep saline formations are found throughout the U.S. and have enormous CO2 storage capacity. Michael Szulczewski et al., Lifetime of Carbon Capture and Storage as a Climate-Change Mitigation Technology, 109(14) PNAS 5185 (2012). As noted in the previous section**, deep saline storage has been proven technically viable through decades of experience and many large-scale projects**. These include Sleipner (Norway), which has stored 16.2 MMT CO2 since 1996; Snøhvit (Norway), which has stored nearly 3 MMT CO2 since 2008; In Salah (Algeria), which stored 3.8 MMT CO2 from 2004 through 2011; Quest (Canada), which has stored 1 MMT since 2015; and the ADM Illinois Industrial Project. Global CCS Institute, Projects, https://www.globalccsinstitute.com/projects. **There has been no CO2 leakage reported from any of these projects.** Petitioners argue that the standard is invalid because deep saline storage has not been proven. In support of this argument, petitioners state that the three largescale projects cited by EPA (In Salah, Sleipner and Snøhvit) are not integrated with carbon capture at steam units. The fact that these projects are not connected to steam units is irrelevant to the question of whether deep saline storage has been USCA Case #15-1381 Document #1652097 Filed: 12/21/2016 Page 30 of 46 21 proven: the same technical considerations and costs would apply regardless of whether the CO2 is sourced from a power plant or an industrial unit. Petitioners also allege that two of the projects (In Salah and Snøhvit) have suffered “serious setbacks” which have caused them to “cease injection earlier than planned.” Non-state Petitioners’ Brief at 30. While it is true that In Salah suspended injection in 2011 due to pressure build-up and concerns about CO2 migration, this project is still viewed as a success due to the large quantities of CO2 that were successfully injected, the fact that the monitoring program served its purpose (identifying a risk of potential leaks before those leaks occurred), and the valuable lessons learned for future projects. As for Snøhvit, petitioners’ claim that there were “serious setbacks” causing early cessation of injection is false: the operator detected a pressure build up in the formation, modified the injection well in 2011, and has continued injection without incident since then. Modifications and revisions of injection strategy after observation of reservoir response to injection are a normal part of any injection operation, and should not be considered setbacks. As noted above, the rule also allows power plants to use other methods to store CO2. EOR is an excellent alternative, as it provides a “readily available pathway to large volume storage” of captured CO2, and **selling CO2 for EOR can help offset the costs of a CCS system.** Hill, Hovorka & Melzer, supra, at 6809. USCA Case #15-1381 Document #1652097 Filed: 12/21/2016 Page 31 of 46 22 There is already **abundant demand for CO2 in U.S. EOR operations**,21 and many EOR “reservoir targets have not been flooded because of limited CO2 supply.” Id. at 6808. EOR sites are ideal for sequestration because they: 1) contain reservoirs that have held hydrocarbons over geologic time, 2) have proven reservoir injectivity, 3) may offer “stacked storage” potential,22 4) are linked to existing CO2 pipeline and injection infrastructure, 5) generate revenue for capturing companies, and 6) offer monitoring advantages due to available well infrastructure, experienced service company presence, and dense pre-injection data. Id. at 6808-09. There are also other geologic storage sites, such as unmineable coal beds, that can be used to sequester carbon. To increase the diversity of options for geological CO2 storage, researchers are currently evaluating the potential of CO2 storage in basalt formation, which would rely on geochemical reactions between the CO2 and basalt to mineralize the CO2. De Conick & Benson, supra, at 252. 21 In 2010, the rate of CO2 EOR injection was about 9 MMT per year. National Energy Technology Laboratory, supra, at 17. 22 “Stacked storage potential” refers to the potential for combining EOR and deep saline storage. Many EOR sites have saline formations below the depleted producing zones. An EOR operator could contract with a power plant to provide storage for captured CO2 in those saline formations. In this manner, “CO2 EOR can prepare the way for continued and larger volume storage in underlying saline formations.” Hill, Hovorka & Melzer, supra, at 6816. USCA Case #15-1381 Document #1652097 Filed: 12/21/2016 Page 32 of 46 23 Scientists have recently demonstrated that this form of “in situ” carbon mineralization is a viable storage option. Juerg Matter et al., Rapid Carbon Mineralization for Permanent Disposal of Anthropogenic Carbon Dioxide Emissions, 352 Science 1312 (2016). See also Jennifer Wilcox, The Role of Mineral Carbonation in Carbon Capture, in Carbon Capture (2012). Finally, there are approaches currently under development to transform CO2 into useable materials that could be sold to offset the costs of CCS systems. 23 These include: ex situ carbon mineralization (which would allow the mineralized carbon to be used as a material for construction or other applications), and using captured CO2 as a chemical feedstock. Smit, Park, and Gadikota, supra, at 2. Using these approaches, scientists have successfully turned CO2 into materials such as concrete and carbon monoxide (which can then be used to make a range of materials including fuels, plastics, and pharmaceuticals). CO2 Can Be Turned Into Sustainable Concrete, The Chemical Engineer (Mar. 16, 2016); Song Lin et al., Covalent Organic Frameworks Comprising Cobalt Porphyrins for Catalytic CO2 Reduction in Water, 349 Science 1208 (2015).

