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### Plan

#### The United States federal government should create a prize system for electricity production of space solar power in the United States.

### Contention One is Warming

#### Fossil fuel dependence is unsustainable and other renewables fail – SPS-ALPHA solves world energy needs and can be exported globally

Dvorsky 11-28 – George Dvorsky, writer for Io9, a daily science and technology publication, November 28th, 2012, "How space-based solar power will solve all our energy needs" io9.com/5963955/how-space+based-solar-power-will-solve-all-our-energy-needs

Humanity's demand for energy is growing at an astonishing rate. Combine this with an ever-dwindling supply of fossil fuels, and it becomes painfully clear that something innovative and powerful is required. There's one high-tech proposal that holds tremendous promise — an idea that has been around since the late 1960s. Here's how space-based solar power will **eventually** solve all our energy needs.¶ Humans needs more power¶ Assuming that economic progress and globalization continues at its current pace, **we'll need to produce twice the amount of energy that's consumed today by the 2030s — what will reach a monumental 220 trillion kiloWatt hours per year. And by the end of the century, we'll need four times the current rate of consumption.**¶ **Just as importantly, we're also going to have to kick the fossil fuel habit — and not only because it'll eventually run out. Rising CO2 emissions are wreaking havoc on the Earth's atmosphere, what's creating environmentally deleterious side-effects at a rate faster than expected.**¶ Moreover, if greenhouse gases are to be brought under control over the course of the next several decades, we'll need to get upwards of 90% of all our energy from either renewable or nuclear sources.¶ While there are a number of proposals on the table for how we might be able to meet these challenges, **none** really **appear to be truly viable**.¶ Except for solar powered satellites.¶ Obvious benefits¶ A closer look at a space-based solution yields a lengthy list of advantages.¶ Solar powered satellites **don't produce any greenhouse gases**, nor do they take up valuable real estate on Earth. Once the initial costs are met, they would be relatively cheap to maintain; the solar modules used for generating solar energy have a long service life, not to mention the astounding ROI that would come from a virtually unlimited energy source.¶ Additionally, they're not constrained by night/day cycles, the weather, or the changing seasons. And indeed, they would be much more efficient than any kind of ground-based station. The collection of solar energy in space is seven times greater per unit area than on the surface of the planet. Moreover, **the amount of solar energy available up there is staggering — on the order of billions of times greater than what we draw today; the Earth receives only one part in 2.3 billion of the Sun's output**. The potential for scalability is enormous, to say the least.¶ Solar powered satellites won't be prone to terrorist attacks and they'll **reduce geopolitical pressure for oil.** According to futurist Keith Henson, space-based solar could be used to power vehicles, like electric cars, or by enabling the production of synthetic fuels — which at a penny per kiloWatt hour would result in gasoline that costs one dollar a gallon.¶ At the same time, space-based solar would provide true energy independence for those nations who choose to implement it. And on top of that, the energy could be exported to virtually anywhere in the world; it would be especially valuable for isolated areas of the globe, including Africa and India.¶ Lastly, **space-based solar power would also yield** tremendous benefits to human and robotic space exploration**, including the powering of off-planet colonies on the Moon, Mars, and space stations.** It could also serve as the first seed in the development of a Dyson Sphere — a massive array of solar collectors that would completely envelope the sun at a distance of about 1 AU.¶ How it's going to work¶ Back in the late 1960s, Peter Glaser proposed the idea of solar powered satellites (SPS), what he envisioned as space-based photovoltaics that could transfer energy wirelessly back down to Earth. His design called for a large platform positioned in space in a high Earth orbit that would continuously collect and convert solar energy into electricity. In turn, that power would be used to drive a wireless power transmission (WPT) that beams the solar energy to receiving stations on Earth — what would be comprised of massive receiving dishes.¶ A number of visionaries have updated Glaser's vision to include the use of a microwave wireless power transmitter. This would involve large discrete structures (like a solar array and transmitter) that would have to be assembled in space. SPS systems could also include a modular electric/diode array laser WPT concept, involving self-assembling solar power-laser-thermal modules. Other designs call for an extremely modular microwave WPT SPS "sandwich structure" concept, requiring a significant number of small solar power-microwave-thermal modules that would be robotically assembled on orbit.¶ But to make it happen, we'll need to develop low-cost, environmentally-friendly launch vehicles. Eventually we'll send the materials up in a space elevator, but until then we'll have to come up with something more efficient. Thankfully, SpaceX and other private firms are already working on more efficient launch solutions.¶ Additionally, we'll require large scale construction and operations stations in orbit — space-based workplaces that would be more complex, larger, and more energy-demanding than the ISS. They would allow for the production of large, simple panels, that are easy to assemble and consist of many identical parts. Eventually, it may be possible to construct an entire flotilla of these solar collectors using materials extracted from asteroids.¶ Design proposals¶ As word gets out about the potential for SPS, and as the technology catches up to the idea, a number of design proposals have been put forth; this isn't just idle speculation anymore — it's something that's just about ready for prime-time.¶ For example, there's SPS-ALPHA (Solar Power Satellite via Arbitrarily Large PHased Array) which is being developed by NASA's John Mankins. Using a "biomimetic" approach, the project calls for huge platforms constructed from tens of thousands of small elements that could deliver tens to thousands of megawatts via wireless power transmission.¶ It would do this by using a large array of individually controlled thin-film mirrors outfitted on the curved surface of a satellite. These adjustable mirrors would intercept and redirect incoming sunlight toward photovoltaic cells affixed to the backside of the solar power satellite's large array. The Earth-pointing side of the array would be tiled with a collection of microwave-power transmission panels that generate the coherent, low-intensity beam of radio frequency energy and transmits that energy to Earth.¶ And what's particularly cool about this concept is that **it would enable the construction of a solar-power satellite that can be assembled entirely from individual system elements that weigh no more than 110 to 440 pounds (**50 **to 200** kilograms**), allowing all pieces to be** mass produced at low cost.

#### **SPS-Alpha can be up and running in a few years with only a few billion dollars – new tech ensures feasibility and low costs**

Mankins 12 – John C. Mankins, President of Artemis Innovation Management Solutions LLC is an internationally recognized leader in space systems and technology innovation, spent 25 years at NASA and CalTech's Jet Propulsion Laboratory. He holds undergraduate (Harvey Mudd College) and graduate (UCLA) degrees in Physics and an MBA in Public Policy Analysis (The Drucker School at Claremont Graduate University). Mr. Mankins is a member of the International Academy of Astronautics (IAA) and Chair of the Academy Commission III (Space Systems and Technology Development); and a member of the International Astronautical Federation (IAF), the American Institute of Aeronautics and Astronautics (AIAA), and the Sigma Xi Research Society. Editor/Authors are :Brian Wang, Director of Research. Sander Olson, Interviews and other articles Phil Wolff, Communications and social technologist. Alvin Wang. Computer, technology, social networking, and social media expert. June 7th, 2012, "A New Paradigm for Space-Based Solar Power," nextbigfuture.com/2012/06/new-paradigm-for-space-based-solar.html

