## 1NC – Dubs

### TWR CP

Text: Countries should adopt the Traveling Wave Reactor in public private partnerships as a method of producing nuclear power and ban all other mechanisms of nuclear power production to transition to TWR.

#### TWR is the best form of *nuclear power production.*

Weaver ’16, [Terry Weaver (Kevan Weaver leads TerraPower’s technology development and integration team. Before joining TerraPower, he worked at the Idaho National Laboratory (INL) for more than nine years in various capacities. He served as the national technical director for System Interface and Support Systems for the Nuclear Hydrogen Initiative, and as technical lead for Reactor Testing and Qualification for Fission Surface Power Systems for a NASA/Department of Energy Space Reactor Program. He also served as the U.S. system integration manager for the Next Generation Nuclear Plant/Very High Temperature Reactor (NGNP) and Gas-Cooled Fast Reactor programs. He was also the co-chair on the international Gas-Cooled Fast Reactor system steering committee for the Generation IV International Forum. Early in his tenure at INL, he was group leader for the Advanced Reactor Design Group. With much of his career in advanced reactor design and analysis, Dr. Weaver collaborated with fellow researchers on Generation IV nuclear energy systems and the Generation IV International Forum. His technical background includes reactor physics, reactor design, fuel cycle analysis, radiation spectroscopy, radioisotope production and reactor operations. In addition, Dr. Weaver is the author or co-author of more than 90 publications and technical reports in nuclear science and engineering, and is the co-author of a new textbook on fast spectrum reactors. Dr. Weaver holds a Bachelor of Science in physics with minors in math and Spanish from Brigham Young University, and a doctorate in nuclear engineering from the University of Utah. He is a member of the Alpha Nu Sigma and Tau Beta Pi honor societies, and is a member of the American Nuclear Society and the American Society of Mechanical Engineers), “A Solution to the Nuclear Waste Problem”, TerraPower, 2016, http://terrapower.com/news/a-solution-to-the-nuclear-waste-problem, 8-9-2016. SK]

TerraPower’s **traveling wave reactor (TWR)** technology **will help with a perceived problem highlighted by critics of nuclear power: nuclear waste**. Only one source of carbon-free electricity is economic, reliable 24/7, and proven to work on a large scale: nuclear power. Nuclear power generation **is criticized** by some in the United States **because current reactors produce tons of radioactive waste** without a permanent, dedicated storage space in this country. The most significant high-level waste from a nuclear reactor is the used nuclear fuel left after it has spent more than four years in the reactor generating heat for electricity. The cost of disposing of nuclear waste from commercial reactors in the United States has been estimated at $92 billion. Each reactor generates waste that, in 2014, was estimated to cost $300 million to manage. However, **the volume of the spent nuclear fuel produced by a TWR will be about 80 percent less than that produced by the commercial “light water” reactors in use** in the United States **today**. This is because TerraPower’s **TWR burns not only the initial enriched material, but also converts and burns much of the natural or depleted uranium in the fuel without reprocessing**, compared with the reactors currently in use that burn just enriched material. In fact, **depleted uranium**, previously considered a waste by-product of the uranium enrichment process**, is the sustaining fuel source for the TWR**. Use of depleted uranium will also reduce fuel costs, where fuel costs currently make up 30 percent of the cost of producing power with a nuclear plant. One-third of those fuel costs are due to enrichment, which is necessary for the current crop of light water reactors in the United States. For a typical U.S. reactor, the approximate cost of fuel reloads is about $40 million, based on an 18-month refueling cycle, or more than $13 million for enrichment alone. But this is not the case for TerraPower’s TWR, which does not use enriched uranium except at startup, resulting in a lifetime fuel savings of hundreds of millions of dollars. Moreover, a TWR can run for at least a decade without refueling, with only depleted uranium needed for the reloads. Such a dramatic increase in fuel efficiency means that a larger portion of global uranium resources can remain underground. Mining has become a controversial activity in the conversation about climate change. TerraPower’s reactor obviates the need to mine for new uranium resources to sustain the operation of TWRs for centuries after their startup period. Given all this, **from an environmentalist’s point of view and from a business manager’s point of view**, TerraPower’s **TWR provides an improved waste option solution** – not only to problems of the volumes needed for waste disposal but also to the problem of operating costs as related to fuel costs. SK

Implications:

**A.** Counterplan functionally competes – it is a form of nuclear power production which means it is the polar opposite of the aff

**B.** Perm is impossible – the aff says ban all nuclear power, but CP approves one of them.

**C.** Timeframe perm nonsensical – retracting the aff after doing the aff

**D.** Actors are different – we say that corporations make the plants and both countries and corporations adopt them.

**E.** Solves the aff – harms of regular nuclear power mitigated by TWR.

#### Also, the CP is not a PIC – we do not merely pic out of all forms of nuclear power production but rather say that the CP is more economic and environmentally friendly so there will not be need for other nuclear power plants.

#### And – traveling wave reactor is best for transition for developing nations – laundry list of net benefits.

Gilleland ’16, [Testimony John Gilleland, Chief Technical Officer, TerraPower, Senate Energy Committee, 366 Dirksen SOB, 10:00AM 17 May 2016 THE STATUS OF ADVANCED NUCLEAR TECHNOLOGIES. SK]

