# Wiki doc 5

### 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

### Heg

#### Collapse of unipolarity causes extinction via transition wars. The structure of the international system explains conflict.

Michael Beckley 18. Professor of political science at Tufts. *Unrivaled: Why America Will Remain the World’s Sole Superpower*. Cornell University Press.

The story of world politics is often told as a game of thrones in which a rotating cast of great powers battles for top-dog status. According to researchers led by Graham Allison at Harvard, there have been sixteen cases in the past ﬁve hundred years when a rising power challenged a ruling power. 3 Twelve of these cases ended in carnage. One can quibble with Allison’s case selection, but the basic pattern is clear: hegemonic rivalry has sparked a catastrophic war every forty years on average for the past half millennium.

The emergence of unipolarity in 1991 has put this cycle of hegemonic competition on hold. Obviously wars and security competition still occur in today’s unipolar world—in fact, as I explain later, unipolarity has made certain types of asymmetric conﬂict more likely—but none of these conﬂicts have the global scope or generational length of a hegemonic rivalry.

To appreciate this point, just consider the Cold War—one of the four “peaceful” cases of hegemonic rivalry identiﬁed by Allison’s study. Although the two superpowers never went to war, they divided the world into rival camps, waged proxy wars that killed millions of people, and pushed each other to the brink of nuclear Armageddon. For forty-ﬁve years, World War III and human extinction were nontrivial possibilities.

Since the collapse of the Soviet Union, by contrast, the United States has not faced a hegemonic rival, and the world, though far from perfect, has been more peaceful and prosperous than ever before.

Just look at the numbers. From 1400 to 1991, the rate of war deaths worldwide hovered between 5 and 10 deaths per 100,000 people and spiked to 200 deaths per 100,000 during major wars. 4 After 1991, however, war death rates dropped to 0.5 deaths per 100,000 people and have stayed there ever since. Interstate wars have disappeared almost entirely, and the number of civil wars has declined by more than 30 percent. 5 Meanwhile, the global economy has quadrupled in size, creating more wealth between 1991 and 2018 than in all prior human history combined. 6

What explains this unprecedented outbreak of peace and prosperity? Some scholars attribute it to advances in communications technology, from the printing press to the telegraph to the Internet, which supposedly spread empathy around the globe and caused entire nations to place a higher value on human life. 7

Such explanations are appealing, because they play on our natural desire to believe in human progress, but are they convincing? Did humans suddenly become 10 to 20 times less violent and cruel in 1991? Are we orders of magnitude more noble and kind than our grandparents? Has social media made us more empathetic? Of course not, which is why the dramatic decline in warfare after 1991 is better explained by geopolitics than sociology. 8

The collapse of the Soviet Union not only ended the Cold War and related proxy ﬁghting, it also opened up large swathes of the world to democracy, international commerce, and peacekeeping forces—all of which surged after 1991 and further dampened conﬂict. 9 Faced with overwhelming U.S. economic and military might, most countries have decided to work within the American-led liberal order rather than ﬁght to overturn it. 10 As of 2018, nearly seventy countries have joined the U.S. alliance network—a Kantian community in which war is unthinkable—and even the two main challengers to this community, China and Russia, begrudgingly participate in the institutions of the liberal order (e.g., the UN, the WTO, the IMF, World Bank, and the G-20), engage in commerce with the United States and its allies, and contribute to international peacekeeping missions. 11 History may not have ended in 1991, but it clearly changed in profound ways—and mostly for the better.

#### No offense - the era of liberalist interventionism is over in favor of realism

Posner 9/3 [Eric, professor at the University of Chicago Law School. “America's Return to Realism”. 9/3/21. https://www.project-syndicate.org/commentary/america-return-to-foreign-policy-realism-by-eric-posner-2021-09]

CHICAGO – US President Joe Biden’s speech defending the withdrawal from Afghanistan announced a decisive break with a tradition of foreign-policy idealism that began with Woodrow Wilson and reached its apex in the 1990s. While that tradition has often been called “liberal internationalism,” it also was the dominant view on the right by the end of the Cold War. The United States, according to liberal internationalists, should use military force as well as its economic power to compel other countries to embrace liberal democracy and uphold human rights.

Both in conception and in practice, American idealism rejected the Westphalian international system, in which states are forbidden to intervene in others’ internal affairs, and peace results from maintaining a balance of power. Wilson sought to replace this system with universal principles of justice, administered by international institutions. During World War II, Franklin D. Roosevelt revived these ideals in the Atlantic Charter of 1941, which declared self-determination, democracy, and human rights to be war goals.

But during the Cold War, the US pursued a resolutely “realist” foreign policy that focused on national interest and propped up or tolerated dictatorships as long as they opposed the Soviet Union. The two rivals had little use for international institutions or universal ideals except for propaganda purposes, instead using regional arrangements to knit together their allies. It was Europe that, in the 1970s, tried to advance human rights and assume a position of moral leadership to distinguish itself from the goliaths to its east and west.

America’s commitment to human rights began at a moment of weakness. In the wake of the military and moral disaster of Vietnam, President Jimmy Carter and the US Congress sought to infuse American foreign policy with a moral center and reached for the language of human rights. President Ronald Reagan saw human rights as a convenient rhetorical cudgel for clobbering the Soviet Union. But both presidents continued to support dictatorships that served US security interests, and neither used military force to advance humanitarian ideals. The era of US-led humanitarian intervention would have to await the end of the Cold War.

The rhetoric outstripped the reality, but reality did change. As the sole global hegemon, the US embarked on a large number of wars, big and small, involving a confusing mélange of hard-nosed security interests and idealistic rhetoric. In Panama, Somalia, Yugoslavia (twice), Iraq (twice), Libya, Afghanistan, and elsewhere, the US launched military interventions on both national-security and humanitarian grounds.

The nonintervention in the Rwandan genocide of 1994 may have been the most consequential (non)event of this period, because it was reinterpreted with the benefit of hindsight as a missed opportunity to use military force to save hundreds of thousands of lives. The debacle was used to justify the wars in Afghanistan and Iraq, and to urge US military intervention in Sudan in the early 2000s, which President George W. Bush’s administration wisely resisted, despite mass killings that amounted to another genocide.

All of this led to an extraordinary burst of interest in international law and legal institutions. Multiple international tribunals were created, leading to the establishment of a permanent International Criminal Court. Human rights treaties and institutions were revived and strengthened. Principles of humanitarian intervention were advanced, including the now-forgotten “responsibility to protect.” Every Western university nowadays has a human rights center of some sort that is a testament to the idealism of that era.

It was already clear that President Donald Trump repudiated this tradition of humanitarian or quasi-humanitarian military intervention, but Biden’s forceful renunciation of it is somewhat surprising. In his speech, he repeatedly emphasized the importance of identifying and defending America’s “vital national interest.” The word “national” is key, and Biden wasn’t subtle:

“If we had been attacked on September 11, 2001, from Yemen instead of Afghanistan, would we have ever gone to war in Afghanistan? Even though the Taliban controlled Afghanistan in the year 2001? I believe the honest answer is no. That’s because we had no vital interest in Afghanistan other than to prevent an attack on America’s homeland and our friends. And that’s true today.”

America had no vital interest in introducing democracy to Afghanistan, in helping women escape a medieval theological regime, in educating children, or in helping to prevent another civil war. His decision to withdraw from Afghanistan was

“about ending an era of major military operations to remake other countries. We saw a mission of counterterrorism in Afghanistan, getting the terrorists to stop the attacks, morph into a counterinsurgency, nation-building, trying to create a democratic, cohesive, and united Afghanistan. Something that has never been done over many centuries of Afghan’s [sic] history. Moving on from that mindset and those kind of large-scale troop deployments will make us stronger and more effective and safer at home.”

Biden also did say that human rights will remain “the center of our foreign policy,” and that economic tools and moral suasion can be used to advance them. This claim is in tension with his declaration that “vital national interests” should determine military intervention. Why wouldn’t vital national interests determine nonmilitary forms of intervention as well? Clearly, the role of human rights and other moral ideals in US foreign policy has been downgraded. The only question is whether the rhetoric will be toned town to match the new reality.

Of course, it was never very clear that US governments were actually motivated by humanitarian considerations. Critics often found more nefarious motives. Future historians may well argue that US foreign policy in the 1990s and 2000s was simply advancing a very ambitious vision of the national interest: America required all countries to adopt American ideals and institutions so that none would want to act against America. Or they might say that, like any empire, the US lacked the patience and wisdom to maintain a consistent stance in its treatment of its peripheries.

In any case, idealism is not actually so idealistic when a country has enough power, and the only thing that is clear now is that America doesn’t. Resistance to its post-Cold War nation-building goals took the form of international terrorism. China and Russia did not obediently embrace democracy. And much of the rest of the world has reverted to various forms of nationalism and authoritarianism.

#### Reject social-psychological accounts of state behavior. It’s reductionist and precludes accurate readings of IR

**Epstein 11** [Charlotte. The University of Sydney, NSW, Australia. 06/2011. “Who Speaks? Discourse, the Subject and the Study of Identity in International Politics.” European Journal of International Relations, vol. 17, no. 2, pp. 327–350]