Question: How exactly has the technology evolved since the 1970s? ¶ There have been a number of improvements. The **efficiency of solar photovoltaics has improved** from less than 10% efficiency to more than 30% efficiency now. I'm confident that within the next decade, solar photovoltaics could achieve efficiencies of up to 50%. There have also been **substantial improvements in key electronic components**, such as solid-state power amplifiers. The efficiencies have gone from 15% in the 1970s to **70% now**. With focused investments, we should be able to get devices with efficiencies approaching 80% by 2020. This will further increase the viability of space-based solar power. A wide range of other technologies have also improved dramatically, including **light-weight and high-strength materials, robotics, in-space propulsion and others.** ¶ Question: You are the chief architect behind the SPS-ALPHA design. What are the central aspects of this new paradigm? ¶ The SPS-ALPHA concept facilitates the design and development of a very large solar power satellite out of a large number of very small pieces. Each piece weighs perhaps 25-100 kilograms, but there are tens of thousands of pieces in the final product. **The beauty of this system is that all of the parts of the design can be manufactured readily in a standard factory – resulting in very low costs for the system hardware.** ¶ Question: So the power satellite would be composed of vast numbers of identical modules? ¶ Yes, the modules would be stackable – like pizza boxes – for ease of transportation to space, and then unstacked and assembled once they reach the operational orbit for the satellite. There might be about 6 or 8 different types of modular elements, and each type would be mass produced with from hundreds to tens of thousands of copies. They would initially be launched into a low Earth orbit, and from there transferred to a higher orbit for integration into the SPS platform. We are looking at using robotic systems to assemble the panels. ¶ Question: So your plan employs robots for most of the construction? ¶ Yes. The SPS-ALPHA architecture would only employ people on the ground to supervise the robots operating in space. The goal would be to assume the intervention of astronauts only in the event of a problem that could not be resolved using robots. As a rule of thumb, we expect that it may cost from 100-times to 1000-times more to have a suited astronaut perform a task in a high Earth orbit than to have a remotely-supervised robot do it. This field of technology has advanced rapidly in the past decade, and so we plan to employ robots extensively. ¶ Question: How long would it take to get a prototype system up and running? ¶ With sufficient funding, we could have a ground based, rudimentary prototype up and running by 2014. **An early prototype in orbit could be** built by 2017-2018. And in about a decade, a larger pilot plant could be in geosynchronous Earth orbit, generating 10 megawatts. The total cost for this roadmap could be several billion dollars, with most of the cost coming in the last few years. As a point of comparison, the pilot plant would be approximately the same size as the International Space Station, which cost $100 billion to manufacture, launch into space and assemble. **The cost savings would result from using standard, mass-produced pieces, standard launch systems and robotic assembly in space.**

#### Creating a prize system encourages SPS development and makes it economically viable

Globus 11Al Globus, Chair of the National Space Society's Space Settlement Advocacy Committee, July 2011, “A SPACE SOLAR POWER INDUSTRY FOR $2 BILLION OR YOUR MONEY BACK”

The proposed prize pays out for each kilowatt-hour (kwh – one thousand watts of energy for one hour) of power delivered from space to an operational electrical system on Earth. To receive prize money, power must be sold to a utility or other entity on Earth at near market rates. This insures that the power is delivered in a way that can and will be used, and provides additional income to the contestants. The prize is divided into three levels: $1, $0.7 and $0.3 per kwh. This is to provide continuing incentive to develop SSP at successively lower prices on the way to unsubsidized economic viability. Furthermore: 1. To encourage the development of a competitive industry, at each level the prize money is divided such that at least three satellites are needed to capture all of the funds. No individual satellite can earn more than 60% of the prize money and no two satellites more than 90%, leaving 10% for a third satellite. 2. To encourage development of multiple approaches to SSP, each satellite earning prize money at a single level must be owned and operated by a different entity and must use a substantially different approach to SSP generation. 3. To encourage development of successively more cost-effective systems, each satellite may only win prize money at a single level. Thus, this particular approach to structuring the prize will pay out all the prize money only if nine satellites are developed using at least three different approaches by at least three different companies. Table 1 describes the prize system quantitatively. Note that the number of levels, the pricing, and the percentages are somewhat arbitrary. They are chosen to give one or two satellites a real chance at profitability and the others a significant subsidy. Obviously, there may be other sets of levels that may be more effective. If successful, this prize system would require $2 billion, about one year’s development of the new human deep space system that might put humans on an asteroid in 2025, about the cost of a flagship deep space mission, or a little more than the cost of one shuttle launch6. While all of these are worthy projects, their impact pales beside the impact of a successful SSP industry. If successful, SSP could deliver essentially unlimited clean energy for a billion years and put the nations developing it in the world’s economic driver’s seat. It should also be noted that the launch systems and other development needed for a successful SSP industry would **make other space projects much easier** and cheaper than they are today. In an era of limited budgets, one wonders why billions are allocated to projects of great interest but little practical day-to-day value while projects such as SSP that could revolutionize life on Earth, not to mention space development, languish with essentially no funding.

#### Scientific consensus concludes warming is real, anthropogenic, and will be catastrophic if left unchecked – SPS solves

Flournoy 12 –Dan Flournoy, PhD and MA from the University of Texas, Former Dean of the University College at Ohio University, Former Associate Dean at State University of New York and Case Institute of Technology, Project Manager for University/Industry Experiments for the NASA ACTS Satellite, Currently Professor of Telecommunications at Scripps College of Communications @ Ohio University, January 2012, "Solar Power Satellites," Springer Briefs in Space Development

In the Online Journal of Space Communication , Dr. Feng Hsu, a NASA scientist at Goddard Space Flight Center, a research center in the forefront of science of space and Earth, writes, “The **evidence of global warming is alarming**,” noting the potential for a catastrophic planetary climate change is real and troubling (Hsu 2010 ) . Hsu and his NASA colleagues were engaged in monitoring and analyzing climate changes on a global scale, through which they received first-hand scientific information and data relating to global warming issues, including the dynamics of polar ice cap melting. After discussing this research with colleagues who were world experts on the subject, he wrote: I now have no doubt global temperatures are rising, and that global warming is a serious problem confronting all of humanity. No matter whether these trends are due to human interference or to the cosmic cycling of our solar system, there are two basic facts that are crystal clear: (a) there is overwhelming scientific evidence showing **positive correlations between the level of CO2 concentrations** in Earth’s atmosphere **with respect to** the historical **fluctuations of global temperature** changes; and (b) the overwhelming majority of the world’s scientific community is in agreement about the risks of a potential catastrophic global climate change. That is, if we humans continue to ignore this problem and do nothing, if we continue dumping huge quantities of greenhouse gases into Earth’s biosphere, humanity will be at dire risk (Hsu 2010 ) . As a technology risk assessment expert, Hsu says he can show with some confidence that the planet will face more risk doing nothing to curb its fossil-based energy addictions than it will in making a fundamental shift in its energy supply. “This,” he writes, “is because the risks of a catastrophic anthropogenic climate change can be potentially the **extinction of human species**, a risk that is simply too high for us to take any chances” (Hsu 2010 ) . It was this NASA scientist’s conclusion that humankind must now embark on the next era of “sustainable energy consumption and re-supply, the most obvious source of which is the mighty energy resource of our Sun” (Hsu 2010 ) (Fig . 2.1 ).