Good morning. My name is John Gilleland. I am Chief Technical Officer of TerraPower, a nuclear design company based in Bellevue, Washington. I would like to thank Chairman Murkowski and the members of this committee for the invitation to testify here today and to extend my particular thanks to our home state Senator, Maria Cantwell, who is such as a strong supporter of our operations. TerraPower’s goal is to bring our technologies to markets globally as sources of clean, non-emitting, affordable base load electricity. TerraPower is the developer of **the Traveling Wave Reactor** (TWR), **a full size, sodium cooled, Generation IV fast reactor**. We are also working with Southern Company, Oak Ridge National Lab and the Electric Power Research Institute in the early R&D phase of an additional Generation IV reactor technology that received a DOE Advanced Reactor Concept award in January. Today I will talk about the traveling wave reactor because we have come a long way and we would like to convey the lessons we have learned over the last ten years. In 2006, Bill Gates, our chairman, convened a group of colleagues from the world of science and technology to address two issues: energy poverty and pollution. **Many inhabitants of developing countries have little access to affordable base load electricity**. **Power outages and load shedding cripple [destroy] manufacturing and extractive industries.** **Hospitals cannot function without access to reliable power. A child cannot do homework without light to read.** As President Obama recognized in his “Power Africa” initiative, the road to economic and human development is blocked if affordable, dependable power is unavailable. It has been known for a long time that access to electrical energy is essential to human development. But the global consensus of scientists is that climate change requires us to radically reduce carbon emissions. Since developed countries and now developing countries are meeting the populations’ demand for base load power by burning large amounts of fossil fuels, the resulting emissions are locking us into a deteriorating spiral of climate change and damage to our environment. Bill Gates and his colleagues looked at the entire menu of low carbon energy solutions. They concluded that nuclear power is an essential element of any credible low carbon emissions solution. For the right uses in the right venues, wind and solar can play valuable roles, but nuclear is the only known technology that can provide the needed huge amounts of energy with a minimum impact on our land use and thus on the natural world. **Nuclear power has already demonstrated its ability to generate large scale, dependable electricity without emissions at affordable prices.** And the new nuclear plants now being constructed are setting new standards for accident prevention. 2 But **we can use 21st century technologies to do even better** ….. much better. Even **greater safety improvements, significantly reduced waste production, great extension of fuel supplies, reduction in weapons and terrorist risks and last but not least, lower cost of carbon-free electricity are all possible**. Our flagship technology, **the** traveling wave reactor, or **TWR, offers improvements in all those areas**. Its use of a sodium coolant at atmospheric pressure combined with innovative new fuel designs enables operation with far greater safety margins while producing much less waste. It produces only one-fifth of that produced by existing plants. This amount would fill only one and a half rail cars over the plant’s 60- year lifetime. The energy value of each pound of mined uranium is increased by more than an order of magnitude and the need for enrichment facilities is greatly reduced. I would like to conclude with two remarks. The private sector must, and is, stepping forward to develop a new generation of commercially viable plants. TerraPower is already using federal facilities such as the Idaho National Laboratory. Like other companies, TerraPower pays to access the government’s highly qualified, skilled researchers and advanced equipment. **Ours is an example of public-private partnership.** The bulk of our funds, all from private visionary investors, have gone to universities, businesses and national laboratories. This is in the spirit of the recent Paris meetings and the Breakthrough Energy Coalition’s mission innovation goals. The recent White House summit on nuclear energy endorsed this approach. The “Gateway for Accelerated Innovation in Nuclear” or GAIN, aims to integrate the capabilities of the private sector, universities and laboratories. If Congress provides the labs and universities with the resources, the labs and industry can grow together. We believe this is essential to leverage our strengths and make Gen IV a reality. Second, **the government needs to supplement private sector efforts with a solid oversight function**. Already, TerraPower coordinates our international activities regularly with the Department of Energy’s National Nuclear Security Administration and the Department of State. Similarly, we consult with the Nuclear Regulatory Commission. We urge Congress to ensure that the NRC has sufficient know-how and funding to license this country’s next generation of nuclear plants. Our efforts on the TWR and the MCFR are two designs. We encourage exploration of other innovations as well. It is only by working together that we will achieve the breakthroughs we need to make advanced reactors and a better world a reality. SK

#### And, perms on this counterplan are bad – perms would delegitimize the 1NC’s form of engagement as it would combine different forms of discourse and say that it can be replicated which is a form of essentialism which must be rejected.

### DA – BioDv

#### Nuclear power is the comparatively best option for biodiversity conservation – plan prolongs fuel addiction and energy crises

Brook and Bradshaw ’15, [Brook, Barry W., and Corey JA Bradshaw. "Key role for nuclear energy in global biodiversity conservation." Conservation Biology 29.3 (2015): 702-712. SK]

Fossil fuels have supplied most of society's energy demand since the Industrial Revolution. Yet **with** the **mounting problems** of climate change, pollution, security, and dwindling supplies, **we now face the need for a near-total transformation of the world's energy systems.** We have provided a short critical overview of the challenges and trade-offs in—and potential solutions for—completely decarbonizing our energy supplies while meeting the growing need for increased prosperity in the developing world. **Of the limited options available, next-generation nuclear power and related technologies, based on modular systems with full fuel recycling and inherent safety, hold substantial yet largely unrecognized prospects for being a principal cure for our fossil-fuel addiction**, yet nuclear power still has an undeservedly poor reputation in the environmental community. **Solving the energy problem** has broader implications: it will not only help mitigate climate change, it **will** also **avoid destructive use of natural and agricultural landscapes for biofuels and diffuse energy generation and thus allow societies to reduce their environmental footprint by sparing land and resources for biodiversity conservation**. Based on an objective and transparent analysis of our sustainable energy choices, we have come to the evidence-based conclusion that **nuclear energy is a good option for biodiversity conservation** (and society in general) and that other alternatives to fossil fuels should be subjected to the same cost–benefit analyses (in terms of biodiversity and climate outcomes, as well as sociopolitical imperatives) before accepting or dismissing them. We conclude that **large-scale nuclear power**—as a route to an electrified, oil-, gas- and coal-free economy—**offers a positive way forward because it provides a low-risk pathway to eliminating the fossil-fuel dependencies, global energy poverty, and wealth imbalances that rank among the major forces driving today's biodiversity crisis**. At the very least, nuclear power needs to be considered seriously, alongside renewable sources of energy such as wind and solar power, in any robust sustainable energy mix for the future. SK

#### Multiple scenarios for extinction – biodiversity is on the brink and political prioritization is key in face of unexpected and sudden tipping points.

Torres ’16, [Phil Torres (Is Author, Affiliate Scholar At The Institute For Ethics and Emerging Technologies, And&nbsp;Freelance Writer&nbsp;With Publications In&nbsp;Salon,&nbsp;Skeptic, The&nbsp;Humanist,&nbsp;American Atheist,&nbsp;The Progressive,&nbsp;Humanity+, And Many Others. His Forthcoming Book Is Called&nbsp;The End), Biodiversity Loss and the Doomsday Clock: An Invisible Disaster Almost No One is Talking About, Common Dreams, 8-25-2016, 16, http://www.commondreams.org/views/2016/02/10/biodiversity-loss-and-doomsday-clock-invisible-disaster-almost-no-one-talking-about, 8-25-2016. SK]