#### We are over the tipping point- only CCS solves but continued tech innovation is key

Welch 19 [Craig Welch. covers the environment and natural resources, with a focus on climate change and oceans @ NatGeo, part of a team that won the 2015 Pulitzer Prize for Breaking News for coverage of the deadliest landslide in U.S. history, and has won journalism awards from the National Academy of Sciences, the Society of Environmental Journalists, and the Overseas Press Club, among others, was a Nieman Fellow at Harvard University. “To curb climate change, we have to suck carbon from the sky. But how?” 1/17/19. https://www.nationalgeographic.com/environment/2019/01/carbon-capture-trees-atmosphere-climate-change/]

In the three years since 195 nations committed in Paris to cap global temperature increases at 2 degrees Celsius—while also agreeing to aim for 1.5 degrees—a few things have become bracingly clear.

The world must quickly stop burning fossil fuels. And that is no longer enough.

Again and again, including in a major report published fall, the Intergovernmental Panel on Climate Change and other science bodies have reached a stark conclusion: Most paths to halting global temperature increases at 2 degrees—and every path to reach 1.5 degrees—rely in some way on adopting methods of sucking CO2 from the sky.

It is a significant about-face. For years many scientists dismissed or downplayed the most highly engineered CO2 removal strategies. Those techniques were often lumped in with more dangerous forms of "geoengineering," such as injecting sulfates or other aerosols into the stratosphere to reflect sunlight and cool the planet. Focusing money and energy on any such technological fix seemed both risky and fraught with "moral hazard"—a distraction from the urgent need to cut emissions by slashing use of coal, oil, and gas.

But now many see "negative emissions," as CO2 removal strategies are also called, as an essential bridge to a clean-energy future.

"CO2 removal has gone from a moral hazard to a moral imperative," says Julio Friedmann, senior research scholar at the Center for Global Energy Policy at Columbia University.

There are several reasons for the shift. For starters, attempting to set a hard target at 1.5 or 2 degrees gives the world an emissions cap. With carbon emissions from fossil fuels estimated to have risen 2.7 percent in 2018, we're clearly not moving fast enough to reduce emissions—or even in the right direction.

"The longer we have postponed drastic reductions, the more daunting the challenge of achieving those reductions in the necessary time frame," says Erica Belmont, a University of Wyoming engineering researcher.

Even if the developed world rapidly switched to clean fuels, poorer countries would likely take longer. Emissions from some industries, such as **cement and steel production, will be hard to eliminate**, and alternative fuels for air travel are expected to remain expensive for quite some time.

Rapid progress

The good news is that CO2-removal technology has advanced far faster than expected in the last decade, says Stephen Pacala, a Princeton professor who oversaw a study of carbon removal strategies published this fall by the National Academies of Science.

The costs of machines that directly capture CO2 from the air have fallen by two-thirds or more. Meanwhile, at least 18 commercial-scale projects around the world already capture CO2 from the smokestacks of coal or natural gas plants, storing it underground or even using it to create other products. Costs of that technology have dropped by half in a dozen years. While removing CO2 from smokestack gases is not the same as removing it from the ambient air—the former prevents new emissions, the latter cleans up old ones—both techniques require some means of sequestering CO2 after it’s captured. Additionally, advances in research and development from industrial carbon-capture can help drive innovation in efforts to pull old carbon from the atmosphere.

"Post-combustion carbon capture and direct air capture processes have significant components where know-how is transferable," says Christopher W. Jones, associate vice president for research at Georgia Institute of Technology.

Equally important, the political will to subsidize carbon removal appears to be growing. Even a GOP-led Congress hostile to climate change worked last year with climate hawks like Sen. Sheldon Whitehouse, D-Rhode Island, to approve a $50-a-ton tax credit for specific types of CO2 removal, including negative emissions techniques such as direct-air capture.