#### The plan solves for global emissions

Kammen 7 – Professor of Public Policy @ UC Berkeley (Daniel, "Green Jobs Created by Global Warming Initiative," September 25th, http://www.unep.org/civil\_society/GCSF9/pdfs/karmen-senate.pdf)

In addition to supporting domestic job creation, clean energy is an important and fastest growing international sector, and one where overseas policy can be used to support poor developing regions – such as Africa (Jacobsen and Kammen, 2007) and Central America – as well as regaining market share in solar, fuel cell and wind technologies, where European nations and Japan have invested heavily and are reaping the benefits of month to year backlogs in clean energy orders. Some of those orders are for U. S. installations, but many more could be if we choose to make clean and green energy a national priority for both domestic installation and overseas export. Technology exports have impacts well beyond domestic job creation. In fact, if properly managed, the development of a thriving ‘cleantech’ sector can address a vital global issues, namely the emissions trajectories of major developing nations. China and India are often singled out for attention as major, emerging global emitters. China, in fact, will become the world’s largest greenhouse emitter in the near future, if it has not already. This fact, is often used – mistakenly in my view – to argue against unilateral climate protection efforts by nations such as the United States.  This view is shortsighted in two vital respects. First, China is demonstrably already suffering from the impacts of fossil fuel use. Crop yields in many parts of China are significantly lower than they would be without the significant sulfur and particulate burden that results from domestic coal combustion. (In fact, coal combustions emissions from China have significant air quality impacts on Japan, and can be measured in the U. S. as well.) Crop losses of over 20% have been reported in part of China, with the decrease unambiguously linked to air pollution. China also experiences significant human health impacts from this pollution burden as well. Second, China has committed, on paper, to a ‘circular economy’ where waste is reduced and overall productivity is enhanced. If the United States were to become a major exporter, or even a partner, in the production of low-emissions technologies – from truly carbon-capture coal-fired power plants, to increased numbers of solar, wind, and biofuel technologies – China would be an eager trading partner, so that they could install increasing numbers of low-emissions technologies. This would directly help the Chinese economy and their environmental and public health situation. On both of these grounds, U. S. domestic expansion of the clean energy sector will likely positively impact the ability and the actions of a number of emerging economies to ‘go green’.

#### It is not too late to reverse warming – taking action now is critical – the alternative to reducing emissions is mass death

Nuccitelli 12 – Dana, environmental scientist at a private environmental consulting firm in Sacramento and has a Bachelor's Degree in astrophysics from the University of California at Berkeley, and a Master's Degree in physics from the University of California at Davis, 2012, “Realistically What Might The Future Climate Look Like?”, http://thinkprogress.org/climate/2012/09/01/784931/realistically-what-might-the-future-climate-look-like/

This is Why Reducing Emissions is Critical¶ We’re not yet committed to surpassing 2°C global warming, but as Watson noted, we are quickly running out of time to realistically give ourselves a chance to stay below that ‘danger limit’. However, 2°C is not a do-or-die threshold. Every bit of CO2 emissions we can reduce means that much avoided future warming, which means that much avoided climate change impacts. As Lonnie Thompson noted, the more global warming we manage to mitigate, the less adaption and suffering we will be forced to cope with in the future.¶ Realistically, based on the current political climate (which we will explore in another post next week), limiting global warming to 2°C is probably the best we can do. However, there is a big difference between 2°C and 3°C, between 3°C and 4°C, and anything greater than 4°C can probably accurately be described as catastrophic, since various tipping points are expected to be triggered at this level. Right now, we are on track for the catastrophic consequences (widespread coral mortality, mass extinctions, hundreds of millions of people adversely impacted by droughts, floods, heat waves, etc.). But we’re not stuck on that track just yet, and we need to move ourselves as far off of it as possible by reducing our greenhouse gas emissions as soon and as much as possible.¶ There are of course many people who believe that the planet will not warm as much, or that the impacts of the associated climate change will be as bad as the body of scientific evidence suggests. That is certainly a possiblity, and we very much hope that their optimistic view is correct. However, what we have presented here is the best summary of scientific evidence available, and it paints a very bleak picture if we fail to rapidly reduce our greenhouse gas emissions.¶ If we continue forward on our current path, catastrophe is not just a possible outcome, it is the most probable outcome. And an intelligent risk management approach would involve taking steps to prevent a catastrophic scenario if it were a mere possibility, let alone the most probable outcome. This is especially true since the most important component of the solution – carbon pricing – can be implemented at a relatively low cost, and a far lower cost than trying to adapt to the climate change consequences we have discussed here (Figure 4).¶ Climate contrarians will often mock ‘CAGW’ (catastrophic anthropogenic global warming), but the sad reality is that CAGW is looking more and more likely every day. But it’s critical that we don’t give up, that we keep doing everything we can do to reduce our emissions as much as possible in order to avoid as many catastrophic consequences as possible, for the sake of future generations and all species on Earth. The future climate will probably be much more challenging for life on Earth than today’s, but we still can and must limit the damage.

#### Warming is structural violence that re-entrenches poverty and undermines development

Steiner 7 –Administrator Executive Director, U.N. Development Programme and Environment Programme [Adam, “Fighting Climate Change: Human Solidarity in a Divided World,” 07/08 http://hdr.undp.org/en/media/hdr\_20072008\_en\_complete.pdf]

In reality, the world is a heterogeneous place: people have unequal incomes and wealth and climate change will affect regions very differently. This is, for us, the most compelling reason to act rapidly. Climate change is already starting to affect some of the poorest and most vulnerable communities around the world. A worldwide average 3° centigrade increase (compared to preindustrial temperatures) over the coming decades would result in a range of localized increases that could reach twice as high in some locations. The effect that increased droughts, extreme weather events, tropical storms and sea level rises will have on large parts of Africa, on many small island states and coastal zones will be inflicted in our lifetimes. In terms of aggregate world GDP, these short term effects may not be large. But for some of the world’s poorest people, the consequences could be apocalyptic. In the long run climate change is a massive threat to human development and in some places it is already undermining the international community’s efforts to reduce extreme poverty.

### Contention Two is Advocacy

#### Debating energy policy joins members of different fields and philosophies to create a consciousness shift towards sustainable environmental policy – how students are trained matters immensely to public policy

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.

#### Switch side debate empirically inculcates portable skills that lead to better energy policy – it gives voice to buried arguments and challenges bias and institutional affiliations

Mitchell 10 (Gordon R, Associate Professor and Director of Graduate Studies in the Department of Communication at the University of Pittsburgh, where he also directs the William Pitt Debating Union, “SWITCH-SIDE DEBATING MEETS DEMAND-DRIVEN RHETORIC OF SCIENCE”, <http://www.pitt.edu/~gordonm/JPubs/Mitchell2010.pdf>)