But **there’s another global catastrophe** that the Bulletin neglected to consider — a catastrophe that will almost certainly have conflict multiplying effects no less than climate change. I’m referring here to **biodiversity loss** — i.e., the reduction in the total number of species, or in their population sizes, over time. The fact is that **in the past few centuries, the loss of biological diversity around the world has accelerated at an incredible pace**. Consider the findings of a 2015 paper published in Science Advances. According to this study, **we’ve only recently entered the early stages of the sixth mass extinction event in life’s entire 3.5 billion year history**. The previous mass extinctions are known as the “Big Five,” and the last one wiped out the dinosaurs some 65 million years ago. Unlike these past tragedies, though, the current mass extinction — called the “Holocene extinction event” — is almost entirely the result of a one species in particular, namely Homo sapiens (which ironically means the “wise man”). "If the environment implodes under the weight of civilization, then civilization itself is doomed." But **biodiversity loss isn’t limited to species extinctions**. As the founder of the Long Now Institute, Stewart Brand, suggests in an article for Aeon, one could argue that a more pressing issue is the reduction in population sizes around the globe. For example, the 3rd Global Biodiversity Report (GBO-3), published in 2010, found that the total abundance of vertebrates — a category that includes mammals, birds, reptiles, sharks, rays, and amphibians — living in the tropics declined by a whopping 59% between 1970 and 2006. In other words, the population size of creatures with a spine more than halved in only 36 years. The study also found that farmland birds in Europe have declined by 50% since 1980, birds in North America have declined by 40% between 1968 and 2003, and nearly 25% of all plant species are currently “threatened with extinction.” The latter statistic is especially worth noting because many people suffer from what’s called “plant blindness,” according to which we fail “to recognize the importance of plants in the biosphere and in human affairs.” Indeed, plants form the very bottom of the food chains upon which human life ultimately depends. Even more disturbing is the claim that amphibians “face the greatest risk” of extinction, with “42% of all amphibian species … declining in population,” as the GBO-3 reports. Consistent with this, a more recent study from 2013 that focused on North America found that “frogs, toads and salamanders in the United States are disappearing from their habitats … at an alarming and rapid rate,” and are projected to “disappear from half of the habitats they currently occupy in about 20 years.” The decline of amphibian populations is ominous because amphibians are “ecological indicators” that are more sensitive to environmental changes than other organisms. As such they are the “canaries in the coal mine” that reflect the overall health of the ecosystems in which they reside. When they start to disappear, bigger problems are sure to follow. Yet another comprehensive survey of the biosphere comes from the Living Planet Report — and its results are no less dismal than those of the GBO-3. For example, it finds that the global population of vertebrates between 1970 and 2010 dropped by an unbelievable 52%. Although the authors refrain from making any predictions based on their data, the reader is welcome to extrapolate this trend into the near future, noting that as ecosystems weaken, the likelihood of further population losses increases. This study thus concludes that humanity would “need 1.5 **Earths to meet the demands we currently make on nature,” meaning that we either need to reduce our collective consumption and adopt less myopic economic policies or hurry up and start colonizing the solar system.** Other studies have found that 20% of all reptile species, 48% of all the world's primates, 50% of all freshwater turtles, and68% of plant species are currently threatened with extinction. There’s also talk about the Cavendish banana going extinct as a result of a fungus, and research has confirmed that honey bees, which remain “the most important insect that transfers pollen between flowers and between plants,” are dying out around the world at an alarming rate due to what’s called “colony collapse disorder” — perhaps a good metaphor for our technologically advanced civilization and its self-destructive tendencies. Turning to the world’s oceans, one finds few reasons for optimism here as well. Consider the fact that atmospheric carbon dioxide — the byproduct of burning fossil fuels — is not only warming up the oceans, but it’s making them far more acidic. The resulting changes in ocean chemistry are inducing a process known as “coral bleaching,” whereby coral loses the algae (called “zooxanthellae”) that it needs to survive. Today, roughly 60% of coral reefs are in danger of becoming underwater ghost towns, and some 10% are already dead. This has direct consequences for humanity because coral reefs “provide us with food, construction materials (limestone) and new medicines,” and in fact “more than half of new cancer drug research is focused on marine organisms.” Similarly, yet another study found that ocean acidification is becoming so pronounced that the shells of “tiny marine snails that live along North America’s western coast” are literally dissolving in the water, resulting in “pitted textures” that give the shells a “cauliflower” or “sandpaper” appearance. Furthermore, human-created pollution that makes its way into the oceans is carving out vast regions in which the amount of dissolved oxygen is too low for marine life to survive. These regions are called “dead zones,” and the most recent count by Robert Diaz and his colleagues found more than 500 around the world. The biggest dead zone discovered so far is located in the Baltic Sea, and it’s been estimated to be about 27,000 square miles, or a little less than the size of New Hampshire, Vermont, and Maryland combined. Scientists have even discovered an “island” of trash in the middle of the Pacific called the “Great Pacific Garbage Patch” that could be up to “twice the size of the continental United States.” Similar “patches” of floating plastic debris can be found in the Atlantic and Indian oceans as well, although these are not quite as impressive. The point is that “Earth’s final frontier” — the oceans — are becoming vast watery graveyards for a huge diversity of marine lifeforms, and in fact a 2006 paper in Science predicts that there could be virtually no more wild-caught seafood by 2048. **Everywhere one looks, the biosphere is wilting** — and a single bipedal species with large brains and opposable thumbs is almost entirely responsible for this worsening plight. **If humanity continues to prune back the Tree of Life with reckless abandon, we could be forced to confront a global disaster of truly unprecedented proportions**. Along these lines, a 2012 article published in Nature and authored by over twenty scientists claims that **humanity could be teetering on the brink of a catastrophic, irreversible collapse of the global ecosystem.** According to the paper, **there could be “tipping points” — also called “critical thresholds” — lurking in the environment that, once crossed, could initiate radical and sudden changes in the biosphere**. Thus, **an event of this sort could be preceded by little or no warning: everything might look more or less okay, until the ecosystem is suddenly in ruins.** **We must**, **moving forward**, never forget that just as we’re minds embodied, so too are we bodies environed, meaning that if the environment implodes under the weight of civilization, then civilization itself is doomed. While the threat of nuclear weapons deserves serious attention from political leaders and academics, as the Bulletin correctly observes, it’s even more imperative that we **focus on the broader “contextual problems”** that could inflate the overall probability of wars and terrorism in the future. Climate change and **biodiversity loss** are both **[is a]** **conflict multipliers** of precisely this sort, **and each is a contributing factor that’s exacerbating the other**. **If we fail to make these threats a top priority in 2016, the likelihood of nuclear weapons** — or some other form of emerging technology, including biotechnology and artificial intelligence — **being used in the future will only increase**. **Perhaps there’s still time to avert the sixth mass extinction or a sudden collapse of the global ecosystem**. But time is running out — **the doomsday clock is ticking**. SK

#### Prioritize death impacts – there can be no [] without existence, meaning they are a worse form of morality since acceptance of death prevents recognition of the other

Paul Wapner, Dissent, 2003, Associate Professor and Director, Global Environmental Policy Program, American University, [“Leftist Criticism of ‘Nature’: Environmental Protection in a Postmodern Age” , [www.dissentmagazine.org/menutest/archives/2003/wi03/wapner.htm](http://www.dissentmagazine.org/menutest/archives/2003/wi03/wapner.htm)] bcr

All attempts to listen to nature are social constructions-except one. Even the most radical postmodernist must acknowledge the distinction between physical existence and non-existence. As I have said, postmodernists accept that there is a physical substratum to the phenomenal world even if they argue about the different meanings we ascribe to it. This acknowledgment of physical existence is crucial. We can't ascribe meaning to that which doesn't appear. What doesn't exist can manifest no character. Put differently, yes, the postmodernist should rightly worry about interpreting nature's expressions. And all of us should be wary of those who claim to speak on nature's behalf (including environmentalists who do that). But we need not doubt the simple idea that a prerequisite of expression is existence. This in turn suggests that preserving the nonhuman world-in all its diverse embodiments-must be seen by eco-critics as a fundamental good. Eco-critics must be supporters, in some fashion, of environmental preservation. Postmodernists reject the idea of a universal good. They rightly acknowledge the difficulty of identifying a common value given the multiple contexts of our value-producing activity. In fact, if there is one thing they vehemently scorn, it is the idea that there can be a value that stands above the individual contexts of human experience. Such a value would present itself as a metanarrative and, as Jean-François Lyotard has explained, postmodernism is characterized fundamentally by its "incredulity toward meta-narratives." Nonetheless, I can't see how postmodern critics can do otherwise than accept the value of preserving the nonhuman world. The nonhuman is the extreme "other"; it stands in contradistinction to humans as a species. In understanding the constructed quality of human experience and the dangers of reification, postmodernism inherently advances an ethic of respecting the "other." At the very least, respect must involve ensuring that the "other" actually continues to exist. In our day and age, this requires us to take responsibility for protecting the actuality of the nonhuman. Instead, however, we are running roughshod over the earth's diversity of plants, animals, and ecosystems. Postmodern critics should find this particularly disturbing. If they don't, they deny their own intellectual insights and compromise their fundamental moral commitment.

