# NU LV Cards---Wake Finals

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### Warming

#### CONTENTION 1: WARMING

#### Nuclear’s inevitable globally but won’t solve warming until the US develops SMR’s

Shellenberger 12 – et al and Ted Nordhaus—co-founders of American Environics and the Breakthrough Institute a think tank that works on energy and climate change – AND – Jesse Jenkins-Director of Energy and Climate Policy, the Breakthrough Institute (Michael, Why We Need Radical Innovation to Make New Nuclear Energy Cheap, 9/11, thebreakthrough.org/index.php/programs/energy-and-climate/new-nukes/)

Arguably, the biggest impact of Fukushima on the nuclear debate, ironically, has been to force a growing number of pro-nuclear environmentalists out of the closet, including us. The reaction to the accident by anti-nuclear campaigners and many Western publics put a fine point on the gross misperception of risk that informs so much anti-nuclear fear. Nuclear remains the only proven technology capable of reliably generating zero-carbon energy at a scale that can have any impact on global warming. Climate change -- and, for that matter, the enormous present-day health risks associated with burning coal, oil, and gas -- simply dwarf any legitimate risk associated with the operation of nuclear power plants. About 100,000 people die every year due to exposure to air pollutants from the burning of coal. By contrast, about 4,000 people have died from nuclear energy -- ever -- almost entirely due to Chernobyl.¶ But rather than simply lecturing our fellow environmentalists about their misplaced priorities, and how profoundly inadequate present-day renewables are as substitutes for fossil energy, we would do better to take seriously the real obstacles standing in the way of a serious nuclear renaissance. Many of these obstacles have nothing to do with the fear-mongering of the anti-nuclear movement or, for that matter, the regulatory hurdles imposed by the U.S. Nuclear Regulatory Commission and similar agencies around the world.¶ As long as nuclear technology is characterized by enormous upfront capital costs, it is likely to remain just a hedge against overdependence on lower-cost coal and gas, not the wholesale replacement it needs to be to make a serious dent in climate change. Developing countries need large plants capable of bringing large amounts of new power to their fast-growing economies. But they also need power to be cheap. So long as coal remains the cheapest source of electricity in the developing world, it is likely to remain king.¶ The most worrying threat to the future of nuclear isn't the political fallout from Fukushima -- it's economic reality. Even as new nuclear plants are built in the developing world, old plants are being retired in the developed world. For example, Germany's plan to phase-out nuclear simply relies on allowing existing plants to be shut down when they reach the ends of their lifetime. Given the size and cost of new conventional plants today, those plants are unlikely to be replaced with new ones. As such, the combined political and economic constraints associated with current nuclear energy technologies mean that nuclear energy's share of global energy generation is unlikely to grow in the coming decades, as global energy demand is likely to increase faster than new plants can be deployed.¶ To move the needle on nuclear energy to the point that it might actually be capable of displacing fossil fuels, we'll need new nuclear technologies that are cheaper and smaller. Today, there are a range of nascent, smaller nuclear power plant designs, some of them modifications of the current light-water reactor technologies used on submarines, and others, like thorium fuel and fast breeder reactors, which are based on entirely different nuclear fission technologies. Smaller, modular reactors can be built much faster and cheaper than traditional large-scale nuclear power plants. Next-generation nuclear reactors are designed to be incapable of melting down, produce drastically less radioactive waste, make it very difficult or impossible to produce weapons grade material, useless water, and require less maintenance.¶ Most of these designs still face substantial technical hurdles before they will be ready for commercial demonstration. That means a great deal of research and innovation will be necessary to make these next generation plants viable and capable of displacing coal and gas. The United States could be a leader on developing these technologies, but unfortunately U.S. nuclear policy remains mostly stuck in the past. Rather than creating new solutions, efforts to restart the U.S. nuclear industry have mostly focused on encouraging utilities to build the next generation of large, light-water reactors with loan guarantees and various other subsidies and regulatory fixes. With a few exceptions, this is largely true elsewhere around the world as well.¶ Nuclear has enjoyed bipartisan support in Congress for more than 60 years, but the enthusiasm is running out. The Obama administration deserves credit for authorizing funding for two small modular reactors, which will be built at the Savannah River site in South Carolina. But a much more sweeping reform of U.S. nuclear energy policy is required. At present, the Nuclear Regulatory Commission has little institutional knowledge of anything other than light-water reactors and virtually no capability to review or regulate alternative designs. This affects nuclear innovation in other countries as well, since the NRC remains, despite its many critics, the global gold standard for thorough regulation of nuclear energy. Most other countries follow the NRC's lead when it comes to establishing new technical and operational standards for the design, construction, and operation of nuclear plants.¶ What's needed now is a new national commitment to the development, testing, demonstration, and early stage commercialization of a broad range of new nuclear technologies -- from much smaller light-water reactors to next generation ones -- in search of a few designs that can be mass produced and deployed at a significantly lower cost than current designs. This will require both greater public support for nuclear innovation and an entirely different regulatory framework to review and approve new commercial designs.¶ In the meantime, developing countries will continue to build traditional, large nuclear power plants. But time is of the essence. With the lion's share of future carbon emissions coming from those emerging economic powerhouses, the need to develop smaller and cheaper designs that can scale faster is all the more important.¶ A true nuclear renaissance can't happen overnight. And it won't happen so long as large and expensive light-water reactors remain our only option. But in the end, there is no credible path to mitigating climate change without a massive global expansion of nuclear energy. If you care about climate change, nothing is more important than developing the nuclear technologies we will need to get that job done.

#### Nuclear’s critical to displace coal and stop catastrophic climate change

Moore 4—co-founder of Greenpeace, is chairman and chief scientist of Greenspirit Strategies Ltd. (Patrick, Going Nuclear, <http://www.washingtonpost.com/wp-dyn/content/article/2006/04/14/AR2006041401209.html>)

In the early 1970s when I helped found Greenpeace, I believed that nuclear energy was synonymous with nuclear holocaust, as did most of my compatriots. That's the conviction that inspired Greenpeace's first voyage up the spectacular rocky northwest coast to protest the testing of U.S. hydrogen bombs in Alaska's Aleutian Islands. Thirty years on, my views have changed, and the rest of the environmental movement needs to update its views, too, because nuclear energy may just be the energy source that can save our planet from another possible disaster: catastrophic climate change.¶ Look at it this way: More than 600 coal-fired electric plants in the United States produce 36 percent of U.S. emissions -- or nearly 10 percent of global emissions -- of CO2, the primary greenhouse gas responsible for climate change. Nuclear energy is the only large-scale, cost-effective energy source that can reduce these emissions while continuing to satisfy a growing demand for power. And these days it can do so safely.¶ I say that guardedly, of course, just days after Iranian President Mahmoud Ahmadinejad announced that his country had enriched uranium. "The nuclear technology is only for the purpose of peace and nothing else," he said. But there is widespread speculation that, even though the process is ostensibly dedicated to producing electricity, it is in fact a cover for building nuclear weapons.¶ And although I don't want to underestimate the very real dangers of nuclear technology in the hands of rogue states, we cannot simply ban every technology that is dangerous. That was the all-or-nothing mentality at the height of the Cold War, when anything nuclear seemed to spell doom for humanity and the environment. In 1979, Jane Fonda and Jack Lemmon produced a frisson of fear with their starring roles in "The China Syndrome," a fictional evocation of nuclear disaster in which a reactor meltdown threatens a city's survival. Less than two weeks after the blockbuster film opened, a reactor core meltdown at Pennsylvania's Three Mile Island nuclear power plant sent shivers of very real anguish throughout the country.¶ What nobody noticed at the time, though, was that Three Mile Island was in fact a success story: The concrete containment structure did just what it was designed to do -- prevent radiation from escaping into the environment. And although the reactor itself was crippled, there was no injury or death among nuclear workers or nearby residents. Three Mile Island was the only serious accident in the history of nuclear energy generation in the United States, but it was enough to scare us away from further developing the technology: There hasn't been a nuclear plant ordered up since then.¶ Today, there are 103 nuclear reactors quietly delivering just 20 percent of America's electricity. Eighty percent of the people living within 10 miles of these plants approve of them (that's not including the nuclear workers). Although I don't live near a nuclear plant, I am now squarely in their camp.¶ And I am not alone among seasoned environmental activists in changing my mind on this subject. British atmospheric scientist James Lovelock, father of the Gaia theory, believes that nuclear energy is the only way to avoid catastrophic climate change. Stewart Brand, founder of the "Whole Earth Catalog," says the environmental movement must embrace nuclear energy to wean ourselves from fossil fuels. On occasion, such opinions have been met with excommunication from the anti-nuclear priesthood: The late British Bishop Hugh Montefiore, founder and director of Friends of the Earth, was forced to resign from the group's board after he wrote a pro-nuclear article in a church newsletter.¶ There are signs of a new willingness to listen, though, even among the staunchest anti-nuclear campaigners. When I attended the Kyoto climate meeting in Montreal last December, I spoke to a packed house on the question of a sustainable energy future. I argued that the only way to reduce fossil fuel emissions from electrical production is through an aggressive program of renewable energy sources (hydroelectric, geothermal heat pumps, wind, etc.) plus nuclear. The Greenpeace spokesperson was first at the mike for the question period, and I expected a tongue-lashing. Instead, he began by saying he agreed with much of what I said -- not the nuclear bit, of course, but there was a clear feeling that all options must be explored.¶ Here's why: Wind and solar power have their place, but because they are intermittent and unpredictable they simply can't replace big baseload plants such as coal, nuclear and hydroelectric. Natural gas, a fossil fuel, is too expensive already, and its price is too volatile to risk building big baseload plants. Given that hydroelectric resources are built pretty much to capacity, nuclear is, by elimination, the only viable substitute for coal. It's that simple.¶ That's not to say that there aren't real problems -- as well as various myths -- associated with nuclear energy. Each concern deserves careful consideration:¶ · Nuclear energy is expensive. It is in fact one of the least expensive energy sources. In 2004, the average cost of producing nuclear energy in the United States was less than two cents per kilowatt-hour, comparable with coal and hydroelectric. Advances in technology will bring the cost down further in the future.¶ · Nuclear plants are not safe. Although Three Mile Island was a success story, the accident at Chernobyl, 20 years ago this month, was not. But Chernobyl was an accident waiting to happen. This early model of Soviet reactor had no containment vessel, was an inherently bad design and its operators literally blew it up. The multi-agency U.N. Chernobyl Forum reported last year that 56 deaths could be directly attributed to the accident, most of those from radiation or burns suffered while fighting the fire. Tragic as those deaths were, they pale in comparison to the more than 5,000 coal-mining deaths that occur worldwide every year. No one has died of a radiation-related accident in the history of the U.S. civilian nuclear reactor program. (And although hundreds of uranium mine workers did die from radiation exposure underground in the early years of that industry, that problem was long ago corrected.)¶ · Nuclear waste will be dangerous for thousands of years. Within 40 years, used fuel has less than one-thousandth of the radioactivity it had when it was removed from the reactor. And it is incorrect to call it waste, because 95 percent of the potential energy is still contained in the used fuel after the first cycle. Now that the United States has removed the ban on recycling used fuel, it will be possible to use that energy and to greatly reduce the amount of waste that needs treatment and disposal. Last month, Japan joined France, Britain and Russia in the nuclear-fuel-recycling business. The United States will not be far behind.¶ · Nuclear reactors are vulnerable to terrorist attack. The six-feet-thick reinforced concrete containment vessel protects the contents from the outside as well as the inside. And even if a jumbo jet did crash into a reactor and breach the containment, the reactor would not explode. There are many types of facilities that are far more vulnerable, including liquid natural gas plants, chemical plants and numerous political targets.¶ · Nuclear fuel can be diverted to make nuclear weapons. This is the most serious issue associated with nuclear energy and the most difficult to address, as the example of Iran shows. But just because nuclear technology can be put to evil purposes is not an argument to ban its use.¶ Over the past 20 years, one of the simplest tools -- the machete -- has been used to kill more than a million people in Africa, far more than were killed in the Hiroshima and Nagasaki nuclear bombings combined. What are car bombs made of? Diesel oil, fertilizer and cars. If we banned everything that can be used to kill people, we would never have harnessed fire.¶ The only practical approach to the issue of nuclear weapons proliferation is to put it higher on the international agenda and to use diplomacy and, where necessary, force to prevent countries or terrorists from using nuclear materials for destructive ends. And new technologies such as the reprocessing system recently introduced in Japan (in which the plutonium is never separated from the uranium) can make it much more difficult for terrorists or rogue states to use civilian materials to manufacture weapons.¶ The 600-plus coal-fired plants emit nearly 2 billion tons of CO2annually -- the equivalent of the exhaust from about 300 million automobiles. In addition, the Clean Air Council reports that coal plants are responsible for 64 percent of sulfur dioxide emissions, 26 percent of nitrous oxides and 33 percent of mercury emissions. These pollutants are eroding the health of our environment, producing acid rain, smog, respiratory illness and mercury contamination.¶ Meanwhile, the 103 nuclear plants operating in the United States effectively avoid the release of 700 million tons of CO2emissions annually -- the equivalent of the exhaust from more than 100 million automobiles. Imagine if the ratio of coal to nuclear were reversed so that only 20 percent of our electricity was generated from coal and 60 percent from nuclear. This would go a long way toward cleaning the air and reducing greenhouse gas emissions. Every responsible environmentalist should support a move in that direction.

#### SMRs are flexible and can be used to replace coal

Colvin 11—Joe Colvin, President, American Nuclear Society, June 7, 2011, TESTIMONY BEFORE THECOMMITTEE ON ENERGY AND NATURAL RESOURCESUNITED STATES SENATE<http://theenergycollective.com/ansorg/58930/ans-president-joe-colvin-testifies-about-smr-legislation>

The ANS and its membership believe that the development of a new generation of small modular reactors has the potential to make a significant contribution to our long-term energy, economic, and national security. SMRs offer several unique advantages over their larger brethren.¶ First, they provide great operational flexibility. SMRs can be deployed in arid regions to produce large quantities of fresh water through desalination. They can be used as a heat source for industrial processes, including hydrogen production, fertilizers, production of synthetic fuels, and biofuels. They can be deployed in remote areas to produce energy for towns and military installations, as well as heat for mining operations and unconventional oil recovery. SMRs could be an attractive alternative for smaller U.S utilities, especially in the Midwest, that seek to replace their old, coal-fired generating stations because of environmental considerations. These facilities would already have the necessary water, rail, and transmission facilities and the necessary infrastructure, thereby simplifying the installation process.

#### Nuclear is sustainable and doesn’t cause emissions

Gronlund 7 Nuclear power in a Warming world: Assessing the Risks, Addressing the Challenges, Lisbeth Gronlund; David Lochbaum; Edwin Lyman, Union of Concerned Scientists, http://www.ucsusa.org/assets/documents/nuclear\_power/nuclear-power-in-a-warming-world.pdf

Nuclear power plants do not produce global warming emissions when they operate. However, producing nuclear power requires mining and processing uranium ore, enriching uranium to create reactor fuel, manufacturing and transporting fuel, and building plants—all of which consume energy. Today much of that energy is provided by fossil fuels (although that may change if the United States takes steps to address global warming). ¶ However, the global warming emissions associated with nuclear power even now are relatively modest. Indeed, its life cycle emissions are comparable to those of wind power and hydropower. While estimates of life cycle greenhouse gas emissions vary with different assumptions and methodologies, the basic conclusions of most analyses are consistent: for each unit of electricity generated, natural gas combustion results in roughly half the global warming emissions of coal combustion, while wind power, hydropower, and nuclear power produce only a few percent of emissions from coal combustion. The life cycle emissions of photovoltaics (PVs) are generally somewhat higher than those for wind power, hydropower, and nuclear power, because manufacture of PVs entails greater global warming emissions.5¶ The greenhouse gas emissions stemming from nuclear power depend greatly on the technology used to enrich uranium. The technology now used in the United States—gaseous diffusion—requires a large amount of electricity: roughly 3.4 percent of the electricity generated by a typical U.S. reactor would be needed to enrich the uranium in the reactor’s fuel. 6¶ Because fossil fuels generate 70 percent of U.S. electricity, emissions from that enrichment would account for some 2.5 percent of the emissions of an average U.S. fossil fuel plant. However, in the near future, U.S. uranium will be enriched using gaseous centrifuge technology, which consumes only 2.5 percent of the energy used by a diffusion plant. Thus this part of the nuclear power life cycle would result in very low emissions.7

#### Continued reliance on coal kills 13,000 people every year and spreads hazardous pollution

Zelman 11 Joanna, The Huffington Post, "Power Plant Air Pollution Kills 13,000 People Per Year, Coal-Fired Are Most Hazardous: ALA Report", 3/15, www.huffingtonpost.com/2011/03/14/power-plant-air-pollution-coal-kills\_n\_833385.html

The American Lung Association (ALA) recently released a new report on the dramatic health hazards surrounding coal-fired power plants.¶ The report, “Toxic Air: The Case For Cleaning Up Coal-Fired Power Plants,” reveals the dangers of air pollution emitted by coal plants.¶ One of the starkest findings in the report claims, “Particle pollution from power plants is estimated to kill approximately 13,000 people a year.”¶ So what's the biggest culprit?¶ “Coal-fired power plants that sell electricity to the grid produce more hazardous air pollution in the U.S. than any other industrial pollution sources.” According to the report details, over 386,000 tons of air pollutants are emitted from over 400 plants in the U.S. per year. Interestingly, while most of the power plants are located in the Midwest and Southeast, the entire nation is threatened by their toxic emissions.¶ An ALA graph shows that while pollutants such as acid gases stay in the local area, metals such as lead and arsenic travel beyond state lines, and fine particulate matter has a global impact. In other words, while for some workers the pollution may be a tradeoff for employment at a plant, other regions don’t reap the same benefits, but still pay for the costs to their health.¶ The report connected specific pollutants with their health effects. According to the ALA, 76% of U.S. acid gas emissions, which are known to irritate breathing passages, come from coal-fired power plants. Out of all industrial sources, these plants are also the biggest emitter of airborne mercury, which can become part of the human food chain through fish and wildlife -- high mercury levels are linked to brain damage, birth defects, and damage to the nervous system. Overall, air pollutants from coal plants can cause heart attacks, strokes, lung cancer, birth defects, and premature death.¶ The American Lung Association isn’t the only group to connect coal plants with death and illness. A recent study released in the Annals of the New York Academy of Sciences found that, due in large part to health problems, coal costs the U.S. $500 billion per year. Specifically, the study found that the health costs of cancer, lung disease, and respiratory illnesses connected to pollutant emissions totaled over $185 billion per year.