An additional dimension of nuance emerging from this avenue of analysis pertains to the precise nature of the deliberative goals set by bridge. Program descriptions notably eschew Kettering-style references to democratic citizen empowerment, yet feature deliberation prominently as a key ingredient of strong intelligence tradecraft. This caveat is especially salient to consider when it comes to the second category of rhetorically informed critical work invited by the contingent aspect of specific debate initiatives. To grasp this layer it is useful to appreciate how the name of the bridge project constitutes an invitation for those outside the intelligence community to participate in the analytic outreach effort. According to Doney, bridge “provides an environment for Analytic Outreach—a place where IC analysts can reach out to expertise elsewhere in federal, state, and local government, in academia, and industry. New communities of interest can form quickly in bridge through the ‘web of trust’ access control model—access to minds outside the intelligence community creates an analytic force multiplier.”48 This presents a moment of choice for academic scholars in a position to respond to Doney’s invitation; it is an opportunity to convert scholarly expertise into an “analytic force multiplier.”¶ In reflexively pondering this invitation, it may be valuable for scholars to read Greene and Hicks’s proposition that **switch-side debating should be viewed as a** cultural technology in light of Langdon Winner’s maxim that “technological artifacts have politics.”49 In the case of bridge, politics are informed by the history of intelligence community policies and practices. Commenter Thomas Lord puts this point in high relief in a post offered in response to a news story on the topic: “[W]hy should this thing (‘bridge’) be? . . . [The intelligence community] on the one hand sometimes provides useful information to the military or to the civilian branches and on the other hand it is a dangerous, out of control, relic that by all external appearances is not the slightest bit reformed, other than superficially, from such excesses as became exposed in the cointelpro and mkultra hearings of the 1970s.”50 A debate scholar need not agree with Lord’s full-throated criticism of the intelligence community (he goes on to observe that it bears an alarming resemblance to organized crime) to understand that participation in the community’s Analytic Outreach program may serve the ends of deliberation, but not necessarily democracy, or even a defensible politics. Demand-driven rhetoric of science necessarily raises questions about what’s driving the demand, questions that scholars with relevant expertise would do well to ponder carefully before embracing invitations to contribute their argumentative expertise to deliberative projects. By the same token, it would be prudent to bear in mind that the technological determinism about switch-side debate endorsed by Greene and Hicks may tend to flatten reflexive assessments regarding the wisdom of supporting a given debate initiative—as the next section illustrates, manifest differences among initiatives warrant context-sensitive judgments regarding the normative political dimensions featured in each case.¶ Public Debates in the EPA Policy Process¶ The preceding analysis of U.S. intelligence community debating initiatives highlighted how analysts are challenged to navigate discursively the heteroglossia of vast amounts of different kinds of data flowing through intelligence streams. Public policy planners are tested in like manner when they attempt to stitch together institutional arguments from various and sundry inputs ranging from expert testimony, to historical precedent, to public comment. Just as intelligence managers find that algorithmic, formal methods of analysis often don’t work when it comes to the task of interpreting and synthesizing copious amounts of disparate data, public-policy planners encounter similar challenges.¶ In fact, **the argumentative turn in public-policy planning elaborates an approach to public-policy analysis that foregrounds** deliberative interchange and critical thinking **as alternatives to “decisionism**,” the formulaic application of “objective” decision algorithms to the public policy process. Stating the matter plainly, Majone suggests, “whether in written or oral form, argument is central **in all stages of the policy process**.” Accordingly, he notes, “**we miss a great deal if we try to understand policy-making solely in terms of power, influence, and bargaining, to the exclusion of debate and argument**.”51 One can see similar rationales driving Goodwin and Davis’s EPA debating project, where debaters are invited to conduct on-site public debates covering resolutions crafted to reflect key points of stasis in the EPA decision-making process. For example, in the 2008 Water Wars debates held at EPA headquarters in Washington, D.C., resolutions were crafted to focus attention on the topic of water pollution, with one resolution focusing on downstream states’ authority to control upstream states’ discharges and sources of pollutants, and a second resolution exploring the policy merits of bottled water and toilet paper taxes as revenue sources to fund water infrastructure projects. In the first debate on interstate river pollution, the team of Seth Gannon and Seungwon Chung from Wake Forest University argued in favor of downstream state control, with the Michigan State University team of Carly Wunderlich and Garrett Abelkop providing opposition. In the second debate on taxation policy, Kevin Kallmyer and Matthew Struth from University of Mary Washington defended taxes on bottled water and toilet paper, while their opponents from Howard University, Dominique Scott and Jarred McKee, argued against this proposal. Reflecting on the project, Goodwin noted how the intercollegiate **debaters’ ability to act as “honest brokers” in the policy arguments** contributed positively to **internal** EPA deliberation **on both issues**.52 Davis observed that since the invited debaters “didn’t have a dog in the fight**,” they were able to give voice to previously buried arguments that some EPA subject matter experts felt reticent to elucidate because of their institutional affiliations**.53¶ Such findings are consistent with the views of policy analysts advocating the argumentative turn in policy planning. As Majone claims, “Dialectical confrontation between generalists and experts often succeeds in bringing out unstated assumptions, conflicting interpretations of the facts, and the risks posed by new projects.”54 Frank Fischer goes even further in this context, explicitly appropriating rhetorical scholar Charles Willard’s concept of argumentative “epistemics” to flesh out his vision for policy studies: Uncovering the epistemic dynamics of public controversies would allow for a more enlightened understanding of what is at stake in a particular dispute, making possible a sophisticated evaluation of the various viewpoints and merits of different policy options. In so doing, the differing, often tacitly held contextual perspectives and values could be juxtaposed; the viewpoints and demands of experts, special interest groups, and the wider public could be directly compared; and the dynamics among the participants could be scrutizined. **This would by no means** sideline or even **exclude scientific assessment; it would only situate it within** the framework of a **more comprehensive evaluation**.55¶ As Davis notes, institutional constraints present within the EPA communicative milieu can complicate efforts to provide a full airing of all relevant arguments pertaining to a given regulatory issue. Thus, intercollegiate **debaters can play key roles in retrieving and amplifying positions that might otherwise remain sedimented in the policy process**. The dynamics entailed in this symbiotic relationship are underscored by deliberative planner John Forester, who observes, “If planners and public administrators are to make democratic political debate and argument possible, they will need strategically located allies to avoid being fully thwarted by the characteristic self-protecting behaviors of the planning organizations and bureaucracies within which they work.”56 Here, an institution’s need for “strategically located allies” to support deliberative practice constitutes the demand for rhetorically informed expertise, setting up what can be considered a demand-driven rhetoric of science. As an instance of rhetoric of science scholarship, this type of “switch-side public debate”57 differs both from insular contest tournament debating, where the main focus is on the pedagogical benefit for student participants, and first-generation rhetoric of science scholarship, where critics concentrated on unmasking the rhetoricity of scientific artifacts circulating in what many perceived to be purely technical spheres of knowledge production.58 **As a form of demand-driven rhetoric of science, switch-side debating connects directly with the communication field’s performative tradition of argumentative engagement in public controversy**—a different route of theoretical grounding than rhetorical criticism’s tendency to locate its foundations in the English field’s tradition of literary criticism and textual analysis.59¶ Given this genealogy, it is not surprising to learn how Davis’s response to the EPA’s institutional need for rhetorical expertise took the form of a public debate proposal, shaped by Davis’s dual background as a practitioner and historian of intercollegiate debate. Davis competed as an undergraduate policy debater for Howard University in the 1970s, and then went on to enjoy substantial success as coach of the Howard team in the new millennium. In an essay reviewing the broad sweep of debating history, Davis notes, “Academic debate began at least 2,400 years ago when the scholar Protagoras of Abdera (481–411 bc), known as the father of debate, conducted debates among his students in Athens.”60 As John Poulakos points out, “older” Sophists such as Protagoras taught Greek students the value of dissoi logoi, or pulling apart complex questions by debating two sides of an issue.61 The few surviving fragments of Protagoras’s work suggest that his notion of dissoi logoi stood for the principle that “two accounts [logoi] are present about every ‘thing,’ opposed to each other,” and further, that humans could “measure” the relative soundness of knowledge claims by engaging in give-and-take where parties would make the “weaker argument stronger” to activate the generative aspect of rhetorical practice, a key element of the Sophistical tradition.62¶ Following in Protagoras’s wake, Isocrates would complement this centrifugal push with the pull of synerchésthé, a centripetal exercise of “coming together” deliberatively to listen, respond, and form common social bonds.63 Isocrates incorporated Protagorean dissoi logoi into synerchésthé, a broader concept that he used flexibly to express interlocking senses of (1) inquiry, as in groups convening to search for answers to common questions through discussion;64 (2) deliberation, with interlocutors gathering in a political setting to deliberate about proposed courses of action;65 and (3) alliance formation, a form of collective action typical at festivals,66 or in the exchange of pledges that deepen social ties.67¶ Returning once again to the Kettering-informed sharp distinction between debate and deliberation, one sees in Isocratic synerchésthé, as well as in the EPA debating initiative, a fusion of debate with deliberative functions. Echoing a theme raised in this essay’s earlier discussion of intelligence tradecraft , such a fusion troubles categorical attempts to classify debate and deliberation as fundamentally opposed activities. The significance of such a finding is amplified by the frequency of attempts in the deliberative democracy literature to insist on the theoretical bifurcation of debate and deliberation as an article of theoretical faith.¶ Tandem analysis of the EPA and intelligence community debating initiatives also brings to light dimensions of contrast at the third level of Isocratic synerchésthé, alliance formation. The intelligence community’s Analytic Outreach initiative invites largely one-way communication flowing from outside experts into the black box of classified intelligence analysis. On the contrary, the EPA debating program gestures toward a more expansive project of deliberative alliance building. In this vein, Howard University’s participation in the 2008 EPA Water Wars debates can be seen as the harbinger of a trend by historically black colleges and universities (hbcus) to catalyze their debate programs in a strategy that evinces Davis’s dual-focus vision. On the one hand, Davis aims to recuperate Wiley College’s tradition of competitive excellence in intercollegiate debate, depicted so powerfully in the feature film The Great Debaters, by starting a wave of new debate programs housed in hbcus across the nation.68 On the other hand, Davis sees potential for these new programs to complement their competitive debate programming with participation in the EPA’s public debating initiative.¶ This dual-focus vision recalls Douglas Ehninger’s and Wayne Brockriede’s vision of “total” debate programs that blend switch-side intercollegiate tournament debating with forms of public debate designed to contribute to wider communities beyond the tournament setting.69 Whereas the political telos animating Davis’s dual-focus vision certainly embraces background assumptions that Greene and Hicks would find disconcerting—notions of liberal political agency, the idea of debate using “words as weapons”70—there is little doubt that the project of pursuing environmental protection by tapping the creative energy of hbcu-leveraged dissoi logoi diff ers significantly from the intelligence community’s effort to improve its tradecraft through online digital debate programming. Such difference is especially evident in light of the EPA’s commitment to extend debates to public realms, with the attendant possible benefits unpacked by Jane Munksgaard and Damien Pfister:¶ **Having a** public **debater argue against their convictions**, or confess their indecision on a subject and subsequent embrace of argument as a way to seek clarity, **could shake up the prevailing view of debate as a war of words**. Public uptake of the possibility of switch-sides debate may help lessen the polarization of issues inherent in prevailing debate formats because students are no longer seen as wedded to their arguments. This could transform public debate from a tussle between advocates, with each public debater trying to convince the audience in a Manichean struggle about the truth of their side, **to a more inviting exchange focused on the content of the other’s argumentation and the process of deliberative exchange**.71¶ Reflection on the EPA debating initiative reveals a striking convergence among (1) the expressed need for dissoi logoi by government agency officials wrestling with the challenges of inverted rhetorical situations, (2) theoretical claims by scholars regarding the centrality of argumentation in the public policy process, and (3) **the practical wherewithal of** intercollegiate **debaters to tailor** public **switch-side debating performances in specific ways requested by agency collaborators**. These points of convergence both underscore previously articulated theoretical assertions regarding the relationship of debate to deliberation, as well as deepen understanding of the political role of deliberation in institutional decision making. But they also suggest how decisions by rhetorical scholars about whether to contribute switch-side debating acumen to meet demand-driven rhetoric of science initiatives ought to involve careful reflection. Such an approach mirrors the way policy planning in the “argumentative turn” is designed to respond to the weaknesses of formal, decisionistic paradigms of policy planning with situated, contingent judgments informed by reflective deliberation.