### K

#### Nuclear power is key for periphery nation’s sovereignty from the western world. A ban is the same form of western dominance that denies development to keep developing countries in check.

Chowdhury ’12, Navid Chowdhury March 22, 2012 Submitted as coursework for PH241, Stanford University, Winter 2012

**Access to energy is regarded as the basic requirement for economic growth**. And yet 1.5 billion people in the world today don't have access to the basic form of energy, electricity. [1] Almost all of that population lives in the developing countries. As these countries grow (both in population and economically) the demand for energy keeps growing and unless immediate solutions are sought there then the current energy shortage in these countries will turn acute. Under these circumstances, recently 50 non-OECD countries approached IEA with plans to install nuclear reactors in their own countries. Some of those countries had already started talks with current nuclear-able countries like Japan to purchase the technology required to install their first nuclear reactors. Why **Nuclear** It **is the most reliable and clean source of energy** for any emerging economy under current scenario. Although there are other safer and cleaner options like wind and solar but the battery technology is still at a stage which makes the later options less practical on a large scale. Nuclear reactors can provide safe baseload power on a large scale while taking the dependence away from oil and gas. It also does not have the intermittency problem that plagues most of the frontline renewable energy technologies we know of. Besides the technological aspect, **it also offers the host country the independence and the energy security that is essential for the economic and political stability of the country**. The recent protest in Nigeria is an unfortunate example of how volatility of fuel price could lead to a major political breakdown and subsequently affect the economic growth of the country. [2] **Nuclear power could remove that volatility. Energy security would also allow countries to be more sovereign is its decision making.** **Developing [periphery] countries** like Bangladesh quiet **often has to make the very unpopular decision to raise fuel price** (by cutting down subsidy) **at the request of IMF who holds the key** to most forms of aid provided to developing countries. [3] Removing dependence on fossil fuel would remove Bangladesh from such obligations set by IMF. SK

#### Concepts of superiority justify racial violence which causes war and genocide.

Batur ’07 [Pinar Batur - Department of Sociology, Vassar College, Poughkeepsie, NY. “Heart of Violence: Global Racism, War, and Genocide.” Chapter 22 – Handbook of Sociology and Racial and Ethnic Relations. Springer. 2007. <http://dlia.ir/Scientific/e_book/History_America/Elements_in_the_Populations/001482.pdf#page=443>]

**War and genocide** are horrid, and taking them for granted is inhuman. In the 21st century, our problem is not only seeing them as natural and inevitable, but even worse: not seeing, not noticing, but ignoring them. Such act and thought, **fueled by global racism**, **reveal** that **racial inequality has advanced from** the **establishment of racial hierarchy and institutionalization of segregation, to the confinement and exclusion, and elimination, of those considered inferior through genocide.** In this trajectory, **global racism manifests genocide.** But this is not inevitable. This article, by examining global racism, explores the new terms of exclusion and the path to permanent war and genocide, to examine the integrality of genocide to the framework of global antiracist confrontation. Racist legitimization of inequality has changed from presupposed biological inferiority to assumed cultural inadequacy. This defines the new terms of impossibility of coexistence, much less equality. The Jim Crow racism of biological inferiority is now being replaced with a new and modern racism (Baker 1981; Ansell 1997) with “culture war” as the key to justify difference, hierarchy, and oppression. The ideology of “culture war” is becoming embedded in institutions, defining the workings of organizations, and is now defended by individuals who argue that they are not racist, but are not blind to the inherent differences between African-Americans/Arabs/Chinese, or whomever, and “us.” **“Us” as a concept defines** the **power** **of a group to distinguish itself and** to **assign** **a superior value to its institutions, revealing certainty that affinity with “them” will be harmful to** its **existence** (Hunter 1991; Buchanan 2002). How can we conceptualize this shift to examine what has changed over the past century and what has remained the same in a racist society? Joe Feagin examines this question with a theory of systemic racism to explore societal complexity of interconnected elements for longevity and adaptability of racism. He sees that **systemic racism persists due to a “white racial frame,” defining and maintaining an “organized set of racialized ideas, stereotypes, emotions, and inclinations to discriminate”** (Feagin 2006: 25). **The white racial frame arranges** the **routine operation of racist institutions, which enables social and economic reproduction and amendment of racial privilege.** It is **this frame** that **defines** the **political and economic bases of cultural and historical legitimization.** While **the white racial frame** is one of the components of systemic racism, it is attached to other terms of racial oppression to forge systemic coherency. It has altered over time from slavery to segregation to racial oppression and **now frames “culture war,” or “clash of civilizations,” to legitimate the racist oppression of domination, exclusion, war, and genocide.** The concept of “culture war” emerged to define opposing ideas in America regarding privacy, censorship, citizenship rights, and secularism, but it has been globalized through conflicts over immigration, nuclear power, and the “war on terrorism.” Its discourse and action articulate to flood the racial space of systemic racism **Racism is a process of defining and building communities and societies based on racialized hierarchy of power.** The expansion of capitalism cast new formulas of divisions and oppositions, fostering inequality even while integrating all previous forms of oppressive hierarchical arrangements as long as they bolstered the need to maintain the structure and form of capitalist arrangements (Batur-VanderLippe 1996). In this context, the white racial frame, defining the terms of racist systems of oppression, enabled the globalization of racial space through the articulation of capitalism (Du Bois 1942; Winant 1994). The key to understanding this expansion is comprehension of **the synergistic relationship between racist systems** of oppression **and** the **capitalist** system of **exploitation**. Taken separately, these two systems would be unable to create such oppression independently. However, the synergy between them **is** devastating. In the age of industrial capitalism, this synergy **manifested** itself **imperialism and colonialism**. **In** the age of **advanced capitalism, it is war and genocide.** The capitalist system, by enabling and maintaining the connection between everyday life and the global, buttresses the processes of racial oppression, and synergy between racial oppression and capitalist exploitation begets violence. Etienne Balibar points out that the connection between everyday life and the global is established through thought, making global racism a way of thinking, enabling connections of “words with objects and words with images in order to create concepts” (Balibar 1994: 200). Yet, global racism is not only an articulation of thought, but also a way of knowing and acting, framed by both everyday and global experiences. Synergy between capitalism and racism as systems of oppression enables this perpetuation and destruction on the global level. As capitalism expanded and adapted to the particularities of spatial and temporal variables, global racism became part of its legitimization and accommodation, first in terms of colonialist arrangements. In colonized and colonizing lands, global racism has been perpetuated through racial ideologies and discriminatory practices under capitalism by the creation and recreation of connections among memory, knowledge, institutions, and construction of the future in thought and action. What makes racism global are the bridges connecting the particularities of everyday racist experiences to the universality of racist concepts and actions, maintained globally by myriad forms of prejudice, discrimination, and violence (Balibar and Wallerstein 1991; Batur 1999, 2006). **Under colonialism, colonizing and colonized societies were antagonistic opposites. Since colonizing society portrayed the colonized “other,” as the adversary and challenger of the “the ideal self,”** not only **identification but also segregation and containment were essential to racist policies.** The terms of **exclusion were set by** the **institutions that fostered and maintained segregation**, but the intensity of exclusion, and redundancy, became more apparent in the age of advanced capitalism, as an extension of post-colonial discipline. **The exclusionary measures when tested led to war, and genocide.** Although, more often than not, genocide was perpetuated and fostered by the post-colonial institutions, rather than colonizing forces, **the colonial identification of the “inferior other” led to segregation, then exclusion, then war and genocide.** Violence glued them together into seamless continuity. Violence is integral to understanding global racism. **Fanon** (1963), in exploring colonial oppression, **discusses how divisions created or reinforced by colonialism guarantee the perpetuation, and escalation, of violence for both the colonizer and colonized. Racial differentiations**, **cemented through the colonial relationship**, **are integral to** the **aggregation of violence during and after colonialism**: “Manichaeism [division of the universe into opposites of good and evil] goes to its logical conclusion and dehumanizes” (Fanon 1963:42). Within this dehumanizing framework, Fanon argues that the violence resulting from the destruction of everyday life, sense of self and imagination under colonialism continues to infest the post-colonial existence by integrating colonized land into the violent destruction of a new “geography of hunger” and exploitation (Fanon 1963: 96). The “geography of hunger” marks the context and space in which oppression and exploitation continue. The historical maps drawn by colonialism now demarcate the boundaries of post-colonial arrangements. The white racial frame restructures this space to fit the imagery of symbolic racism, modifying it to fit the television screen, or making the evidence of the necessity of the politics of exclusion, and the violence of war and genocide, palatable enough for the front page of newspapers, spread out next to the morning breakfast cereal. Two examples of this “geography of hunger and exploitation” are Iraq and New Orleans.