#### The plan solves the only major roadblock to the creation of a robust domestic SMR industry

Loris 11 Nicolas D, Research Associate in the Roe Institute, Jack Spencer – Research Fellow in Nuclear Energy in the Thomas A. Roe Institute for Economic Policy Studies, Currently is The Heritage Foundation’s senior research fellow in nuclear energy policy, Previously worked on commercial, civilian and military components of nuclear energy at the Babcock & Wilcox Companies, Holds a bachelor's degree in international politics from Frostburg State University and a master's degree from the University of Limerick, “A Big Future for Small Nuclear Reactors?”, February 2, http://www.heritage.org/research/reports/2011/02/a-big-future-for-small-nuclear-reactors

Abstract: More and more companies—in the U.S. and abroad—are investing in new commercial nuclear enterprises, chief among them, small modular reactors (SMRs). The SMR industry is growing, with many promising developments in the works—which is precisely why the government should not interfere, as subsidies and government programs have already resulted in an inefficient system for large reactors. Heritage Foundation nuclear policy experts explain how the future for small reactors can remain bright.¶ Small modular reactors (SMRs) have garnered significant attention in recent years, with companies of all sizes investing in these smaller, safer, and more cost-efficient nuclear reactors. Utilities are even forming partnerships with reactor designers to prepare for potential future construction. Perhaps most impressive is that most of this development is occurring without government involvement. Private investors and entrepreneurs are dedicating resources to these technologies based on their future prospects, not on government set-asides, mandates, or subsidies, and despite the current regulatory bias in favor of large light water reactors (LWRs).¶ The result is a young, robust, innovative, and growing SMR industry. Multiple technologies are being proposed that each have their own set of characteristics based on price, fuel, waste characteristics, size, and any number of other variables. To continue this growth, policymakers should reject the temptation to offer the same sort of subsidies and government programs that have proven ineffective for large LWRs. While Department of Energy cost-sharing programs and capital subsidies seem attractive, they have yet to net any new reactor construction. Instead, policymakers should focus on the systemic issues that have continued to thwart the expansion of nuclear power in recent years. Specifically, the federal government needs to develop an efficient and predictable regulatory pathway to new reactor certification and to develop a sustainable nuclear waste management strategy.¶ Why SMRs?¶ Small modular reactors share many of the attractive qualities of large reactors, such as providing abundant emissions-free power, while adding new features that could make them more appropriate for certain applications, such as providing power to rural communities or for dedicated industrial use. SMRs are not yet positioned to take the place of traditional large LWRs, but they represent an important growth area for the commercial nuclear industry.¶ Indeed, should the promise of small modular reactors be realized, the technology could transform the nuclear industry. That is because these attributes would potentially mitigate some of the financial and regulatory problems that nuclear energy has recently faced. SMRs potentially cost less (at least in up-front capital), are more mobile and multifunctional, provide competition, and can largely be produced by existing domestic infrastructure.¶ Lower Costs Up Front. Large reactors are very expensive to license and construct and require massive up-front capital investments to begin a project. Small reactors, while providing far less power than large reactors, can be built in modules and thus be paid for over time. For example, estimates for larger reactors range from $6 billion to $10 billion and must be financed all at once. The Babcock & Wilcox Company’s modular mPower reactors, alternatively, can be purchased in increments of 125 megawatts (MW), which would allow costs to be spread out over time. Though cost estimates are not yet available for the mPower reactor, its designers have stated that they will be competitive. This should not be used as a reason to refrain from building larger, 1,000-plus MW reactors. Each utility will have its own set of variables that it must consider in choosing a reactor technology, but given that one of the primary justifications for government subsidies is that the high costs of large reactors puts unacceptable strain on utility balance sheets, an option that spreads capital outlays over time should be attractive.¶ Safe Installation in Diverse Locations. Some designs are small enough to produce power for as few as 20,000 homes. One such reactor, Hyperion Power’s HPM (Hyperion Power Module) offers 25 MW of electricity for an advertised cost of $50 million per unit. This makes the HPM a potential power solution for isolated communities or small cities.[1] The Alaskan town of Galena, for example, is planning to power its community with a small reactor designed by Toshiba, while Fairbanks is looking into a small plant constructed by Hyperion.[2] In addition, Western Troy Capital Resources has stated that it will form a private corporation to provide electric power from small reactors for remote locations in Canada.[3] Public utility officials in Grays Harbor, Washington, have spoken with the NuScale Power company about powering the community with eight small nuclear plants;[4] and Hyperion Power has reported a high level of interest in small nuclear reactor designs from islands around the world.[5]¶ Using a small nuclear reactor could cut electricity costs in isolated areas since there would be no need for expensive transmission lines to carry power to remote locations.[6] SMRs could also potentially be integrated into existing energy infrastructure. SMRs could be built into old coal plants, for instance. The reactors would replace the coal boilers and be hooked into the existing turbines and distribution lines. According to the Nuclear Regulatory Commission, these modifications could be completed safely since small reactors will likely be easier to control during times of malfunction.[7]¶ Multi-functionality. SMRs can be used in a variety of applications that have substantial power and heat requirements. The chemical and plastics industries and oil refineries all use massive amounts of natural gas to fuel their operations. Similarly, small reactors could produce the heat needed to extract oil from tar sands, which currently requires large amounts of natural gas. While affordable today, natural gas prices vary significantly over time, so the long-term predictable pricing that nuclear provides could be very attractive. SMRs may also provide a practical solution for desalination plants (which require large amounts of electricity) that can bring fresh water to parts of the world where such supplies are depleting.[8] Perhaps most important, is that SMRs have the potential to bring power and electricity to the 1.6 billion people in the world today that have no access to electricity, and to the 2.4 billion that rely on biomass, such as wood, agricultural residue, and dung for cooking and heating.[9]¶ Competition. While competition among large nuclear-reactor technologies currently exists, small reactors will add a new dimension to nuclear-reactor competition. Multiple small technology designs are set to emerge on the market. Not only will competition among small reactors create a robust market, it will also provide an additional incentive for large reactors to improve. If smaller reactors begin to capture a share of the nuclear market and the energy market at large, it will drive innovation and ultimately lower prices for both new and existing technologies.¶ Domestic Production. Although the nuclear industry necessarily shrank to coincide with decreased demand, much of the domestic infrastructure remains in place today and could support the expansion of small-reactor technologies. Although the industrial and intellectual base has declined over the past three decades, forging production, heavy manufacturing, specialized piping, mining, fuel services, and skilled labor could all be found in the United States. Lehigh Heavy Forge Corporation in Bethlehem, Pennsylvania, could build the forges while Babcock & Wilcox could provide the heavy nuclear components, for instance. AREVA/Northrop Grumman Shipbuilding broke ground on a heavy components manufacturing facility last June.[10] Further, a number of companies are expanding manufacturing, engineering, and uranium enrichment capabilities—all in the United States.¶ If SMRs are so great, where is the construction?¶ While some designs are closer to market introduction than others, the fact is that America’s regulatory and policy environment is not sufficient to support a robust expansion of existing nuclear technologies, much less new ones. New reactor designs are difficult to license efficiently, and the lack of a sustainable nuclear waste management policy causes significant risk to private investment.¶ Many politicians are attempting to mitigate these market challenges by offering subsidies, such as loan guarantees. While this approach still enjoys broad support in Congress and industry, the reality is that it has not worked. Despite a lavish suite of subsidies offered in the Energy Policy Act of 2005, including loan guarantees, insurance against government delays, and production tax credits, no new reactors have been permitted, much less constructed. These subsidies are in addition to existing technology development cost-sharing programs that have been in place for years and defer significant research and development costs from industry to the taxpayer.¶ The problem with this approach is that it ignores the larger systemic problems that create the unstable marketplace to begin with. These systemic problems generally fall into three categories:¶ Licensing. The Nuclear Regulatory Commission (NRC) is ill prepared to build the regulatory framework for new reactor technologies, and no reactor can be offered commercially without an NRC license. In a September 2009 interview, former NRC chairman Dale E. Klein said that small nuclear reactors pose a dilemma for the NRC because the commission is uneasy with new and unproven technologies and feels more comfortable with large light water reactors, which have been in operation for years and has a long safety record.[11] The result is that enthusiasm for building non-light-water SMRs is generally squashed at the NRC as potential customers realize that there is little chance that the NRC will permit the project within a timeframe that would promote near-term investment. So, regardless of which attributes an SMR might bring to the market, the regulatory risk is such that real progress on commercialization is difficult to attain. This then leaves large light water reactors, and to a lesser extent, small ones, as the least risky option, which pushes potential customers toward that technology, which then undermines long-term progress, competition, and innovation.¶ Nuclear Waste Management. The lack of a sustainable nuclear waste management solution is perhaps the greatest obstacle to a broad expansion of U.S. nuclear power. The federal government has failed to meet its obligations under the 1982 Nuclear Waste Policy Act, as amended, to begin collecting nuclear waste for disposal in Yucca Mountain. The Obama Administration’s attempts to shutter the existing program to put waste in Yucca Mountain without having a backup plan has worsened the situation. This outcome was predictable because the current program is based on the flawed premise that the federal government is the appropriate entity to manage nuclear waste. Under the current system, waste producers are able to largely ignore waste management because the federal government is responsible. The key to a sustainable waste management policy is to directly connect financial responsibility for waste management to waste production. This will increase demand for more waste-efficient reactor technologies and drive innovation on waste-management technologies, such as reprocessing. Because SMRs consume fuel and produce waste differently than LWRs, they could contribute greatly to an economically efficient and sustainable nuclear waste management strategy.¶ Government Intervention. Too many policymakers believe that Washington is equipped to guide the nuclear industry to success. So, instead of creating a stable regulatory environment where the market value of different nuclear technologies can determine their success and evolution, they choose to create programs to help industry succeed. Two recent Senate bills from the 111th Congress, the Nuclear Energy Research Initiative Improvement Act (S. 2052) and the Nuclear Power 2021 Act (S. 2812), are cases in point. Government intervention distorts the normal market processes that, if allowed to work, would yield the most efficient, cost-effective, and appropriate nuclear technologies. Instead, the federal government picks winners and losers through programs where bureaucrats and well-connected lobbyists decide which technologies are permitted, and provides capital subsidies that allow investors to ignore the systemic problems that drive risk and costs artificially high. This approach is especially detrimental to SMRs because subsidies to LWRs distort the relative benefit of other reactor designs by artificially lowering the cost and risk of a more mature technology that already dominates the marketplace.¶ How to Fix a Broken System¶ At the Global Nuclear Renaissance Summit on July 24, 2008, then-NRC chairman Dale Klein said that a nuclear renaissance with regard to small reactors will take “decades to unfold.”[12] If Members of Congress and government agencies do not reform their current approach to nuclear energy, this will most certainly be the case. However, a new, market-based approach could lead to a different outcome. Instead of relying on the policies of the past, Congress, the Department of Energy, and the NRC should pursue a new, 21st-century model for small and alternative reactor technologies by doing the following:¶ Reject additional loan guarantees. Loan guarantee proponents argue that high up-front costs of new large reactors make them unaffordable without loan guarantees. Presumably, then, a smaller, less expensive modular option would be very attractive to private investors even without government intervention. But loan guarantees undermine this advantage by subsidizing the capital costs and risk associated with large reactors. A small reactor industry without loan guarantees would also provide competition and downward price pressure on large light water reactors. At a minimum, Congress should limit guarantees to no more than two plants of any reactor design and limit to two-thirds the amount of any expanded loan guarantee program that can support a single technology. Such eligibility limits will prevent support from going only to a single basic technology, such as large light water reactors.[13]¶ Avoid subsidies. Subsidies do not work if the objective is a diverse and economically sustainable nuclear industry. Despite continued attempts to subsidize the nuclear industry into success, the evidence demonstrates that such efforts invariably fail. The nuclear industry’s success stories are rooted in the free market. Two examples include the efficiency and low costs of today’s existing plants, and the emergence of a private uranium enrichment industry. Government intervention is the problem, as illustrated by the government’s inability to meet its nuclear waste disposal obligations.¶ Build expertise at the Nuclear Regulatory Commission. The NRC is built to regulate large light water reactors. It simply does not have the regulatory capability and resources to efficiently regulate other technologies, and building that expertise takes time. Helping the NRC to develop that expertise now would help bring new technologies into the marketplace more smoothly. Congress should direct and resource the NRC to develop additional broad expertise for liquid metal-cooled, fast reactors and high-temperature, gas-cooled reactors. With its existing expertise in light water technology, this additional expertise would position the NRC to effectively regulate an emerging SMR industry.¶ Establish a new licensing pathway. The current licensing pathway relies on reactor customers to drive the regulatory process. But absent an efficient and predictable regulatory pathway, few customers will pursue these reactor technologies. The problem is that the legal, regulatory, and policy apparatus is built to support large light water reactors, effectively discriminating against other technologies. Establishing an alternative licensing pathway that takes the unique attributes of small reactors into consideration could help build the necessary regulatory support on which commercialization ultimately depends.[14]¶ Resolve staffing, security, construction criteria, and fee-structure issues by December 31, 2011. The similarity of U.S. reactors has meant that the NRC could establish a common fee structure and many general regulatory guidelines for areas, such as staffing levels, security requirements, and construction criteria. But these regulations are inappropriate for many SMR designs that often have smaller staff requirements, unique control room specifications, diverse security requirements, and that employ off-site construction techniques. Subjecting SMRs to regulations built for large light water reactors would add cost and result in less effective regulation. The NRC has acknowledged the need for this to be resolved and has committed to doing so, including developing the budget requirements to achieve it. It has not committed to a specific timeline.[15] Congress should demand that these issues be resolved by the end of 2011.

#### SMRs can reprocess and solve waste

Biello 12 David, March 27, "Small Reactors Make a Bid to Revive Nuclear Power", www.scientificamerican.com/article.cfm?id=small-reactors-bid-to-revive-nuclear-power

Alternative fuel?¶ Small modular reactors may help with two of the biggest challenges facing the nuclear industry: the growing stores of waste from existing reactors and residue from the mass production of nuclear weapons as well as the overall safety of nuclear power. GE's PRISM fast reactor, General Atomic's helium-cooled fast reactor, or Hyperion Power's liquid lead-bismuth cooled reactor could all turn waste into fuel. Hyperion hopes to demonstrate its reactor, capable of generating 25 megawatts of electricity, at the Savannah River National Laboratory in South Carolina. The site has also signed memorandums of understanding to host prototypes of the NuScale and Holtech reactors.

#### SMRs are feasible, safer and solve other nuclear downsides

Ringle 10 John, Professor Emeritus of Nuclear Engineering at Oregon State University, "Reintroduction of reactors in US a major win", November 13, robertmayer.wordpress.com/2010/11/21/reintroduction-of-reactors-in-us-a-major-win/

Small nuclear reactors will probably be the mechanism that ushers in nuclear power’s renaissance in the U.S.¶ Nuclear plants currently supply about 20 percent of the nation’s electricity and more than 70 percent of our carbon-free energy. But large nuclear plants cost $8 billion to $10 billion and utilities are having second thoughts about how to finance these plants.¶ A small modular reactor (SMR) has several advantages over the conventional 1,000-megawatt plant:¶ 1. It ranges in size from 25 to 140 megawatts, hence only costs about a tenth as much as a large plant.¶ 2. It uses a cookie-cutter standardized design to reduce construction costs and can be built in a factory and shipped to the site by truck, railroad or barge.¶ 3. The major parts can be built in U.S. factories, unlike some parts for the larger reactors that must be fabricated overseas.¶ 4. Because of the factory-line production, the SMR could be built in three years with one-third of the workforce of a large plant.¶ 5. More than one SMR could be clustered together to form a larger power plant complex. This provides versatility in operation, particularly in connection with large wind farms. With the variability of wind, one or more SMRs could be run or shut down to provide a constant base load supply of electricity.¶ 6. A cluster of SMRs should be very reliable. One unit could be taken out of service for maintenance or repair without affecting the operation of the other units. And since they are all of a common design, replacement parts could satisfy all units. France has already proved the reliability of standardized plants.¶ At least half a dozen companies are developing SMRs, including NuScale in Oregon. NuScale is American-owned and its 45-megawatt design has some unique features. It is inherently safe. It could be located partially or totally below ground, and with its natural convection cooling system, it does not rely on an elaborate system of pumps and valves to provide safety. There is no scenario in which a loss-of-coolant accident could occur.

### Plan

#### The United States federal government should reduce restrictions in the United States that prevent expansion of small modular nuclear reactors.

### Solvency

#### CONTENTION 2: Solvency

#### Academic debate over energy policy in the face of environmental destruction is critical to shape the direction of change and create a public consciousness shift---action now is key

Crist 4 (Eileen, Professor at Virginia Tech in the Department of Science and Technology, “Against the social construction of nature and wilderness”, Environmental Ethics 26;1, p 13-6, http://www.sts.vt.edu/faculty/crist/againstsocialconstruction.pdf)

Yet, constructivist analyses of "nature" favor remaining in the comfort zone of **zestless agnosticism** and **noncommittal meta-discourse**. As David Kidner suggests, this intellectual stance may function as a mechanism against facing the devastation of the biosphere—an undertaking long underway but gathering momentum with the imminent bottlenecking of a triumphant global consumerism and unprecedented population levels. Human-driven extinction—in the ballpark of Wilson's estimated 27,000 species per year—is so unthinkable a fact that choosing to ignore it may well be the psychologically risk-free option.¶ **Nevertheless, this is the** opportune **historical** moment **for** intellectuals in the humanities and social sciences **to join forces with** conservation **scientists** in order **to** help **create the consciousness shift and** policy changes **to stop this irreversible destruction. Given this outlook, how** students in the human sciences **are** trained **to regard scientific knowledge, and what kind of** messages percolate to the public from the academy **about the nature of scientific findings,** matter immensely. The "agnostic stance" of constructivism toward "scientific claims" about the environment—a stance supposedly mandatory for discerning how scientific knowledge is "socially assembled"[32]—is, to borrow a legendary one-liner, **striving to interpret the world at an hour that is pressingly calling us to change it.**

#### Public advocacy of climate solutions key to change governmental policy---individual change insufficient

CAG 10—Climate Change Communication Advisory Group. Dr Adam Corner School of Psychology, Cardiff University - Dr Tom Crompton Change Strategist, WWF-UK - Scott Davidson Programme Manager, Global Action Plan - Richard Hawkins Senior Researcher, Public Interest Research Centre - Professor Tim Kasser, Psychology department, Knox College, Galesburg, Illinois, USA. - Dr Renee Lertzman, Center for Sustainable Processes & Practices, Portland State University, US. - Peter Lipman, Policy Director, Sustrans. - Dr Irene Lorenzoni, Centre for Environmental Risk, University of East Anglia. - George Marshall, Founding Director, Climate Outreach , Information Network - Dr Ciaran Mundy, Director, Transition Bristol - Dr Saffron O’Neil, Department of Resource Management and Geography, University of Melbourne, Australia. - Professor Nick Pidgeon, Director, Understanding Risk Research Group, School of Psychology, Cardiff University. - Dr Anna Rabinovich, School of Psychology, University of Exeter - Rosemary Randall, Founder and director of Cambridge Carbon Footprint - Dr Lorraine Whitmarsh, School of Psychology, Cardiff University & Visiting Fellow at the, Tyndall Centre for Climate Change Research. (Communicating climate change to mass public audience, http://pirc.info/downloads/communicating\_climate\_mass\_audiences.pdf)