One key advantage of the Wendtian move, granted even by his critics (see Flockhart, 2006), is that it simply does away with the level-of-analysis problem altogether. If states really are persons, then we can apply everything we know about people to understand how they behave. The study of individual identity is not only theoretically justified but it is warranted. This cohesive self borrowed from **social psychology** is what allows Wendt to bridge the different levels of analysis and travel between the self of the individual and that of the state, by way of a third term, ‘group self’, which is simply an aggregate of individual selves. Thus for Wendt (1999: 225) ‘the state is simply a “group Self” capable of group level cognition’. Yet that the individual possesses a self does not logically entail that the state possesses one too. It is in this leap, from the individual to the state, that IR’s **fallacy** of composition surfaces most clearly. Moving beyond Wendt but maintaining the psychological self as the basis for theorizing the state Wendt’s bold ontological claim is far from having attracted unanimous support (see nota­bly, Flockhart, 2006; Jackson, 2004; Neumann, 2004; Schiff, 2008; Wight, 2004). One line of critique of the states-as-persons thesis has taken shape around the resort to **psy­chological theories**, specifically, around the respective merits of Identity Theory (Wendt) and SIT (Flockhart, 2006; Greenhill, 2008; Mercer, 2005) for understanding state behav­iour.9 Importantly for my argument, that the state has a self, and that this self is pre-social, remains unquestioned in this further entrenching of the psychological turn. Instead questions have revolved around how this pre-social self (Wendt’s ‘Ego’) behaves once it encounters the other (Alter): whether, at that point (and not before), it takes on roles prescribed by pre-existing cultures (whether Hobbessian, Lockean or Kantian) or whether instead other, less culturally specific, dynamics rooted in more universally human char­acteristics better explain state interactions. SIT in particular emphasizes the individual’s basic need to belong, and it highlights the dynamics of in-/out-group categorizations as a key determinant of behaviour (Billig, 2004). SIT seems to have attracted increasing interest from IR scholars, interestingly, for both critiquing (Greenhill, 2008; Mercer, 1995) and rescuing constructivism (Flockhart, 2006). For Trine Flockart (2006: 89–91), SIT can provide constructivism with a different basis for developing a theory of agency that steers clear of the states-as-persons thesis while filling an important gap in the socialization literature, which has tended to focus on norms rather than the actors adopting them. She shows that a state’s adherence to a new norm is best understood as the act of joining a group that shares a set of norms and val­ues, for example the North Atlantic Treaty Organization (NATO). What SIT draws out are the benefits that accrue to the actor from belonging to a group, namely increased self-esteem and a clear cognitive map for categorizing other states as ‘in-’ or ‘out-group’ members and, from there, for orientating states’ self–other relationships. Whilst coming at it from a stance explicitly critical of constructivism, for Jonathan Mercer (2005: 1995) the use of psychology remains key to correcting the systematic evacuation of the role of emotion and other ‘non-rational’ phenomena in rational choice and behaviourist analyses, which has significantly impaired the understanding of inter­national politics. SIT serves to draw out the emotional component of some of the key drivers of international politics, such as trust, reputation and even choice (Mercer, 2005: 90–95; see also Mercer, 1995). Brian Greenhill (2008) for his part uses SIT amongst a broader array of psychological theories to analyse the phenomenon of self–other recog­nition and, from there, to take issue with the late Wendtian assumption that mutual recognition can provide an adequate basis for the formation of a collective identity amongst states. The main problem with this psychological turn is the very utilitarian, almost **mecha­nistic**, approach to non-rational phenomena it proposes, which tends to evacuate the role of meaning. In other words, it further shores up the **pre-social** dimension of the concept of **self** that is at issue here. Indeed norms (Flockhart, 2006), emotions (Mercer, 2005) and recognition (Greenhill, 2008) are hardly appraised as symbolic phenomena. In fact, in the dynamics of in- versus out-group categorization emphasized by SIT, language counts for very little. Significantly, in the design of the original experiments upon which this approach was founded (Tajfel, 1978), whether two group members communicate at all, let alone share the same language, is non-pertinent. It is enough that two individuals should know (say because they have been told so in their respec­tive languages for the purposes of the experiment) that they belong to the same group for them to favour one another over a third individual. The primary determinant of individual behaviour thus emphasized is a pre-verbal, primordial desire to belong, which seems closer to pack animal behaviour than to anything distinctly human. What the group stands for, what specific set of meanings and values binds it together, is unimportant. What matters primarily is that the group is valued positively, since posi­tive valuation is what returns accrued self-esteem to the individual. In IR Jonathan Mercer’s (2005) account of the relationship between identity, emotion and behaviour reads more like a series of buttons mechanically pushed in a sequence of the sort: posi­tive identification produces emotion (such as trust), which in turn generates specific patterns of in-/out-group discrimination. Similarly, Trine Flockhart (2006: 96) approaches the socializee’s ‘desire to belong’ in terms of the psychological (and ultimately social) benefits and the feel-good factor that accrues from increased self-esteem. At the far opposite of Lacan, the concept of desire here is reduced to a Benthamite type of pleasure- or utility-maximization where mean­ing is nowhere to be seen. More telling still is the need to downplay the role of the Other in justifying her initial resort to SIT. For Flockhart (2006: 94), in a post-Cold War con­text, ‘identities cannot be constructed purely in relation to the “Other”’. Perhaps so; but not if what ‘the other’ refers to is the generic, dynamic scheme undergirding the very concept of identity. At issue here is the confusion between the reference to a specific other, for which Lacan coined the concept of *le petit autre*, and the reference to *l’Autre*, or Other, which is that symbolic instance that is essential to the making of *all*selves. As such it is not clear what meaning Flockhart’s (2006: 94) capitalization of the ‘Other’ actually holds. The individual self as a proxy for the state’s self Another way in which the concept of self has been centrally involved in circumventing the level-of-analysis problem in IR has been to treat the self of the individual as a proxy for the self of the state. The literature on norms in particular has highlighted the role of individuals in orchestrating norm shifts, in both the positions of socializer (norm entre­preneurs) and socializee. It has shown for example how some state leaders are more sus­ceptible than others to concerns about reputation and legitimacy and thus more amenable to being convinced of the need to adopt a new norm, of human rights or democratization, for example (Finnemore and Sikkink, 1998; Keck and Sikkink, 1998; Risse, 2001). It is these specific psychological qualities pertaining to their selves (for example, those of Gorbachev; Risse, 2001) that ultimately enable the norm shift to occur. Once again the individual self ultimately remains the basis for explaining the change in state behaviour. To summarize the points made so far, whether the state is **literally** considered as a person by ontological overreach, whether so only by analogy, or whether the person stands as a **proxy** for the state, the ‘self’ of that person has been consistently taken as the **reference** point for studying state identities. Both in Wendt’s states-as-persons thesis, and in the broader psychological turn within constructivism and beyond, the debate has con­sistently revolved around the need to evaluate which of the essentialist assumptions about human nature are the most useful for explaining state behaviour. **It has never ques­tioned the validity of starting from these assumptions in the first place.**That is, what is left unexamined is this **assumption** is that what works for individuals **will work for states too.** This is IR’s central **fallacy of composition**, by which it has persistently **eschewed** rather than resolved the level-of-analysis problem. Indeed, in the absence of a clear dem­onstration of a logical identity (of the type A=A) between states and individuals, the assumption that individual interactions will explain what states do rests on **little more than a leap of faith**, or indeed an analogy.

### 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.

#### No mindset shift

Heinberg 15—Senior Fellow-in-Residence of the Post Carbon Institute (Richard, “The Anthropocene: It’s Not All About Us”, <http://www.postcarbon.org/the-anthropocene-its-not-all-about-us/>, dml)

It’s hard to convince people to voluntarily reduce consumption and curb reproduction. That’s not because humans are unusually pushy, greedy creatures; all living organisms tend to maximize their population size and rate of collective energy use. Inject a colony of bacteria into a suitable growth medium in a petri dish and watch what happens. Hummingbirds, mice, leopards, oarfish, redwood trees, or giraffes: in each instance the principle remains inviolate—every species maximizes population and energy consumption within nature’s limits. Systems ecologist Howard T. Odum called this rule the Maximum Power Principle: throughout nature, “system designs develop and prevail that maximize power intake, energy transformation, and those uses that reinforce production and efficiency.”

In addition to our innate propensity to maximize population and consumption, we humans also have difficulty making sacrifices in the present in order to reduce future costs. We’re genetically hardwired to respond to immediate threats with fight-or-flight responses, while distant hazards matter much less to us. It’s not that we don’t think about the future at all; rather, we unconsciously apply a discount rate based on the amount of time likely to elapse before a menace has to be faced.

True, there is some variation in future-anticipating behavior among individual humans. A small percentage of the population may change behavior now to reduce risks to forthcoming generations, while the great majority is less likely to do so. If that small percentage could oversee our collective future planning, we might have much less to worry about. But that’s tough to arrange in democracies, where people, politicians, corporations, and even nonprofit organizations get ahead by promising immediate rewards, usually in the form of more economic growth. If none of these can organize a proactive response to long-range threats like climate change, the actions of a few individuals and communities may not be so effective at mitigating the hazard.

This pessimistic expectation is borne out by experience. The general outlines of the 21st century ecological crisis have been apparent since the 1970s. Yet not much has actually been accomplished through efforts to avert that crisis. It is possible to point to hundreds, thousands, perhaps even millions of imaginative, courageous programs to reduce, recycle, and reuse—yet the overall trajectory of industrial civilization remains relatively unchanged.

### 1NC—Infra

#### Infrapolitics are a disaster – they assume a transformative potential from small moments of resistance that simply does not exist.

Reed 16 (Adolph, Jr., Prof. of Political Science @ Penn., “Splendors and Miseries of the Antiracist “Left”” *Nonsite*, http://nonsite.org/editorial/splendors-and-miseries-of-the-antiracist-left-2)

More than a decade and a half ago I criticized similar formulations of a notion of “infrapolitics,” understood as the domain of pre-political acts of everyday “resistance” undertaken by subordinated populations, which was then all the rage in cultural studies programs. Proponents of the political importance of this domain insisted that, because insurgent movements emerge within such cultures of quotidian resistance, a) examining them could help in understanding the processes through which insurgencies develop and/or b) they therefore ought to be considered as expressions of an insurgent politics themselves. Several factors accounted for the popularity of that version of the argument, which mainly had to do to with the political economy of academic life, including the self-propulsion of academic trendiness and the atrophy of the left outside the academy, which encouraged flights into fantasy for the sake of optimism. The infrapolitics idea also resonated with the substantive but generally unadmitted group essentialism underlying claims that esoteric, insider knowledge is necessary to decipher the “hidden transcripts” of the subordinate populations; put more bluntly, elevating infrapolitics to the domain on which the oppressed express their politics most authentically increased its interpreters’ academic capital.8

I discussed those factors in my critique. However, the point in that argument most pertinent for evaluating Birch and Heideman’s confidence that the contradictions they acknowledge in BLM should be seen only as growing pains of a “new movement” is the following:

At best, those who romanticize “everyday resistance” or “cultural politics” read the evolution of political movements teleologically; they presume that those conditions necessarily, or even typically, lead to political action. They don’t. Not any more than the presence of carbon and water necessarily leads to the evolution of Homo sapiens. Think about it: infrapolitics is ubiquitous, developed political movements are rare.9

### Growth---CCS

#### 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.

### Growth---Laundry List

#### It’s sustainable.

Radelet ’16 (Steven; February 2016; Ph.D. and M.P.P. from Harvard University, B.A. from Central Michigan University, Distinguished Professor of the Practice of Development, and is Director of the Global Human Development Program at Georgetown University, former Professor of Government and Economics at Harvard University, former economic advisor to President Sirleaf of Liberia; Foreign Affairs, “Prosperity Rising,” https://www.foreignaffairs.com/articles/2015-12-14/prosperity-rising)