#### Switch side debate over energy policy is a reflexive forum that facilitates effective decision-making and deliberation

Mitchell 10 (Gordon R, Associate Professor and Director of Graduate Studies in the Department of Communication at the University of Pittsburgh, where he also directs the William Pitt Debating Union, “SWITCH-SIDE DEBATING MEETS DEMAND-DRIVEN RHETORIC OF SCIENCE”, <http://www.pitt.edu/~gordonm/JPubs/Mitchell2010.pdf>)

Yet the picture grows more complex when one considers what is happening over at the Environmental Protection Agency (EPA), where environmental scientist Ibrahim Goodwin is collaborating with John W. Davis on a **project that uses switch-side debating to clean up air and water**. In April 2008, that initiative brought top intercollegiate debaters from four universities to Washington, D.C., for a series of debates on the topic of water quality, held for an audience of EPA subject matter experts working on interstate river pollution and bottled water issues. An April 2009 follow-up event in Huntington Beach, California, featured another debate weighing the relative merits of monitoring versus remediation as beach pollution strategies. “We use nationally ranked intercollegiate debate programs to research and present the arguments, both pro and con, devoid of special interest in the outcome,” explains Davis. “In doing so, agency **representatives** now **remain** squarely **within the decision-making role** thereby neutralizing overzealous advocacy that **can** inhibit learned discourse.”7¶ The intelligence community and EPA debating initiatives vary quite a bit simply by virtue of the contrasting policy objectives pursued by their sponsoring agencies (foreign policy versus environmental protection). Significant process-level differences mark off the respective initiatives as well; the former project entails largely one-way interactions designed to sluice insight from “open sources” to intelligence analysts working in classified environments and producing largely secret assessments. In contrast, the EPA’s debating initiative is conducted through public forums in a policy process required by law to be transparent. This granularity troubles Greene and Hicks’s deterministic framing of switch-side debate as an ideologically smooth and consistent cultural technology. In an alternative approach, **this essay positions debate as a malleable method of decision making, one utilized by different actors in myriad ways to pursue various purposes**. By bringing forth the texture inherent in the associated messy “mangle of practice,”8 **such an approach has potential to deepen our understanding of debate as a** dynamic and contingent, rather than static**, form of rhetorical performance**.¶ Juxtaposition of the intelligence community and EPA debating initiatives illuminates additional avenues of inquiry that take overlapping elements of the two projects as points of departure. Both tackle complex, multifaceted, and technical topics that do not lend themselves to reductionist, formal analysis, and both tap into the creative energy latent in what Protagoras of Abdera called dissoi logoi, the process of learning about a controversial or unresolved issue by airing opposing viewpoints.9 In short, these institutions are employing debate as a **tool of deliberation**, seeking outside expertise to help accomplish their aims. Such trends provide an occasion to revisit a presumption commonly held among theorists of deliberative democracy—that debate and deliberation are fundamentally opposed practices—as the intelligence community’s Analytic Outreach program and the EPA’s debating initiatives represent examples where **debating exercises are designed to** facilitate, not frustrate, deliberative goals.