This short advisory paper collates a set of recommendations about how best to shape mass public communications aimed at increasing concern about climate change and motivating commensurate behavioural changes.¶ Its focus is not upon motivating small private-sphere behavioural changes on a piece-meal basis. Rather, it marshals evidence about how best to motivate the ambitious and systemic behavioural change that is necessary – including, crucially, greater public engagement with the policy process (through, for example, lobbying decision-makers and elected representatives, or participating in demonstrations), as well as major lifestyle changes. ¶ Political leaders themselves have drawn attention to the imperative for more vocal public pressure to create the ‘political space’ for them to enact more ambitious policy interventions. 1 While this paper does not dismiss the value of individuals making small private-sphere behavioural changes (for example, adopting simple domestic energy efficiency measures) it is clear that such behaviours do not, in themselves, represent a proportional response to the challenge of climate change. As David MacKay, Chief Scientific Advisor to the UK Department of Energy and Climate change writes: “Don’t be distracted by the myth that ‘every little helps’. If everyone does a little, we’ll achieve only a little” (MacKay, 2008).¶ The task of campaigners and communicators from government, business and non-governmental organisations must therefore be to motivate both (i) widespread adoption of ambitious private-sphere behavioural changes; and (ii) widespread acceptance of – and indeed active demand for – ambitious new policy interventions.¶ Current public communication campaigns, as orchestrated by government, business and non-governmental organisations, are not achieving these changes. This paper asks: how should such communications be designed if they are to have optimal impact in motivating these changes? The response to this question will require fundamental changes in the ways that many climate change communication campaigns are currently devised and implemented. ¶ This advisory paper offers a list of principles that could be used to enhance the quality of communication around climate change communications. The authors are each engaged in continuously sifting the evidence from a range of sub-disciplines within psychology, and reflecting on the implications of this for improving climate change communications. Some of the organisations that we represent have themselves at times adopted approaches which we have both learnt from and critique in this paper – so some of us have first hand experience of the need for on-going improvement in the strategies that we deploy. ¶ The changes we advocate will be challenging to enact – and will require vision and leadership on the part of the organisations adopting them. But without such vision and leadership, we do not believe that public communication campaigns on climate change will create the necessary behavioural changes – indeed, there is a profound risk that many of today’s campaigns will actually prove counter-productive. ¶ Seven Principles¶ 1. Move Beyond Social Marketing¶ We believe that too little attention is paid to the understanding that psychologists bring to strategies for motivating change, whilst undue faith is often placed in the application of marketing strategies to ‘sell’ behavioural changes. Unfortunately, in the context of ambitious pro-environmental behaviour, such strategies seem unlikely to motivate systemic behavioural change.¶ Social marketing is an effective way of achieving a particular behavioural goal – dozens of practical examples in the field of health behaviour attest to this. Social marketing is really more of a framework for designing behaviour change programmes than a behaviour change programme - it offers a method of maximising the success of a specific behavioural goal. Darnton (2008) has described social marketing as ‘explicitly transtheoretical’, while Hastings (2007), in a recent overview of social marketing, claimed that there is no theory of social marketing. Rather, it is a ‘what works’ philosophy, based on previous experience of similar campaigns and programmes. Social marketing is flexible enough to be applied to a range of different social domains, and this is undoubtedly a fundamental part of its appeal.¶ However, social marketing’s 'what works' status also means that it is agnostic about the longer term, theoretical merits of different behaviour change strategies, or the cultural values that specific campaigns serve to strengthen. Social marketing dictates that the most effective strategy should be chosen, where effective means ‘most likely to achieve an immediate behavioural goal’. ¶ This means that elements of a behaviour change strategy designed according to the principles of social marketing may conflict with other, broader goals. What if the most effective way of promoting pro-environmental behaviour ‘A’ was to pursue a strategy that was detrimental to the achievement of long term pro-environmental strategy ‘Z’? The principles of social marketing have no capacity to resolve this conflict – they are limited to maximising the success of the immediate behavioural programme. This is not a flaw of social marketing – it was designed to provide tools to address specific behavioural problems on a piecemeal basis. But it is an important limitation, and one that has significant implications if social marketing techniques are used to promote systemic behavioural change and public engagement on an issue like climate change. ¶ 2. Be honest and forthright about the probable impacts of climate change, and the scale of the challenge we confront in avoiding these. But avoid deliberate attempts to provoke fear or guilt. ¶ There is no merit in ‘dumbing down’ the scientific evidence that the impacts of climate change are likely to be severe, and that some of these impacts are now almost certainly unavoidable. Accepting the impacts of climate change will be an important stage in motivating behavioural responses aimed at mitigating the problem. However, deliberate attempts to instil fear or guilt carry considerable risk. ¶ Studies on fear appeals confirm the potential for fear to change attitudes or verbal expressions of concern, but often not actions or behaviour (Ruiter et al., 2001). The impact of fear appeals is context - and audience - specific; for example, for those who do not yet realise the potentially ‘scary’ aspects of climate change, people need to first experience themselves as vulnerable to the risks in some way in order to feel moved or affected (Das et al, 2003; Hoog et al, 2005). As people move towards contemplating action, fear appeals can help form a behavioural intent, providing an impetus or spark to ‘move’ from; however such appeals must be coupled with constructive information and support to reduce the sense of danger (Moser, 2007). The danger is that fear can also be disempowering – producing feelings of helplessness, remoteness and lack of control (O’Neill and Nicholson-Cole, 2009). Fear is likely to trigger ‘barriers to engagement’, such as denial2 (Stoll-Kleemann et al., 2001; Weber, 2006; Moser and Dilling, 2007; Lorenzoni, Nicholson-Cole & Whitmarsh, 2007). The location of fear in a message is also relevant; it works better when placed first for those who are inclined to follow the advice, but better second for those who aren't (Bier, 2001).¶ Similarly, studies have shown that guilt can play a role in motivating people to take action but can also function to stimulate defensive mechanisms against the perceived threat or challenge to one’s sense of identity (as a good, moral person). In the latter case, behaviours may be left untouched (whether driving a SUV or taking a flight) as one defends against any feelings of guilt or complicity through deployment of a range of justifications for the behaviour (Ferguson & Branscombe, 2010). ¶ Overall, there is a need for emotionally balanced representations of the issues at hand. This will involve acknowledging the ‘affective reality’ of the situation, e.g. “We know this is scary and overwhelming, but many of us feel this way and we are doing something about it”.¶ 3. Be honest and forthright about the impacts of mitigating and adapting to climate change for current lifestyles, and the ‘loss’ - as well as the benefits - that these will entail. Narratives that focus exclusively on the ‘up-side’ of climate solutions are likely to be unconvincing. While narratives about the future impacts of climate change may highlight the loss of much that we currently hold to be dear, narratives about climate solutions frequently ignore the question of loss. If the two are not addressed concurrently, fear of loss may be ‘split off’ and projected into the future, where it is all too easily denied. This can be dangerous, because accepting loss is an important step towards working through the associated emotions, and emerging with the energy and creativity to respond positively to the new situation (Randall, 2009). However, there are plenty of benefits (besides the financial ones) of a low-carbon lifestyle e.g., health, community/social interaction - including the ‘intrinsic' goals mentioned below. It is important to be honest about both the losses and the benefits that may be associated with lifestyle change, and not to seek to separate out one from the other.¶ 3a. Avoid emphasis upon painless, easy steps. ¶ Be honest about the limitations of voluntary private-sphere behavioural change, and the need for ambitious new policy interventions that incentivise such changes, or that regulate for them. People know that the scope they have, as individuals, to help meet the challenge of climate change is extremely limited. For many people, it is perfectly sensible to continue to adopt high-carbon lifestyle choices whilst simultaneously being supportive of government interventions that would make these choices more difficult for everyone. ¶ The adoption of small-scale private sphere behavioural changes is sometimes assumed to lead people to adopt ever more difficult (and potentially significant) behavioural changes. The empirical evidence for this ‘foot-in-thedoor’ effect is highly equivocal. Some studies detect such an effect; others studies have found the reverse effect (whereby people tend to ‘rest on their laurels’ having adopted a few simple behavioural changes - Thogersen and Crompton, 2009). Where attention is drawn to simple and painless privatesphere behavioural changes, these should be urged in pursuit of a set of intrinsic goals (that is, as a response to people’s understanding about the contribution that such behavioural change may make to benefiting their friends and family, their community, the wider world, or in contributing to their growth and development as individuals) rather than as a means to achieve social status or greater financial success. Adopting behaviour in pursuit of intrinsic goals is more likely to lead to ‘spillover’ into other sustainable behaviours (De Young, 2000; Thogersen and Crompton, 2009).¶ People aren’t stupid: they know that if there are wholesale changes in the global climate underway, these will not be reversed merely through checking their tyre pressures or switching their TV off standby. An emphasis upon simple and painless steps suppresses debate about those necessary responses that are less palatable – that will cost people money, or that will infringe on cherished freedoms (such as to fly). Recognising this will be a key step in accepting the reality of loss of aspects of our current lifestyles, and in beginning to work through the powerful emotions that this will engender (Randall, 2009). ¶ 3b. Avoid over-emphasis on the economic opportunities that mitigating, and adapting to, climate change may provide. ¶ There will, undoubtedly, be economic benefits to be accrued through investment in new technologies, but there will also be instances where the economic imperative and the climate change adaptation or mitigation imperative diverge, and periods of economic uncertainty for many people as some sectors contract. It seems inevitable that some interventions will have negative economic impacts (Stern, 2007).¶ Undue emphasis upon economic imperatives serves to reinforce the dominance, in society, of a set of extrinsic goals (focussed, for example, on financial benefit). A large body of empirical research demonstrates that these extrinsic goals are antagonistic to the emergence of pro-social and proenvironmental concern (Crompton and Kasser, 2009).¶ 3c. Avoid emphasis upon the opportunities of ‘green consumerism’ as a response to climate change.¶ As mentioned above (3b), a large body of research points to the antagonism between goals directed towards the acquisition of material objects and the emergence of pro-environmental and pro-social concern (Crompton and Kasser, 2009). Campaigns to ‘buy green’ may be effective in driving up sales of particular products, but in conveying the impression that climate change can be addressed by ‘buying the right things’, they risk undermining more difficult and systemic changes. A recent study found that people in an experiment who purchased ‘green’ products acted less altruistically on subsequent tasks (Mazar & Zhong, 2010) – suggesting that small ethical acts may act as a ‘moral offset’ and licence undesirable behaviours in other domains. This does not mean that private-sphere behaviour changes will always lead to a reduction in subsequent pro-environmental behaviour, but it does suggest that the reasons used to motivate these changes are critically important. Better is to emphasise that ‘every little helps a little’ – but that these changes are only the beginning of a process that must also incorporate more ambitious private-sphere change and significant collective action at a political level.¶ 4. Empathise with the emotional responses that will be engendered by a forthright presentation of the probable impacts of climate change. ¶ Belief in climate change and support for low-carbon policies will remain fragile unless people are emotionally engaged. We should expect people to be sad or angry, to feel guilt or shame, to yearn for that which is lost or to search for more comforting answers (Randall, 2009). Providing support and empathy in working through the painful emotions of 'grief' for a society that must undergo changes is a prerequisite for subsequent adaptation to new circumstances.¶ Without such support and empathy, it is more likely that people will begin to deploy a range of maladaptive ‘coping strategies’, such as denial of personal responsibility, blaming others, or becoming apathetic (Lertzman, 2008). An audience should not be admonished for deploying such strategies – this would in itself be threatening, and could therefore harden resistance to positive behaviour change (Miller and Rolnick, 2002). The key is not to dismiss people who exhibit maladaptive coping strategies, but to understand how they can be made more adaptive. People who feel socially supported will be more likely to adopt adaptive emotional responses - so facilitating social support for proenvironmental behaviour is crucial.¶ 5. Promote pro-environmental social norms and harness the power of social networks¶ One way of bridging the gap between private-sphere behaviour changes and collective action is the promotion of pro-environmental social norms. Pictures and videos of ordinary people (‘like me’) engaging in significant proenvironmental actions are a simple and effective way of generating a sense of social normality around pro-environmental behaviour (Schultz, Nolan, Cialdini, Goldstein and Griskevicius, 2007). There are different reasons that people adopt social norms, and encouraging people to adopt a positive norm simply to ‘conform’, to avoid a feeling of guilt, or for fear of not ‘fitting in’ is likely to produce a relatively shallow level of motivation for behaviour change. Where social norms can be combined with ‘intrinsic’ motivations (e.g. a sense of social belonging), they are likely to be more effective and persistent.¶ Too often, environmental communications are directed to the individual as a single unit in the larger social system of consumption and political engagement. This can make the problems feel too overwhelming, and evoke unmanageable levels of anxiety. Through the enhanced awareness of what other people are doing, a strong sense of collective purpose can be engendered. One factor that is likely to influence whether adaptive or maladaptive coping strategies are selected in response to fear about climate change is whether people feel supported by a social network – that is, whether a sense of ‘sustainable citizenship’ is fostered. The efficacy of groupbased programmes at promoting pro-environmental behaviour change has been demonstrated on numerous occasions – and participants in these projects consistently point to a sense of mutual learning and support as a key reason for making and maintaining changes in behaviour (Nye and Burgess, 2008). There are few influences more powerful than an individual’s social network. Networks are instrumental not just in terms of providing social support, but also by creating specific content of social identity – defining what it means to be “us”. If environmental norms are incorporated at this level (become defining for the group) they can result in significant behavioural change (also reinforced through peer pressure).¶ Of course, for the majority of people, this is unlikely to be a network that has climate change at its core. But social networks – Trade Unions, Rugby Clubs, Mother & Toddler groups – still perform a critical role in spreading change through society. Encouraging and supporting pre-existing social networks to take ownership of climate change (rather than approach it as a problem for ‘green groups’) is a critical task. As well as representing a crucial bridge between individuals and broader society, peer-to-peer learning circumnavigates many of the problems associated with more ‘top down’ models of communication – not least that government representatives are perceived as untrustworthy (Poortinga & Pidgeon, 2003). Peer-to-peer learning is more easily achieved in group-based dialogue than in designing public information films: But public information films can nonetheless help to establish social norms around community-based responses to the challenges of climate change, through clear visual portrayals of people engaging collectively in the pro-environmental behaviour.¶ The discourse should be shifted increasingly from ‘you’ to ‘we’ and from ‘I’ to ‘us’. This is starting to take place in emerging forms of community-based activism, such as the Transition Movement and Cambridge Carbon Footprint’s ‘Carbon Conversations’ model – both of which recognize the power of groups to help support and maintain lifestyle and identity changes. A nationwide climate change engagement project using a group-based behaviour change model with members of Trade Union networks is currently underway, led by the Climate Outreach and Information Network. These projects represent a method of climate change communication and engagement radically different to that typically pursued by the government – and may offer a set of approaches that can go beyond the limited reach of social marketing techniques.¶ One potential risk with appeals based on social norms is that they often contain a hidden message. So, for example, a campaign that focuses on the fact that too many people take internal flights actually contains two messages – that taking internal flights is bad for the environment, and that lots of people are taking internal flights. This second message can give those who do not currently engage in that behaviour a perverse incentive to do so, and campaigns to promote behaviour change should be very careful to avoid this. The key is to ensure that information about what is happening (termed descriptive norms), does not overshadow information about what should be happening (termed injunctive norms). ¶ 6. Think about the language you use, but don’t rely on language alone¶ A number of recent publications have highlighted the results of focus group research and talk-back tests in order to ‘get the language right’ (Topos Partnership, 2009; Western Strategies & Lake Research Partners, 2009), culminating in a series of suggestions for framing climate-change communications. For example, these two studies led to the suggestions that communicators should use the term ‘global warming’ or ‘our deteriorating atmosphere’, respectively, rather than ‘climate change’. Other research has identified systematic differences in the way that people interpret the terms ‘climate change’ and ‘global warming’, with ‘global warming’ perceived as more emotionally engaging than ‘climate change’ (Whitmarsh, 2009).¶ Whilst ‘getting the language right’ is important, it can only play a small part in a communication strategy. More important than the language deployed (i.e. ‘conceptual frames') are what have been referred to by some cognitive linguists as 'deep frames'. Conceptual framing refers to catchy slogans and clever spin (which may or may not be honest). At a deeper level, framing refers to forging the connections between a debate or public policy and a set of deeper values or principles. Conceptual framing (crafting particular messages focussing on particular issues) cannot work unless these messages resonate with a set of long-term deep frames.¶ Policy proposals which may at the surface level seem similar (perhaps they both set out to achieve a reduction in environmental pollution) may differ importantly in terms of their deep framing. For example, putting a financial value on an endangered species, and building an economic case for their conservation ‘commodifies’ them, and makes them equivalent (at the level of deep frames) to other assets of the same value (a hotel chain, perhaps). This is a very different frame to one that attempts to achieve the same conservation goals through the ascription of intrinsic value to such species – as something that should be protected in its own right. Embedding particular deep frames requires concerted effort (Lakoff, 2009), but is the beginning of a process that can build a broad, coherent cross-departmental response to climate change from government.¶ 7. Encourage public demonstrations of frustration at the limited pace of government action¶ Private-sphere behavioural change is not enough, and may even at times become a diversion from the more important process of bringing political pressure to bear on policy-makers. The importance of public demonstrations of frustration at both the lack of political progress on climate change and the barriers presented by vested interests is widely recognised – including by government itself. Climate change communications, including government communication campaigns, should work to normalise public displays of frustration with the slow pace of political change. Ockwell et al (2009) argued that communications can play a role in fostering demand for - as well as acceptance of - policy change. Climate change communication could (and should) be used to encourage people to demonstrate (for example through public demonstrations) about how they would like structural barriers to behavioural/societal change to be removed.

#### Simulation and institutional deliberation are valuable and motivate effective responses to climate risks

Marx et al 7 (Sabine M, Center for Research on Environmental Decisions (CRED) @ Columbia University, Elke U. Weber, Graduate School of Business and Department of Psychology @ Columbia University, Benjamin S. Orlovea, Department of Environmental Science and Policy @ University of California Davis, Anthony Leiserowitz, Decision Research, David H. Krantz, Department of Psychology @ Columbia University, Carla Roncolia, South East Climate Consortium (SECC), Department of Biological and Agricultural Engineering @ University of Georgia and Jennifer Phillips, Bard Centre for Environmental Policy @ Bard College, “Communication and mental processes: Experiential and analytic processing of uncertain climate information”, 2007, http://climate.columbia.edu/sitefiles/file/Marx\_GEC\_2007.pdf)

Based on the observation that experiential and analytic processing systems compete and that personal experience and vivid descriptions are often favored over statistical information, we suggest the following research and policy implications.¶ Communications designed to create, recall and highlight relevant personal experience and to elicit affective responses can lead to more public attention to, processing of, and engagement with forecasts of climate variability and climate change**.** Vicarious experiential information in the **form of scenarios**, narratives, and analogies **can help** the public and **policy makers imagine the potential consequences of climate** variability and **change, amplify** or attenuate **risk perceptions, and influence** both individual behavioral intentions and **public policy preferences.** Likewise, as illustrated by the example of retranslation in the Uganda studies, **the translation of statistical information** into concrete experience **with simulated forecasts, decisionmaking and its outcomes can greatly facilitate an intuitive understanding of** both **probabilities and the** consequences of incremental change and extreme events, and **motivate contingency planning**.¶ Yet, while the engagement of experience-based, affective decision-making can make risk communications more salient and motivate behavior, experiential processing is also subject to its own biases, limitations and distortions, such as the finite pool of worry and single action bias. Experiential processing works best with easily imaginable, emotionally laden material, yet many aspects of climate variability and change are relatively abstract and require a certain level of analytical understanding (e.g., long-term trends in mean temperatures or precipitation). Ideally, communication of **climate forecasts should encourage the interactive engagement of** both analytic and experiential **processing systems in** the course of **making concrete decisions** about climate, ranging from individual choices about what crops to plant in a particular season to broad social choices about how to mitigate or adapt to global climate change.¶ One way to facilitate this interaction is through group and participatory decision-making. As the Uganda example suggests, **group processes allow individuals with a range of knowledge, skills and** personal **experience to share diverse information and perspectives and work together on a problem**. Ideally, groups should include at least one member trained to understand statistical forecast information to ensure that all sources of information—both experiential and analytic—are considered as part of the decision-making process. Communications to groups should also try to translate statistical information into formats readily understood in the language, personal and cultural experience of group members. In a somewhat iterative or cyclical process, the shared concrete information can then be re-abstracted to an analytic level that **leads to action**.¶ Risk and uncertainty are inherent dimensions of all climate forecasts and related decisions. **Analytic products like trend analysis, forecast probabilities, and ranges of uncertainty ought to be valuable contributions to stakeholder decision-making**. Yet decision makers also listen to the inner and communal voices of personal and collective experience, affect and emotion, and cultural values. Both systems—analytic and experiential—should be considered in the design of climate forecasts and risk communications. If not, many analytic products will fall on deaf ears as decision makers continue to rely heavily on personal experience and affective cues to make plans for an uncertain future. The challenge is to find innovative and creative ways to engage both systems in the process of individual and group decision-making.