Since the early 1990s, daily life in poor countries has been changing profoundly for the better: **one billion people** have escaped extreme poverty, average **incomes have doubled**, infant death **rates have plummeted**, millions more girls have enrolled in school, **chronic hunger** has been cut almost in half, deaths from malaria and other diseases have declined dramatically, **democracy has spread** far and wide, and the incidence of war—even with Syria and other conflicts—has fallen by half. This unprecedented progress goes way beyond China and India and has touched hundreds of millions of people in dozens of developing countries across the globe, from Mongolia to Mozambique, Bangladesh to Brazil. Yet few people are aware of these achievements, even though, in aggregate, they rank among the **most important in human history**. In 2013, the Swedish survey organization Novus Group International asked Americans how they thought the share of the world’s population living in extreme poverty had changed over the last two decades. Sixty-six percent of respondents said that they thought it had doubled, and another 29 percent said that it hadn’t changed. Only five percent knew (or guessed) the truth: that the share of people living in extreme **poverty had fallen by half**. Perhaps that ignorance explains why Washington has done so little to take advantage of these promising trends, giving only tepid support to nascent democracies, making limited investments in economic development and in new health and agricultural technologies, and failing to take the lead in building more **effective international institutions**. Whatever the reason, many developing countries are now responding to what they perceive as the United States’ indifference by looking elsewhere—especially toward China—for deeper engagement and advice on how to keep growing. At the same time, climate change, the slowdown in global growth, and rising tensions in the Middle East and beyond have begun to **threaten further progress**. As a result, the United States now risks missing out on a **historic chance** to strengthen its global leadership and help create a safer, more prosperous, and more democratic world—just at the moment when it could help the most. ONE GIANT LEAP Global poverty is falling faster today than at any time in human history. In 1993, about two billion people were trapped in extreme poverty (defined by the World Bank as living on less than $1.90 per day); by 2012, that number had dropped to less than one billion. The industrialization of China is a big part of the story, of course, but even excluding that country, the number of extreme poor has fallen by more than 400 million. Since the 1980s, **more than 60 countries** have reduced the number of their citizens who are impoverished, even as their overall populations have grown. This decline in poverty has gone hand in hand with much **faster economic growth**. Between 1977 and 1994, the growth in per capita GDP across the developing countries averaged zero; since 1995, that figure has shot up to three percent. Again, the change is widespread: between 1977 and 1994, only 21 developing countries (out of 109 with populations greater than one million) exceeded two percent annual per capita growth, but between 1995 and 2013, 71 such countries did so. And going backward has become much less common: in the earlier period, more than 50 developing countries recorded negative growth, but in the later one, just ten did. The **improvements in health** have been even bigger. In 1960, 22 percent of children in developing countries died before their fifth birthday, but by 2013, only five percent did. Diarrhea killed five million children a year in 1990 but claimed fewer than one million in 2014. **Half as many people** now **die** from malaria as did in 2000, and deaths from tuberculosis and AIDS have both dropped by a third. The share of people living with chronic hunger has fallen by almost half since the mid-1990s. **Life expectancy** at birth in developing countries has **lengthened by** nearly **one-third**, from 50 years in 1960 to 65 years today. These improvements in health have left no country untouched, even the worst-governed ones. Consider this: the rate of child death has declined in every single country (at least those where data are available) since 1980. Meanwhile, far more children are enrolling in and completing school. In the late 1980s, only 72 percent of all primary-school-age children attended school; now, the figure exceeds 87 percent. Girls in developing countries have enjoyed the biggest gains. In 1980, only half of them finished primary school, whereas four out of five do so today. These leaps in education are beginning to translate into better-skilled workers. Then there is the shift to democracy. Prior to the 1980s, most developing countries were run by left- or right-wing dictators. Coups and countercoups, violence and assassinations, human rights abuses—all formed part of regular political life. But starting in the 1980s, dictators began to fall, a process that accelerated after the Cold War. In 1983, only 17 of 109 developing countries qualified as democracies, based on data from Freedom House and the Center for Systemic Peace; by 2013, the number had **more than tripled**, to 56 (and that’s not counting the many more developing countries with populations of less than one million). As those numbers suggest, power today is far more likely to be transferred through the ballot box than through violence, and elections in most countries have become fairer and more transparent. Twenty years ago, few Indonesians could have imagined that a furniture maker from central Java would beat one of Suharto’s relatives in a free and fair election, as Joko Widodo did in 2014. Nor would many have predicted that Nigeria, then still under military rule, would in 2015 mark its first peaceful transfer of power between parties, or that Myanmar (also called Burma) would hold its most successful democratic election the same year. Across the developing world, individual freedoms and rights are honored to a much greater degree, human rights **abuses are rarer**, and legislative bodies have more power. Yes, many of these new democracies have problems. And yes, the march toward democracy has slowed since 2005—and even reversed in some countries, such as Thailand and Venezuela. But in many more—from Brazil to Mongolia to Senegal—democracy has deepened. Never before in history have so many **developing countries been so democratic**. As states have become wealthier and more democratic, **conflict and violence** within them have declined. Those who think otherwise should remember that as recently as the 1980s and early 1990s, much of the world was aflame, from Central America to Southeast Asia to West Africa. There were half as many civil wars in the last decade as there were in the 1980s, and the number of people killed in armed conflicts has **fallen by three-quarters**. Three major forces sparked this great surge in development progress. First, the end of the Cold War brought an end to the superpowers’ support for some of the world’s nastiest dictators and reduced the frequency of conflict. As ideas about economic and political governance began to change, developing countries introduced more market-based economic systems and more democracy. Second, globalization created vast new opportunities for economic growth. Increased flows of trade, investment, information, and technology created more jobs and improved living standards. Third, new and more effective leaders—in politics, business, religion, and civil society—began to forge deep change. Where courageous figures, such as Nelson Mandela in South Africa, stepped forward, countries progressed; where old-style dictators, such as Robert Mugabe in Zimbabwe, remained in power, countries languished. This **incredibly wide-ranging progress** should not obscure the considerable work that remains: progress has not reached everyone, everywhere. One billion people still live in extreme poverty, six million children die every year from preventable diseases, too few girls get the education they deserve, and too many people suffer under dictatorships. Countries such as Haiti, North Korea, Uzbekistan, and Zimbabwe lag far behind. But the fact remains that an **enormous transformation** is under way—one that has already substantially improved the lives of hundreds of millions of people. WIN-WIN The United States should welcome and encourage this progress. For starters, broad-based development **enhances global security**. It is not true that poverty necessarily breeds terrorism, as some argue—after all, most poor people are not terrorists, and many terrorists are not poor. But it is true that poor states tend to be weak states unable to prevent **terrorist and criminal networks** from operating on their soil. Sustained development strengthens government institutions and reduces the need for outside intervention. As former U.S. Secretary of Defense Robert Gates put it, “Development is a lot cheaper than sending soldiers.” Development also builds states’ capacities to fight pandemic disease. Guinea, Liberia, and Sierra Leone were overwhelmed by Ebola in 2014 largely because they all had weak health systems. The same was true in many of the countries hit hardest by the HIV/AIDS epidemic decades ago. As poor countries grow wealthier, however, they become better equipped to **fight diseases** that can spread quickly beyond their borders. A more prosperous developing world also benefits the U.S. economy. The spread of economic growth creates **new markets** for American businesses not just in China but also in Brazil, Indonesia, South Africa, and beyond. Developing countries are buying more and more aircraft, automobiles, semiconductors, medical equipment, pharmaceuticals, consultancy services, and entertainment. Although the growth in trade with developing countries has slowed during the last year, their economies will no doubt remain major market opportunities for U.S. companies. In 1990, such states accounted for one-third of the global economy; today, their share is half, and they purchase more than half of U.S. exports. In 2011, Walmart spent $2.4 billion to acquire a controlling share of a holding company that operates more than 350 retail stores in South Africa and 11 other African countries, signaling a level of interest in African consumers that would have been unimaginable two decades ago. To be sure, emerging markets also create competition for U.S. businesses and hardship for American workers who lose their jobs as a result. But they also create many new jobs, as American firms expand abroad and as companies in the developing world send more capital to the West. Moreover, developing countries are increasingly coming up with their own **innovations** and **technologies**, in medicine, agriculture, energy, and more. The United States should respond to this growing competition not with protectionism but by strengthening its own capacities: rebuilding its **infrastructure, improving** its **educational** system, and investing in new technologies. Finally, development helps spread and deepen the values that Americans hold dear: openness, economic opportunity, democracy, and freedom. These values tend to go hand in hand with growing prosperity: as incomes rise, citizens demand greater freedoms. History suggests that even governments that do not welcome these ideas eventually embrace them or are replaced by those that do. And as more developing countries achieve progress under market-based economic systems and democracy, other countries seek to **emulate the model**. The United States and Europe have a strong self-interest in encouraging this process, since it will enhance global stability and add to the number of like-minded partners that can help address future challenges. SUSTAINING THE SURGE What makes all this progress especially impressive is that it has continued despite a number of major shocks that in an earlier age could well have stopped it: the outbreak of the HIV/AIDS pandemic in the 1980s, the Asian financial crisis in 1997–98, the 9/11 attacks, the global food crisis of 2007–8, and the global financial crisis of 2008. In each case, pundits predicted that the disaster of the day would set back progress. Yet in each case, the gains continued. There are good reasons to believe they can continue well into the future. The forces that sparked these **changes were fundamental**, not transitory. Governments have learned from their mistakes and gotten much better at managing inevitable downturns. Global integration has made critical technologies available to more and more people. **State institutions** have become more effective, with improved (if imperfect) legal systems, clearer property rights, and greater respect for individual liberties. Democratic rules and norms governing the transfer of political power, free speech, and accountability have become more deeply entrenched. Civil society groups are more active. These deep-seated changes have put enormous additional gains well within reach. If **economic growth proceeds** along the lines of most projections over the next two decades, some 700 million more people will escape extreme poverty. Per capita incomes in poor countries will double again, **millions of** childhood **deaths** will be avoided, **tens of millions** of children will get the education they deserve, hunger will decline, and basic rights and freedoms will spread further. At least, that’s what should happen—but none of these future gains is guaranteed. Growth has slowed markedly since 2008 in emerging economies such as Brazil and China and throughout the developing world. Russia, Thailand, and Venezuela have turned less democratic, and South Africa and Turkey seem to be headed in that direction as well. The Middle East has seen the return of conflict and **authoritarian rule**. China’s aggressive actions in the South China Sea could **spark a major conflict** that could kill tens of thousands of people and devastate the region’s economies. Outbreaks of SARS and the H1N1 and Ebola viruses underscore humanity’s vulnerability to disease, and many doctors worry that growing resistance to antibiotics could reverse some of the hard-fought gains in health. Meanwhile, global population is on track to exceed nine billion by 2050, and the combination of more people, higher incomes, and warmer climates will place enormous strains on the world’s supplies of fresh water, food, and energy. Although there are ample grounds for pessimism, the doomsayers continue to **underestimate humanity’s growing ability** to cooperate in the face of new challenges. In the eighteenth century, when Thomas Malthus looked at population growth and foresaw catastrophic famine, he failed to appreciate the advances in agriculture, health, and governance that human ingenuity could create. The same was true for those that predicted a population disaster in Asia in the 1960s and 1970s. Today, the problems facing developing countries are plain to see, while the new ideas and innovations that will overcome them are harder to picture. Continued progress isn’t automatic or guaranteed. But with smart choices, it is within reach. LEADING BY EXAMPLE Most of the key choices will be made in developing countries themselves. Sustaining progress will require leaders there to reduce their countries’ dependence on natural resources, make their economies more inclusive, invest more in health and education, expand opportunities for women, and strengthen democracy and the rule of law. Yet the future of development will also **depend on the** actions of the **world’s leading countries**, since poorer countries can prosper only in a strong global system. The United States must do its part by regaining its economic leadership through major investments in infrastructure, education, and technological advances in health, agriculture, and alternative fuels. It must act to fix its long-term budget problems by improving the solvency of Social Security, Medicare, and Medicaid and strengthen the financial system through better regulation. The country must also do a much better job of leading by **example on democracy**. Deep political polarization, the lack of substantive debate, the unwillingness to compromise, misguided foreign policy adventurism, and the Great Recession have made liberal democracy look unattractive and ineffective. That malaise matters, because many developing countries are now engaged in a battle of ideas over which economic and political model they should follow. On the one side stands the model that has prevailed in the West since World War II: market capitalism coupled with **liberal democracy**. On the other is the model practiced by China, Vietnam, Ethiopia, and, increasingly, Russia, among others: state capitalism coupled with authoritarian rule. And there’s yet one more option, with a smaller but more dangerous following: religious fundamentalism, as promulgated by Iran and Saudi Arabia and groups such as the Islamic State (or ISIS) and Boko Haram in Nigeria. As the Western countries struggle and China continues to rise, authoritarian capitalism is becoming more appealing. Consider Beijing’s ties to Africa. China purchased $26 billion in imports from the continent in 2013; the United States purchased $9 billion. Chinese investment in Africa has been growing by 50 percent per year since 2000, whereas U.S. investment is growing by 14 percent per year. Make no mistake: many Africans still prefer to follow the American model and view China with suspicion. But those attitudes are beginning to shift, and Beijing’s apparent ability to get things done will only enhance China’s appeal, especially if Washington seems to talk big but deliver little. THE NEXT SURGE FORWARD Aside from the broader task of getting their own houses in order, the United States and other Western powers should also assert leadership in several specific areas to **keep the progress going**. The first is climate change, which presents one of the greatest threats to poverty reduction. Most of the world’s poor countries had little to do with creating the problem, yet they will bear the brunt of the damage. Rising sea levels, changing rainfall patterns, higher temperatures, and dwindling water supplies will derail progress, will undermine global food production, and could engender major conflict. Developing countries have an important role to play in curbing emissions, but they will not switch to low-carbon fuels and other clean technologies if their developed-world counterparts do not. Washington has taken important first steps to reduce power-plant emissions and raise automotive fuel-efficiency standards, but there is a very long way to go. Second, leading countries—especially the United States—should invest more in **technological innovation**. Much of the credit for recent improvements in living standards goes to vaccines, medicines, high-yielding seed varieties, cell phones, and the Internet. These new technologies (alongside old ones such as electricity and paved roads) have not yet reached everywhere, so simply making them more widely available would do wonders. But sustaining progress for the next several decades will also require **significant investments** in new vaccines, more powerful drugs, drought- and heat-resistant seeds, desalination techniques, and clean energy.