#### Taking action against warming represents an opportunity to rebuild progressive politics for a better society – we must set aside differences based on 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."

#### Engagement within the existing system of market mechanisms is necessary to avoid reproducing the status quo

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**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 theirsuperiority 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.

#### The discourse of environmental action must be attached to the state garner public support and lead to policy action

[Note: EM = ecological modernization]

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**Viewed in isolation** EM can be painted as a reformist and limited strategy for achieving a more sustainable economy and society, and indeed questions could be legitimately asked as to whether the development of a recognisably ‘green’ political economy for sustainable development can be based on it. In this paper, it is contended that **there are strategic advantages in seeking to build upon and radicalise EM.** There are indications in the UK that the debate on sustainable consumption may lead to new deliberative fora for a re-negotiation of the meaning and ends of consumption. Could it be that ‘suﬃciency’ will emerge as the logical complement (on the consumer side) of the early production-side debate on EM on the limits of ‘eﬃciency’ without an ecological context? ¶ While there are various reasons one can give for this, in this conclusion we focus on two—one normative/principled the other strategic.¶ From a strategic point of view, it is clear that, as Dryzek and his colleagues have shown, if green and sustainability goals, aims and objectives are to be integrated within state policy, **these** need to attach themselves to **one of the** core state imperatives—accumulation/economic growth or legitimacy (Dryzek et al. 2003; Barry 2003b). It is clear that **the** discourse of EM **allows** (some) **green objectives to be** integrated/translated into a policy language and framework which complements and does not undermine the state’s core imperative of pursuing orthodox economic growth. Therefore if (in the absence of a Green Party forming a government or being part of a ruling coalition, or even more unlikely of one of the main traditional parties initiating policies consistent with a radical understanding of sustainable development), the best that can be hoped for under current political conditions is the ‘greening of growth and capitalism’ i. e. a narrow, ‘business as usual’ version of EM. Or as Jonathan Porritt has put it, “We need more emphasis about the inherent unsustainability of our dominant economic model, **even as we seek to improve the delivery of that model in the short** to medium **term**” (Porritt 2004, 5). 23 ¶ On a more principled note, the adoption of EM as a starting point for the development of a model/theory of green political economy does carry with it the not inconsiderable beneﬁt of removing the ‘anti-growth’ and ‘limits to growth’ legacy which has (in our view) **held back the theoretical development of a positive, attractive, modern conceptualisation of green political economy and radical conceptualisations of sustainable development.** Here the technological innovation, the role of regulation driving innovation and eﬃciency, the promise that the transition to a more sustainable economy and society does not necessarily mean completely abandoning currently lifestyles and aspirations—strategically important in generating democratic support for sustainable development**, and** as indicated above, importance if the vision of a green sustainable economy is one which promotes diversity and tolerance in lifestyles **and does not demand everyone conform to a putative ‘green’ lifestyle.** Equally, this approach does not completely reject the positive role/s of a regulated market within sustainable development. However, it does demand a clear shift towards making the promotion of economic security (and quality of life) central to economic (and other) policy. **Only when this happens can we say we have begun the transition to implementing the principles of sustainable development rather than fruitlessly seeking for some ‘greenprint’ of an abstract and utopian vision of the ‘sustainable society’.**

#### The state is an inevitable and 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

#### Simulation and institutional deliberation 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.

#### Science is a process – it subjects itself to constant refinement based on empirical evidence – we can make sufficient contingent claims about the world

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.

#### Forecasting of future events helps us plan for the future through risk management – this improves both personal and public policies

Cochrane 11 (John H. Cochrane is a Professor of finance at the University of Chicago Booth School of Business and a contributor to Business Class "IN DEFENSE OF THE HEDGEHOGS" July 15 www.cato-unbound.org/2011/07/15/john-h-cochrane/in-defense-of-the-hedgehogs/)

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.

# 2AC

#### No risk of any state extinction impact

Pinker 11 Steven Pinker is Professor of psychology at Harvard University "Violence Vanquished" Sept 24 online.wsj.com/article/SB10001424053111904106704576583203589408180.html