#### Containing the empire through political institutions is doomed to fail. The alternative is to reject the hegemonic perspective of the 1AC so that we may reorient our struggles around bottom up resistance to global empire.

Sherman 2010 (steven, “the empire of bases and the american anti-war movement”, dissident voice, march 10, http://dissidentvoice.org/2010/03/the-empire-of-bases-and-the-american-anti-war-movement/ )

The basic narrative of advancing socialism through armed confrontation with the US or its proxies collapsed in 1989. I think a good chunk of the problem today is that no alternative narrative has replaced it (there has also long been a robust pacifist tradition in the US, but this often leans towards individualistic bearing witness rather than mass organizing). Instead, we lurch from mobilization to mobilization with the intuition that war is bad. When there is some prospect of intervening in public debates — during the drive to war with Iraq in 2003, or when the elite consensus about maintaining the occupation of Iraq started to crumble around 2005 — the crowds at our demonstrations swell. When these moments pass, the crowds dwindle. With the exception of a handful of honorable groups, hardly anyone seems to be doing anything besides grumbling in private. Rather than a struggle against particular wars, the movement can, inspired by the thinking of the activists documented in Bases of Empire, think of itself as broadly counterposed to a global empire in which the ‘war on terror’ (or the ‘war in Iraq’, ‘war in Afghanistan’, etc) is simply a particular instance. This orientation would counter the tendency to go into hibernation whenever debate on particular interventions recedes. Notwithstanding this tendency, the empire grinds on, sometimes in places like the Indian Ocean island of Diego Garcia that are almost unknown in the US (one of the most useful aspects of the book is a map of all known US military bases around the world–particularly heavy in Iraq, Afghanistan, Japan and Germany, of course, but also including numerous bases in Italy, Spain and Portugal, and throughout the Caribbean and the Andean and Equatorial portions of Latin America, among others). The alternative to this empire is not an armed counterpower, but a variety of movements with complex priorities — feminist, ecological, culturally diverse. This parallels the way the struggle against dogmatic neoliberalism is no longer obsessed with the imposition of a singular, planned economic model. Rather, when we abandon the simple minded formulation that what is best for investors is best for the world, complex alternatives gradually emerge. “One no, many yeses”, as the saying goes. Similarly, the alternative to equating ’security’ with the US military is a complex picture of what is needed to produce a meaningful and happy co-existence. US militarism, like neoliberalism, is a one dimensional view of the world developed from a position of power. The world is simply a space to be controlled by the military, through the endless gobbling of land for military bases, and the subordination of other needs — cultural, economic, political, etc. — to this project. The examples described in The Bases of Empire clarify this dynamic and how to resist it. In places as diverse as the Philippines, Iraq, Hawaii, and Turkey, one sees similar processes over and over. The steamrolling of the rights of those considered in the way, perhaps with the support of some local group that has long had it in for them. The destruction of the environment to facilitate military ’security’. The inability to imagine those outside of the US military complex as equals. The introduction and reinforcement of regressive gender relations epitomized by prostitution around bases (worth pondering by those who hope that the US will improve the lot of Afghan women through military occupation). Divide and conquer strategies that involve siding with one local group at the expense of another to secure the former’s support. To date, changes in the party which controls the White House or congress, and even defeat in wars, has resulted more in modest shifts in geography and strategy than in fundamental change. Sometimes the US seeks rights over a country’s territory, or co-ordination with its military, rather than a formal base, per se. The pressure on the US to get out of places like the Philippines or Okinawa increases the importance of other territories, like Guam. Although the bases are gone from the Philippines, the US remains, now involved as ‘advisors’ in a war on separatists. This tendency for the empire to mutate rather than shrink can be infuriating. Yet reading this book, it is difficult not to sense growing isolation for this project. Compounded with the economic weakness, military failures, and diplomatic isolation of the US (not dealt with in this volume), there are grounds for hope that a [the] military that now strides across most of the globe may someday soon begin to shrink, and a real discussion of the actual national security needs of the American people (and the people of the world) might begin[.] in earnest. The Bases of Empire is notably different from most texts about the US empire in its emphasis on non-violent resistance to US military bases and their malign impact. Feminism, and non-Western spiritualities which assert a sacred relation to the land are recurrent themes. As is the case with social struggles in general, even when these are not immediately successful in achieving their demands, their impact on individuals and societies can be quite positive. For example, the anti-war demonstrations in Turkey helped revitalize civil-society based politics in that country. Greenham Common in England made an enduring impact as a feminist encampment. It also becomes clear that the end of the cold war actually often strengthened the hand of those pushing to close bases, since this position no longer placed them on the Soviet side of the cold war. They could therefore reach portions of the population who might be anti-communist, but nonetheless aware of the malign impact of the bases on their lives. Puerto Rico is one of the most salient cases of this. To combat the tendency to go dormant whenever political space in the US starts to close up, the US anti-war movement — at least its most determined core — might want to consider[s] thinking of itself as instead an anti-empire movement. This would facilitate[s] building links with these movements around the world. Understanding their visions would also help undermine the reactive quality of the anti-war movement, wherein we are typically more confident about what we are against than what we are for. Although t[T]he anti-bases movement[s] is not a unified, singular political actor on the world stage, it does have a coherent set of demands that provide an alternative to the idea of security[.] for Americans (and, allegedly the world) through a global network of military bases. These demands include the recognition of all people as equals, rather than as subordinates of [the] empire. [and] A[a]n alteration in the way we interact with the planet that is inflected by spiritual traditions that see the earth as sacred, rather than as space to be controlled. The valuing of the work of caring, rather than the servicing of the sexual needs of foreign military personnel and the glorification of warriors. Finally, [and] a concept of security grounded in the interrelationship between all people and between people and the wider world, rather than the production of more and more arms and bases

#### Judges must sign the ballot in favor of the critique of western domination - this is your role as an educator. This opens up the space for imagining alternatives. Reject the western privilege.