### Ext ows

#### That outweighs – it’s the upmost moral evil and disavowal of the risk makes it more likely.

Burns 17 [Elizabeth Finneron-Burns is a Teaching Fellow at the University of Warwick and an Affiliated Researcher at the Institute for Futures Studies in Stockholm, What’s wrong with human extinction?, <http://www.tandfonline.com/doi/pdf/10.1080/00455091.2016.1278150?needAccess=true>, Canadian Journal of Philosophy, 2017]

Many, though certainly not all, people might believe that it would be wrong to bring about the end of the human species, and the reasons given for this belief are various. I begin by considering four reasons that could be given against the moral permissibility of human extinction. I will argue that only those reasons that impact the people who exist at the time that the extinction or the knowledge of the upcoming extinction occurs, can explain its wrongness. I use this conclusion to then consider in which cases human extinction would be morally permissible or impermissible, arguing that there is only a small class of cases in which it would not be wrong to cause the extinction of the human race or allow it to happen. 2.1. It would prevent the existence of very many happy people One reason of human extinction might be considered to be wrong lies in the value of human life itself. The thought here might be that it is a good thing for people to exist and enjoy happy lives and extinction would deprive more people of enjoying this good. The ‘good’ in this case could be understood in at least two ways. According to the first, one might believe that you benefit a person by bringing them into existence, or at least, that it is good for that person that they come to exist. The second view might hold that if humans were to go extinct, the utility foregone by the billions (or more) of people who could have lived but will now never get that opportunity, renders allowing human extinction to take place an incidence of wrongdoing. An example of this view can be found in two quotes from an Effective Altruism blog post by Peter Singer, Nick Beckstead and Matt Wage: One very bad thing about human extinction would be that billions of people would likely die painful deaths. But in our view, this is by far not the worst thing about human extinction. The worst thing about human extinction is that there would be no future generations. Since there could be so many generations in our future, the value of all those generations together greatly exceeds the value of the current generation. (Beckstead, Singer, and Wage 2013) The authors are making two claims. The first is that there is value in human life and also something valuable about creating future people which gives us a reason to do so; furthermore, it would be a very bad thing if we did not do so. The second is that, not only would it be a bad thing for there to be no future people, but it would actually be the worst thing about extinction. Since happy human lives have value, and the number of potential people who could ever exist is far greater than the number of people who exist at any one time, even if the extinction were brought about through the painful deaths of currently existing people, the former’s loss would be greater than the latter’s. Both claims are assuming that there is an intrinsic value in the existence of potential human life. The second claim makes the further assumption that the forgone value of the potential lives that could be lived is greater than the disvalue that would be accrued by people existing at the time of the extinction through suffering from painful and/or premature deaths. The best-known author of the post, Peter Singer is a prominent utilitarian, so it is not surprising that he would lament the potential lack of future human lives per se. However, it is not just utilitarians who share this view, even if implicitly. Indeed, other philosophers also seem to imply that they share the intuition that there is just something wrong with causing or failing to prevent the extinction of the human species such that we prevent more ‘people’ from having the ‘opportunity to exist’. Stephen Gardiner (2009) and Martin O’Neill (personal correspondence), both sympathetic to contract theory, for example, also find it intuitive that we should want more generations to have the opportunity to exist, assuming that they have worth-living lives, and I find it plausible to think that many other people (philosophers and non-philosophers alike) probably share this intuition. When we talk about future lives being ‘prevented’, we are saying that a possible person or a set of possible people who could potentially have existed will now never actually come to exist. To say that it is wrong to prevent people from existing could either mean that a possible person could reasonably reject a principle that permitted us not to create them, or that the foregone value of their lives provides a reason for rejecting any principle that permits extinction. To make the first claim we would have to argue that a possible person could reasonably reject any principle that prevented their existence on the grounds that it prevented them in particular from existing. However, this is implausible for two reasons. First, we can only wrong someone who did, does or will actually exist because wronging involves failing to take a person’s interests into account. When considering the permissibility of a principle allowing us not to create Person X, we cannot take X’s interest in being created into account because X will not exist if we follow the principle. By considering the standpoint of a person in our deliberations we consider the burdens they will have to bear as a result of the principle. In this case, there is no one who will bear any burdens since if the principle is followed (that is, if we do not create X), X will not exist to bear any burdens. So, only people who do/will actually exist can bear the brunt of a principle, and therefore occupy a standpoint that is owed justification. Second, existence is not an interest at all and a possible person is not disadvantaged by not being caused to exist. Rather than being an interest, it is a necessary requirement in order to have interests. Rivka Weinberg describes it as ‘neutral’ because causing a person to exist is to create a subject who can have interests; existence is not an interest itself.3 In order to be disadvantaged, there must be some detrimental effect on your interests. However, without existence, a person does not have any interests so they cannot be disadvantaged by being kept out of existence. But, as Weinberg points out, ‘never having interests itself could not be contrary to people’s interests since without interest bearers, there can be no ‘they’ for it to be bad for’ (Weinberg 2008, 13). So, a principle that results in some possible people never becoming actual does not impose any costs on those ‘people’ because nobody is disadvantaged by not coming into existence.4 It therefore seems that it cannot be wrong to fail to bring particular people into existence. This would mean that no one acts wrongly when they fail to create another person. Writ large, it would also not be wrong if everybody decided to exercise their prerogative not to create new people and potentially, by consequence, allow human extinction. One might respond here by saying that although it may be permissible for one person to fail to create a new person, it is not permissible if everyone chooses to do so because human lives have value and allowing human extinction would be to forgo a huge amount of value in the world. This takes us to the second way of understanding the potential wrongness of preventing people from existing — the foregone value of a life provides a reason for rejecting any principle that prevents it. One possible reply to this claim turns on the fact that many philosophers acknowledge that the only, or at least the best, way to think about the value of (individual or groups of) possible people’s lives is in impersonal terms (Parfit 1984; Reiman 2007; McMahan 2009). Jeff McMahan, for example, writes ‘at the time of one’s choice there is no one who exists or will exist independently of that choice for whose sake one could be acting in causing him or her to exist … it seems therefore that any reason to cause or not to cause an individual to exist … is best considered an impersonal rather than individual-affecting reason’ (McMahan 2009, 52). Another reply along similar lines would be to appeal to the value that is lost or at least foregone when we fail to bring into existence a next (or several next) generations of people with worth-living lives. Since ex hypothesi worth-living lives have positive value, it is better to create more such lives and worse to create fewer. Human extinction by definition is the creation of no future lives and would ‘deprive’ billions of ‘people’ of the opportunity to live worth-living lives. This might reduce the amount of value in the world at the time of the extinction (by killing already existing people), but it would also prevent a much vaster amount of value in the future (by failing to create more people). Both replies depend on the impersonal value of human life. However, recall that in contractualism impersonal values are not on their own grounds for reasonably rejecting principles. Scanlon himself says that although we have a strong reason not to destroy existing human lives, this reason ‘does not flow from the thought that it is a good thing for there to be more human life rather than less’ (104). In contractualism, something cannot be wrong unless there is an impact on a person. Thus, neither the impersonal value of creating a particular person nor the impersonal value of human life writ large could on its own provide a reason for rejecting a principle permitting human extinction. It seems therefore that the fact that extinction would deprive future people of the opportunity to live worth-living lives (either by failing to create either particular future people or future people in general) cannot provide us with a reason to consider human extinction to be wrong. Although the lost value of these ‘lives’ itself cannot be the reason explaining the wrongness of extinction, it is possible the knowledge of this loss might create a personal reason for some existing people. I will consider this possibility later on in section (d). But first I move to the second reason human extinction might be wrong per se. 2.2. It would mean the loss of the only known form of intelligent life and all civilization and intellectual progress would be lost A second reason we might think it would be wrong to cause human extinction is the loss that would occur of the only (known) form of rational life and the knowledge and civilization that that form of life has created. One thought here could be that just as some might consider it wrong to destroy an individual human heritage monument like the Sphinx, it would also be wrong if the advances made by humans over the past few millennia were lost or prevented from progressing. A related argument is made by those who feel that there is something special about humans’ capacity for rationality which is valuable in itself. Since humans are the only intelligent life that we know of, it would be a loss, in itself, to the world for that to end. I admit that I struggle to fully appreciate this thought. It seems to me that Henry Sidgwick was correct in thinking that these things are only important insofar as they are important to humans (Sidgwick 1874, I.IX.4).5 If there is no form of intelligent life in the future, who would there be to lament its loss since intelligent life is the only form of life capable of appreciating intelligence? Similarly, if there is no one with the rational capacity to appreciate historic monuments and civil progress, who would there be to be negatively affected or even notice the loss?6 However, even if there is nothing special about human rationality, just as some people try to prevent the extinction of nonhuman animal species, we might think that we ought also to prevent human extinction for the sake of biodiversity. The thought in this, as well as the earlier examples, must be that it would somehow be bad for the world if there were no more humans even though there would be no one for whom it is bad. This may be so but the only way to understand this reason is impersonally. Since we are concerned with wrongness rather than badness, we must ask whether something that impacts no one’s well-being, status or claims can be wrong. As we saw earlier, in the contractualist framework reasons must be personal rather than impersonal in order to provide grounds for reasonable rejection (Scanlon 1998, 218–223). Since the loss of civilization, intelligent life or biodiversity are per se impersonal reasons, there is no standpoint from which these reasons could be used to reasonably reject a principle that permitted extinction. Therefore, causing human extinction on the grounds of the loss of civilization, rational life or biodiversity would not be wrong. 