On the day this article appears, you will read about a shocking act of violence. Somewhere in the world there will be a terrorist bombing, a senseless murder, a bloody insurrection. It's impossible to learn about these catastrophes without thinking, "What is the world coming to?"¶ But a better question may be, "How bad was the world in the past?"¶ Believe it or not, the world of the past was much worse. Violence has been in decline for thousands of years, and today we may be living in the most peaceable era in the existence of our species.¶ The decline, to be sure, has not been smooth. It has not brought violence down to zero, and it is not guaranteed to continue. But it is a persistent historical development, visible on scales from millennia to years, from the waging of wars to the spanking of children.¶ This claim, I know, invites skepticism, incredulity, and sometimes anger. We tend to estimate the probability of an event from the ease with which we can recall examples, and scenes of carnage are more likely to be beamed into our homes and burned into our memories than footage of people dying of old age. There will always be enough violent deaths to fill the evening news, so people's impressions of violence will be disconnected from its actual likelihood.¶ Evidence of our bloody history is not hard to find. Consider the genocides in the Old Testament and the crucifixions in the New, the gory mutilations in Shakespeare's tragedies and Grimm's fairy tales, the British monarchs who beheaded their relatives and the American founders who dueled with their rivals.¶ Today the decline in these brutal practices can be quantified. A look at the numbers shows that over the course of our history, humankind has been blessed with six major declines of violence.¶ The first was a process of pacification: the transition from the anarchy of the hunting, gathering and horticultural societies in which our species spent most of its evolutionary history to the first agricultural civilizations, with cities and governments, starting about 5,000 years ago.¶ For centuries, social theorists like Hobbes and Rousseau speculated from their armchairs about what life was like in a "state of nature." Nowadays we can do better. Forensic archeology—a kind of "CSI: Paleolithic"—can estimate rates of violence from the proportion of skeletons in ancient sites with bashed-in skulls, decapitations or arrowheads embedded in bones. And ethnographers can tally the causes of death in tribal peoples that have recently lived outside of state control.¶ These investigations show that, on average, about 15% of people in prestate eras died violently, compared to about 3% of the citizens of the earliest states. Tribal violence commonly subsides when a state or empire imposes control over a territory, leading to the various "paxes" (Romana, Islamica, Brittanica and so on) that are familiar to readers of history.¶ It's not that the first kings had a benevolent interest in the welfare of their citizens. Just as a farmer tries to prevent his livestock from killing one another, so a ruler will try to keep his subjects from cycles of raiding and feuding. From his point of view, such squabbling is a dead loss—forgone opportunities to extract taxes, tributes, soldiers and slaves.¶ The second decline of violence was a civilizing process that is best documented in Europe. Historical records show that between the late Middle Ages and the 20th century, European countries saw a 10- to 50-fold decline in their rates of homicide.¶ The numbers are consistent with narrative histories of the brutality of life in the Middle Ages, when highwaymen made travel a risk to life and limb and dinners were commonly enlivened by dagger attacks. So many people had their noses cut off that medieval medical textbooks speculated about techniques for growing them back.¶ Historians attribute this decline to the consolidation of a patchwork of feudal territories into large kingdoms with centralized authority and an infrastructure of commerce. Criminal justice was nationalized, and zero-sum plunder gave way to positive-sum trade. People increasingly controlled their impulses and sought to cooperate with their neighbors.¶ The third transition, sometimes called the Humanitarian Revolution, took off with the Enlightenment. Governments and churches had long maintained order by punishing nonconformists with mutilation, torture and gruesome forms of execution, such as burning, breaking, disembowelment, impalement and sawing in half. The 18th century saw the widespread abolition of judicial torture, including the famous prohibition of "cruel and unusual punishment" in the eighth amendment of the U.S. Constitution.¶ At the same time, many nations began to whittle down their list of capital crimes from the hundreds (including poaching, sodomy, witchcraft and counterfeiting) to just murder and treason. And a growing wave of countries abolished blood sports, dueling, witchhunts, religious persecution, absolute despotism and slavery.¶ The fourth major transition is the respite from major interstate war that we have seen since the end of World War II. Historians sometimes refer to it as the Long Peace.¶ Today we take it for granted that Italy and Austria will not come to blows, nor will Britain and Russia. But centuries ago, the great powers were almost always at war, and until quite recently, Western European countries tended to initiate two or three new wars every year. The cliché that the 20th century was "the most violent in history" ignores the second half of the century (and may not even be true of the first half, if one calculates violent deaths as a proportion of the world's population).¶ Though it's tempting to attribute the Long Peace to nuclear deterrence, non-nuclear developed states have stopped fighting each other as well. Political scientists point instead to the growth of democracy, trade and international organizations—all of which, the statistical evidence shows, reduce the likelihood of conflict. They also credit the rising valuation of human life over national grandeur—a hard-won lesson of two world wars.¶ The fifth trend, which I call the New Peace, involves war in the world as a whole, including developing nations. Since 1946, several organizations have tracked the number of armed conflicts and their human toll world-wide. The bad news is that for several decades, the decline of interstate wars was accompanied by a bulge of civil wars, as newly independent countries were led by inept governments, challenged by insurgencies and armed by the cold war superpowers.¶ The less bad news is that civil wars tend to kill far fewer people than wars between states. And the best news is that, since the peak of the cold war in the 1970s and '80s, organized conflicts of all kinds—civil wars, genocides, repression by autocratic governments, terrorist attacks—have declined throughout the world, and their death tolls have declined even more precipitously.¶ The rate of documented direct deaths from political violence (war, terrorism, genocide and warlord militias) in the past decade is an unprecedented few hundredths of a percentage point. Even if we multiplied that rate to account for unrecorded deaths and the victims of war-caused disease and famine, it would not exceed 1%.¶ The most immediate cause of this New Peace was the demise of communism, which ended the proxy wars in the developing world stoked by the superpowers and also discredited genocidal ideologies that had justified the sacrifice of vast numbers of eggs to make a utopian omelet. Another contributor was the expansion of international peacekeeping forces, which really do keep the peace—not always, but far more often than when adversaries are left to fight to the bitter end.¶ Finally, the postwar era has seen a cascade of "rights revolutions"—a growing revulsion against aggression on smaller scales. In the developed world, the civil rights movement obliterated lynchings and lethal pogroms, and the women's-rights movement has helped to shrink the incidence of rape and the beating and killing of wives and girlfriends.¶ In recent decades, the movement for children's rights has significantly reduced rates of spanking, bullying, paddling in schools, and physical and sexual abuse. And the campaign for gay rights has forced governments in the developed world to repeal laws criminalizing homosexuality and has had some success in reducing hate crimes against gay people.¶ Why has violence declined so dramatically for so long? Is it because violence has literally been bred out of us, leaving us more peaceful by nature?¶ This seems unlikely. Evolution has a speed limit measured in generations, and many of these declines have unfolded over decades or even years. Toddlers continue to kick, bite and hit; little boys continue to play-fight; people of all ages continue to snipe and bicker, and most of them continue to harbor violent fantasies and to enjoy violent entertainment.¶ It's more likely that human nature has always comprised inclinations toward violence and inclinations that counteract them—such as self-control, empathy, fairness and reason—what Abraham Lincoln called "the better angels of our nature." Violence has declined because historical circumstances have increasingly favored our better angels.¶ The most obvious of these pacifying forces has been the state, with its monopoly on the legitimate use of force. A disinterested judiciary and police can defuse the temptation of exploitative attack, inhibit the impulse for revenge and circumvent the self-serving biases that make all parties to a dispute believe that they are on the side of the angels.¶ We see evidence of the pacifying effects of government in the way that rates of killing declined following the expansion and consolidation of states in tribal societies and in medieval Europe. And we can watch the movie in reverse when violence erupts in zones of anarchy, such as the Wild West, failed states and neighborhoods controlled by mafias and street gangs, who can't call 911 or file a lawsuit to resolve their disputes but have to administer their own rough justice.¶ Another pacifying force has been commerce, a game in which everybody can win. As technological progress allows the exchange of goods and ideas over longer distances and among larger groups of trading partners, other people become more valuable alive than dead. They switch from being targets of demonization and dehumanization to potential partners in reciprocal altruism.¶ For example, though the relationship today between America and China is far from warm, we are unlikely to declare war on them or vice versa. Morality aside, they make too much of our stuff, and we owe them too much money.¶ A third peacemaker has been cosmopolitanism—the expansion of people's parochial little worlds through literacy, mobility, education, science, history, journalism and mass media. These forms of virtual reality can prompt people to take the perspective of people unlike themselves and to expand their circle of sympathy to embrace them.¶ These technologies have also powered an expansion of rationality and objectivity in human affairs. People are now less likely to privilege their own interests over those of others. They reflect more on the way they live and consider how they could be better off. Violence is often reframed as a problem to be solved rather than as a contest to be won. We devote ever more of our brainpower to guiding our better angels. It is probably no coincidence that the Humanitarian Revolution came on the heels of the Age of Reason and the Enlightenment, that the Long Peace and rights revolutions coincided with the electronic global village.

## Satellites K

### Perm

#### Permutation do the plan and adopt the resistance of the break

**Permutation do the plan and reject the “war machine.”**

#### They need a specific internal link about how OUR satellite causes violence or there’s no link

Dickinson 4 (University of Cincinnati, 2004 (Edward Ross, “Biopolitics, Fascism, Democracy: Some Reflections on Our Discourse About “Modernity,” Central European History, vol. 37, no. 1, March)