Ahlquist and Hudson, [Contesting the curriculum in the schooling of indigenous children in Australia and the USA: from Eurocentrism to culturally powerful pedagogies. Anne Hickling-Hudson (University of Queensland) & Roberta Ahlquist (California State University at San Jose) Comparative Education Review, Vol 47, No. 1, 2003, pp. 64-89. SK]

**Educational systems in white dominated countries**, and what is recognised as formal knowledges, **are shaped by ‘whiteness’**. In the literature on whiteness, it is pointed out that **white and European are viewed as the norm and thus not named,** as other ‘races’ and ethnicities are named. The political agenda involved in this ‘color-blind’ construct denies the link between socio-economic privilege and whiteness. It erases dangerous historical memories ‘in a way that severs the connection between white people’s contemporary privileged social location with historical patterns of injustice’10. White blindness to the difference race makes in people’s lives has a powerful effect on schools and other institutions in white dominant societies. It keeps white people from learning about the role that their privilege plays in personal and institutional racism. **If** white **teachers want to challenge the authority of the** white, **western worldview**, **and build** **a**n anti-racist, **socially just and global curriculum**, **they need to acknowledge their power and privilege**. **This is the foundation for learning to give up that power and instead working to build** anti-racist **alliances across ethnic, racial, and cultural differences**. A key component of such alliances is the principle of self-determination for indigenous peoples and peoples of color in public schooling. The goal is not to elicit feelings of guilt for white racism but to encourage insight into the racialized nature of oppression, as a foundation for working towards the redistribution of power and resources along more equitable lines11. **A postcolonial perspective** puts this process of ‘unmasking whiteness’12 into global context. It **explores the ways in which the Eurocentric curriculum, which includes the practices and assumptions of ‘whiteness’, is often so accepted as the norm that it is invisible and beyond question for many teachers.** **It is rarely admitted at any level of the education system that today’s curriculum still draws from the white imperialist projects** of ‘fostering a science and geography of race, renaming a good part of the world in homage to its adventurers’ homesick sense of place, and imposing languages and literatures on the colonized in an effort to teach them why they were subservient to a born-to-rule civilization’13. **The Eurocentrism of the North American** and Australian **curriculum offered to many indigenous students is not officially recognised, does not meet their educational needs, yet it is, in our view, an important factor explaining their relative lack of success in the educational system**. **This sort of education** **takes it for granted that Eurocentric learning with all its ethnocentric and racial ideologies is, and should be, the norm, the assumption being that all children, regardless of ethnicity, language, class, gender, will benefit from this curriculum.** **A postcolonial perspective names and challenges the legacies of colonialism and their continuation through neocolonial practices.** **This perspective therefore investigates the assumptions underlying discourses of Eurocentrism** including ‘whiteness’, **and explores approaches for constructing alternatives**14. SK

### DA

#### The affirmative rhetorical silence on whiteness is an active stance that allows white privilege to thrive by masking its existence and treating is as an assumed norm.

We once believed that SILENCE was golden interpreting it to be a precious and valuable commodity. While still viewed as a precious and valuable commodity the color has changed and SILENCE is now the veil and cloak of WHITENESS and WHITE PRIVILEGE

DR. CRENSHAW **Prof of Speech Comm @ Univ. Ala. 1997** Carrie-PhD. USC; former director of debate @ Univ. of Ala.; WESTERN JOURNAL OF COMMUNICATION

This analysis of Helms’ opening argument illustrates how **the ideology of white privilege operates through rhetorical silence**. Helms’ statement was an argument over the meaning of the UDC—its members, its actions, and its insignia. It was an ideological struggle to maintain silence about the members’ whiteness and its implications through a strategic use of gender. Two key issues arise here. **First, rhetorical silence about whiteness sustains an ideology of white privilege. Second, intersecting gendered discourses work to preserve this silence. Helms’ silence about whiteness naturalized the taken-for-granted assumptions contained in his framework for understanding who is harmed by this decision. The “colossal unseen dimensions [of] the silences and denials surrounding” whiteness are key political tools for protecting white privilege and maintaining the myth of meritocracy** (McIntosh 35). This silence is rhetorical and has important ideological implications. Scott observes that **silence and speaking have symbolic impact and as such are both rhetorical**. When considering the dialectic of speaking and silence, he thinks of silence as the absence of speech. **Silence is active, not passive; it may be interpreted.** Furthermore, silence and speech may be both simultaneous and sequential.**The absence of speech about whiteness signifies that it exists in our discursive silences. It may often be intentional; it can be interpreted, and it can occur simultaneously with the spoken word. Whiteness’ silence** is ideological because it **signifies that to be white is the natural condition, the assumed norm**. Scott notes that silences symbolize the nature of things—their substance or natural condition. **Silences symbolize “hierarchical structures as surely as does speech” (15). Indeed, the very structure of privilege generates silences, and “ironically, the most powerful rhetoric for maintaining an existing scheme of privilege will be silent**” (10). Thus, silent rhetorical constructions of whiteness like Helms’ protect material white privilege because they mask its existence.

#### Silence on whiteness creates power structures As we are debating from an unequal power position which is not recognized or factored into a decision, this destroys accessibility.

### Case

#### Affs fails to outline specifics on plan implementation – they should be able to answer necessary questions like / Who is the agent? / What is the legal penalty? / Do you decommission? / Do you use another method? / remember, it’s their job to demonstrate a burden of proof for aff solvency – only way to demonstrate they solves their advantage links which is how they justifies the aff as a good idea.

#### Vote Neg on presumption – plans that fail to incorporate specific details can’t be evaluated because

#### No blueprint for bureaucrats to enact plan which empirically leads to serial policy failure

#### No way to solidy examine consequences of each step and element of plan so there’s no debate

Gary M. Galles, Orange County Register, 3-3-2009, professor of economics at Pepperdine University, where he has taught for thirty years. He received his PhD in economics from UCLA in 1988. His research focuses on public finance, public choice (better termed, “the economics of government”), the theory of the firm, the organization of industry, and the role of liberty, including the views of many classical liberals (now called libertarians), echoed by many of America’s founders. In addition to journal articles, he has been involved in many economics textbook projects and has published over a thousand popular articles and opinion pieces. He has made multiple appearances on television and radio programs. His focus is primarily on using economics tools to understand the “real world,” rather than creating theoretically elegant but misleading models divorced from it. ["The Orange Grove: Obama health plan; we need details", http://www.ocregister.com/articles/details-25757-proposals-obama.html] bcr