“We need to design and deploy technology to capture lots of carbon from our atmosphere at a pace never before seen," Sen. Whitehouse told National Geographic. "That’s why I’ve been pursuing legislation to help drive the development of that technology."

"You are a pessimist if you work on the science of climate impacts, because you see little action," Pacala says. "The people who know the most are the most freaked out. They've seen emissions go up and up and see a train wreck coming."

But scientists studying negative emissions, Pacala continues, "have seen the most spectacular technological achievements in energy technology in the last 10 years. We've gone from having no tools to do this, to just seeing this unrelenting progress."

He and the other authors of the National Academies report concluded that a concerted multi-billion-dollar research and development **push** by government and the private sector might within 10 years produce market-ready technology that directly removes CO2 from ambient air on a massive scale.

#### Growth is good---absolute decoupling and tech solve overshoot---de-growth is unpopular and hurts the transition.

Blomqvist 18. (Linus; 5/8/2018; Director of Conservation at the Breakthrough Institute, studied geography at Cambridge University in the UK, worked extensively for conservation organizations in various countries; “Green Growth Is Still Possible A Response to the Decoupling vs. Degrowth Debate,” https://thebreakthrough.org/voices/decoupling-debate)

In Hickel’s view, the difference in impact between various types of resource use isn’t a big enough difference… to make a difference. But is this true? Hickel makes no attempt to provide broad, systematic empirical support for this claim, which he mostly treats as a self-evident truism. As he puts it, “This is the thing about ecology, you see: everything is connected.” He offers a vivid image of an open pit mine to convince the reader that all resource consumption is bad enough to justify using Hickel’s chosen metric as a proxy for impacts.

I remain unconvinced. Research indicates that **different materials vary many orders of magnitude** in their impacts per unit mass — many orders of magnitude. Glossing over the considerable differences in impact between material resources is a poor empirical foundation for making the kind of categorical assertion that Hickel wishes to make about the **viability of decoupling as a long-term solution** to environmental problems.

When one considers individual impacts like land use, absolute decoupling is far from impossible. In fact, decoupling has already occured for some significant environmental impacts. I pointed to **land use by agriculture** as a key example, which according to FAO data has been in slight decline since the mid 1990s, even as **consumption** of crops and meat has **increased by 60%.** Since agricultural expansion is **one of the leading causes** of habitat loss, biodiversity loss, and greenhouse gas emissions, this is quite encouraging. Shouldn’t we be asking how this was achieved, and if/how we can replicate this success for other impacts? Yes, theoretically speaking, the environmental benefits of increasing agricultural efficiency may even be fully offset by environmental impacts of agricultural modernization (which I don’t believe is the case, based on the data), but this should be an empirical question. Hickel’s imprecise analysis and vague appeals to ecological connectedness just aren’t enough.

Now, the issue of Hickel’s proposed solution: slowing GDP growth.

The strongest argument against decoupling as a pathway towards a sustainable human future isn’t that it’s impossible, as Hickel claims, but that it isn’t occurring quickly enough to prevent unacceptable environmental impacts. On the one hand, **we seem to be** moving in the right direction: GDP growth **slows down as countries get richer**, as does population growth, and technology **keeps on its steady march** towards higher efficiency. Rebounds in consumption do occur as a result of rising affluence, but research indicates that they do not typically negate the environmental benefits of modernization. At the same time, one may believe that decoupling trends may be insufficient at their current trajectory.

If one believes that decoupling is occurring too slowly, one may be inclined to also advocate for slowing economic growth in wealthy nations, as Hickel suggests. “Perhaps Blomqvist – or anyone at the Breakthrough Institute – could explain why they think that rich, high-consuming nations (like the US, for instance) need to keep growing their GDP (forever?), when we know that additional growth is not generating any better social outcomes.”

There is **substantial reason to doubt** that reducing GDP growth in the developed world will have the environmental benefit that Hickel seemingly believes it must, given that it is **in developed countries** that the promising decoupling trends have emerged. Further, in rich countries, GDP and population growth have already slowed, and demand for many goods has saturated.

What about developing countries? Given Hickel’s fixation on consumption, he should be most concerned about the developing world, where the great majority of growth in resource use is going to come from. But it’s not clear what his proposal is here. This isn’t surprising. Intentionally slowing GDP growth in developing countries is a **problematic political and ethical proposition**, given how much these countries would benefit from higher incomes, better infrastructure, and more employment. I would also argue that limiting GDP growth in poor countries is likely to delay the very transitions we need to achieve peak impact: **slower population growth and higher efficiency**.