#### We have a moral obligation to advocate nuclear---any alternative results in extinction due to warming

Baker 12—Executive Director of PopAtomic Studios, the Nuclear Literacy Project (7/25/12, Suzy, Climate Change and Nuclear Energy: We Need to Talk, ansnuclearcafe.org/2012/07/25/climate-change-and-nuclear-energy-we-need-to-talk/)

Ocean Acidification¶ While I was making artistic monuments to single celled organisms in the ceramics studio, new research was emerging about ocean acidification affecting these beautiful and integral pieces of our ecosystem. As the ocean absorbs excess carbon from humans burning fossil fuels, the pH of the ocean is rapidly changing. This means that our ancient oxygen-making pals cannot properly do their job. As their ocean home becomes inhospitable, they are dying off in droves. This not only impacts the ocean’s ability to naturally sequester man made carbon emissions; it also negatively impacts the entire food chain, since they are the primary food source for other multi-cellular ocean creatures, some of which we enjoy eating.¶ Oh, and did I mention that these little phytoplankton are also responsible for creating the ozone layer that protects all life on the planet from cosmic radiation, and they churn out 70-80% of the oxygen we breathe? These creatures are much more than just a pretty floating form.¶ Ocean acidification is the issue that brought me to supporting nuclear energy. Ocean acidification is an often-overlooked aspect of climate change that is potentially more threatening than the heat, the super storms, the fires, the drought, the crop losses, and all of the other trends that we are seeing now, which climate scientists have been warning us about for decades.¶ Climate Change and Nuclear Energy: Like Oil and Water?¶ It didn’t take long for me to find out that in the nuclear industry, climate change is not something we all agree on. Discussing climate change as a concern is often polarizing, and brings up intrinsic conflicts of interest in the larger energy sector (the companies who design/build/run the nuclear plants also happen to design/build/run the fossil fuel plants). I’ve been advised by people who deeply care about me, and the success of my organization, not to bring up climate at all, and to be extremely careful not to base my support of nuclear on climate issues. I’ve also been specifically advised not to make the argument that nuclear energy is the only solution to climate change.¶ When you are the new kid, it is usually best not to make waves if you can help it. So, for the most part, I have heeded that advice and held my tongue, despite myself.¶ However, as I watch the news (and my wilting vegetable garden) and see the magnitude of human suffering that is directly related to increasingly severe weather events, I cannot keep silent. Climate change is why I am here supporting nuclear energy, so what am I doing not talking about it?¶ The CEO of Exxon Mobile recently made clear that despite his company’s acknowledgement of the irrefutable evidence of climate change, and the huge ecological and human cost, he has no intentions of slowing our fossil fuel consumption. In fact, he goes as far to say that getting fossil fuels to developing nations will save millions of lives. While I agree that we need stronger, better energy infrastructure for our world’s poorest nations, I wholly disagree that fossils are the right fit for the job.¶ Fossil fuel usage could be cast as a human rights issue only to the extent that access to reliable and affordable electricity determines what one’s standard of living is. At the same time, fossil fuel usage is the single largest threat to our planet and every species on it. Disregarding the impacts that fossil fuel use poses, merely to protect and increase financial profits, is unethical, and cloaking fossil fuel use as a human rights issue is immoral.¶ Although we are all entitled to our own opinions and beliefs, the idea that climate change and ocean acidification are even up for debate is not reasonable. Just think: The CEO of the largest fossil fuel company in America freely speaks out about climate change, while nuclear energy advocates are pressured to stay silent on the subject.¶ Silence is No Longer an Option¶ I am someone who avoids conflict, who seeks consensus in my personal and professional lives, and so I have followed the advice of well-meaning mentors and stayed silent in hopes of preserving a false peace within my pro-nuclear circles, including my family and friends. But my keeping silent is now over— starting here and starting now—because this is too big and too important to stay silent. I am not alone in believing this, and the nuclear industry does itself no favors by tacitly excluding the growing movement of people who are passionate about the need to use nuclear energy to address climate change.¶ And nuclear power is the only realistic solution. It would be great if there were also other viable solutions that could be easily and quickly embraced; however, the numbers just don’t work out. Renewables and conservation may have done more good if we had utilized them on a large scale 40 years ago, when we were warned that our ecosystem was showing signs of damage from fossils fuels…but at this point it’s really too late for them. And burning more fossil fuels right now, when we have the technologies and know-how to create a carbon-free energy economy, would be the height of foolishness.¶ In the meantime, there is real human suffering, and we here in the developed world are directly causing it. Our poorest brothers and sisters cannot escape the heat. They cannot import food when their crops fail. They cannot buy bottled water when there is a drought. They cannot “engineer a solution” any more than my childhood friends the phytoplankton can.¶ ¶ Energy Choices as an Ethical Obligation¶ We have an ethical obligation to stop killing people with our energy consumption. That statement may sound oversimplified, but let’s be honest—we know that fossil fuels kill approximately 1.3 million people each year through respiratory diseases and cancers, and the death toll for climate change related events rises every day. Yet, we do nothing but dither about climate change politics. Where is the outrage?¶ The fossil fuel industry has been successful at presenting a united front and maintaining consistent strategic communications. In contrast, the safety record and clean energy contributions of nuclear are always overshadowed by politics favoring fossil fuel use. If anything, nuclear advocates should be particularly sensitive that the very same politics are happening with climate science.¶ We should be championing nuclear energy as a science-based solution, instead of enforcing a meek code of silence. People from outside the nuclear industry, like Gwyneth Cravens, Barry Brooks and Tom Blees, have pointed out these relationships, yet the nuclear industry has yet to internalize and accept these realities.¶ How can we expect people to listen to science and not politics when it comes to nuclear energy, but not climate change?¶ Disagreeing with a policy does not change the facts. You can disagree with policy to limit carbon emissions, but that doesn’t change the fact that our fossil fuel consumption is changing the PH of our oceans. Many people disagree with the use of nuclear energy, but that doesn’t change the fact that nuclear is our largest source of carbon free electricity and the safest source of electricity per kilowatt hour.¶ Nuclear Must Lead by Example¶ If we want the public to overcome the cognitive dissonance between science and policy when it comes to nuclear energy, we need to lead by example and overcome our own cognitive dissonance when it comes to climate change — even if it means risking our own interests as members of the larger energy industry. We are not going to run out of fossil fuels any time soon, so the decision to move to carbon-free energy—to move to nuclear energy—must be made willingly, and based on ethical principles, not the limits of our natural resources.¶ As green groups wait endlessly for renewable technologies to have some kind of breakthrough, and nuclear supporters stay mum on climate change, we continue using fossil fuels. Our collective inaction is allowing the destruction of our planet’s ecosystem, the dying of our oceans, and the suffering of the poorest members of our own species. The climate conversation has become so convoluted by politics and greed that many smart, compassionate people have “thrown in the towel.” We should be more concerned than ever at our lack of a comprehensive global response.¶ I strongly believe that there’s still time to reclaim the dialogue about climate change based on ocean acidification evidence, and to use nuclear technologies to improve the long-term outcome for our planet and our species. The first step is acknowledging the complicated and unique role of the nuclear industry in this conflict, and the conflicts of interest that are impeding open communication. The second step is to realize that the climate change community is a potential ally, and that openly addressing the subject of climate change in our communications is in the best interest of the nuclear community. The third step is choosing to do the right thing, not just the polite thing, and reclaim our legitimate role in the energy community as the “top dog” of carbon-free electricity, instead of quietly watching natural gas become “the new coal.”¶ Climate change is not going away—it is getting worse—and each one of us in the nuclear community has an ethical obligation to speak up and to do something about it. I am speaking up for the oceans, for the cyano-bacteria and diatoms and our shared mitochondrial RNA that still fills me with wonder at the beauty of this world. Please join me if you can, to speak up for what you love—and if you cannot, please understand that we all remain nuclear advocates, and that the nuclear community is much stronger with the no-longer-silent climate change harbingers in it.

#### Taking action against warming represents an opportunity to rebuild progressive politics for a more just society, but only if we set aside traditional differences founded around identity in favor of a broad-based coalition

Smith 10 Brendan, co-founder of Labor Network for Sustainability, 11-23, “Fighting Doom: The New Politics of Climate Change,” Common Dreams, http://www.commondreams.org/view/2010/11/23-1

I admit I have arrived late to the party. Only recently have I begun to realize what others have known for decades: The climate crisis is not, at its core, an environmental issue. In fact it is not an "issue" at all; it is an existential threat to every human and community on the planet. It threatens every job, every economy in the world. It threatens the health of our children. It threatens our food and water supply. Climate change will continue to alter the world our species has known for the past three thousand years. As an oyster farmer and longtime political activist, the effects of climate change on my life will be neither distant nor impersonal. Rising greenhouse gases and ocean temperatures may well force me to abandon my 60-acre farm within the next forty years. From France to Washington state, oystermen are already seeing massive die-offs of seed oysters and the thinning shells science has long predicted. I can see the storm clouds and they are foretelling doom. But my political alter ego is oddly less pessimistic. Rather than triggering gloom, the climate crisis has surprisingly stirred up more hope than I have felt in twenty years as a progressive activist. After decades of progressive retreat it is a strange feeling. But I am haunted by the suspicion that this coming crisis may be the first opportunity we have had in generations to radically re-shape the political landscape and build a more just and sustainable society. The Power of Doom The modern progressive movement in the U.S. has traditionally grounded its organizing in the politics of identity and altruism. Organize an affected group -- minorities, gays, janitors or women -- and then ask the public at large to support the cause -- prison reform, gay marriage, labor rights, or abortion -- based on some cocktail of good will, liberal guilt, and moral persuasion. This strategy has been effective at times. But we have failed to bring these mini-movements together into a force powerful enough to enact broad-based social reform. It takes a lot of people to change society and our current strategy has left us small in numbers and weak in power. The highlights of my political life -- as opposed to oystering -- have been marked by winning narrow, often temporary, battles, but perennially losing the larger war. I see the results in every direction I look: growing poverty and unemployment, two wars, the rise of the right, declining unionization, the failure of the Senate's climate legislation and of Copenhagen, the wholesale domination of corporate interests. The list goes on and on. We have lost; it's time to admit our strategy has been too tepid and begin charting anew. This time can be different. What is so promising about the climate crisis is that because it is not an "issue" experienced by one disenfranchised segment of the population, it opens the opportunity for a new organizing calculus for progressives. Except for nuclear annihilation, humanity has never faced so universal a threat where all our futures are bound inextricably together. This universality provides the mortar of common interest required for movement building. We could literally knock on every door on the planet and find someone -- whether they know it or not -- who has a vital self-interest in averting the climate crisis by joining a movement for sustainability. With all of humanity facing doom, we can finally gather under one banner and count our future members not in the thousands but in the millions, even billions. But as former White House "Green Jobs Czar" Van Jones told the New Yorker in 2009, "The challenge is making this an everybody movement, so your main icons are Joe Six-Pack, Joe the Plumber, becoming Joe the Solar Guy, or that kid on the street corner putting down his handgun, picking up a caulk gun." The climate crisis is carrying us into uncharted waters and our political strategy needs to be directed toward making the climate movement an "everybody movement." Let me use a personal example. As an oysterman on Long Island Sound my way of life is threatened by rising greenhouse gases and ocean temperatures. If the climate crisis is not averted my oysters will die and my farm will be shuttered. Saving my livelihood requires that I politically engage at some level. Normally I would gather together my fellow oyster farmers to lobby state and federal officials and hold a protest or two. Maybe I would find a few coalitions to join. But we would remain small in number, wield little power, and our complaints about job loss would fall on largely unsympathetic ears in the face of so many suffering in so many ways. And what would we even petition our government to do about the problem? Buyouts and unemployment benefits? Re-training classes? Our oysters will still die and we will still lose our farms. To save our lives and livelihood we need to burrow down to the root of the problem: halting greenhouse gas emissions. And halting emissions requires joining a movement with the requisite power to dismantle the fossil fuel economy while building a green economy. To tackle such a large target requires my support for every nook and cranny effort to halt greenhouse gases and transition to a green economy. I need to gather up my fellow oyster farmers and link arms with students blocking new coal-fired power plants while fighting for just transition for coal workers; I need to join forces with other green workers around the country to demand government funding for green energy jobs, not more bank and corporate bailouts; I need to support labor movement efforts in China and elsewhere to climb out of poverty by going "green not dirty." I have a stake in these disparate battles not out of political altruism, but because my livelihood and community depend on stopping greenhouse gases and climate change. In other words, the hidden jewel of the climate crisis is that I need others and others need me. We are bound together by the same story of crisis and struggle. Some in the sustainability movement have been taking advantage of the "power of doom" by weaving together novel narratives and alliances around climate change. Groups in Kentucky are complementing their anti-mountain top removal efforts by organizing members of rural electrical co-ops into "New Power" campaigns to force a transition from fossil fuels to renewable power -- and create jobs in the process. Police unions in Canada, recognizing their members will be first responders as climate disasters hit, have reached out to unions in New Orleans to ensure the tragedies that followed Katrina are not repeated. Artists, chefs, farmers, bike mechanics, designers, and others are coalescing into a "green artisan movement" focused on building vibrant sustainable communities. Immigrant organizers, worried about the very real possibility of ever-worsening racial tensions triggered by millions of environmental refugees flooding in from neighboring countries, are educating their membership about why the climate crisis matters. My hope is that over the coming years we will be able to catalog increasing numbers of these tributaries of the climate crisis. Our power will not stem from a long list of issue concerns or sponsors at events -- we have tried that as recently as the October 2nd Washington D.C. "One Nation Working Together" march with little impact. Nor, with the rise of do-it-yourself organizing, will our power spring from top-down political parties of decades past. Instead oystermen like me, driven by the need to save our lives and livelihood, will storm the barricades with others facing the effects of the climate crisis. We will merge our mini-movements under a banner of common crisis, common vision and common struggle. We will be in this fight together and emerge as force not to be trifled with. This Time We Have an Alternative I am also guardedly optimistic because this time we have an alternative. My generation came of age after the fall of communism, and as a result, we have been raised in the midst of one-sided debate. We recognize that neoliberalism has ravaged society, but besides nostalgic calls for socialism, what has been the alternative? As globalization swept the globe, we demanded livable wages and better housing for the poorest in our communities; we fought sweatshops in China; we lobbied for new campaign finance and corporate governance laws. But these are mere patchwork reforms that fail to add up to a full-blown alternative to our current anti-government, free-market system. Never being able to fully picture the progressive alternative left me not fully trusting that progressive answers were viable solutions. But when I hear the proposed solutions to the climate crisis, the fog lifts. I can track the logic and envision the machinery of our alternative. And it sounds surprisingly like a common sense rebuttal to the current free-market mayhem: We face a global emergency of catastrophic proportions. Market fundamentalism will worsen rather than solve the crisis. Instead we need to re-direct our institutions and economic resources toward solving the crisis by replacing our carbon-based economy with a green sustainable economy. And by definition, for an economy to be sustainable it must addresses the longstanding suffering ordinary people face in their lives, ranging from unemployment and poverty to housing and healthcare. For years I have tossed from campaign to campaign, but the framework of our new progressive answer to the climate crisis now provides a roadmap for my political strategy. It helps chart my opponents -- coal companies and their political minions, for example -- as well as my diverse range of allies. It lays out my policy agenda, ranging from creating millions of new green jobs to building affordable green housing in low-income communities. I finally feel confident enough in my bearings to set sail. The Era of Crisis Politics While building a new green economy makes sense on paper, it is hard to imagine our entrenched political system yielding even modest progressive reform, let alone the wholesale re-formatting of the carbon economy. But I suspect this will change in the coming years, with our future governed by cascading political crises, rather than political stasis. We are likely entering an era of crisis politics whereby each escalating environmental disaster -- ranging from water shortages and hurricanes to wildfires and disease outbreaks -- will expose the impotence of our existing political institutions and economic system. In the next 40 years alone, scientists predict a state of permanent drought throughout the Southwest US and climate-linked disease deaths to double. As Danny Thompson, secretary-treasurer of the Nevada AFL-CIO, told the Las Vegas Review Journal, the ever-worsening water crisis could be "the end of the world" that could "turn us upside down, and I don't know how you recover from that." As if that is not enough, these crises will be played out in the context of a global economy spiraling out of control. Each hurricane, drought or recession will send opinion polls and politicians lurching from right to left and vice versa. Think of how quickly, however momentarily, the political debate pivoted in the wake of Katrina, the BP disaster, and the financial crisis. As White House chief of staff Rahm Emanuel famously said "Never let a serious crisis go to waste...It's an opportunity to do things you couldn't do before." While addressing the climate crisis requires radical solutions that cannot be broached in today's political climate, each disaster opens an opportunity to advance alternative agendas -- both for the left and right. While politicians debate modest technical fixes, ordinary people left desperate by floods, fires, droughts and other disasters will increasingly -- and angrily -- demand more fundamental reforms. While our current policy choices appear limited by polls and election results, in an era of crisis politics what appears unrealistic and radical before a storm may well appear as common sense reform in its wake. My generation has been raised in the politics of eternal dusk. Except for a passing ray of hope during the Obama campaign, our years have been marked by the failure of every political force in society -- whether it be political elites or social movement leaders -- to address the problems we face as a nation and world. They have left us spinning towards disaster. We can forge a better future. Climate-generated disasters will bring our doomed future into focus. The failure of political elites to adequately respond to these cascading crises will transform our political landscape and seed the ground for social movements. And if we prepare for the chaos and long battle ahead, our alternative vision will become a necessity rather than an impossibility. As a friend recently said to me, "God help us, I hope you're right."

#### The state is inevitable and an indispensable part of the solution to warming

Eckersley 4 Robyn, Reader/Associate Professor in the Department of Political Science at the University of Melbourne, “The Green State: Rethinking Democracy and Sovereignty”, MIT Press, 2004, Google Books, pp. 3-8

While acknowledging the basis for this antipathy toward the nation- state, and the limitations of state-centric analyses of global ecological degradation, I seek to draw attention to the positive role that states have played, and might increasingly play, in global and domestic politics. Writing more than twenty years ago, Hedley Bull (a proto-constructivist and leading writer in the English school) outlined the state's positive role in world affairs, and his arguments continue to provide a powerful challenge to those who somehow seek to "get beyond the state," as if such a move would provide a more lasting solution to the threat of armed conflict or nuclear war, social and economic injustice, or environmental degradation.10 As Bull argued, **given that the state is here to stay whether we like it or not**, then the call to get "beyond the state is a counsel of despair, at all events if it means that we have to begin by abolishing or subverting the state, rather than that there is a need to build upon it.""¶ In any event, rejecting the "statist frame" of world politics ought not prohibit an inquiry into the emancipatory potential of the **state as a crucial "node" in any future network of global ecological governance**. This is especially so, given that one can expect states to persist as major sites of social and political power for at least the foreseeable future and that **any green transformations of the present political order will, short of revolution, necessarily be state-dependent**. Thus, like it or not, those concerned about **ecological destruction must contend with existing institutions** and, where possible, seek to "rebuild the ship while still at sea." And if states are so implicated in ecological destruction, then an inquiry into the potential for their transformation even their modest reform into something that is at least more conducive to ecological sustainability would seem to be compelling.¶ Of course, it would be unhelpful to become singularly fixated on the redesign of the state at the expense of other institutions of governance. States are not the only institutions that limit, condition, shape, and direct political power, and it is necessary to keep in view the broader spectrum of formal and informal institutions of governance (e.g., local, national, regional, and international) that are implicated in global environmental change. Nonetheless, while the state constitutes only one modality of political power, it is an especially significant one because of its historical claims to exclusive rule over territory and peoples—as expressed in the principle of state sovereignty. As Gianfranco Poggi explains, the political power concentrated in the state "is a momentous, pervasive, critical phenomenon. **Together with other forms of social power, it constitutes an indispensable medium for constructing and shaping larger social realities**, for establishing, shaping and maintaining all broader and more durable collectivities."12 States play, in varying degrees, significant roles in structuring life chances, in distributing wealth, privilege, information, and risks, in upholding civil and political rights, and in securing private property rights and providing the legal/regulatory framework for capitalism**. Every one of these dimensions of state activity has, for good or ill, a significant bearing on the global environmental crisis**. Given that the green political project is one that demands far-reaching changes to both economies and societies, it is difficult to imagine how such changes might occur on the kind of scale that is needed **without the active support of states**. While it is often observed that states are too big to deal with local ecological problems and too small to deal with global ones, the state nonetheless holds, as Lennart Lundqvist puts it, "a unique position in the constitutive hierarchy from individuals through villages, regions and nations all the way to global organizations. The state is inclusive of lower political and administrative levels, and exclusive in speaking for its whole territory and population in relation to the outside world."13 In short, it seems to me inconceivable to advance ecological emancipation without also engaging with and seeking to transform state power.¶ Of course, not all states are democratic states, and the green movement has long been wary of the coercive powers that all states reputedly enjoy. Coercion (and not democracy) is also central to Max Weber's classic sociological understanding of the state as "a human community that (successfully) claims the monopoly of the legitimate use of physical force within a given territory."14 Weber believed that the state could not be defined sociologically in terms of its ends\* only formally as an organization in terms of the particular means that are peculiar to it.15 Moreover his concept of legitimacy was merely concerned with whether rules were accepted by subjects as valid (for whatever reason); he did not offer a normative theory as to the circumstances when particular rules ought to be accepted or whether beliefs about the validity of rules were justified. Legitimacy was a contingent fact, and in view of his understanding of politics as a struggle for power in the context of an increasingly disenchanted world, likely to become an increasingly unstable achievement.16¶ In contrast to Weber, my approach to the state is explicitly normative and explicitly concerned with the purpose of states, and the democratic basis of their legitimacy. It focuses on the limitations of liberal normative theories of the state (and associated ideals of a just constitutional arrangement), and it proposes instead an alternative green theory that seeks to redress the deficiencies in liberal theory. Nor is my account as bleak as Weber's. The fact that states possess a monopoly of control over the means of coercion is a most serious matter, but it does not necessarily imply that they must have frequent recourse to that power. In any event, whether the use of the state's coercive powers is to be deplored or welcomed turns on the purposes for which that power is exercised, the manner in which it is exercised, and whether it is managed in public, transparent, and accountable ways—a judgment that must be made against a background of changing problems, practices, and under- standings. The coercive arm of the state can be used to "bust" political demonstrations and invade privacy. **It can also be used to prevent human rights abuses, curb the excesses of corporate power, and protect the environment.**¶ In short, although the political autonomy of states is widely believed to be in decline, **there are still few social institution that can match the** same degree of capacity and potential legitimacy that **states have to redirect societies and economies along more ecologically sustainable lines to address ecological problems** such as global warming and pollution, the buildup of toxic and nuclear wastes and the rapid erosion of the earth's biodiversity. States—particularly when they act collectively—have the capacity to curb the socially and ecologically harmful consequences of capitalism. They are also more amenable to democratization than cor- porations, notwithstanding the ascendancy of the neoliberal state in the increasingly competitive global economy. There are therefore many good reasons why green political theorists need to think not only critically but also constructively about the state and the state system. While the state is certainly not "healthy" at the present historical juncture, in this book I nonetheless join Poggi by offering "a timid two cheers for the old beast," at least as a potentially more significant ally in the green cause.17