The problem with such vagueness is that any informed public policy decision has to be based on specific proposals. Absent concrete details, which is where the devil lurks, no one - including those proposing a "reform" - can judge how it would fare or falter in the real world. So when the president wants approval for a $634 billion proposal which offers too few details for evaluation, we must ask why. Like salesmen, politicians strive to present their wares as attractively as possible. Unlike salesmen, however, a politician's product line consists of claimed consequences of proposals not yet enacted. Further, politicians are unconstrained by truth-in-advertising laws, they have fewer competitors keeping them honest, and they face "customers" - voters - far more ignorant about the merchandise involved than consumers spending their own money. These differences explain why politicians' "sales pitches" for their proposals are so vague. However, if vague proposals are the best politicians can offer, they are inadequate. If rhetoric is unmatched by specifics, there is no reason to believe a policy change will be an improvement, because no reliable way exists to determine whether it will actually accomplish what is promised. Only the details will determine the actual incentives facing the decision-makers involved, which is the only way to forecast the results, including the myriad of unintended consequences from unnoticed aspects. We must remember that, however laudable, goals and promises and claims of cost-effectiveness that are inconsistent with the incentives created will go unmet. It may be that President Obama knows too little of his "solution" to provide specific plans. If so, he knows too little to deliver on his promises. Achieving intended goals then necessarily depends on blind faith that Obama and a panoply of bureaucrats, legislators, overseers and commissions will somehow adequately grasp the entire situation, know precisely what to do about it, and do it right - a prospect that, given the painful lessons of history, should attract few real believers. Alternatively, President Obama may know the details of what he intends, but is not providing them to the public. But if it is necessary to conceal a plan's details to put the best possible public face on it, those details must be adverse. If details of a plan made a more persuasive sales pitch, a politician would not hide them; they would be trumpeted at every opportunity as proof he really had the answers. Claiming adherence to elevated principles while keeping detailed proposals from sight also has a strategic advantage: It defuses criticism. Absent details, any criticism can be parried by saying "that was not in our proposal" or "we have no plans to do that" or similar retorts. It also allows a politician to incorporate alternatives proposed as part of his evolving reform, as if they were his [their] idea all along. The new administration has already put vague proposals on prominent display. However, adequate analysis cannot rest upon such flimsy foundations. That requires the nuts and bolts so glaringly absent. In the private sector, people don't spend their own money on such vague promises of unseen products. It is foolhardy to act any differently when political salesmen withhold specifics, because political incentives guarantee that people would object to what is kept hidden. So while vagueness may be good political strategy, it virtually ensures bad policy.

### PM Key

#### We must look to pragmatic solutions over purely ideological focus as otherwise we victimize survivors and create tangible psychological harm which outweighs under your framing – this necessitates a policymaking paradigm where we weigh advantages and disadvantages – this evidence ow on specificity – it’s in the context of nuclear power debates

Grimes ’16, [David Robert Grimes(), Why it's time to dispel the myths about nuclear power, Guardian, 4-1-2016, 16, https://www.theguardian.com/science/blog/2016/apr/11/time-dispel-myths-about-nuclear-power-chernobyl-fukushima, 8-13-2016. SK]

This year marks the fifth anniversary of the Fukushima disaster, and the 30th anniversary of the Chernobyl incident. Together, these constitute the two greatest nuclear accidents the world has ever seen. Even now, **widespread confusion** over these disasters still **blights rational discussion on energy production**; **too often the debate becomes needlessly acrimonious,** reliant on rhetoric in lieu of facts**.** Yet as climate change becomes an ever-encroaching factor, **we need more than ever to have a** reasoned discussion on nuclear power**.** To this end, it’s worth dispelling some persistent myths. ADVERTISING The events in the Ukrainian town of Pripyat on the morning of 26 April 1986 have permanently etched the name Chernobyl, and all its connotations, into the public mind. With a dark irony, it was a poorly conducted safety experiment that was the catalyst for the worst nuclear disaster in history. The full odious sequence of events that led to the accident would constitute an entire article. In essence, however, the mixture of flawed design, disabled redundancies and a tragic disregard for experimental protocol all feature heavily in the blueprint of the disaster. The net result of this errant test was a massive steam explosion, replete with enough kick to blow the 2,000 ton reactor casting clean through the roof of the reactor building. Despite the sheer explosive force of the eruption, what ensued was not a nuclear blast. The spectre of the cold war has left an unfortunate conflation between nuclear weapons and nuclear power, but it is important to note that they operate on very different principles. The Chernobyl explosion was instead a conventional high-pressure failure due to excess steam. Seconds later, the remaining coolant flashed to steam and a second even greater explosion occurred, dispersing the shattered nuclear core and effectively terminating the chain reaction. This second explosion also ejected chunks of graphite moderator into the air, which caught fire, releasing radioactive fallout. It’s estimated that the second explosion released 40bn joules of energy - roughly equivalent to a staggering 10 tons of TNT. Inside the abandoned city of Pripyat, 30 years after Chernobyl – in pictures View gallery Contrary to all safety regulations, the roof of the reactor complex had been constructed with bitumen, which proved a highly flammable agent. The burning, highly toxic graphite rods ignited at least five fires on the roof of the adjacent reactor. To compound matters further, the night shift and engineering chief squabbled over whether the reactor should be shut down. For several hours workers were in situ with minimal protection. Firefighters arrived on the scene, completely unaware of the dangers they were being exposed to. In the commotion, a helicopter tasked with dumping 5,000 metric tons of sand and neutron-absorbing boron in an effort to quench the flames collided with a crane and spiralled into the ground, killing all four of crew members immediately - a tragic event caught on camera. By 5am the fire had been brought under control, but a number of men had been exposed to high radiation levels and lacked even the most basic protection. The Soviet response was an unmitigated disaster; rather than admit the fault and take preventative action, the authorities pretended nothing was amiss. In this interim of inaction, hazardous material released in the blast seeped unimpeded into the soil around Pripyat, chief among them radio-iodine 131. This radio-isotope has a half-life of a mere eight days, but if ingested it can accumulate in the thyroid, leading to illness and the potential emergence of thyroid cancer in later life. To circumvent this, those exposed to high levels of radio-iodine are generally given potassium iodide to prevent ill effect. But even this basic prophylactic response was not taken, and residents continued to ingest contaminated food. Finally, a full 36 hours after the explosion, the authorities gave the order to evacuate. This too was likely to have been covered up, had traces of radioactive fallout not been detected at a Swedish nuclear facility the next day, which revealed the scale of the problem to the world. The Chernobyl exclusion zone has become a tourist attraction. Facebook Twitter Pinterest The Chernobyl exclusion zone has become a tourist attraction. Photograph: Lynn Hilton/Rex/Shutterstock Chernobyl was a perfect storm, a damning tale of ineptitude leading to needless loss of life. It was also unequivocally the world’s worst nuclear accident. To many, it is also heralded as proof-positive that nuclear energy was inherently unsafe, a narrative adopted by many anti-nuclear groups. The word Chernobyl became synonymous with death on a massive scale. But perception and reality do not always neatly align; in the wake of the disaster, the UN Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) and others undertook a co-ordinated effort to follow up on health effects. In 2006, after two decades of monitoring they outlined the health effects; of the firefighters exposed to the huge core doses and incredibly toxic smoke, 28 died from acute radiation sickness. A further 15 perished from thyroid cancer. Despite aggressive monitoring for three decades, there has been no significant increase in solid tumours or delayed health effects, even in the hundreds of thousands of minimally protected cleanup workers who helped purge the site after the accident. In the words of the 2008 UNSCEAR report: “There is no scientific evidence of increases in overall cancer incidence or mortality rates or in rates of non-malignant disorders that could be related to radiation exposure. It added: “The incidence of leukaemia in the general population, one of the main concerns owing to the shorter time expected between exposure and its occurrence compared with solid cancers, does not appear to be elevated. Although most highly exposed individuals are at an increased risk of radiation-associated effects, the great majority of the population is not likely to experience serious health consequences as a result of radiation from the Chernobyl accident. Many other health problems have been noted in the populations that are not related to radiation exposure.” Of course, the fact that the health impact of Chernobyl is far less than people tend to believe should not detract from the tragedy: at least 43 people died as a direct consequence of the disaster and up to 4,000 others exposed in 1986 might yet exhibit some ill effect. Moreover, the scale of disruption in the wake of the incident was enormous, with around 115,000 people evacuated by the authorities from areas surrounding the reactor in 1986. To this day, a 30km exclusion zone around the reactor has been maintained for precaution, despite the radiation level in this boundary being far below that which would cause damage. Unmolested by human hands, the Chernobyl exclusion zone has become an incredible natural wildlife habit and a growing tourist attraction. But for ideological opponents of nuclear power, this reality is largely ignored; a Russian non-peer-reviewed report garnered headlines with the claim 985,000 died as a result of the accident, a number subsequently exposed as baseless by the Radiation Protection Dosimetry journal. The scientific evidence also undermined Greenpeace, who had long used the spectre of Chernobyl (and more recently, Fukushima) as a prop in their anti-nuclear narrative. They and European Greens scrambled to counter this by releasing “The other report on Chernobyl (Torch)” in 2006 as a counter to the Chernobyl forum. In it, they reported that more than 200,000 deaths might be attributable to the disaster. This figure too is devoid of merit, a transparent attempt to circumvent the scientific consensus. Such empty hyperbole **and stubborn insistence on** projecting ideology over reality **isn’t merely intellectually vapid,** it’s actively damaging to the psychological health of survivors**.** Advertisement This is also explicitly touched on in a 2005 World Health Organisation report: “**Designation of the affected population as ‘victims’ rather than ‘survivors’ has led them to perceive themselves as helpless, weak and lacking control over their future**. This ... has led either to overcautious behaviour and exaggerated health concerns, or to reckless conduct.” Unlike the accident in the Ukraine, events at Fukushima in March 2011 were not the result of ineptitude but rather a massive natural disaster in the form of a deadly 15-metre high tsunami. The wall of rushing water flooded the Fukushima plant, water-logging the diesel generators that had been cooling the plant, resulting in the leakage of small amounts of nuclear waste product. While the world media fixated on the drama unfolding at the plant, it lost sight of the fact that around 16,000 had just been killed in a massive natural disaster. Despite the preponderance of breathless headlines since the reality is that five years later, radiobiological consequences of Fukushima are practically negligible - no one has died from the event, and is it extraordinarily unlikely that anyone will do so in future. The volume of radioactive leak from the site is so small as to be of no health concern; there is no detectable radiation from the accident in Fukushima grown-food, nor in fish caught off the coast. This of course hasn’t stopped numerous organisations employing Fukushima as an anti-nuclear argument, despite the lack of justification for doing so. ‘We have a chance to show the truth’: into the heart of Chernobyl Read more It is important also to see these disasters in the wider context of energy production: when the Banqiao hydroelectric dam failed in China in 1975 in led to at least 171000 deaths and displaced 11 million people. Even windpower has resulted in more than 100 deaths since the 1990s. None of this is to denigrate the vital importance of such technologies, but rather to point out that every form of energy production has some inherent risk. Our reliance on fossil fuels is particularly costly, not only to the environment but to human health; each year, at least 1.3 million people are estimated to die from air pollution. More recent estimates put this figure at 5.5 million. Advertisement Yet as I have expanded upon previously for this paper, ideological opposition is hard to overcome and nuclear is no exception. In the wake of Fukushima, Germany acquiesced to demands from lobby groups to shut down its nuclear sector, building heavily polluting fossil-fuel plants in their stead. Japan too suspended its nuclear grid, becoming the second-largest net importer of fossil fuels in the world. Some ostensible environmental campaigners lauded this, oblivious to the fact these decisions condemned the environmental to further damage. If this is “victory” for the environment, it is a resoundingly pyrrhic kind. Shutdown of the plants in Japan has led to not only increased pollution, but rolling blackouts and protests. By contrast, France has for decades produced 75% of its energy through nuclear, and enjoys the cleanest air and among the lowest carbon emissions of any industrialised nature. The IPCC stress that nuclear power must be considered if we are to halt climate change, with some estimates suggested nuclear capacity needs to double if we are to stave off the worst ravages of climate change. Even so, **resistance to nuclear remains, and scare-stories about Chernobyl and Fukushima are too often employed as an empty rebuttal by those unwilling to countenance the situation we face**. Nuclear energy is complicated, has drawbacks, and like any form of energy production it has risks. But it is also clean, safe and hugely efficient**. If we truly want to have a rational discussion on how best to power our world, we need to confine ourselves to facts rather than fictions and weigh up the advantages and disadvantages without recourse to ill-founded ideological radiophobia.** Our very future depends upon it. SK