#### No transition even if a mindset shift happens – elites will cling to power which inevitably causes conflict that upsets the transition

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

The second part of this paper highlighted some of the challenges that we can expect to face from a transition towards degrowth even if attention shifts towards needs satisfaction. A sociological perspective helps to highlight how very deeply rooted the growth principle has become not only for the economic system, but also for a host of other systems that have co-evolved around growthbased capitalism, including the nation state, democracy, the legal, financial, welfare and associated cultural systems. The challenge for the degrowth transition will be that these co-evolved systems need to transform in tandem if wellbeing is to be maintained. It is not yet well understood how this can be organised and which wellbeing implications this transition may have. The social practices perspective highlights that the coupling of these systems around growth-based capitalism is not just a ‘macro’ phenomenon which could be changed through policy making, but also a ‘micro’ phenomenon, embedded in and reproduced by people’s minds and bodies through their daily practices. It is this cultural layer of growth ‘lock in’ that is difficult to change through political means.

In other words, degrowth societies would be societies that are organised according to fundamentally different cultural, social, economic, political and technological principles as the ones that are dominant at the moment, organised around the growth ideology. To emphasise this does not mean to say these current principles and ways in which current institutions are organised around them cannot change. But it helps to increase our sensitivity regarding the monumental extent of change that lies ahead and the likely challenges that this will bring to satisfy people’s (eudaemonic) wellbeing and needs. Radical (and rapid, as it would need to be) social change often involves severe social conflicts as people (especially those in priviledged and powerful positions) have to give up on the material and immaterial benefits, levels of needs satisfaction, identities, and relations to (groups of) other people that the current system is providing them with. When it comes to identities and social relations, Marxists for instance would argue that degrowth would require a dissolution of the distinction between workers and capitalists. A radical transformation of relationships would also be needed in other domains, e.g. between men and women, human and nature, rich and poor countries, current and future generations. The transition to degrowth would need to be organised in ways that carefully manage these conflicts, especially as available material and financial resources will be diminishing over time in this process. An equitable distribution of resources and of decision-making powers will be essential for this process, as the degrowth literature has stressed. A range of very valuable policy proposals have been made that could support these changes, including a reduction of working hours, a basic income, a reform of the financial and monetary system, a cooperatively organised economy, etc. (e.g. Dietz & O’Neill, 2013). In actual fact, there is no shortage of proposals for alternative degrowth policies. The more fundamental challenge is to figure out how to transition towards them, given that they will require radical change in underlying cultural values.

#### That means the transition fails --- state action is critical to achieving degrowth

**Kallis** and D’Alisa **20** [Giorgos Kallis, ICTA, Autonomous University of Barcelona, Giacomo D’Alisa, a CES, University of Coimbra, “Degrowth and the State”, Ecological Economics Volume 169, March 2020, 106486, https://www.sciencedirect.com/science/article/abs/pii/S092180091831749X]

A foundational question for ecological economics is how, and under what conditions, economies may prosper without growth (Jackson, 2008; Victor, 2008). Steady-state, post-growth or degrowth economists may differ on details of their diagnoses. They mostly agree, however, on the policies they want to see: caps, carbon and green taxes, a basic and a maximum income, or working hour reductions (Kallis, 2018). Such reforms, however, would require a radical change of the political and economic system if they were to be implemented (Blawhof, 2012). A theory of ecological-economic political change cannot but deal with the state, a core force in social change (Wright, 2009). Yet the literature on alternatives to growth is moot on the question of the state. The premise of this paper is that unless ecological economists and advocates of postgrowth/degrowth develop a theory of what the state is, how it works and how it changes, their proposals speak to the void.

#### Alt fails and causes transition wars/extinction.

Smith '19 [Noah; 4/5/19; Bloomberg Opinion columnist, former assistant professor of finance at Stony Brook University; "Dumping Capitalism Won’t Save the Planet," https://www.bloomberg.com/opinion/articles/2019-04-05/capitalism-is-more-likely-to-limit-climate-change-than-socialism]

It has become fashionable on social media and in certain publications to argue that capitalism is killing the planet. Even renowned investor Jeremy Grantham, hardly a radical, made that assertion last year. The basic idea is that the profit motive drives the private sector to spew carbon into the air with reckless abandon. Though many economists and some climate activists believe that the problem is best addressed by modifying market incentives with a carbon tax, many activists believe that the problem can’t be addressed without rebuilding the economy along centrally planned lines.