#### Short-term market mechanisms are the only solution to environmental destruction

Bryant 12—professor of philosophy at Collin College (Levi, We’ll Never Do Better Than a Politician: Climate Change and Purity, 5/11/12, http://larvalsubjects.wordpress.com/2012/05/11/well-never-do-better-than-a-politician-climate-change-and-purity/)

Somewhere or other Latour makes the remark that we’ll never do better than a politician. Here it’s important to remember that for Latour– as for myself –every entity is a “politician”. Latour isn’t referring solely to those persons that we call “politicians”, but to all entities that exist. And if Latour claims that we’ll never do better than a politician, then this is because every entity must navigate a field of relations to other entities that play a role in **what is and is not possible** in that field. In the language of my ontology, this would be articulated as the thesis that the local manifestations of which an entity is capable are, in part, a function of the relations the entity entertains to other entities in a regime of attraction. The world about entities perpetually introduces **resistances and frictions** **that play a key role** in what comes to be actualized**.** ¶ It is this aphorism that occurred to me today after a disturbing discussion with a rather militant Marxist on Facebook. I had posted a very disturbing editorial on climate change by the world renowned climate scientist James Hansen. Not only did this person completely misread the editorial, denouncing Hansen for claiming that Canada is entirely responsible for climate change (clearly he had no familiarity with Hansen or his important work), but he derided Hansen for proposing market-based solutions to climate change on the grounds that “the market is the whole source of the problem!” It’s difficult to know how to respond in this situations.¶ read on! ¶ It is quite true that it is the system of global capitalism or the market that has created our climate problems (though, as Jared Diamond shows in Collapse, **other systems of production have also produced devastating climate problems).** In its insistence on profit and expansion in each economic quarter, markets as currently structured provide no brakes for environmental destructive actions. The system is itself pathological.¶ **However**, pointing this out and **deriding market based solutions doesn’t get us very far**. In fact, such a response to proposed market-based solutions is downright dangerous and irresponsible. The fact of the matter is that **1) we** currently **live in a market based world, 2) there is not**, in the foreseeable future **an alternative system on the horizon, and 3), above all,** we need to do something now**.** **We can’t afford to reject interventions simply** because they don’t meet our ideal conceptions of how things should be. **We have to work with the world that is here, not the one that we would like to be here**. And here it’s crucial to note that pointing this out does not entail that we shouldn’t work for producing that other world. It just means that we have to grapple with the world that is actually there before us.¶ It pains me to write this post because I remember, with great bitterness, the diatribes hardcore Obama supporters leveled against legitimate leftist criticisms on the grounds that these critics were completely unrealistic idealists who, in their demand for “purity”, were asking for “ponies and unicorns”. This rejoinder always seemed to ignore that words have power and that Obama, through his profound power of rhetoric, had, at least **the power to shift public debates and frames, opening a path to making new forms of policy and new priorities possible.** **The tragedy was that he didn’t use that power,** though he has gotten better.¶ I do not wish to denounce others and dismiss their claims on these sorts of grounds. As a Marxist anarchists, I do believe that we should fight for the creation of an alternative hominid ecology or social world. I think that the call to commit and fight, to put alternatives on the table, has been one of the most powerful contributions of thinkers like Zizek and Badiou. If we don’t commit and fight for alternatives those alternatives will never appear in the world. **Nonetheless, we still have to grapple with the world we find ourselves in**. And it is here, in my encounters with some Militant Marxists, that I sometimes find it difficult to avoid the conclusion that they are unintentionally **aiding and abetting the very things they claim to be fighting**. **In their refusal to become impure, to work with situations or assemblages as we find them, to sully their hands, they end up** reproducing the very system they wish to topple and change**. Narcissistically they get to sit there, smug in their superiority and purity, while everything continues as it did before because they’ve refused to become politicians or engage in the difficult concrete work of assembling** human and nonhuman **actors to render another world possible.** As a consequence, they occupy the position of Hegel’s beautiful soul that denounces the horrors of the world, celebrate the beauty of their soul, **while depending on those horrors of the world to sustain their own position**. ¶ To engage in politics is to engage in networks or ecologies of relations between humans and nonhumans. To engage in ecologies is to descend into networks of causal relations and feedback loops that you cannot completely master and that will modify your own commitments and actions. But there’s no other way, there’s no way around this, and we do need to act now.

#### Pragmatic warming policy is effective and key to prevent extinction

Simpson 10 (Francis, College of Engineering, Vanderbilt University, “Environmental Pragmatism and its Application to Climate Change The Moral Obligations of Developed and Developing Nations to Avert Climate Change as viewed through Technological Pragmatism”, Spring 2010 | Volume 6 | Number 1)

Pragmatism and Footprinting¶ Environmental pragmatism is a relatively new field of environmental ethics that seeks to move beyond the strictly theoretical exercises normal in philosophy and allows the environmental movement to formulate substantial new policies (Light, 1). Environmental Pragmatism was initially posited by Bryan Norton and evolved to not take a stance over the dispute between non-anthropocentric and anthropocentric ethics. Distancing himself from this dispute, he preferred to distinguish between strong and weak anthropocentricism (Light, 290-291, 298). The main philosophers involved in advancing the debate in environmental pragmatism include Eric Katz, Andrew Light, and Bryan Norton. **This particular discipline advocates moral pluralism, implying that the environmental problems being faced have multiple correct solutions.** Light argues that the urgency of ecological crises requires that action is necessary through negotiation and compromise. While theorists serve to further the field of environmental ethics and to debate the metaethical basis of various environmental philosophies**, some answers to questions are best left to private discussion rather than taking time to argue about them publically** (introduction of pragmatism). Pragmatism believes that if two theories are equally able to provide solutions to a given problem, then debate on which is more is argued that: “the commitment to solving environmental problems is the only precondition for any workable and democratic political theory” (Light, 11). While the science behind a footprint is well understood, what can the synthesis of environmental pragmatism and footprinting tell us about the moral obligation to avert climate change? How does grounding the practice of sustainability footprinting in environmental pragmatism generate moral prescriptions for averting climate change?¶ Environmental Pragmatism necessitates the need for tools in engineering to be developed and applied to avert the climate change problem, since **pragmatism** inherently **calls for bridging the gap between theory and policy/ practices**. With the theory of pragmatism in mind, further research and development of tools such as life-cycle analysis and footprinting are potential policy tools that are necessary under a pragmatist viewpoint so that informed decisions can be made by policy makers. Since the role of life-cycle analysis and footprinting attempt to improve the efficiency and decrease the overall environmental impact of a given process, good, or service, environmental pragmatism would call for the further development and usage of these tools so that we can continue to develop sustainably and fulfill our moral obligation to future generations. By utilizing footprinting and life-cycle analysis, it becomes possible to make environmentally conscious decisions not only based upon a gut instinct but additionally based on sound science. Finally, in regards to averting climate change, footprinting and life-cycle analysis offer another dimension to traditional cost-benefit analysis and can allow for our moral obligation to future generations to weigh into final decisions which will eventually result in policies and/ or a production of a good or service. Since traditional cost benefit analysis does not account for the environment explicitly, pragmatism would call for the application of these tools to ensure that the environment is adequately protected for future generations.¶ Climate change modeling inherently contains **many unknowns** in terms of future outcomes and applied simplifications, **but these factors should not be enough to hold us back from an environmental pragmatism stand point.** Rather than hiding behind a veil of uncertainty **with the science, the uncertainty of the** possible catastrophic outcomes demands action on the part of every human individual. Environmental pragmatism could also adopt a view point like the precautionary principle where a given action has great uncertainty, but also great consequence (Haller). Since we are attempting to protect human lives and prevent unnecessary suffering, **environmental pragmatism would dictate that we should take action now and** stop debating the theoretical aspects **of this problem**. A moral obligation exists to protect human life, and it becomes our obligation to avert climate change. Despite the relatively high economic costs of averting climate change, it is worth noting that the creation of green jobs and new sectors will help to stimulate the economy rather than completely hindering it. People inherently fear change, and it is my opinion that averting climate change requires a drastic change in our consumption patterns, an important reason why people are resisting averting climate change. From an environmental pragmatism viewpoint, it is humanities responsibility to avert climate change before it is too late since we have a moral obligation to protect the future of humanity and the biosphere.

#### Scientific knowledge is best because it subjects itself to constant refinement based on empirical evidence

Hutcheon 93—former prof of sociology of education at U Regina and U British Columbia. Former research advisor to the Health Promotion Branch of the Canadian Department of Health and Welfare and as a director of the Vanier Institute of the Family. Phd in sociology, began at Yale and finished at U Queensland. (Pat, A Critique of "Biology as Ideology: The Doctrine of DNA", http://www.humanists.net/pdhutcheon/humanist%20articles/lewontn.htm)

The introductory lecture in this series articulated the increasingly popular "postmodernist" claim that all science is ideology. Lewontin then proceeded to justify this by stating the obvious: that scientists are human like the rest of us and subject to the same biases and socio-cultural imperatives. Although he did not actually say it, his comments seemed to imply that the enterprise of scientific research and knowledge building could therefore be no different and no more reliable as a guide to action than any other set of opinions. The trouble is that, in order to reach such an conclusion, one would have to ignore all those aspects of the scientific endeavor that do in fact distinguish it from other types and sources of belief formation.¶ Indeed, if the integrity of the scientific endeavor depended only on the wisdom and objectivity of the individuals engaged in it we would be in trouble. North American agriculture would today be in the state of that in Russia today. In fact it would be much worse, for the Soviets threw out Lysenko's ideology-masquerading-as-science decades ago. Precisely because an alternative scientific model was available (thanks to the disparaged Darwinian theory) the former Eastern bloc countries have been partially successful in overcoming the destructive chain of consequences which blind faith in ideology had set in motion. This is what Lewontin's old Russian dissident professor meant when he said that the truth must be spoken, even at great personal cost. How sad that Lewontin has apparently failed to understand the fact that while scientific knowledge -- with the power it gives us -- can and does allow humanity to change the world, ideological beliefs have consequences too. By rendering their proponents politically powerful but rationally and instrumentally impotent, they throw up insurmountable barriers to reasoned and value-guided social change.¶ What are the crucial differences between ideology and science that Lewonton has ignored? Both Karl Popper and Thomas Kuhn have spelled these out with great care -- the former throughout a long lifetime of scholarship devoted to that precise objective. Stephen Jay Gould has also done a sound job in this area. How strange that someone with the status of Lewontin, in a series of lectures supposedly covering the same subject, would not at least have dealt with their arguments!¶ Science has to do with the search for regularities in what humans experience of their physical and social environments, beginning with the most simple units discernible, and gradually moving towards the more complex. It has to do with expressing these regularities in the clearest and most precise language possible, so that cause-and-effect relations among the parts of the system under study can be publicly and rigorously tested. And it has to do with devising explanations of those empirical regularities which have survived all attempts to falsify them. These explanations, once phrased in the form of testable hypotheses, become predictors of future events. In other words, they lead to further conjectures of additional relationships which, in their turn, must survive repeated public attempts to prove them wanting -- if the set of related explanations (or theory) is to continue to operate as a fruitful guide for subsequent research.¶ This means that science, unlike mythology and ideology, has a self-correcting mechanism at its very heart. A conjecture, to be classed as scientific, must be amenable to empirical test. It must, above all, be open to refutation by experience. There is a rigorous set of rules according to which hypotheses are formulated and research findings are arrived at, reported and replicated. It is this process -- not the lack of prejudice of the particular scientist, or his negotiating ability, or even his political power within the relevant university department -- that ensures the reliability of scientific knowledge. The conditions established by the community of science is one of precisely defined and regulated "intersubjectivity". Under these conditions the theory that wins out, and subsequently prevails, does so not because of its agreement with conventional wisdom or because of the political power of its proponents, as is often the case with ideology. The survival of a scientific theory such as Darwin's is due, instead, to its power to explain and predict observable regularities in human experience, while withstanding worldwide attempts to refute it -- and proving itself open to elaboration and expansion in the process. In this sense only is scientific knowledge objective and universal. All this has little relationship to the claim of an absolute universality of objective "truth" apart from human strivings that Lewontin has attributed to scientists.¶ Because ideologies, on the other hand, do claim to represent truth, they are incapable of generating a means by which they can be corrected as circumstances change. Legitimate science makes no such claims. Scientific tests are not tests of verisimilitude. Science does not aim for "true" theories purporting to reflect an accurate picture of the "essence" of reality. It leaves such claims of infallibility to ideology. The tests of science, therefore, are in terms of workability and falsifiability, and its propositions are accordingly tentative in nature. A successful scientific theory is one which, while guiding the research in a particular problem area, is continuously elaborated, revised and refined, until it is eventually superseded by that very hypothesis-making and testing process that it helped to define and sharpen. An ideology, on the other hand, would be considered to have failed under those conditions, for the "truth" must be for all time. More than anything, it is this difference that confuses those ideological thinkers who are compelled to attack Darwin's theory of evolution precisely because of its success as a scientific theory. For them, and the world of desired and imagined certainty in which they live, that very success in contributing to a continuously evolving body of increasingly reliable -- albeit inevitably tentative -- knowledge can only mean failure, in that the theory itself has altered in the process.

#### Global warming movements are coming now thanks to a decline in identity politics --- their strategy crushes those movements --- causes extinction

George Monbiot, English Writer and Environmental and Political Activist, 9-4-2008, “Identity Politics in Climate Change Hell,” http://www.celsias.com/article/identity-politics-climate-change-hell/

If you want a glimpse of how the movement against climate change could crumble faster than a summer snowflake, read Ewa Jasiewicz’s article , published on the Guardian’s Comment is Free site. It is a fine example of the identity politics that plagued direct action movements during the 1990s, and from which the new generation of activists has so far been mercifully free. Ewa rightly celebrates the leaderless, autonomous model of organising that has made this movement so effective. The two climate camps I have attended – this year and last – were among the most inspiring events I’ve ever witnessed. I am awed by the people who organised them, who managed to create, under extraordinary pressure, safe, functioning, delightful spaces in which we could debate the issues and plan the actions which thrust Heathrow and Kingsnorth into the public eye. Climate camp is a tribute to the anarchist politics that Jasiewicz supports. But in seeking to extrapolate from this experience to a wider social plan, she makes two grave errors. The first is to confuse ends and means. She claims to want to stop global warming, but she makes that task 100 times harder by rejecting all state and corporate solutions. It seems to me that what she really wants to do is to create an anarchist utopia, and use climate change as an excuse to engineer it. Stopping runaway climate change must take precedence over every other aim. Everyone in this movement knows that there is very little time: the window of opportunity in which we can prevent two degrees of warming is closing fast. We have to use all the resources we can lay hands on, and these must include both governments and corporations. Or perhaps she intends to build the installations required to turn the energy economy around - wind farms, wave machines, solar thermal plants in the Sahara, new grid connections and public transport systems - herself? Her article is a terryifying example of the ability some people have to put politics first and facts second when confronting the greatest challenge humanity now faces. The facts are as follows. Runaway climate change is bearing down on us fast. We require a massive political and economic response to prevent it. Governments and corporations, whether we like it or not, currently control both money and power. Unless we manage to mobilise them, we stand a snowball’s chance in climate hell of stopping the collapse of the biosphere. Jasiewicz would ignore all these inconvenient truths because they conflict with her politics. “Changing our sources of energy without changing our sources of economic and political power”, she asserts, “will not make a difference. Neither coal nor nuclear are the “solution”, we need a revolution.” So before we are allowed to begin cutting greenhouse gas emissions, we must first overthrow all political structures and replace them with autonomous communities of happy campers. All this must take place within a couple of months, as there is so little time in which we could prevent two degrees of warming. This is magical thinking of the most desperate kind. If I were an executive of E.On or Exxon, I would be delighted by this political posturing, as it provides a marvellous distraction from our real aims. To support her argument, Jasiewicz misrepresents what I said at climate camp. She claims that I “confessed not knowing where to turn next to solve the issues of how to generate the changes necessary to shift our sources of energy, production and consumption”. I confessed nothing of the kind. In my book Heat I spell out what is required to bring about a 90% cut in emissions by 2030. Instead I confessed that I don’t know how to solve the problem of capitalism without resorting to totalitarianism. The issue is that capitalism involves lending money at interest. If you lend at 5%, then one of two things must happen. Either the money supply must increase by 5% or the velocity of circulation must increase by 5%. In either case, if this growth is not met by a concomitant increase in the supply of goods and services, it becomes inflationary and the system collapses. But a perpetual increase in the supply of goods and services will eventually destroy the biosphere. So how do we stall this process? Even when usurers were put to death and condemned to perpetual damnation, the practice couldn’t be stamped out. Only the communist states managed it, through the extreme use of the state control Ewa professes to hate. I don’t yet have an answer to this conundrum. Does she? Yes, let us fight both corporate power and the undemocratic tendencies of the state. Yes, let us try to crack the problem of capitalism and then fight for a different system. But let us not confuse this task with the immediate need to stop two degrees of warming, or allow it to interfere with the carbon cuts that have to begin now. Ewa’s second grave error is to imagine that society could be turned into a giant climate camp. Anarchism is a great means of organising a self-elected community of like-minded people. It is a disastrous means of organising a planet. Most anarchists envisage their system as the means by which the oppressed can free themselves from persecution. But if everyone is to be free from the coercive power of the state, this must apply to the oppressors as well as the oppressed. The richest and most powerful communities on earth - be they geographical communities or communities of interest - will be as unrestrained by external forces as the poorest and weakest. As a friend of mine put it, “when the anarchist utopia arrives, the first thing that will happen is that every Daily Mail reader in the country will pick up a gun and go and kill the nearest hippy.” This is why, though both sides furiously deny it, the outcome of both market fundamentalism and anarchism, if applied universally, is identical. The anarchists associate with the oppressed, the market fundamentalists with the oppressors. But by eliminating the state, both remove such restraints as prevent the strong from crushing the weak. Ours is not a choice between government and no government. It is a choice between government and the mafia. Over the past year I have been working with groups of climate protesters who have changed my view of what could be achieved. Most of them are under 30, and they bring to this issue a clear-headedness and pragmatism that I have never encountered in direct action movements before. They are prepared to take extraordinary risks to try to defend the biosphere from the corporations, governments and social trends which threaten to make it uninhabitable. They do so for one reason only: that they love the world and fear for its future. It would be a tragedy if, through the efforts of people like Ewa, they were to be diverted from this urgent task into the identity politics that have wrecked so many movements.