2.3. Existing people would endure physical pain and/or painful and/or premature deaths Thinking about the ways in which human extinction might come about brings to the fore two more reasons it might be wrong. It could, for example, occur if all humans (or at least the critical number needed to be unable to replenish the population, leading to eventual extinction) underwent a sterilization procedure. Or perhaps it could come about due to anthropogenic climate change or a massive asteroid hitting the Earth and wiping out the species in the same way it did the dinosaurs millions of years ago. Each of these scenarios would involve significant physical and/or non-physical harms to existing people and their interests. Physically, people might suffer premature and possibly also painful deaths, for example. It is not hard to imagine examples in which the process of extinction could cause premature death. A nuclear winter that killed everyone or even just every woman under the age of 50 is a clear example of such a case. Obviously, some types of premature death themselves cannot be reasons to reject a principle. Every person dies eventually, sometimes earlier than the standard expected lifespan due to accidents or causes like spontaneously occurring incurable cancers. A cause such as disease is not a moral agent and therefore it cannot be wrong if it unavoidably kills a person prematurely. Scanlon says that the fact that a principle would reduce a person’s well-being gives that person a reason to reject the principle: ‘components of well-being figure prominently as grounds for reasonable rejection’ (Scanlon 1998, 214). However, it is not settled yet whether premature death is a setback to well-being. Some philosophers hold that death is a harm to the person who dies, whilst others argue that it is not.7 I will argue, however, that regardless of who is correct in that debate, being caused to die prematurely can be reason to reject a principle when it fails to show respect to the person as a rational agent. Scanlon says that recognizing others as rational beings with interests involves seeing reason to preserve life and prevent death: ‘appreciating the value of human life is primarily a matter of seeing human lives as something to be respected, where this involves seeing reasons not to destroy them, reasons to protect them, and reasons to want them to go well’ (Scanlon 1998, 104). The ‘respect for life’ in this case is a respect for the person living, not respect for human life in the abstract. This means that we can sometimes fail to protect human life without acting wrongfully if we still respect the person living. Scanlon gives the example of a person who faces a life of unending and extreme pain such that she wishes to end it by committing suicide. Scanlon does not think that the suicidal person shows a lack of respect for her own life by seeking to end it because the person whose life it is has no reason to want it to go on. This is important to note because it emphasizes the fact that the respect for human life is person-affecting. It is not wrong to murder because of the impersonal disvalue of death in general, but because taking someone’s life without their permission shows disrespect to that person. This supports its inclusion as a reason in the contractualist formula, regardless of what side ends up winning the ‘is death a harm?’ debate because even if death turns out not to harm the person who died, ending their life without their consent shows disrespect to that person. A person who could reject a principle permitting another to cause his or her premature death presumably does not wish to die at that time, or in that manner. Thus, if they are killed without their consent, their interests have not been taken into account, and they have a reason to reject the principle that allowed their premature death.8 This is as true in the case of death due to extinction as it is for death due to murder. However, physical pain may also be caused to existing people without killing them, but still resulting in human extinction. Imagine, for example, surgically removing everyone’s reproductive organs in order to prevent the creation of any future people. Another example could be a nuclear bomb that did not kill anyone, but did painfully render them infertile through illness or injury. These would be cases in which physical pain (through surgery or bombs) was inflicted on existing people and the extinction came about as a result of the painful incident rather than through death. Furthermore, one could imagine a situation in which a bomb (for example) killed enough people to cause extinction, but some people remained alive, but in terrible pain from injuries. It seems uncontroversial that the infliction of physical pain could be a reason to reject a principle. Although Scanlon says that an impact on well-being is not the only reason to reject principles, it plays a significant role, and indeed, most principles are likely to be rejected due to a negative impact on a person’s well-being, physical or otherwise. It may be queried here whether it is actually the involuntariness of the pain that is grounds for reasonable rejection rather than the physical pain itself because not all pain that a person suffers is involuntary. One can imagine acts that can cause physical pain that are not rejectable — base jumping or life-saving or improving surgery, for example. On the other hand, pushing someone off a cliff or cutting him with a scalpel against his will are clearly rejectable acts. The difference between the two cases is that in the former, the person having the pain inflicted has consented to that pain or risk of pain. My view is that they cannot be separated in these cases and it is involuntary physical pain that is the grounds for reasonable rejection. Thus, the fact that a principle would allow unwanted physical harm gives a person who would be subjected to that harm a reason to reject the principle. Of course the mere fact that a principle causes involuntary physical harm or premature death is not sufficient to declare that the principle is rejectable — there might be countervailing reasons. In the case of extinction, what countervailing reasons might be offered in favour of the involuntary physical pain/ death-inducing harm? One such reason that might be offered is that humans are a harm to the natural environment and that the world might be a better place if there were no humans in it. It could be that humans might rightfully be considered an all-things-considered hindrance to the world rather than a benefit to it given the fact that we have been largely responsible for the extinction of many species, pollution and, most recently, climate change which have all negatively affected the natural environment in ways we are only just beginning to understand. Thus, the fact that human extinction would improve the natural environment (or at least prevent it from degrading further), is a countervailing reason in favour of extinction to be weighed against the reasons held by humans who would experience physical pain or premature death. However, the good of the environment as described above is by definition not a personal reason. Just like the loss of rational life and civilization, therefore, it cannot be a reason on its own when determining what is wrong and countervail the strong personal reasons to avoid pain/death that is held by the people who would suffer from it.9 Every person existing at the time of the extinction would have a reason to reject that principle on the grounds of the physical pain they are being forced to endure against their will that could not be countervailed by impersonal considerations such as the negative impact humans may have on the earth. Therefore, a principle that permitted extinction to be accomplished in a way that caused involuntary physical pain or premature death could quite clearly be rejectable by existing people with no relevant countervailing reasons. This means that human extinction that came about in this way would be wrong. There are of course also additional reasons they could reject a similar principle which I now turn to address in the next section. 2.4. Existing people could endure non-physical harms I said earlier than the fact in itself that there would not be any future people is an impersonal reason and can therefore not be a reason to reject a principle permitting extinction. However, this impersonal reason could give rise to a personal reason that is admissible. So, the final important reason people might think that human extinction would be wrong is that there could be various deleterious psychological effects that would be endured by existing people having the knowledge that there would be no future generations. There are two main sources of this trauma, both arising from the knowledge that there will be no more people. The first relates to individual people and the undesired negative effect on well-being that would be experienced by those who would have wanted to have children. Whilst this is by no means universal, it is fair to say that a good proportion of people feel a strong pull towards reproduction and having their lineage continue in some way. Samuel Scheffler describes the pull towards reproduction as a ‘desire for a personalized relationship with the future’ (Scheffler 2012, 31). Reproducing is a widely held desire and the joys of parenthood are ones that many people wish to experience. For these people knowing that they would not have descendants (or that their descendants will endure painful and/or premature deaths) could create a sense of despair and pointlessness of life. Furthermore, the inability to reproduce and have your own children because of a principle/policy that prevents you (either through bans or physical interventions) would be a significant infringement of what we consider to be a basic right to control what happens to your body. For these reasons, knowing that you will have no descendants could cause significant psychological traumas or harms even if there were no associated physical harm. The second is a more general, higher level sense of hopelessness or despair that there will be no more humans and that your projects will end with you. Even those who did not feel a strong desire to procreate themselves might feel a sense of hopelessness that any projects or goals they have for the future would not be fulfilled. Many of the projects and goals we work towards during our lifetime are also at least partly future-oriented. Why bother continuing the search for a cure for cancer if either it will not be found within humans’ lifetime, and/or there will be no future people to benefit from it once it is found? Similar projects and goals that might lose their meaning when confronted with extinction include politics, artistic pursuits and even the type of philosophical work with which this paper is concerned. Even more extreme, through the words of the character Theo Faron, P.D. James says in his novel The Children of Men that ‘without the hope of posterity for our race if not for ourselves, without the assurance that we being dead yet live, all pleasures of the mind and senses sometimes seem to me no more than pathetic and crumbling defences shored up against our ruins’ (James 2006, 9). Even if James’ claim is a bit hyperbolic and all pleasures would not actually be lost, I agree with Scheffler in finding it not implausible that the knowledge that extinction was coming and that there would be no more people would have at least a general depressive effect on people’s motivation and confidence in the value of and joy in their activities (Scheffler 2012, 43). Both sources of psychological harm are personal reasons to reject a principle that permitted human extinction. Existing people could therefore reasonably reject the principle for either of these reasons. Psychological pain and the inability to pursue your personal projects, goals, and aims, are all acceptable reasons for rejecting principles in the contractualist framework. So too are infringements of rights and entitlements that we accept as important for people’s lives. These psychological reasons, then, are also valid reasons to reject principles that permitted or required human extinction.