#### Evidenced based policy making means you prioritize material impact over the 1AC ideology – we flip their epistemology

 D. Don Welch, A Guide to Ethics and Public Policy: Finding Our Way pp. 73, 2014 , Law prof @ Vanderbilt - Ph.D. in ethics and political theory at Vanderbilt [Google Books] bcr 9-5-2016

Once we think we know something about the probabilities of the outcomes of various scenarios, decisions must be made about how to incor- porate those findings into the public policy process. Do we manage to the most probable outcome? Do we make policy to avoid the worst case scenario, or to attempt to achieve the best case scenario? Such questions are best answered not in the abstract, but should be tailored to concrete cases. Evidence-based policy making has become the new touchstone for good governance. At the very least, this approach emphasizes the need to look at the facts on the ground, in each place where they are encountered, rather than relying on ideological reactions that have been passed down from other times and other places.

#### Apriori issue – prefer this mode of behavioral economic analysis – it is the only way to change decision making to properly address environmental concerns

Dr. Karen Akerlof, PhD Center for Climate Change Communication June 10, 2013 [“Nudging Toward a Healthy Natural Environment How Behavioral Change Research can Inform Conservation” available online at: http://climatechangecommunication.org/sites/default/files/reports/NudgesforConservation\_GMU\_061013.pdf]cdm

Many of the world’s most vexing conservation problems result either directly or indirectly from people’s everyday behaviors that, when multiplied by a global population of seven billion, places enormous pressures on habitats and natural resources, contributing to air and water pollution, land degradation and soil erosion, deforestation, species extinction, fishery depletion, water resource losses, and climate change. Successful interventions to conserve species and natural resources must change human decisions and behavior (Clayton & Myers, 2009; Saunders, Brook, & Eugene Myers, 2006; Schultz, 2011), but efforts to alter the ways people think and act are often ineffective, and may result in outcomes that are counterintuitive (Milner-Gulland, 2012), or even counterproductive to conservation goals (Barrett & Arcese, 1998). Research in psychology and behavioral economics can help to provide us with an understanding of the mechanisms at work in human actions and decision-making, and offer lessons that governments, including the United Kingdom and United States, have begun to incorporate into public policy (Dorning, 2010; Wintour, 2010). In turn, theoretically-informed behavioral change strategies are likely to be more effective than ad hoc approaches (Dombrowski et al., 2012; Glanz & Bishop, 2010; Taylor, Conner, & Lawton, 2012).

## 2NR

Extend Galles’ 09 - the AC is not prima facie because it fails to spec the implimentation mechanics, which is a litmus test for discursive evaluation, as rhetoric unmatched with specifics disqualifies the credibility of the rhetoric.