#### Allowing warming to continue perpetuates racist inequalities

Hoerner 8**—**Former director of Research at the Center for a Sustainable Economy, Director of Tax Policy at the Center for Global Change at the University of Maryland College Park, and editor of Natural Resources Tax Review. He has done research on environmental economics and policy on behalf of the governments of Canada, France, Germany, the Netherlands, Switzerland, and the United States. Andrew received his B.A. in Economics from Cornell University and a J.D. from Case Western Reserve School of Law—AND—Nia Robins—former inaugural Climate Justice Corps Fellow in 2003, director of Environmental Justice and Climate Change Initiative (J. Andrew, “A Climate of Change African Americans, Global Warming, and a Just Climate Policy for the U.S.” July 2008, http://www.ejcc.org/climateofchange.pdf)

Everywhere we turn, the issues and impacts of climate change confront us. One of the most serious environmental threats facing the world today, climate change has moved from the minds of scientists and offices of environmentalists to the mainstream. Though the media is dominated by images of polar bears, melting glaciers, flooded lands, and arid desserts, there is a human face to this story as well. Climate change is not only an issue of the environment; it is also an issue of justice and human rights, one that dangerously intersects race and class. All over the world people of color, Indigenous Peoples and low-income communities bear disproportionate burdens from climate change itself, from ill-designed policies to prevent it, and from side effects of the energy systems that cause it. A Climate of Change explores the impacts of climate change on African Americans, from health to economics to community, and considers what policies would most harm or benefit African Americans—and the nation as a whole. African Americans are thirteen percent of the U.S. population and on average emit nearly twenty percent less greenhouse gases than non-Hispanic whites per capita. Though far less responsible for climate change, African Americans are significantly more vulnerable to its effects than non- Hispanic whites. Health, housing, economic well-being, culture, and social stability are harmed from such manifestations of climate change as storms, floods, and climate variability. African Americans are also more vulnerable to higher energy bills, unemployment, recessions caused by global energy price shocks, and a greater economic burden from military operations designed to protect the flow of oil to the U.S. Climate Justice: The Time Is Now Ultimately, accomplishing climate justice will require that new alliances are forged and traditional movements are transformed. An effective policy to address the challenges of global warming cannot be crafted until race and equity are part of the discussion from the outset and an integral part of the solution. This report finds that: Global warming amplifies nearly all existing inequalities. Under global warming, injustices that are already unsustainable become catastrophic. Thus it is essential to recognize that all justice is climate justice and that the struggle for racial and economic justice is an unavoidable part of the fight to halt global warming. Sound global warming policy is also economic and racial justice policy. Successfully adopting a sound global warming policy will do as much to strengthen the economies of low-income communities and communities of color as any other currently plausible stride toward economic justice. Climate policies that best serve African Americans also best serve a just and strong United States. This paper shows that policies well-designed to benefit African Americans also provide the most benefit to all people in the U.S. Climate policies that best serve African Americans and other disproportionately affected communities also best serve global economic and environmental justice. Domestic reductions in global warming pollution and support for such reductions in developing nations financed by polluter-pays principles provide the greatest benefit to African Americans, the peoples of Africa, and people across the Global South. A distinctive African American voice is critical for climate justice. Currently, legislation is being drafted, proposed, and considered without any significant input from the communities most affected. Special interests are represented by powerful lobbies, while traditional environmentalists often fail to engage people of color, Indigenous Peoples, and low-income communities until after the political playing field has been defined and limited to conventional environmental goals. A strong focus on equity is essential to the success of the environmental cause, but equity issues cannot be adequately addressed by isolating the voices of communities that are disproportionately impacted. Engagement in climate change policy must be moved from the White House and the halls of Congress to social circles, classrooms, kitchens, and congregations. The time is now for those disproportionately affected to assume leadership in the climate change debate, to speak truth to power, and to assert rights to social, environmental and economic justice. Taken together, these actions affirm a vital truth that will bring communities together: Climate Justice is Common Justice. African Americans and Vulnerability In this report, it is shown that African Americans are disproportionately affected by climate change. African Americans Are at Greater Risk from Climate Change and Global Warming Co-Pollutants ¶ • The six states with the highest African American population are all in the Atlantic hurricane zone, and are expected to experience more intense storms resembling Katrina and Rita in the future. ¶ • Global warming is expected to increase the frequency and intensity of heat waves or extreme heat events. African Americans suffer heat death at one hundred fifty to two hundred percent of the rate for non-Hispanic whites. ¶ • Seventy-one percent of African Americans live in counties in violation of federal air pollution standards, as compared to fifty-eight percent of the white population. Seventy-eight percent of African Americans live within thirty miles of a coal-fired power plant, as compared to fifty-six percent of non-Hispanic whites. ¶ • Asthma has strong associations with air pollution, and African Americans have a thirty-six percent higher rate of incidents of asthma than whites. Asthma is three times as likely to lead to emergency room visits or deaths for African Americans. ¶ • This study finds that a twenty-five percent reduction in greenhouse gases—similar to what passed in California and is proposed in major federal legislation—would reduce infant mortality by at least two percent, asthma by at least sixteen percent, and mortality from particulates by at least 6,000 to 12,000 deaths per year. Other estimates have run as high as 33,000 fewer deaths per year. A disproportionate number of the lives saved by these proposed reductions would be African American. African Americans Are Economically More Vulnerable to Disasters and Illnesses ¶ • In 2006, twenty percent of African Americans had no health insurance, including fourteen percent of African American children—nearly twice the rate of non-Hispanic whites. ¶ • In the absence of insurance, disasters and illness (which will increase with global warming) could be cushioned by income and accumulated wealth. However, the average income of African American households is fifty-seven percent that of non-Hispanic whites, and median wealth is only one-tenth that of non-Hispanic whites. ¶ • Racist stereotypes have been shown to reduce aid donations and impede service delivery to African Americans in the wake of hurricanes, floods, fires and other climate-related disasters as compared to non-Hispanic whites in similar circumstances. African Americans Are at Greater Risk from Energy Price Shocks ¶ • African Americans spend thirty percent more of their income on energy than non-Hispanic whites. • Energy price increases have contributed to seventy to eighty percent of recent recessions. The increase in unemployment of African Americans during energy caused recessions is twice that of non-Hispanic whites, costing the community an average of one percent of income every year. • Reducing economic dependence on energy will alleviate the frequency and severity of recessions and the economic disparities they generate. African Americans Pay a Heavy Price and a Disproportionate Share of the Cost of Wars for Oil • Oil company profits in excess of the normal rate of profit for U.S. industries cost the average household $611 in 2006 alone and are still rising. • The total cost of the war in Iraq borne by African Americans will be $29,000 per household if the resulting deficit is financed by tax increases, and $32,000 if the debt is repaid by spending cuts. This is more than three times the median assets of African American households. A Clean Energy Future Creates Far More Jobs for African Americans • Fossil fuel extraction industries employ a far lower proportion of African Americans on average compared to other industries. Conversely, renewable electricity generation employs three to five times as many people as comparable electricity generation from fossil fuels, a higher proportion of whom are African American. ¶ • Switching just one percent of total electricity generating capacity per year from conventional to renewable sources would result in an additional 61,000 to 84,000 jobs for African Americans by 2030. ¶ • A well-designed comprehensive climate plan achieving emission reductions comparable to the Kyoto Protocol would create over 430,000 jobs for African Americans by 2030, reducing the African American unemployment rate by 1.8 percentage points and raising the average African American income by 3 to 4 percent.

## 2AC

### Solvency

#### Anti-nuclear opposition is directly responsible for the spread of coal; their alt attempts to be the arbiter and enforcer of environmental purity which simply re-affirms the structural forces that make “black trash” possible in the form of coal pollution

King 9 - Host and Executive Producer of “White House Chronicle” — a news and public affairs program airing on PBS, “After 40 Years, Environmentalists Start To See the Nuclear Light, Llewellyn King”, November 25, 2009 – 8:47 pm

Although very little happened, Nov. 24 was a red letter day for the nation’s nuclear power industry. No new nuclear reactors were purchased, no breakthrough in treating nuclear waste was announced, and the Obama administration did not declare that it would pay for new reactors.¶ Instead, the source of the industry’s happiness was The Washington Post leading Page One with an article that detailed how the environmental movement, after 40 years of bitter opposition, now concedes that nuclear power will play a role in averting further harm from global warming.¶ Mind you, not every environmental group has come around, but the feared and respected Natural Resources Defense Council has allowed that there is a place for nuclear power in the world’s generating mix and Stephen Tindale, a former anti-nuclear activist with Friends of the Earth in the United Kingdom, has said, yes, we need nuclear.¶ For the nuclear industry which has felt itself vilified, constrained and damaged by the ceaseless and sometimes pathological opposition of the environmental movement, this changing attitude is manna from on high.¶ No matter that the environmentalists, in opposing nuclear since the late 1960s, have critically wounded the U.S. reactor industry and contributed to the construction of scores of coal and gas-fired plants that would not have been built without their opposition to nuclear.¶ In short, the environmental movement contributed in no small way to driving electric utilities to the carbon fuels they now are seeking to curtail.¶ Nuclear was such a target of the environmental movement that it embraced the “anything but nuclear” policy with abandon. Ergo its enthusiasm for all forms of alternative energy and its spreading of the belief —still popular in left-wing circles — that wind and solar power, with a strong dose of conservation, is all that is needed.¶ A third generation of environmental activists, who have been preoccupied with global climate change, have come to understand that a substantial amount of new electric generation is needed. Also some environmentalists are beginning to be concerned about the visual impact of wind turbines, not to mention their lethality to bats and birds.¶ Of all of the deleterious impacts of modern life on the Earth, it is reasonable to ask why the environmentalists went after nuclear power. And why they were opposed to nuclear power even before the 1979 accident at Three Mile Island in Pennsylvania and the catastrophic 1986 Chernobyl reactor failure in Ukraine. Those deserved pause, but the movement had already indicted the entire nuclear enterprise.¶ Having written about nuclear energy since 1969, I have come to believe that the environmental movement seized on nuclear first because it was an available target for legitimate anger that had spawned the movement in the ’60s. The licensing of nuclear power plants gave the protesters of the time one of the only opportunities to affect public policy in energy. They seized it; at first timorously, and then with gusto.¶ The escalation in environmental targets tells the story of how the movement grew in confidence and expertise; and how it added political allies, like Ralph Nader and Rep. Ed Markey, D-Mass.¶ The first target was simply the plants’ cooling water heating up rivers and estuaries. That was followed by wild extrapolations of the consequences of radiation (mutated children). Finally, it settled on the disposition of nuclear waste; that one stuck, and was a lever that turned public opinion easily. Just mention the 240,000-year half-life of plutonium without mentioning how, as an alpha-emitter, it is easily contained.¶ It is not that we do not need an environmental movement. We do. It is just that sometimes it gets things wrong.¶ In the days of the Atomic Energy Commission, the environmental groups complained that it was policeman, judge and jury. Indeed.¶ But environmental groups are guilty of defining environmental virtue and then policing it, even when the result is a grave distortion, as in the nuclear imbroglio. Being both the arbiter of environmental purity and the enforcer has cost the environment 40 years when it comes to reducing greenhouse gases.

### Warming

#### Securitizing warming changes disbelief and mobilizes effective public responses

Romm 12 (Joe, Fellow at American Progress and is the editor of Climate Progress, which New York Times columnist Tom Friedman called "the indispensable blog" and Time magazine named one of the 25 “Best Blogs of 2010.″ In 2009, Rolling Stone put Romm #88 on its list of 100 “people who are reinventing America.” Time named him a “Hero of the Environment″ and “The Web’s most influential climate-change blogger.” Romm was acting assistant secretary of energy for energy efficiency and renewable energy in 1997, where he oversaw $1 billion in R&D, demonstration, and deployment of low-carbon technology. He is a Senior Fellow at American Progress and holds a Ph.D. in physics from MIT, 2/26, “Apocalypse Not: The Oscars, The Media And The Myth of ‘Constant Repetition of Doomsday Messages’ on Climate”, <http://thinkprogress.org/romm/2012/02/26/432546/apocalypse-not-oscars-media-myth-of-repetition-of-doomsday-messages-on-climate/#more-432546>)

The two greatest myths about global warming communications are 1) constant repetition of doomsday messages has been a major, ongoing strategy and 2) that strategy doesn’t work and indeed is actually counterproductive!

These myths are so deeply ingrained in the environmental and progressive political community that when we finally had a serious shot at a climate bill, the powers that be decided not to focus on the threat posed by climate change in any serious fashion in their $200 million communications effort (see my 6/10 post “Can you solve global warming without talking about global warming?”). These myths are so deeply ingrained in the mainstream media that such messaging, when it is tried, is routinely attacked and denounced — **and the flimsiest studies are interpreted exactly backwards to drive the erroneous message** home (see “Dire straits: Media blows the story of UC Berkeley study on climate messaging”)

The only time anything approximating this kind of messaging — not “doomsday” but what I’d call blunt, science-based messaging that also makes clear the problem is solvable — was in 2006 and 2007 with the release of An Inconvenient Truth (and the 4 assessment reports of the Intergovernmental Panel on Climate Change and media coverage like the April 2006 cover of Time). The data suggest that strategy measurably moved the public to become more concerned about the threat posed by global warming (see recent study here).

You’d think it would be pretty obvious that the public is not going to be concerned about an issue unless one explains why they should be concerned about an issue. And the social science literature, including the vast literature on advertising and marketing, could not be clearer that only repeated messages have any chance of sinking in and moving the needle.

Because I doubt any serious movement of public opinion or mobilization of political action could possibly occur until these myths are shattered, I’ll do a multipart series on this subject, featuring public opinion analysis, quotes by leading experts, and the latest social science research.

Since this is Oscar night, though, it seems appropriate to start by looking at what messages the public are exposed to in popular culture and the media. It ain’t doomsday. Quite the reverse, climate change has been mostly an invisible issue for several years and the message of conspicuous consumption and business-as-usual reigns supreme.

The motivation for this post actually came up because I received an e-mail from a journalist commenting that the “constant repetition of doomsday messages” doesn’t work as a messaging strategy. I had to demur, for the reasons noted above.

But it did get me thinking about what messages the public are exposed to, especially as I’ve been rushing to see the movies nominated for Best Picture this year. I am a huge movie buff, but as parents of 5-year-olds know, it isn’t easy to stay up with the latest movies.

That said, good luck finding a popular movie in recent years that even touches on climate change, let alone one a popular one that would pass for doomsday messaging. Best Picture nominee The Tree of Life has been billed as an environmental movie — and even shown at environmental film festivals — but while it is certainly depressing, climate-related it ain’t. In fact, if that is truly someone’s idea of environmental movie, count me out.

The closest to a genuine popular climate movie was the dreadfully unscientific The Day After Tomorrow, which is from 2004 (and arguably set back the messaging effort by putting the absurd “global cooling” notion in people’s heads! Even Avatar, the most successful movie of all time and “the most epic piece of environmental advocacy ever captured on celluloid,” as one producer put it, omits the climate doomsday message. One of my favorite eco-movies, “Wall-E, is an eco-dystopian gem and an anti-consumption movie,” but it isn’t a climate movie.

I will be interested to see The Hunger Games, but I’ve read all 3 of the bestselling post-apocalyptic young adult novels — hey, that’s my job! — and they don’t qualify as climate change doomsday messaging (more on that later). So, no, the movies certainly don’t expose the public to constant doomsday messages on climate.

Here are the key points about what repeated messages the American public is exposed to:

The broad American public is exposed to virtually no doomsday messages, let alone constant ones, on climate change in popular culture (TV and the movies and even online). There is not one single TV show on any network devoted to this subject, which is, arguably, more consequential than any other preventable issue we face.

The same goes for the news media, whose coverage of climate change has collapsed (see “Network News Coverage of Climate Change Collapsed in 2011“). When the media do cover climate change in recent years, the overwhelming majority of coverage is devoid of any doomsday messages — and many outlets still feature hard-core deniers. Just imagine what the public’s view of climate would be if it got the same coverage as, say, unemployment, the housing crisis or even the deficit? When was the last time you saw an “employment denier” quoted on TV or in a newspaper?

The public is exposed to constant messages promoting business as usual and indeed idolizing conspicuous consumption. See, for instance, “Breaking: The earth is breaking … but how about that Royal Wedding?

Our political elite and intelligentsia, including MSM pundits and the supposedly “liberal media” like, say, MSNBC, hardly even talk about climate change and when they do, it isn’t doomsday. Indeed, there isn’t even a single national columnist for a major media outlet who writes primarily on climate. Most “liberal” columnists rarely mention it.

At least a quarter of the public chooses media that devote a vast amount of time to the notion that global warming is a hoax and that environmentalists are extremists and that clean energy is a joke. In the MSM, conservative pundits routinely trash climate science and mock clean energy. Just listen to, say, Joe Scarborough on MSNBC’s Morning Joe mock clean energy sometime.

The major energy companies bombard the airwaves with millions and millions of dollars of repetitious pro-fossil-fuel ads. The environmentalists spend far, far less money. As noted above, the one time they did run a major campaign to push a climate bill, they and their political allies including the president explicitly did NOT talk much about climate change, particularly doomsday messaging

Environmentalists when they do appear in popular culture, especially TV, are routinely mocked.

There is very little mass communication of doomsday messages online. Check out the most popular websites. General silence on the subject, and again, what coverage there is ain’t doomsday messaging. Go to the front page of the (moderately trafficked) environmental websites. Where is the doomsday?

If you want to find anything approximating even modest, blunt, science-based messaging built around the scientific literature, interviews with actual climate scientists and a clear statement that we can solve this problem — well, you’ve all found it, of course, but the only people who see it are those who go looking for it.

Of course, this blog is not even aimed at the general public. Probably 99% of Americans haven’t even seen one of my headlines and 99.7% haven’t read one of my climate science posts. And Climate Progress is probably the most widely read, quoted, and reposted climate science blog in the world.

Anyone dropping into America from another country or another planet who started following popular culture and the news the way the overwhelming majority of Americans do would get the distinct impression that nobody who matters is terribly worried about climate change. And, of course, they’d be right — see “The failed presidency of Barack Obama, Part 2.

**It is total BS that somehow the American public has been scared and overwhelmed by repeated doomsday messaging into some sort of climate fatigue**. If the public’s concern has dropped — and public opinion analysis suggests it has dropped several percent (though is bouncing back a tad) — that is primarily due to the conservative media’s disinformation campaign impact on Tea Party conservatives and to the treatment of this as a nonissue by most of the rest of the media, intelligentsia and popular culture.

#### Use of risk and fear in climate predictions is good---motivates positive responses

Beck 10 (Ulrich, Professor of Sociology at University of Munich, the British Journal of Sociology Visiting Centennial Professor at the London School of Economics and Political Sciences, and, since 2009, Senior Loeb Fellow at the Harvard Design School, “Climate for Change, or How to Create a Green Modernity?”, Theory Culture Society 2010 27: 254)

Sixth thesis: The political explosiveness of global risks is largely a function of their (re-)presentation in the mass media. When staged in the media, **global risks** can **become 'cosmopolitan events'**. **The presentation** and visualization **of manufactured risk makes the invisible visible**. It creates simultaneity, shared involvement and shared suffering, and thereby creates the relevance for a global public. Thus cosmopolitan events are highly mediatized, highly selective, highly variable, highly symbolic local and global, public and private, material and communicative, reflexive experiences and blows of fate.

To understand this, we have to draw upon the picture of 'Mediapolis' so minutely and sensitively painted by Silverstone (2006) and the picture sketched much earlier by Dewey (1946). There Dewey defends the thesis that it is not actions but their consequences which lie at the heart of politics. Although he was not thinking of global warming, BSE or terrorist attacks, his theory can be applied perfectly to world risk society. A global public discourse does not arise out of a consensus on decisions, but rather out of disagreement over the consequences of decisions. Modern risk crises are constructed out of just such controversies over consequences. Although some insist on seeing an overreaction to risk, risk conflicts do indeed have an enlightening function. They destabilize the existing order but can also be seen as a vital step towards the construction of new institutions. Global risk has the power to confuse the mechanisms of organized irresponsibility and even to open them up for political action.

This view of 'enforced enlightenment' and 'cosmopolitan realism' opens up the possibility that the 'manufactured uncertainties' and 'manufactured insecurities' produced by world risk society prompt **transnational reflexivity, global cooperation, coordinated responses** against the background of 'cosmopolitan communities of risk', so the same processes may also prompt much else besides. My emphasis on staging follows from the fact that my central concept is not 'crisis' but 'new global risk'. Risks are, essentially, man-made, incalculable, uninsurable threats and catastrophes which are anticipated but which often remain invisible and therefore depend on how they become defined and contested in 'knowledge'. As a result their 'reality' can be dramatized or minimized, transformed or simply denied, according to the norms which decide what is known and what is not. They are, to repeat myself, products of struggles and conflicts over definitions within the context of specific relations of definitional power and the (in varying degrees successful) results of staging. If this is the core understanding of risk, then this means that we must attach major significance to media staging and acknowledge the potential political explosiveness of the media.

How does this correspond to empirical facts? As Cottle (2009) argues, the release in early 2007 of the latest International Panel on Climate Change report proved to be a transformative moment in the news career of climate change (IPCC, 2007). At first climate change featured relatively infrequently in scientifically framed news reports, then it was contested by a small group of news-privileged climate change sceptics, **and finally it came of age as a widely recognized 'global risk' demanding responses from all the world's nations**. If IPCC predictions and those of more recent scientific modelling come to pass over the next couple of decades, then climate change may yet prove to be the most powerful of forces summoning a civilizational community of fate into existence.

The Western news media's spectacular visualization of climate change, presenting dramatic and symbolic scenes collected from around the world, **has undoubtedly helped to establish the latter's status as a widely recognized global challenge** and serves to illuminate a third-generational modernity staged as global spectacle. Here the news media do not only function in terms of a global focusing of events; rather, the news media adopt a more performative stand, actively enacting certain issues as 'global risks'. Images which function in a more indexical sense to stand in for global processes of climate change now regularly feature across the news landscape. And here some sections of the news media have sought to champion climate change awareness, often through visually arresting images which aim to register the full force and threat produced by global warming around the world. **In images such as these, the abstract science of climate change is rendered culturally meaningful and politically consequential; geographically remote spaces become literally perceptible, 'knowable' places of possible concern and action**. This performative use of visual environmental rhetoric is not confined to selected newspapers; interestingly enough, it has become mainstream. In this way the threat and reality of global climate change has been 'brought home', especially in the West, as possibly 'the' global risk of the age.