### AT: No Politics / Reform

#### Disability must be politicized---this is the only way to secure collective rights---the retreat from politics reifies ableist tropes of charity politics and naively tries to wish problems away

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Disability rights enjoy a seemingly ironclad moral consensus, an ostensible unanimity that is striking given America’s entrenched polarization and the antagonism surrounding other identity movements. Many are wary of L.G.B.T. rights or the Black Lives Matter movement, but it seems beyond the pale — almost cruel — to oppose disability rights. Nobody wants to be anti-disability. Initially, this harmony would seem helpful. Free from partisan discord, advancements for the approximately 57 million Americans with disabilities should be easier to achieve, borne aloft by the wings of certain progress. Why, then, do rampant unemployment and educational disparities endure, and why does success remain the exception? I think part of the reason is the insulation of our pro-disabled political consensus. Its logic is rooted not in any deep belief in the equal worth of citizens with disabilities, but rather in a general aversion to disability. This is related to the charity impulse that has always surrounded disability — and has constrained liberation efforts by assuming that inequities are unfortunate but natural realities to be mitigated through compassion, rather than politically structured injustices. There is also a profound lack of disabled people in the public sphere, meaning any substantive discussion that does occur is extremely rare. I suspect many people I talk to about disability maintain an implicit hope that, if they nod as vigorously as possible, the issue will simply go away. In this way, support for disability rights is similar to the act of expressing perfunctory thanks to military veterans. It temporarily absolves us of the responsibility to address the heart of the matter. Moreover, the apparent moral consensus may be mostly superficial. In trying to enact accessibility, disability advocates encounter increasing resistance as the effort and costs involved in proposals come closer to being realized. (Consider the neighborhood store that decides it’s just too costly to install a ramp, or the community lecture that excludes deaf attendees by refusing to hire a sign-language interpreter.) Instead of facilitating change, false unity actually restrains change. It stifles the more substantive conversations true progress requires. And our inability to speak honestly — and contentiously — about disability shows how the politics of disability is in this sense non-political. We are the worse for it. In addition to greater participation in the public sphere, true progress for citizens with disabilities will require a willingness to confront the issues head-on, even when — especially when — citizens disagree on competing solutions. We must politicize disability — not in the cable-news, grandstanding kind of way, but in the term’s more formal sense. The work of the Belgian political theorist Chantal Mouffe can help illuminate what’s at stake. Mouffe begins with the premise that human relations are inherently antagonistic: Political change always requires controversial transfers in power or prestige, and it is an illusion to imagine politics without confrontation. Per this “agonistic” conception of democracy, a healthy political order is one that prefers vigorous, good-faith argumentation to complacent consensus. Until we publicly recognize real disagreements surrounding disability and accessibility, Mouffe would insist, we are doomed to a vacuous, empty debate that is neither political nor productive. Recall the Kovaleski incident. I’m not suggesting that the abhorrence of Mr. Trump’s actions is open to legitimate questioning. But in their forcefully reassuring comments and messages, my friends prevented any serious discussion of disability at the level where reasonable disagreement does exist. Where will the money come from to fund disability employment schemes? How do we even define “disability”? Despite — and, I would argue, partly because of — the broad condemnation of Mr. Trump for his insensitivity, there was no substantive public discussion of such issues. You may be thinking, haven’t we had enough politics lately? Maybe it’s a blessing that disability isn’t as political as it might be; it avoids the drama and messiness that now seem to define our common life. Avoiding politics might be possible if disability were an exclusively private affair. But it is fundamentally a public concern, affecting everyone directly or indirectly and revealing our obligations to one another as members of a democratic society. Issues of accessibility can be fully addressed only through public institutions and collective effort. For the disability community, there is no answer but politics.

#### Disengagement makes every impact worse and only robust academic scrutiny paired with a push for increased access to basic services solves the case

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Countless hundreds of thousands in the US – and millions worldwide suffered and died at the hands of eugenics ideologies and practices (Kevles 1998, Lifton 1986). There is potential for suffering in the current practices of making inconvenient populations disappear, in incarcerating and ejecting on a grand scale, in determining who is and is not entitled to what kinds of health, education and social supports, and in the gutting of the already-thin social safety net. We know that already vulnerable people will die. We know many disabled people are vulnerable. We are already seeing it unfold. Although disabled people are not specifically targeted (at this point anyway) – disability is used as a justification to contain other populations, immigrant populations who are represented as criminals, unstable, and violent. Both targeted immigrant groups, Muslims and those from Central and Latin America, have a history of being pathologized and dehumanized in ways that incorporate disability (Block, Balcazar and Keys 2001, Patel 2014). We can also see a familiar way that gender, sexuality, addiction, mental illness and criminality are brought into play to identify urban black populations as threatening (Ben Moshe et al. 2014). A consistent similarity between eugenics and the Trump era is this deployment of intersectional characteristics and the mobilization of disability as a means of making broader claims to discredit other kinds of differences. Disability functions as what Snyder and Mitchell (2013) call narrative prosthesis – in other words as a prop with no real engagement with material conditions or experiences of disability and disablement. While we saw forms of able-nationalism (Snyder and Mitchell 2010) before, there is something distinct happening under Trump whereby it does not even seem that there is a mask of benevolence: disability has been discredited starting from Trump’s actions mocking a disabled reporter on the campaign trail to Jeff Sessions’ and Betsy DeVos’ comments about disabled children in schools. However, it is possible that the lack of benevolence will provide an opportunity for politics to emerge. Indeed, we have seen the mobilization of disabled voters with #cripthevote #Iamapreexistingcondition and the January 2017 Women’s March, which planners argued was the largest gathering of disabled people in the United States, an interesting claim to consider. There appears to be a great deal of grass roots activism as well, in school district meetings, in local disability groups forming to lobby local representatives, and on college campuses. We know that we are in for some hard times; we know that people will die and indeed are already dying from the ever-growing holes in the US health system. The largest provider of mental health services in the country is the US prison system and the already active school-to-prison pipeline and for-profit incarceration centers for prisoners of all sorts have ample opportunity for growth in this era (Ben Moshe et al. 2014). We grew up in the age of deinstitutionalization but we are living in a time now in which there are both vocal calls and quiet structural changes that entrap disabled people in institutions of various sorts. Thus it is our (sad) responsibility as anthropologists and disability studies scholars to direct our students to study these trends and as activists to prepare to resist them.

### AT: Resiliency

#### Care Work occludes meaningful changes which have made the lives of disabled people *better*

Shakespeare 14 (Tom, Professor of Disability Research, Norwich Medical School, PhD Cambridge University, Senior Lecturer in Medical Sociology at the University of East Anglia, *Disability Rights and Wrongs Revisited*, Second edition, Routledge 2014)

I think that some of the considerable attention given to hate crime is part of this generalised tendency to stress the victimhood of disabled people (Quarmby, 2011; Roulstone and Mason-Bish, 2013). This way of thinking serves to obscure the progress that has been made in recent decades, often due to the political mobilisation of disabled people themselves. It is true that disabled people continue to do less well than the majority of society, and there is much to be done to ensure equality and inclusion. At the time of writing, a savage attack on the living standards of disabled people is underway ([www.wearespartacus.org.uk](http://www.wearespartacus.org.uk)), in the form of tightened eligibility criteria for Personal Independence Payment (formerly Disability Living Allowance) and Employment Support Allowance (formerly Inacapacity Benefit), together with a cultural backlash that associates disabled benefit claimants with scroungers (Strathclyde Centre for Disability Research, 2012). But notwithstanding these very serious problems with welfare reform, conditions for disabled people have improved in other ways over the last twenty years, thanks to the Disability Discrimination Acts and Equality Act and other initiatives.

Office of Disability Issues statistics (2013) state that between 2002–12, the employment gap between disabled and non-disabled people reduced by 10 percentage points. Between 2005/6 and 2010/11, the numbers attaining five or more GCSE A–C pass rates have increased from approximately 20 per cent to approximately 60 per cent for special educational needs students without a statement of special educational needs, and from approximately 9 per cent to approximately 25 per cent for students who do have a statement of special educational need. Between 2004/5 and 2011/12, the number of accessible buses increased from 52 per cent to 88 per cent of buses. For people with learning difficulties, the government’s Valuing People White Paper (Department of Health, 2001), drafted with the participation of people with learning difficulties themselves, has put the principles of rights, independence, choice and inclusion at the centre of policy. Although many other statistics and policies are still woeful, there are some signs of progress.

Denying progress is as misguided as overlooking the continuing problems. The consequence of taking up a victim position and of exaggerating the differences and the polarity between the minority group and the mainstream is that politics can become more extreme, separatist, vanguardist and aggressive. The politics of coalition (Lee, 2002: 158) becomes less likely.

The victim position can be reassuring for individuals. It explains that any problems they might encounter, or failure they experience, has resulted from oppression, not from any fault of their own. It gives an excuse for not trying, because all efforts are doomed, and all change is illusory. The victim position also makes the success of other people who seemingly share your status become very threatening. If some disabled people have achieved their goals, or have managed to be successful in a disabling society, then this undermines the victimhood analysis. For this reason, it becomes important to disown or condemn the ‘tall poppies’ who have succeeded.

Underlying identity politics, the social model can play an important psychological role for disabled people. It is a powerful way of denying both the relevance and the negativity of impairment. Activists can maintain that their problems are not their deficits of body or mind, but are due to the society in which they live. By combining with others who share this belief, their own self-image is reinforced, and they can achieve solidarity and self-respect. The social model became ideologically dominant precisely because it moved away from the individual and the personal and the psychological. This may explain how difficult it has been for social model perspectives to engage with the question of impairment: how could an identity-sustaining theory include what had been disavowed?

At the heart of the social model approach to disability is a kind of denial. Social model theory enables disabled people to deny the relevance of their impaired bodies or brains, and seek equality with non-disabled people on the basis of similarity. What divides disabled from non-disabled people, in this formulation, is the imposition of social oppression and social exclusion. Moreover, the identity politics that is fuelled by this ideology paradoxically depends on strengthening the coherence and separateness of the disability group. Disabled people are contrasted with non-disabled people. Non-disabled people and the non-disabled world are increasingly seen as oppressive and hostile. Those who claim to help disabled people – professionals, charities, governments – are rejected. A strong political identity, which should be a means to an end, has become an end in itself. Rather than looking outward, the disability movement has often turned inwards. Rather than building bridges with other groups or seeking the integration of its members within society, the vanguard of the disability movement has often been separatist, promoting a notion of ‘us’, the disabled people, against ‘them’, the non-disabled oppressors (Holdsworth, 1993; Branfield, 1998, 1999). For disability activists, this has been powerful and motivating, but as the basis for disability politics, it has been counter-productive.