The climate threat is certainly dire, and carbon taxes are unlikely to be enough to solve the problem. But eco-socialism is probably not going to be an effective method of addressing that threat. Dismantling an entire economic system is never easy, and probably would touch off armed conflict and major asdasd upheaval. In the scramble to win those battles, even the socialists would almost certainly abandon their limitation on fossil-fuel use — either to support military efforts, or to keep the population from turning against them. The precedent here is the Soviet Union, whose multidecade effort to reshape its economy by force amid confrontation with the West led to profound environmental degradation. The world's climate does not have several decades to spare.

Even without international conflict, there’s little guarantee that moving away from capitalism would mitigate our impact on the environment. Since socialist leader Evo Morales took power in Bolivia, living standards have improved substantially for the average Bolivian, which is great. But this has come at the cost of higher emissions. Meanwhile, the capitalist U.S managed to decrease its per capita emissions a bit during this same period (though since the U.S. is a rich country, its absolute level of emissions is much higher).

In other words, in terms of economic growth and carbon emissions, Bolivia looks similar to more capitalist developing countries. That suggests that faced with a choice of enriching their people or helping to save the climate, even socialist leaders will often choose the former. And that same political calculus will probably hold in China and the U.S., the world’s top carbon emitters — leaders who demand draconian cuts in living standards in pursuit of environmental goals will have trouble staying in power.

The best hope for the climate therefore lies in reducing the tradeoff between material prosperity and carbon emissions. That requires technology — solar, wind and nuclear power, energy storage, electric cars and other vehicles, carbon-free cement production and so on. The best climate policy plans all involve technological improvement as a key feature.

#### This is a socialist k of Elon Musk, doesn’t say socialism solves, it’s hyperbolic at best. Cal’s blue.

Phillips ’21 [Leigh Phillips is a science writer and EU affairs journalist, “We Don’t Need Elon Musk to Explore the Solar System,” Jacobin, May 2021, <https://jacobinmag.com/2021/05/elon-musk-space-exploration-mars-colonization>]

A reasonable critique of Musk’s SpaceX endeavors might begin by noting that, regardless of how noble an aim Musk may have for his centibillions, there simply should not be centibillionaires (or even regular millionaires and billionaires). One might also echo Neil Armstrong’s criticism of private space flight — a criticism that once made Elon cry when 60 Minutes asked him about his hero arguing against the privatization of space. We might note how space exploration during the Cold War, despite the militarist overtones of the Space Race, was explicitly intended to be for all mankind rather than in service of the jollies of ultrarich space tourists.

A democratic and public redirection of Elon Musk’s billions might be spent differently. One might further assert that, given the non-identity of the set of all things that are beneficial and the set of all things that are profitable, space colonization will be a public-sector endeavor, or it will not happen — as such a private space travel has no near-term, medium-term, or even long-term prospect of any return on financial investment beyond servicing low-earth, medium-earth, or geostationary orbit. And, finally, we might denounce the union-busting at Musk’s factories or even argue that his “accumulation of resources” is less the product of his own efforts than it is primarily an upward redistribution of value created by his workers.

That is to say that there are a raft of progressive critiques of Musk that could be made that nevertheless still value space exploration and, one day, human colonization of the cosmos.

Indeed, if one values space exploration and looks forward to the time, as astronomer Carl Sagan put it, “when most human cultures will be engaged in an activity you might describe as a dandelion going to seed,” then a socialist critique is all the more necessary, given the irrational limitations markets impose on human endeavor.

But instead, there are thousands of snark-drenched tweets sneering at how crackpot, masculinist, and even childish Elon’s dream is. They argue that space travel is a waste of resources that would be better spent solving problems here on Earth, and that space colonization is a repetition of the colonization of the New World.

Even Bernie Sanders responded to Musk by saying: “Space travel is an exciting idea, but right now we need to focus on Earth and create a progressive tax system so that children don’t go hungry, people are not homeless and all Americans have healthcare. The level of inequality in America is obscene and a threat to our democracy.” At the time of writing, the senator’s tweet had received some 95,000 likes.

Bernie is, in this case, wrong.

Space exploration, including space travel, is one of the grandest tasks humanity has ever set for itself. It is a false dichotomy — and an austerian one at that — to say that we do not have enough money for both a space program and social justice or environmental protection. We can more than afford to do both. NASA’s budget is but a fraction of the Pentagon’s. It should not be difficult to imagine a democratic socialist economy, or even just one a little less neoliberal, that permits much more space and much less war.

We can have public health care and science. We can end homelessness and explore the cosmos. We can have unionized, family-supporting jobs for all and, one day, almost certainly some considerable time from now, colonies on other worlds.