On the other hand, the continuing pull of the national within the world's news formations and discourses cannot be underestimated. This is, of course, true in the case of wars. Wars continue to be reported through spectacles tinted by national interests. However, as climate change moves into a new phase of national and international contention, countries, corporations and citizens are also negotiating their respective roles and responsibilities, whether in respect of national policies of mitigation and adoption, or through governmental support of developing countries confronting the worst effects of global warming. Here, too, actions and reactions are often reported in and through national news prisms and frames of reference.

However, the narrative of global risk is misinterpreted as a narrative of the Western 'emergency imaginary' (Calhoun, 2004). **It is not a 'singing into the apocalypse', and it is not simply a 'wake-up call to reality'**. Rather it is about expectation and anticipation, it is about a narrative to dream differently. 'Emancipation' is the key word. **Either the ecological concern manages to be at least as powerful as this hunger for modernization or it is condemned to repeated failure.**

### K

#### Democracy checks violence – no impact

**O’Kane 97 –** Prof Comparative Political Theory, U Keele (Rosemary, “Modernity, the Holocaust and politics,” Economy and Society 26:1, p 58-9)

Modern bureaucracy is not 'intrinsically capable of genocidal action' (Bauman 1989: 106). Centralized state coercion has no natural move to terror. In the explanation of modern genocides it is chosen policies which play the greatest part, whether in effecting bureaucratic secrecy, organizing forced labour, implementing a system of terror, harnessing science and technology or introducing extermination policies, as means and as ends. As Nazi Germany and Stalin's USSR have shown, furthermore, those chosen policies of genocidal government turned away from and not towards modernity. The choosing of policies, however, is not independent of circumstances. An analysis of the history of each case plays an important part in explaining where and how genocidal governments come to power and analysis of political institutions and structures also helps towards an understanding of the factors which act as obstacles to modern genocide. But it is not just political factors which stand in the way of another Holocaust in modern society. Modern societies have not only pluralist democratic political systems but also economic pluralism where workers are free to change jobs and bargain wages and where independent firms, each with their own independent bureaucracies, exist in competition with state-controlled enterprises. In modern societies this economic pluralism both promotes and is served by the open scientific method. By ignoring competition and the capacity for people to move between organizations whether economic, political, scientific or social, Bauman overlooks crucial but also very 'ordinary and common' attributes of truly modern societies. It is these very ordinary and common attributes of modernity which stand in the way of modern genocides.

#### Deliberation through policy debate is key to solving climate change through citizen involvement and subsumes their critiques of traditional forms of decision-making

Isham 10 (Jon, Associate Professor of Economics, Middlebury College, “The Promise of Deliberative Democracy”, Volume 1 | Issue 5 | Page 25-27 | Oct 2010, <http://www.thesolutionsjournal.com/node/775>)

Getting to 350 parts per million CO2 in the atmosphere will require massive investments in clean-energy infrastructure—investments that can too often be foiled by a combination of special interests and political sclerosis. Take the recent approval of the Cape Wind project by the U.S. Department of the Interior. In some ways, this was great news for clean-energy advocates: the project’s 130 turbines will produce, on average, 170 megawatts of electricity, almost 75 percent of the average electricity demand for Cape Cod and the islands of Martha’s Vineyard and Nantucket.1 But, because of local opposition by well-organized opponents, the approval process was lengthy, costly, and grueling —and all for a project that will produce only 0.04 percent of the total (forecasted) U.S. electricity demand in 2010.2,3 Over the next few decades, the world will need thousands of large-scale, low-carbon electricity projects—wind, solar, and nuclear power will certainly be in the mix. But if each faces Cape Wind–like opposition, getting to 350 is unlikely.

How can the decision-making process about such projects be streamlined so that public policy reflects the view of a well-informed majority, provides opportunities for legitimate critiques, but does not permit the opposition to retard the process indefinitely? One answer is found in a set of **innovative policy-making tools founded on** the principle of deliberative democracy, defined as “decision making by discussion among free and equal citizens.”4 Such approaches, which have been developed and led by the Center for Deliberative Democracy (cdd.stanford.edu), America Speaks (www.americaspeaks.org), and the Consensus Building Institute (cbuilding.org), among others, are gaining popularity by promising a new foothold for effective citizen participation in the drive for a clean-energy future.

Deliberative democracy stems from the belief that democratic leadership should involve educating constituents about issues at hand, and that citizens may significantly alter their opinions when faced with information about these issues. Advocates of the approach state that democracy should shift away from fixed notions toward a learning process in which people develop defensible positions.5 While the approaches of the Center for Deliberative Democracy, America Speaks, and the Consensus Building Institute do differ, all of these **deliberative methodologies involve unbiased sharing of information and public-policy alternatives** with a representative set of citizens; a moderated process of deliberation among the selected citizens; and the collection and dissemination of data resulting from this process. For example, in the deliberative polling approach used by the Center for Deliberative Democracy, a random selection of citizens is first polled on a particular issue. Then, members of the poll are invited to gather at a single place to discuss the issue. Participants receive balanced briefing materials to review before the gathering, and at the gathering they engage in dialogue with competing experts and political leaders based on questions they develop in small group discussions. After deliberations, the sample is asked the original poll questions, and the resulting changes in opinion represent the conclusions that the public would reach if everyone were given the opportunity to become more informed on pressing issues.6

If policymakers look at deliberative polls rather than traditional polls, they will be able to utilize results that originate from an informed group of citizens. As with traditional polls, deliberative polls choose people at random to represent U.S. demographics of age, education, gender, and so on. But traditional polls stop there, asking the random sample some brief, simple questions, typically online or over the phone. However, participants of deliberative polls have the opportunity to access expert information and then talk with one another before voting on policy recommendations.

The power of this approach is illustrated by the results of a global deliberative process organized by World Wide Views on Global Warming (www.wwviews.org), a citizen’s deliberation organization based in Denmark.7 On September 26, 2009, approximately 4,000 people gathered in 38 countries to consider what should happen at the UN climate change negotiations in Copenhagen (338 Americans met in five major cities). The results derived from this day of deliberation were dramatic and significantly different from results of traditional polls. Overall, citizens showed strong concern about global warming and support for climate-change legislation, contrary to the outcomes of many standard climate-change polls. Based on the polling results from these gatherings, 90 percent of global citizens believe that it is urgent for the UN negotiations to produce a new climate change agreement; 88 percent of global citizens (82 percent of U.S. citizens) favor holding global warming to within 2 degrees Celsius of pre-industrial levels; and 74 percent of global citizens (69 percent of U.S. citizens) favor increasing fossil-fuel prices in developed countries. However, a typical news poll that was conducted two days before 350.org’s International Day of Climate Action on October 24, 2009, found that Americans had an overall declining concern about global warming.7

How can deliberative democracy help to create solutions for the climate-change policy process, to accelerate the kinds of policies and public investments that are so crucial to getting the world on a path to 350? **Take** again the example of **wind in the United States**. In the mid-1990s, the Texas Public Utilities Commission (PUC) launched an “integrated resource plan” to develop long-term strategies for energy production, particularly electricity.8 Upon learning about the deliberative polling approach of James Fishkin (then at the University of Texas at Austin), the PUC set up deliberative sessions for several hundred customers in the vicinity of every major utility provider in the state. The results were a surprise: it turned out that participants ranked reliability and stability of electricity supply as more important characteristics than price. In addition, they were open to supporting renewable energy, even if the costs slightly exceeded fossil-fuel sources. Observers considered this a breakthrough: based on these public deliberations, the PUC went on to champion an aggressive renewable portfolio standard, and the state has subsequently experienced little of the opposition to wind-tower siting that has slowed development in other states.8 By 2009, Texas had 9,500 megawatts of installed wind capacity, as much as the next six states (ranked by wind capacity) in the windy lower and upper Midwest (Iowa, Minnesota, Colorado, North Dakota, Kansas, and New Mexico).9

**Deliberative democracy has proven effective in a wide range of** countries and **settings**. In the Chinese township of Zeguo, a series of deliberative polls has helped the Local People’s Congress (LPC) to become a more effective decision-making body.10 In February 2008, 175 citizens were randomly selected to scrutinize the town’s budget—and 60 deputies from the LPC observed the process. After the deliberations, support decreased for budgeting for national defense projects, while support rose for infrastructure (e.g., rural road construction) and environmental protection. Subsequently, the LPC increased support for environmental projects by 9 percent.10 In decades to come, China must be at the forefront of the world’s investments in clean-energy infrastructure. The experience of Zeguo, if scaled up **and** fully supported by Chinese leaders, can help to play an important role.

**Deliberative democracy offers one solution for determining citizen opinions, including those on pressing issues related to climate change and** clean **energy**. If democracy is truly about representing popular opinion, **policymakers should seek out deliberative** polls in their **decision-making** process.

#### Pragmatic energy policy is a way to foster a middle ground solution that enables deliberation and prevents excesses on both the right and left from manifesting

Craig 12 (Caroline, Worked for the Lower East Side Ecology Center and The Fund for Public Interest. Fellow, Jeannette K Watson Fellowship, “How Environmentalists and Skeptics Can Discover the Same Goals: Making Eco-Friendly More People-Friendly”, http://digitalcommons.pace.edu/cgi/viewcontent.cgi?article=1116&context=honorscollege\_theses)

**These are the discussions we need to start having outside of the Park Slope**, Brooklyn apartments of married environmental lawyers **and inside the homes of farmers and pastors.** How do we get regular people to feel that they have a stake in the health of the environment, in the future? In some cases, it might involve attaching the idea that caring for the Earth is caring for a gift from God. In other cases, economic and social benefits, from tax breaks to green fashion trends, can help win some people over. We may simply never agree on one universal reason for action. **Luckily for** us and **the Earth, not everyone must agree to do something for the same reason**.

There are many hurdles to jump and ground to tread lightly on. Concerned citizens must actively work to prevent "green washing," or the spread of misleading information, by people or organizations with hidden agendas. However, if we make environmentally-conscious living the norm and not just the exception, entities such as that only stand to make themselves look bad. It is about trust. It is about using **diverse and pragmatic tactics** to be united. A person is still reducing their fuel consumption, whether they do it to slow climate change or to decrease dependence on foreign oil. In fact, **if we are able to list several reasons for taking action, criticisms** and faults **in individual reasons** almost seem to **matter less.** I return to the quote on the Starbuck's cup: "So-called global warming is just a secret ploy by wacko tree-huggers to make America energy independent, clean our air and water, improve the fuel efficiency of our vehicles, kick-start 21st-century industries, and make our cities safer and more livable. Don't let them get away with it!" The same idea is being echoed everywhere, especially from my generation, arguably a very open-minded generation. This is possibly due, not only because of globalization, but the wealth of accessible information that allows us to peek outside of our own social norms and create a more versatile green movement. Accomplishing environmental goals can do much more than protect the natural world, and if it takes the acceptance of anthropocentric reasoning or economic prosperity in some cases, environmentalists must be more pragmatic**. If not, we never stand a chance of the broader public hearing us** out **and we will remain stuck on arguments that many people do not find convincing**. While some environmentalists can continue to seek to make dramatic shifts in social and economic systems, there must be boots on the ground seeking to improve the unity that would allow those shifts to happen. By nudging people like conservative Christians, republicans, and hunters to see why they should not be afraid to think like environmentalists, we plant the seeds, no pun intended, for more holistic **discussions**. Fostering the human connections that already exist, **we can allow these discussions to spread through** the close **communities** that are home to much of the American population **that currently feel**s **so disconnected from the** supposedly **"elitist" or "hippie" environmental movement.**

This paper grew out of a frustration of the political and social polarity surrounding environmental issues today and the dissatisfaction at how few people realize how much common ground there really is. It is about harnessing patriotism and **molding future Americans who will take environmental concepts with them into practice as they become leaders, business people, and parents**. Here in the US, we need to find what makes people tick, on a case by case basis, and apply these findings to environmental initiatives. We do not need to be deceptive to instill a sense of empowerment in environmentalism. **We cannot stop trying to get people involved, even if it means constantly rethinking our strategies**. We cannot stop pushing until we finally hear the words: "Of course I care about the environment! I'm an American, aren't I?"

#### The alternative does nothing to change social structures – it maintains hierarchies in order to avoid contradiction

Fontenot, UC-SB, 2006 Andrea, MFS Modern Fiction Studies 52.1 252-256 page project muse

Edelman is careful, however, to remind us that by responding to his call to fill its own figural shoes in opposition to reproductive futurism, queer theory will not produce a "more perfect social order" (4). Rather than remake the social order to accommodate queerness (as Judith Butler suggests in *Antigone's Claim*), Edelman argues that "queerness exposes the obliquity of our relation to what we experience in and as social reality" (6). To justify queer theory as producing social value would be to accept reproductive futurism's command that only that which can be made transparent, straight, be allowed to survive. Buying into reproductive futurism demands not only the deferment of jouissance but an ethics of endless deferral that is capable of untold brutality, rationalizing any sacrifice, no matter how violently antilife. It is clearly more than rhetorical flourish that leads Edelman to identify as fascist what lies behind recent deployments of the baby's face, evoking perhaps the Frankfurt School conclusion that what was eliminated after World War II was not fascism but its opposition. However important queer theory's role of exposing the lie of the fantastic future promised by sociality, its inability to offer a solution—a future free from the negativity that always undermines social relations—means that it can never be cast as the savior or hero but rather must be imaged only in a series of villains who "disindentif[y] from the promise of futurity" (27).

#### Tech optimism based on empirical research is good---prefer specific experts

Krier 85 James E., Professor of Law at the University of Michigan, “The Un-Easy Case for Technological Optimism,” Michigan Law Review, Vol. 84, No. 3; December 1985, pp. 405-429

A technological optimist is not simply a person with unqualified enthusiasm about technological promise. Saint-Simon (1760-1825) was an enthusiast, but he was not a technological optimist as the term is currently used. Saint-Simon, rather, was a utopian who happened to attach his vision to technocratic expertise.4 He was the forefather of Technocracy, an active utopian movement in the 1930s and one not entirely dead even today.5 Technological optimists are not utopians, but something less - let us say quasi-utopians, after a recent usage (applied to himself) of Robert Dahl's.6 Unlike any self-respecting pure utopian, quasi-utopians (and technological optimists) seek not perfection but tolerable imperfection, tolerable because it is better than anything else they consider attainable though not nearly as good as lots of alternatives that can be imagined. But technological optimists are also something more than mere believers, or faddists, or techniks.7 Their views are rigorously formulated, grounded in an apparent reality, based on knowledge and experience, and artfully defended. There are no crazies among the best of the optimists; they are conservative, respected experts who command enormous authority. They have a very specific position namely, "that exponential technological growth will allow us to expand resources ahead of exponentially increasing demands."8 This is the precise meaning of technological optimism as a term of art.

#### We’re not nuclear optimism---it’s supported based on science and checked by pessimists

Adams 10 Rod, Technological Realism Should Replace Optimism, Pro-nuclear advocate with small nuclear plant operating and design experience. Former submarine Engineer Officer, <http://atomicinsights.com/2010/05/technological-realism-should-replace-optimism.html>

As a “served engineer” on a nuclear powered submarine, I learned a long time ago that things go wrong, even with the very best technology. The recognition of inevitable “problems” should not deter technical development and should not make people afraid to develop new products and services, but it should add a healthy dose of humility backed up by continuous efforts to prepare for the worst. My experiences have taught me to be uncomfortable with any proclamation of inevitable progress. I have worked on IT projects, been a full participant in the digital revolution, operated a custom plastics manufacturing company, and watched the nuclear industry work to regain respectability after some serious missteps in its early development history. Progress is hard work and there are often failures that reset the development cycle just as it seems ready to take off. Too many technology observers and pundits point to Moore’s Law as some kind of a general rule for technical developments. Moore’s Law is a very particular pronouncement – in 1965, Gordon Moore recognized that there was a recognizable path forward that would allow manufacturers to double the number of transistors that could be inexpensively placed on a chip every year for the next ten years and he recognized that he could apply that law to the 15-20 years of chip development that had already happened. He modified his prediction in 1975 to increase the doubling time to two years instead of one. He predicted that the implementation of that path would allow an increasing quantity of processing power, assuming that it would be possible to keep all of the transistors firing at the same rate as before. Moore’s Law does not apply to software development, to steel making, to underwater sensors, to remote manipulators, to wind energy collection systems, or to the rate of IP data transmission using satellite networks. It is not even infinitely applicable to semiconductor based processors – there are physical limits to the size of transistors and connecting wires that will eventually provide an asymptote that levels out the growth of processing power. I have never had much “faith” in technology. I like technology. I use lots of technology; my children have occasionally called me “Inspector Gadget” because of all of the tools (my wife and children sometimes call them “toys”) I have accumulated over the years. However, I understand the limits of the technology that I use. I read the manuals, heed the warnings, plan for failure, and worry about the potential consequences of inappropriately using technical devices. I know that no technology can overcome physical barriers; nothing I or anyone else can do will provide power from the wind when it is not blowing and nothing that I or anyone else can invent will enable chemical combustion to provide reliable heat energy without both a source of oxygen and a place to dump the waste products. Nothing that I or anyone else can invent will enable oil extraction from a dry well. I also know that not everything that breaks can be fixed, even if there is an unlimited amount of time and money. Some breaks and fissures can never be welded shut or forced to heal. This is where I believe that humble engineers and technicians who are not driven by sales numbers have a huge role to play. Their (our) natural pessimism can help to reduce the consequences of always listening to the optimists, the people who say “damn the torpedoes”, “failure is not an option”, or “whatever it takes”. Failure is always possible. Before stretching limits it is important to recognize the consequences of the failure to determine if they are acceptable. If the reasonably predictable “worst possible event” results in consequences that cannot be accepted, the prudent course of action is to avoid the action in the first place. I place deepwater drilling for oil and gas into that category. It is pretty obvious that the possible consequences are unacceptable and that technological development has not yet found a way to mitigate those consequences. I am not sure what the limits of “deepwater” should be, but it is apparent that 5,000 feet is beyond the limit. I do not place operating nuclear energy production facilities in that category. However, there are very definitely some kinds of nuclear plants – like very large graphite-moderated, water-cooled reactors operated by people who override safety systems and ignore warning indications – that have proven that they can cause consequences that are not acceptable. The real value comes in determining what the reasonably predictable consequences might be and what failure modes are reasonable to assume. For people who have no firm foundation in real world mechanics, chemistry and physics, it is possible to spin all kinds of scary scenarios that depend on a series of impossible events. (Note: Just because I believe that there is always something that can go wrong, I do not believe that all things are possible.) My prescription for progress is not “faith” in engineers or technologists. It is for people to approach challenges with knowledge, a questioning attitude, humility and a willingness to expend the resources necessary to operate safely. A thirst for maximizing short term profits or an attitude of blind optimism are both incompatible with performing difficult tasks in potentially dangerous environments.