### 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

#### Insolvency is good to affirm Care Work – means if the doubt the effectiveness that solves better – we’re blue

**Hedva 21** (Johanna Hedva – Non-binary Korean-American writer, artist, musician, and astrologer. (March 2021) “CARE SYLLABUS interview” <https://www.caresyllabus.org/johanna-hedva-care-syllabus-interview>, DOA: 8/11/21, kbb)

VP: Some of the guiding questions of our project include “whose role is it to care for whom?,” and “What are the cost, labors, and rewards of care?” We also have a question, “When it might be better to care less?” What would that look like to you? JH: I think one of the misconceptions that people have about care is that care is **given and taken**, and that those are binary. That it’s made into this **transactional debt** relationship **where if I take from you, then I owe you.** Or, if I take from society, then I owe them or I’m a burden or whatever. I mean, **of course**, your care relationship is **always insolvent.** You’re **never** going to pay any of it back, it’s always going to be one of debt. But the trick here is to **reframe what debt**means, how it structures our understanding of autonomy, value. The dominant ideology is, if I’m in debt, I’m somehow a moral failure, I have less value as a citizen, I’m not pulling my weight. But really, **debt** is a way of thinking about **interdependency** — it’s a relationship that exists in process, in how it **entangles** us with **each other, with resources, with time.** **We are all of us indebted, in debt, in so many ways, always and forever.**A lot of the stuff that comes up when you’re newly disabled — because of a diagnosis, or an injury, or maybe you got COVID, it happens in many ways — is a measure of your own internalized ableism, which is often just an encounter with the fact that you need, the fact that you need care. We’ve been taught, and everything in our world is suited, to make this an affliction, shameful, a measure of weakness — and one that needs to be punished. In crip communities, we like to talk about capacity rather than capability or ability. And I think that’s one of the ways of understanding care. It’s **not** to say that you should be able to **infinitely care** for someone else or for yourself. That’s not it at all. The point actually, from a crip perspective, is **how hard it is to care for ourselves, for others, how many resources care requires, how much time and energy** — **and so we can’t and shouldn’t do it alone.**It’s **ableism** that **insists you should do it all alone**, **and that your worth as a human is higher if you need less care or support.** I think ableism is the most pernicious of the ideologies that structures our world — because it’s so insidious, it’s so unchecked. It’s the bedrock of valuing people based on an invented hierarchy of normalcy. Let me quote Mia Mingus here, who puts it perfectly: “**Ableism cuts across all of our movements because ableism dictates how bodies should function against a mythical norm — an able-bodied standard of white supremacy, heterosexism, sexism, economic exploitation, moral/religious beliefs, age, and ability**.” I think the reason why it’s so hard for people to encounter their own ableism is because you really have to look at yourself at your most fragile, vulnerable, incapacitated, and understand that you’re going to die in pain, that you are going to need more and more care, that your suffering will increase. You’re not going to be able to walk. You’re going to get dementia. And yes, these are horrifying things to accept — and certainly to accept that they’re going to happen to you, let alone someone that you love. But what ableism has done is to bring shame, persecution, discrimination to these very natural states of life. To say that pain and suffering and weakness and need are somehow errors, wrong, mistakes. That’s why I think it’s so metal, to be crip is fucking metal, because it’s pain, stains, leaks, blood, shit. Really gnarly shit. And it’s not turning away from it, or denying it. It’s facing it, fully, and asking others to face it with you. When I was doing the book tour for On Hell, I was talking about how I wanted to make a book about rage and care. At one event, somebody in the audience said, “but those are the same.” Oh my god, mind blown. It’s true. The more rage that you feel about something, the more it shows you care for it. And vice versa. I’ve never felt more cared for, bodily, emotionally, than when I’m in the audience of a metal show and we all know we’re going to scream our rage at the top of our lungs together. When I was at a metal festival a couple of years ago, I asked for ADA seating, and they just gave me a barstool and told me to put it wherever I wanted. At some point, it got really rowdy. This woman and her partner who were standing next to me, they noticed that the crowd was like pushing on me, and I was wobbling on my barstool, and they just stepped in front to protect me. I didn’t say anything to them. They didn’t say anything to me. She just reached over, and brought her husband to stand on the other side. **Care just kind of shows up that way**. That isn’t the version of care that you might think of, someone bringing you soup in bed, or something. It’s more about these **collective moments**. When we’re talking about care, we’re talking about this really **intense kind of capacity** that we all have to be together, **to do what is needed for us to get together.**As a crip person, you get good at saying what you need and what you don’t need. And saying what you can and can’t do. In COVID, people were doing that a little bit more. The needs we all have were brought to the foreground, which pushed care to the foreground. We saw that **everyone needs these things, everyone needs support**. People improvised, tried new things, learned what was possible and not and why. **Which is how care works.**

#### 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

# 1NR

### Case

#### Warming leads to extinction

**Kareiva 18**, Ph.D. in ecology and applied mathematics from Cornell University, director of the Institute of the Environment and Sustainability at UCLA, Pritzker Distinguished Professor in Environment & Sustainability at UCLA, et al. (Peter, “Existential risk due to ecosystem collapse: Nature strikes back,” *Futures*, 102)

#### In summary, six of the nine proposed planetary boundaries (phosphorous, nitrogen, biodiversity, land use, atmospheric aerosol loading, and chemical pollution) are unlikely to be associated with existential risks. They all correspond to a degraded environment, but in our assessment do not represent existential risks. However, the three remaining boundaries (climate change, global freshwater cycle, and ocean acidification) do pose existential risks. This is because of intrinsic positive feedback loops, substantial lag times between system change and experiencing the consequences of that change, and the fact these different boundaries interact with one another in ways that yield surprises. In addition, climate, freshwater, and ocean acidification are all directly connected to the provision of food and water, and shortages of food and water can create conflict and social unrest. Climate change has a long history of disrupting civilizations and sometimes precipitating the collapse of cultures or mass emigrations (McMichael, 2017). For example, the 12th century drought in the North American Southwest is held responsible for the collapse of the Anasazi pueblo culture. More recently, the infamous potato famine of 1846–1849 and the large migration of Irish to the U.S. can be traced to a combination of factors, one of which was climate. Specifically, 1846 was an unusually warm and moist year in Ireland, providing the climatic conditions favorable to the fungus that caused the potato blight. As is so often the case, poor government had a role as well—as the British government forbade the import of grains from outside Britain (imports that could have helped to redress the ravaged potato yields). Climate change intersects with freshwater resources because it is expected to exacerbate drought and water scarcity, as well as flooding. Climate change can even impair water quality because it is associated with heavy rains that overwhelm sewage treatment facilities, or because it results in higher concentrations of pollutants in groundwater as a result of enhanced evaporation and reduced groundwater recharge. Ample clean water is not a luxury—it is essential for human survival. Consequently, cities, regions and nations that lack clean freshwater are vulnerable to social disruption and disease. Finally, ocean acidification is linked to climate change because it is driven by CO2 emissions just as global warming is. With close to 20% of the world’s protein coming from oceans (FAO, 2016), the potential for severe impacts due to acidification is obvious. Less obvious, but perhaps more insidious, is the interaction between climate change and the loss of oyster and coral reefs due to acidification. Acidification is known to interfere with oyster reef building and coral reefs. Climate change also increases storm frequency and severity. Coral reefs and oyster reefs provide protection from storm surge because they reduce wave energy (Spalding et al., 2014). If these reefs are lost due to acidification at the same time as storms become more severe and sea level rises, coastal communities will be exposed to unprecedented storm surge—and may be ravaged by recurrent storms. A key feature of the risk associated with climate change is that mean annual temperature and mean annual rainfall are not the variables of interest. Rather it is extreme episodic events that place nations and entire regions of the world at risk. These extreme events are by definition “rare” (once every hundred years), and changes in their likelihood are challenging to detect because of their rarity, but are exactly the manifestations of climate change that we must get better at anticipating (Diffenbaugh et al., 2017). Society will have a hard time responding to shorter intervals between rare extreme events because in the lifespan of an individual human, a person might experience as few as two or three extreme events. How likely is it that you would notice a change in the interval between events that are separated by decades, especially given that the interval is not regular but varies stochastically? A concrete example of this dilemma can be found in the past and expected future changes in storm-related flooding of New York City. The highly disruptive flooding of New York City associated with Hurricane Sandy represented a flood height that occurred once every 500 years in the 18th century, and that occurs now once every 25 years, but is expected to occur once every 5 years by 2050 (Garner et al., 2017). This change in frequency of extreme floods has profound implications for the measures New York City should take to protect its infrastructure and its population, yet because of the stochastic nature of such events, this shift in flood frequency is an elevated risk that will go unnoticed by most people. 4. The combination of positive feedback loops and societal inertia is fertile ground for global environmental catastrophes Humans are remarkably ingenious, and have adapted to crises throughout their history. Our doom has been repeatedly predicted, only to be averted by innovation (Ridley, 2011). However, the many stories of human ingenuity successfully addressing existential risks such as global famine or extreme air pollution represent environmental challenges that are largely linear, have immediate consequences, and operate without positive feedbacks. For example, the fact that food is in short supply does not increase the rate at which humans consume food—thereby increasing the shortage. Similarly, massive air pollution episodes such as the London fog of 1952 that killed 12,000 people did not make future air pollution events more likely. In fact it was just the opposite—the London fog sent such a clear message that Britain quickly enacted pollution control measures (Stradling, 2016). Food shortages, air pollution, water pollution, etc. send immediate signals to society of harm, which then trigger a negative feedback of society seeking to reduce the harm. In contrast, today’s great environmental crisis of climate change may cause some harm but there are generally long time delays between rising CO2 concentrations and damage to humans. The consequence of these delays are an absence of urgency; thus although 70% of Americans believe global warming is happening, only 40% think it will harm them (<http://climatecommunication.yale.edu/visualizations-data/ycom-us-2016/>). Secondly, unlike past environmental challenges, the Earth’s climate system is rife with positive feedback loops. In particular, as CO2 increases and the climate warms, that very warming can cause more CO2 release which further increases global warming, and then more CO2, and so on. Table 2 summarizes the best documented positive feedback loops for the Earth’s climate system. These feedbacks can be neatly categorized into carbon cycle, biogeochemical, biogeophysical, cloud, ice-albedo, and water vapor feedbacks. As important as it is to understand these feedbacks individually, it is even more essential to study the interactive nature of these feedbacks. Modeling studies show that when interactions among feedback loops are included, uncertainty increases dramatically and there is a heightened potential for perturbations to be magnified (e.g., Cox, Betts, Jones, Spall, & Totterdell, 2000; Hajima, Tachiiri, Ito, & Kawamiya, 2014; Knutti & Rugenstein, 2015; Rosenfeld, Sherwood, Wood, & Donner, 2014). This produces a wide range of future scenarios. Positive feedbacks in the carbon cycle involves the enhancement of future carbon contributions to the atmosphere due to some initial increase in atmospheric CO2. This happens because as CO2 accumulates, it reduces the efficiency in which oceans and terrestrial ecosystems sequester carbon, which in return feeds back to exacerbate climate change (Friedlingstein et al., 2001). Warming can also increase the rate at which organic matter decays and carbon is released into the atmosphere, thereby causing more warming (Melillo et al., 2017). Increases in food shortages and lack of water is also of major concern when biogeophysical feedback mechanisms perpetuate drought conditions. The underlying mechanism here is that losses in vegetation increases the surface albedo, which suppresses rainfall, and thus enhances future vegetation loss and more suppression of rainfall—thereby initiating or prolonging a drought (Chamey, Stone, & Quirk, 1975). To top it off, overgrazing depletes the soil, leading to augmented vegetation loss (Anderies, Janssen, & Walker, 2002). Climate change often also increases the risk of forest fires, as a result of higher temperatures and persistent drought conditions. The expectation is that forest fires will become more frequent and severe with climate warming and drought (Scholze, Knorr, Arnell, & Prentice, 2006), a trend for which we have already seen evidence (Allen et al., 2010). Tragically, the increased severity and risk of Southern California wildfires recently predicted by climate scientists (Jin et al., 2015), was realized in December 2017, with the largest fire in the history of California (the “Thomas fire” that burned 282,000 acres, <https://www.vox.com/2017/12/27/16822180/thomas-fire-california-largest-wildfire>). This catastrophic fire embodies the sorts of positive feedbacks and interacting factors that could catch humanity off-guard and produce a true apocalyptic event. Record-breaking rains produced an extraordinary flush of new vegetation, that then dried out as record heat waves and dry conditions took hold, coupled with stronger than normal winds, and ignition. Of course the record-fire released CO2 into the atmosphere, thereby contributing to future warming. Out of all types of feedbacks, water vapor and the ice-albedo feedbacks are the most clearly understood mechanisms. Losses in reflective snow and ice cover drive up surface temperatures, leading to even more melting of snow and ice cover—this is known as the ice-albedo feedback (Curry, Schramm, & Ebert, 1995). As snow and ice continue to melt at a more rapid pace, millions of people may be displaced by flooding risks as a consequence of sea level rise near coastal communities (Biermann & Boas, 2010; Myers, 2002; Nicholls et al., 2011). The water vapor feedback operates when warmer atmospheric conditions strengthen the saturation vapor pressure, which creates a warming effect given water vapor’s strong greenhouse gas properties (Manabe & Wetherald, 1967). Global warming tends to increase cloud formation because warmer temperatures lead to more evaporation of water into the atmosphere, and warmer temperature also allows the atmosphere to hold more water. The key question is whether this increase in clouds associated with global warming will result in a positive feedback loop (more warming) or a negative feedback loop (less warming). For decades, scientists have sought to answer this question and understand the net role clouds play in future climate projections (Schneider et al., 2017). Clouds are complex because they both have a cooling (reflecting incoming solar radiation) and warming (absorbing incoming solar radiation) effect (Lashof, DeAngelo, Saleska, & Harte, 1997). The type of cloud, altitude, and optical properties combine to determine how these countervailing effects balance out. Although still under debate, it appears that in most circumstances the cloud feedback is likely positive (Boucher et al., 2013). For example, models and observations show that increasing greenhouse gas concentrations reduces the low-level cloud fraction in the Northeast Pacific at decadal time scales. This then has a positive feedback effect and enhances climate warming since less solar radiation is reflected by the atmosphere (Clement, Burgman, & Norris, 2009). The key lesson from the long list of potentially positive feedbacks and their interactions is that runaway climate change, and runaway perturbations have to be taken as a serious possibility. Table 2 is just a snapshot of the type of feedbacks that have been identified (see Supplementary material for a more thorough explanation of positive feedback loops). However, this list is not exhaustive and the possibility of undiscovered positive feedbacks portends even greater existential risks. The many environmental crises humankind has previously averted (famine, ozone depletion, London fog, water pollution, etc.) were averted because of political will based on solid scientific understanding. We cannot count on complete scientific understanding when it comes to positive feedback loops and climate change.’

#### 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.

#### 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).

# 2NR

### Case

#### Disability rhetoric doesn’t reinforce ableism and rejecting it doesn’t solve

Samantha **Pierce 12**, founder and Executive Director of NeuroDiversity Consulting, a firm dedicated to special needs families and educating parents and the community at large about neurodiversity, March 17, <http://www.neurodiversityconsulting.org/1/post/2012/03/person-first-language-the-r-word-and-other-linguistic-gymnastics.html>

In sociology there is a theory, called the Sapir-Whorf thesis (also known as linguistic relativity) , which claims “people see and understand the world through the cultural lens of language.” (Macionis, 2011)\* To put it another way, language creates reality. Since Edward Sapir and Benjamin Whorf first put forth their theories on the relationship between language and reality in the first half of the last century sociologists have come to the conclusion that language doesn’t determine reality in any strict sense. For my part I think our language reflects our reality rather than genuinely creates it. But we still act as if we believe that language creates reality.¶ Consider the terms used to describe people with developmental disabilities. First we had imbeciles, morons, idiots. All originated as clinical terms to describe the developmentally disabled. We now know them as throw away insults used by young and old alike. In the span of a few decades we have seen the term “retarded”, once a clinical descriptor for those with developmental delays, degenerate into an insult so grave that there is a movement to stamp out the use of the word. It’s called the euphemism treadmill where new terms are developed to replace old terms that have come to be seen as derogatory. Even the term “special needs” seems to be taking its turn on the euphemism treadmill for some. ¶ All of this brings to me to the person, or people, first language movement. “People-first language is a form of linguistic prescriptivism in English, aiming to avoid perceived and subconscious dehumanization when discussing people with disabilities, as such forming an aspect of disability etiquette.” The idea is basically to name the person first and the descriptor of their condition second. In English we usually do things the other way round. Such tinkering with English sentence structure is seen by some as a good thing for the disabled. It is an effort to create a reality where the personhood of the disabled is valued and respected. In essence it is an attempt to apply the Sapir-Whorf thesis in its language creates reality form.¶ Advocates of person first language claim that we should embrace person first language “To ensure inclusion, freedom, and respect for all.” I agree with some of the sentiments expressed in the above linked article, such as,¶ “The real problem is never a person’s disability, but the attitudes of others! A change in our attitudes leads to changes in our actions. Attitudes drive actions.”¶ But I am more than a bit skeptical that acts of linguistic gymnastics will make any forward movement towards better treatment of and greater respect for the disabled. Unless we work to change attitudes about the disabled within our culture and within our society it’s not going to matter what clumsy, politically correct term is dreamed up next to gloss over the fact that the disabled are greatly devalued in our culture.¶ Person, or people, first language hinges on the idea that a person is a person first and their disability is secondary to their personhood. Now the problem with this kind of thinking is why anyone would think that identifying someone with their disability somehow denies their personhood. Another problem with person first language is that despite the fact that many of the disabled themselves reject the use of person first language and the reasoning behind it other, often nondisabled people, keep pushing for its use. In researching this article I found very few references among supporters of person first language to the opinions of the disabled about person first language (the two references were from Wikipedia and About.com.¶ One can find any number of articles, papers, and blog posts (add this one to that number), some written by the disabled and some not, pointing out the fatal flaws and clumsiness of person first language. Dr. C Edwin Vaughan wrote in his article People-First Language: An Unholy Crusade, ¶ I wonder if the proponents of people-first language believe that putting disabled people first on the printed page accomplishes anything in the real world? Does it alter attitudes, professional or otherwise, about disabilities? What is their evidence? The awkwardness of the preferred language calls attention to a person as having some type of **"marred identity"** (Goffman, 1963). But the misconceptions that diminish the lives of disabled people must still be countered directly.¶ In 1993 Kenneth Jernigan wrote, The Pitfalls of Political Correctness: Euphemisms Excoriated, which was published, and republished, in the Braille Monitor, a journal published by the Nation Federation of the blind. In his article he states,¶ As civilizations decline, they become increasingly concerned with form over substance, particularly with respect to language.¶ Euphemisms and the politically correct language which they exemplify are sometimes only prissy, sometimes ridiculous, and sometimes tiresome. Often, however, they are more than that. At their worst they obscure clear thinking and **damage the very people and causes they claim to benefit.**¶ The blind have had trouble with euphemisms for as long as anybody can remember, and late twentieth-century America is no exception. The form has changed (in fact, everything is very "politically correct"), but the old notions of inferiority and second-class status still remain. The euphemisms and the political correctness don't help. If anything, they make matters worse since they claim **modern thought and new enlightenment.¶** J ernigan further went on to write in a resolution adopted by the National Federation of the Blind,¶ We believe that it is respectable to be blind, and although we have no particular pride in the fact of our blindness, neither do we have any shame in it. To the extent that euphemisms are used to convey any other concept or image, we deplore such use. We can make our own way in the world on equal terms with others, and we intend to do it.¶ In 1999 Joy Johnston wrote of the National Federation of the Blind’s response to person first language,¶ “That one sentiment alone provides the blind community with more empowerment than a thousand politically correct slogans could ever provide.”¶ In the same article we find,¶ What PC [political correctness] proponents fail to understand in their good-hearted mission is that changing the words a person speaks does not change the thoughts in their minds or the feelings in their heart. It's merely a surface solution that does not change the reality of what it is to be a female, a black man, or a disabled person in this society one iota.¶ Stop and consider the following: person with femaleness; person with maleness; person with blackness; person with deafness; person with blindness. All of these characteristics are an intrinsic part of an individual, you can’t separate them from the person. Person first language implies that personhood cannot coexist with disability. It stems from the erroneous assumption that acknowledging the important role that a disability plays in an individual’s life diminishes one’s personhood. What it communicates is the impression that one doesn’t really believe in the disabled individual’s personhood. The proliferation of person first language despite strong opposition to it from the disabled themselves certainly points to the devaluation of the disabled. Clearly “we” think “we” know what is better for “them” than they do never mind what they actually have to say for themselves.