#### State focused nuclear power solutions are good

Nordhaus 11, chairman – Breakthrough Instiute, and Shellenberger, president – Breakthrough Insitute, MA cultural anthropology – University of California, Santa Cruz, 2/25/‘11

(Ted and Michael, <http://thebreakthrough.org/archive/the_long_death_of_environmenta>)

Tenth, we are going to have to get over our suspicion of technology, especially nuclear power. There is **no credible path** to reducing global carbon emissions without an enormous expansion of nuclear power. It is the only low carbon technology we have today with the demonstrated capability to generate large quantities of centrally generated electrtic power. It is the low carbon of technology of choice for much of the rest of the world. Even uber-green nations, like Germany and Sweden, have reversed plans to phase out nuclear power as they have begun to reconcile their energy needs with their climate commitments. Eleventh, we will need to embrace again the role of the state as a direct provider of public goods. The modern environmental movement, borne of the new left rejection of social authority of all sorts, has embraced the notion of state regulation and even creation of private markets while largely rejecting the generative role of the state. In the modern environmental imagination, government promotion of technology - whether nuclear power, the green revolution, synfuels, or ethanol - almost always ends badly. Never mind that virtually the entire history of American industrialization and technological innovation is the story of government investments in the development and commercialization of new technologies. Think of a transformative technology over the last century - computers, the Internet, pharmaceutical drugs, jet turbines, cellular telephones, nuclear power - and what you will find is government investing in those technologies at a scale that private firms simply cannot replicate. Twelveth, big is beautiful. The rising economies of the developing world will continue to develop whether we want them to or not. The solution to the ecological crises wrought by modernity, technology, and progress will be more modernity, technology, and progress. The solutions to the ecological challenges faced by a planet of 6 billion going on 9 billion will not be decentralized energy technologies like solar panels, small scale organic agriculture, and a drawing of unenforceable boundaries around what remains of our ecological inheritance, be it the rainforests of the Amazon or the chemical composition of the atmosphere. Rather, these solutions will be: large central station power technologies that can meet the energy needs of billions of people increasingly living in the dense mega-cities of the global south without emitting carbon dioxide, further intensification of industrial scale agriculture to meet the nutritional needs of a population that is not only growing but eating higher up the food chain, and a whole suite of new agricultural, desalinization and other technologies for gardening planet Earth that might allow us not only to pull back from forests and other threatened ecosystems but also to create new ones. The New Ecological Politics The great ecological challenges that our generation faces demands an ecological politics that is **generative, not restrictive.** An ecological politics capable of addressing global warming will require us to reexamine virtually every prominent strand of post-war green ideology. From Paul Erlich's warnings of a population bomb to The Club of Rome's "Limits to Growth," contemporary ecological politics have consistently embraced green Malthusianism despite the fact that the Malthusian premise has persistently failed for the better part of three centuries. Indeed, the green revolution was exponentially increasing agricultural yields at the very moment that Erlich was predicting mass starvation and the serial predictions of peak oil and various others resource collapses that have followed have continue to fail. This does not mean that Malthusian outcomes are impossible, but neither are they inevitable. **We do have a choice** in the matter, but it is not the choice that greens have long imagined. The choice that humanity faces is not whether to constrain our growth, development, and aspirations or die. It is whether we will continue to innovate and accelerate technological progress in order to thrive. Human technology and ingenuity have repeatedly confounded Malthusian predictions yet green ideology continues to cast a suspect eye towards the very technologies that have allowed us to avoid resource and ecological catastrophes. But such solutions will require environmentalists to abandon the "small is beautiful" ethic that has also characterized environmental thought since the 1960's. We, the most secure, affluent, and thoroughly modern human beings to have ever lived upon the planet, must abandon both the dark, zero-sum Malthusian visions and the idealized and nostalgic fantasies for a simpler, more bucolic past in which humans lived in harmony with Nature.

#### Preventing death is the first ethical priority – it’s the only impact you can’t recover from.

Bauman 95 Zygmunt Bauman, University of Leeds Professor Emeritus of Sociology, 1995, Life In Fragments: Essays In Postmodern Morality, p. 66-71

The being‑for is like living towards‑the‑future: a being filled with anticipation, a being aware of the abyss between future foretold and future that will eventually be; it is this gap which, like a magnet, draws the self towards the Other,as it draws life towards the future, making life into an activity of overcoming, transcending, leaving behind. The self stretches towards the Other, as life stretches towards the future; neither can grasp what it stretches toward, but it is in this hopeful and desperate, never conclusive and never abandoned stretching‑toward that the self is ever anew created and life ever anew lived. In the words of M. M. Bakhtin, it is only in this not‑yet accomplished world of anticipation and trial, leaning toward stubbornly an‑other Other, that life can be lived ‑ not in the world of the `events that occurred'; in the latter world, `it is impossible to live, to act responsibly; in it, I am not needed, in principle I am not there at all." Art, the Other, the future: what unites them, what makes them into three words vainly trying to grasp the same mystery, is the modality of possibility. A curious modality, at home neither in ontology nor epistemology; itself, like that which it tries to catch in its net, `always outside', forever `otherwise than being'. The possibility we are talking about here is not the all‑too‑familiar unsure‑of‑itself, and through that uncertainty flawed, inferior and incomplete being, disdainfully dismissed by triumphant existence as `mere possibility', `just a possibility'; possibility is instead `plus que la reahte' ‑ both the origin and the foundation of being. The hope, says Blanchot, proclaims the possibility of that which evades the possible; `in its limit, this is the hope of the bond recaptured where it is now lost."' The hope is always the hope of *being fu filled,* but what keeps the hope alive and so keeps the being open and on the move is precisely its *unfu filment.* One may say that the paradox *of hope* (and the paradox of possibility founded in hope) is that it may pursue its destination solely through betraying its nature; the most exuberant of energies expends itself in the urge towards rest. Possibility uses up its openness in search of closure. Its image of the better being is its own impoverishment . . . The togetherness of the being‑for is cut out of the same block; it shares in the paradoxical lot of all possibility. It lasts as long as it is unfulfilled, yet it uses itself up in never ending effort of fulfilment, of recapturing the bond, making it tight and immune to all future temptations. In an important, perhaps decisive sense, it is selfdestructive and self‑defeating: its triumph is its death. The Other, like restless and unpredictable art, like the future itself, is a *mystery.* And being‑for‑the‑Other, going towards the Other through the twisted and rocky gorge of affection, brings that mystery into view ‑ makes it into a challenge. That mystery is what has triggered the sentiment in the first place ‑ but cracking that mystery is what the resulting movement is about. The mystery must be unpacked so that the being‑for may focus on the Other: one needs to know what to focus on. (The `demand' is *unspoken,* the responsibility undertaken is *unconditional;* it is up to him or her who follows the demand and takes up the responsibility to decide what the following of that demand and carrying out of that responsibility means in practical terms.) Mystery ‑ noted Max Frisch ‑ (and the Other is a mystery), is an exciting puzzle, but one tends to get tired of that excitement. `And so one creates for oneself an image. This is a loveless act, the betrayal." Creating an image of the Other leads to the substitution of the image for the Other; the Other is now fixed ‑ soothingly and comfortingly. There is nothing to be excited about anymore. I know what the Other needs, I know where my responsibility starts and ends. Whatever the Other may now do will be taken down and used against him. What used to be received as an exciting surprise now looks more like perversion; what used to be adored as exhilarating creativity now feels like wicked levity. Thanatos has taken over from Eros, and the excitement of the ungraspable turned into the dullness and tedium of the grasped. But, as Gyorgy Lukacs observed, `everything one person may know about another is only expectation, only potentiality, only wish or fear, acquiring reality only as a result of what happens later, and this reality, too, dissolves straightaway into potentialities'. Only death, with its finality and irreversibility, puts an end to the musical‑chairs game of the real and the potential ‑ it once and for all closes the embrace of togetherness which was before invitingly open and tempted the lonely self." `Creating an image' is the dress rehearsal of that death. But creating an image is the inner urge, the constant temptation, the *must* of all affection . . . It is the loneliness of being abandoned to an unresolvable ambivalence and an unanchored and formless sentiment which sets in motion the togetherness of being‑for. But what loneliness seeks in togetherness is an end to its present condition ‑ an end to itself. Without knowing ‑ without being capable of knowing ‑ that the hope to replace the vexing loneliness with togetherness is founded solely on its own unfulfilment, and that once loneliness is no more, the togetherness ( the being‑for togetherness) must also collapse, as it cannot survive its own completion. What the loneliness seeks in togetherness (suicidally for its own cravings) is the foreclosing and pre‑empting of the future, cancelling the future before it comes, robbing it of mystery but also of the possibility with which it is pregnant. Unknowingly yet necessarily, it seeks it all to its own detriment, since the success (if there is a success) may only bring it back to where it started and to the condition which prompted it to start on the journey in the first place. The togetherness of being‑for is always in the future, and nowhere else. It is no more once the self proclaims: `I have arrived', `I have done it', `I fulfilled my duty.' The being‑for starts from the realization of the bottomlessness of the task, and ends with the declaration that the infinity has been exhausted. This is the tragedy of being‑for ‑ the reason why it cannot but be death‑bound while simultaneously remaining an undying attraction. In this tragedy, there are many happy moments, but no happy end. Death is always the foreclosure of possibilities, and it comes eventually in its own time, even if not brought forward by the impatience of love. The catch is to direct the affection to staving off the end, and to do this against the affection's nature. What follows is that, if moral relationship is grounded in the being-for togetherness (as it is), then it can exist as a project, and guide the self's conduct only as long as its nature of a project (a not yet-completed project) is not denied. Morality, like the future itself, is forever not‑yet. (And this is why the ethical code, any ethical code, the more so the more perfect it is by its own standards, supports morality the way the rope supports the hanged man.) It is because of our loneliness that we crave togetherness. It is because of our loneliness that we open up to the Other and allow the Other to open up to us. It is because of our loneliness (which is only belied, not overcome, by the hubbub of the being‑with) that we turn into moral selves. And it is only through allowing the togetherness its possibilities which only the future can disclose that we stand a chance of acting morally, and sometimes even of being good, in the present.

#### Ethical policymaking requires calculation of consequences

**Gvosdev 5** – Rhodes scholar, PhD from St. Antony’s College, executive editor of The National Interest (Nikolas, The Value(s) of Realism, SAIS Review 25.1, pmuse)

As the name implies, realists focus on promoting policies that are achievable and sustainable. In turn, the morality of a foreign policy action is judged by its results, not by the intentions of its framers. A foreign policymaker must weigh the consequences of any course of action and assess the resources at hand to carry out the proposed task. As Lippmann warned, Without the controlling principle that the nation must maintain its objectives and its power in equilibrium, its purposes within its means and its means equal to its purposes, its commitments related to its resources and its resources adequate to its commitments, it is impossible to think at all about foreign affairs.8 Commenting on this maxim, Owen Harries, founding editor of The National Interest, noted, "This is a truth of which Americans—more apt to focus on ends rather than means when it comes to dealing with the rest of the world—need always to be reminded."9 In fact, Morgenthau noted that "there can be no political morality without prudence."10 This virtue of prudence—which Morgenthau identified as the cornerstone of realism—should not be confused with expediency. Rather, it takes as its starting point that it is more moral to fulfill one's commitments than to make "empty" promises, and to seek solutions that minimize harm and produce sustainable results. Morgenthau concluded: [End Page 18] Political realism does not require, nor does it condone, indifference to political ideals and moral principles, but it requires indeed a sharp distinction between the desirable and the possible, between what is desirable everywhere and at all times and what is possible under the concrete circumstances of time and place.11 This is why, prior to the outbreak of fighting in the former Yugoslavia, U.S. and European realists urged that Bosnia be decentralized and partitioned into ethnically based cantons as a way to head off a destructive civil war. Realists felt this would be the best course of action, especially after the country's first free and fair elections had brought nationalist candidates to power at the expense of those calling for inter-ethnic cooperation. They had concluded—correctly, as it turned out—that the United States and Western Europe would be unwilling to invest the blood and treasure that would be required to craft a unitary Bosnian state and give it the wherewithal to function. Indeed, at a diplomatic conference in Lisbon in March 1992, the various factions in Bosnia had, reluctantly, endorsed the broad outlines of such a settlement. For the purveyors of moralpolitik, this was unacceptable. After all, for this plan to work, populations on the "wrong side" of the line would have to be transferred and resettled. Such a plan struck directly at the heart of the concept of multi-ethnicity—that different ethnic and religious groups could find a common political identity and work in common institutions. When the United States signaled it would not accept such a settlement, the fragile consensus collapsed. The United States, of course, cannot be held responsible for the war; this lies squarely on the shoulders of Bosnia's political leaders. Yet Washington fell victim to what Jonathan Clarke called "faux Wilsonianism," the belief that "high-flown words matter more than rational calculation" in formulating effective policy, which led U.S. policymakers to dispense with the equation of "balancing commitments and resources."12 Indeed, as he notes, the Clinton administration had criticized peace plans calling for decentralized partition in Bosnia "with lofty rhetoric without proposing a practical alternative." The subsequent war led to the deaths of tens of thousands and left more than a million people homeless. After three years of war, the Dayton Accords—hailed as a triumph of American diplomacy—created a complicated arrangement by which the federal union of two ethnic units, the Muslim-Croat Federation, was itself federated to a Bosnian Serb republic. Today, Bosnia requires thousands of foreign troops to patrol its internal borders and billions of dollars in foreign aid to keep its government and economy functioning. Was the aim of U.S. policymakers, academics and journalists—creating a multi-ethnic democracy in Bosnia—not worth pursuing? No, not at all, and this is not what the argument suggests. But aspirations were not matched with capabilities. As a result of holding out for the "most moral" outcome and encouraging the Muslim-led government in Sarajevo to pursue maximalist aims rather than finding a workable compromise that could have avoided bloodshed and produced more stable conditions, the peoples of Bosnia suffered greatly. In the end, the final settlement was very close [End Page 19] to the one that realists had initially proposed—and the one that had also been roundly condemned on moral grounds.

#### The perm applies the lessons of the past to the problems of the present

Axtell 93 James Axtell, Kenan Professor of Humanities at the College of William and Mary, chaired the American Historical Association's Columbus Quincentenary Committee, Historian, Autumn, Vol. 56, Issue 1 1993

We judge the past for at least three important reasons. The first is to appraise action, an intrinsic part of historical thinking. Not to make such judgments is to abandon the past to itself, rendering it unintelligible and untranslatable to the present. The second reason is to do justice to it, although making judgment is not the same as passing sentence. As historians, we are too involved in both the prosecution and the defense since the words and reputations of the dead on all sides are in our hands. History's goal is not to punish or rehabilitate historical malefactors, who are morally incorrigible in any event, but to set the record straight for future appeals to precedent. The third reason for judging the past is to advance our own moral education, to learn from and, in effect, to be judged by the past. Since we think and speak historically for our own generation, we can have judgmental effect only on ourselves. Consequently, history becomes, in Lord Bolingbroke's famous phrase, "philosophy teaching by example," a "preceptor of prudence, not of principles." After bearing witness to the past with all the disinterestedness and human empathy we can muster, we should let ourselves be judged by the past as much as, or more than, we judge it The past is filled with the lives and struggles of countless "others," from whom we may learn to extend the possibilities of our own limited humanity. As we learn about what it is like to be other than ourselves, we are better able to do justice to the past.[14]¶ The relationship between the past and the present is always troubled and troubling. Historians cannot help but draw on the past for materials, methods, and models. Our self-images and sodal foundations are fabricated from historical elements, all inherited but reshaped by our current needs and biases, and then rewoven by our flawed and fluid memories. We need the past to give us bearings, but we often construct pasts that are merely useful and undemanding, more wishful than true. This leads to serious problems for historians because we cannot cure inherited social ills or make moral amends for past wrongs unless we know how the past actually was. It is perhaps the profession's most important task to ensure that our image of the past is as nearly full, complex, and true as the past itself was, lest we lose our bearings in fantasy and waste our resources and moral energies on false trails.

#### Futurism is good in the context of climate – allows effective policy making

Schneider and Lane 6 (Stephen, Prof. Bio. Sci., Senior Fellow of Institute for Int’l. Studies, Co-Director of Center for Environmental Science and Policy @ Stanford, and Janica, Research Assistant to Dr. Schneider, “An Overview of ‘Dangerous’ Climate Change”, <http://www.metoffice.gov.uk/corporate/pressoffice/adcc/BookCh2Jan2006.pdf>)

Ultimately, scientists cannot make expert value judgments about what climate change risks to face and what to avoid, as that is the role of policy makers, but they can help policymakers evaluate what ‘dangerous’ climate change entails by laying out the elements of risk, which is classically defined as probability x consequence. They should also help decision-makers by identifying thresholds and possible surprise events, as well as estimates of how long it might take to resolve many of the remaining uncertainties that plague climate assessments. There is a host of information available about the possible consequences of climate change, as described in our discussion of the SRES scenarios and of the impacts of climate change, but the SRES scenarios do not have probabilities assigned to them, making risk management difficult. Some would argue that assigning probabilities to scenarios based on social trends and norms should not be done (e.g. [15]), and that the use of scenarios in and of itself derives from the fact that probabilities can’t be analytically estimated. In fact, most models do not calculate objective probabilities for future outcomes, as the future has not yet happened and ‘objective statistics’ are impossible, in principle, before the fact. However, modelers can assign subjective confidence levels to their results by discussing how well established the underlying processes in a model are, or by comparing their results to observational data for past events or elaborating on other consistency tests of their performance (e.g. [14]). It is our belief that qualified assessment of (clearly admitted) subjective probabilities in every aspect of projections of climatic changes and impacts **would improve** climate change **impact assessments**, as it would complete the risk equation, thereby **giving policy-makers** some **idea of the likelihood of threat** associated with various scenarios, **aiding** effective decision-making in the risk-management framework. At the same time, confidence in these difficult probabilistic estimates should also be given, along with a brief explanation of how that confidence was arrived at.

#### The aff isn’t forecasting, it’s risk management---the inherent unpredictability of social events is all the more reason for creating optimal resiliency through scenario planning

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Risk Management Rather than Forecast-and-Plan

**The answer is to change the question**, to focus on risk management, as Gardner and Tetlock suggest. **There is a set of events that could happen tomorrow**—Chicago could have an earthquake, there could be a run on Greek debt, the Administration could decide “Heavens, Dodd–Frank and Obamacare were huge mistakes, let’s fix them” (Okay, not the last one.) Attached to each event, there is some probability that it could happen.

Now “forecasting” as Gardner and Tetlock characterize it, is an attempt to figure out which event really will happen, whether the coin will land on heads or tails, and then make a plan based on that knowledge. It’s a fool’s game.

Once we recognize that uncertainty will always remain, **risk management rather than forecasting is much wiser**. Just the step of naming the events that could happen is useful. **Then, ask yourself, “if this event happens, let’s make sure we have a contingency plan so we’re not really screwed**.” Suppose you’re counting on diesel generators to keep cooling water flowing through a reactor. What if someone forgets to fill the tank?

The good use of “forecasting**” is to** get a better handle on probabilities, so we focus our risk management resources on the most important events. But **we must still pay attention to events**, **and buy insurance against them**, based as much on the painfulness of the event as on its probability.

(Note to economics techies: what matters is the risk-neutral probability, probability weighted by marginal utility.)

So **it’s not really the forecast that’s wrong, it’s what people do with it.** If we all understood the essential unpredictability of the world, especially of rare and very costly events, if we got rid of the habit of mind that asks for a forecast and then makes “plans” as if that were the only state of the world that could occur; if we instead focused on laying out all the bad things that could happen and made sure we had insurance or contingency plans, **both personal and public policies might be a lot better**.

## 1AR

### AT: Whiteness

#### Whiteness isn’t a monolithic root cause---they shut off productive debate over solutions – means the alt fails

Shelby 7 – Tommie Shelby, Professor of African and African American Studies and of Philosophy at Harvard, 2007, We Who Are Dark: The Philosophical Foundations of Black Solidarity

Others might challenge the distinction between ideological and structural causes of black disadvantage, on the grounds that we are rarely, if ever, able to so neatly separate these factors, an epistemic situation that is only made worse by the fact that these causes interact in complex ways with behavioral factors. These distinctions, while perhaps straightforward in the abstract, are difficult to employ in practice. For example, it would be difficult, if not impossible, for the members of a poor black community to determine with any accuracy whether their impoverished condition is due primarily to institutional racism, the impact of past racial injustice, the increasing technological basis of the economy, shrinking state budgets, the vicissitudes of world trade, the ascendancy of conservative ideology, poorly funded schools, lack of personal initiative, a violent drug trade that deters business investment, some combination of these factors, or some other explanation altogether. Moreover, it is notoriously difficult to determine when the formulation of putatively race-neutral policies has been motivated by racism or when such policies are unfairly applied by racially biased public officials.¶ There are very real empirical difficulties in determining the specific causal significance of the factors that create and perpetuate black disadvantage; nonetheless, it is clear that these factors exist and that justice will demand different practical remedies according to each factor's relative impact on blacks' life chances. We must acknowledge that our social world is complicated and not immediately transparent to common sense, and thus that systematic empirical inquiry, historical studies, and rigorous social analysis are required to reveal its systemic structure and sociocultural dynamics. There is, moreover, no mechanical or infallible procedure for determining which analyses are the soundest ones. In addition, given the inevitable bias that attends social inquiry, legislators and those they represent cannot simply defer to social-scientific experts. We must instead rely on open public debate—among politicians, scholars, policy makers, intellectuals, and ordinary citizens—with the aim of garnering rationally motivated and informed consensus. And even if our practical decision procedures rest on critical deliberative discourse and thus live up to our highest democratic ideals, some trial and error through actual practice is unavoidable.¶ These difficulties and complications notwithstanding, a general recognition of the distinctions among the ideological and structural causes of black disadvantage could help blacks refocus their political energies and self-help strategies. Attention to these distinctions might help expose the superficiality of theories that seek to reduce all the social obstacles that blacks face to contemporary forms of racism or white supremacy. A more penetrating, subtle, and empirically grounded analysis is needed to comprehend the causes of racial inequality and black disadvantage. Indeed, these distinctions highlight the necessity to probe deeper to find the causes of contemporary forms of racism, as some racial conflict may be a symptom of broader problems or recent social developments (such as immigration policy or reduced federal funding for higher education).