In short, the continuities between early twentieth-century biopolitical discourse and the practices of the welfare state in our own time are unmistakasble. Both are instances of the “disciplinary society” and of biopolitical, regulatory, social-engineering modernity, and they share that genealogy with more authoritarian states, including the National Socialist state, but also fascist Italy, for example. And it is certainly fruitful to view them from this very broad perspective. But that analysis can easily become superficial and misleading, because it obfuscates the profoundly different strategic and local dynamics of power in the two kinds of regimes. Clearly the democratic welfare state is not only formally but also substantively quite different from totalitarianism. Above all, again, it has nowhere developed the fateful, radicalizing dynamic that characterized National Socialism (or for that matter Stalinism), the psychotic logic that leads from economistic population management to mass murder. Again, there is always the potential for such a discursive regime to generate coercive policies. In those cases in which the regime of rights does not successfully produce “health,” such a system can —and historically does— create compulsory programs to enforce it. But again, there are political and policy potentials and constraints in such a structuring of biopolitics that are very different from those of National Socialist Germany. Democratic biopolitical regimes require, enable, and incite a degree of self-direction and participation that is functionally incompatible with authoritarian or totalitarian structures. And this pursuit of biopolitical ends through a regime of democratic citizenship does appear, historically, to have imposed increasingly narrow limits on coercive policies, and to have generated a “logic” or imperative of increasing liberalization. Despite limitations imposed by political context and the slow pace of discursive change, I think this is the unmistakable message of the really very impressive waves of legislative and welfare reforms in the 1920s or the 1970s in Germany.90 Of course it is not yet clear whether this is an irreversible dynamic of such systems. Nevertheless, such regimes are characterized by sufficient degrees of autonomy (and of the potential for its expansion) for sufficient numbers of people that I think it becomes useful to conceive of them as productive of a strategic configuration of power relations that might fruitfully be analyzed as a condition of “liberty,” just as much as they are productive of constraint, oppression, or manipulation. At the very least, totalitarianism cannot be the sole orientation point for our understanding of biopolitics, the only end point of the logic of social engineering. This notion is not at all at odds with the core of Foucauldian (and Peukertian) theory. Democratic welfare states are regimes of power/knowledge no less than early twentieth-century totalitarian states; these systems are not “opposites,” in the sense that they are two alternative ways of organizing the same thing. But they are two very different ways of organizing it. The concept “power” should not be read as a universal stifling night of oppression, manipulation, and entrapment, in which all political and social orders are grey, are essentially or effectively “the same.” Power is a set of social relations, in which individuals and groups have varying degrees of autonomy and effective subjectivity. And discourse is, as Foucault argued, “tactically polyvalent.” Discursive elements (like the various elements of biopolitics) can be combined in different ways to form parts of quite different strategies (like totalitarianism or the democratic welfare state); they cannot be assigned to one place in a structure, but rather circulate. The varying possible constellations of power in modern societies create “multiple modernities,” modern societies with quite radically differing potentials.

### PIKs

#### Perm do the alt

#### Perm do the plan without

#### Justified by vague alts and PIKs---VOTING ISSUE---reject the team---they steal all aff ground---justifies doing the plan without ONE WORD we said---that’s infinitely regressive, distracts from topic focus which is the most important form of education, and ensures the aff is behind every debate. Independently they don’t disprove the truth of the plan---means they haven’t met the burden of rejoinder.

#### Prioritizing discourse paralyzes politics

Taft-Kaufman 95 – Jill Speech prof @ CMU, Southern Comm. Journal, Spring, v. 60, Iss. 3, “Other Ways”, p pq

The postmodern passwords of "polyvocality," "Otherness," and "difference," unsupported by substantial analysis of the concrete contexts of subjects, creates a solipsistic quagmire. The political sympathies of the new cultural critics, with their ostensible concern for the lack of power experienced by marginalized people, aligns them with the political left. Yet, despite their adversarial posture and talk of opposition, their discourses on intertextuality and inter-referentiality isolate them from and ignore the conditions that have produced leftist politics--conflict, racism, poverty, and injustice. In short, as Clarke (1991) asserts, postmodern emphasis on new subjects conceals the old subjects, those who have limited access to good jobs, food, housing, health care, and transportation, as well as to the media that depict them. Merod (1987) decries this situation as one which leaves no vision, will, or commitment to activism. He notes that academic lip service to the oppositional is underscored by the absence of focused collective or politically active intellectual communities. Provoked by the academic manifestations of this problem Di Leonardo (1990) echoes Merod and laments: Has there ever been a historical era characterized by as little radical analysis or activism and as much radical-chic writing as ours? Maundering on about Otherness: phallocentrism or Eurocentric tropes has become a lazy academic substitute for actual engagement with the detailed histories and contemporary realities of Western racial minorities, white women, or any Third World population. (p. 530) Clarke's assessment of the postmodern elevation of language to the "sine qua non" of critical di\scussion is an even stronger indictment against the trend. Clarke examines Lyotard's (1984) The Postmodern Condition in which Lyotard maintains that virtually all social relations are linguistic, and, therefore, it is through the coercion that threatens speech that we enter the "realm of terror" and society falls apart. To this assertion, Clarke replies: I can think of few more striking indicators of the political and intellectual impoverishment of a view of society that can only recognize the discursive. If the worst terror we can envisage is the threat not to be allowed to speak, we are appallingly ignorant of terror in its elaborate contemporary forms. It may be the intellectual's conception of terror (what else do we do but speak?), but its projection onto the rest of the world would be calamitous....(pp. 2-27) The realm of the discursive is derived from the requisites for human life, which are in the physical world, rather than in a world of ideas or symbols.(4) Nutrition, shelter, and protection are basic human needs that require collective activity for their fulfillment. Postmodern emphasis on the discursive without an accompanying analysis of how the discursive emerges from material circumstances hides the complex task of envisioning and working towards concrete social goals (Merod, 1987). Although the material conditions that create the situation of marginality escape the purview of the postmodernist, the situation and its consequences are not overlooked by scholars from marginalized groups. Robinson (1990) for example, argues that "the justice that working people deserve is economic, not just textual" (p. 571). Lopez (1992) states that "the starting point for organizing the program content of education or political action must be the present existential, concrete situation" (p. 299). West (1988) asserts that borrowing French post-structuralist discourses about "Otherness" blinds us to realities of American difference going on in front of us (p. 170). Unlike postmodern "textual radicals" who Rabinow (1986) acknowledges are "fuzzy about power and the realities of socioeconomic constraints" (p. 255), most writers from marginalized groups are clear about how discourse interweaves with the concrete circumstances that create lived experience. People whose lives form the material for postmodern counter-hegemonic discourse do not share the optimism over the new recognition of their discursive subjectivities, because such an acknowledgment does not address sufficiently their collective historical and current struggles against racism, sexism, homophobia, and economic injustice. They do not appreciate being told they are living in a world in which there are no more real subjects. Ideas have consequences. Emphasizing the discursive self when a person is hungry and homeless represents both a cultural and humane failure.

**Permutation do both.**

### Speed Good

#### Speed is good – delay kills millions

Bostrom 3 – BOSTROM 2003 (Nick, Faculty of Philosophy, Oxford University, “Transhumanism FAQ,” October, http://www.transhumanism.org/index.php/WTA/faq21/72/)

From this perspective, an improvement to the human condition is a change that gives increased opportunity for individuals to shape themselves and their lives according to their informed wishes. Notice the word “informed”. It is important that people be aware of what they choose between. Education, discussion, public debate, critical thinking, artistic exploration, and, potentially, cognitive enhancers are means that can help people make more informed choices. Transhumanists hold that people are not disposable. Saving lives (of those who want to live) is ethically important. It would be wrong to unnecessarily let existing people die in order to replace them with some new “better” people. Healthspan-extension and cryonics are therefore high on the transhumanist list of priorities. The transhumanist goal is not to replace existing humans with a new breed of super-beings, but rather to give human beings (those existing today and those who will be born in the future) the option of developing into posthuman persons. **The non-disposability of persons partially accounts for a certain** sense of urgency that is common among transhumanists. On average, 150,000 men, women, and children die every day, often in miserable conditions. In order to give as many people as possible the chance of a posthuman existence – or even just a decent human existence – it is paramount that technological development, in at least some fields, is pursued with maximal speed. When it comes to life-extension and its various enabling technologies, a **delay** of a **single week** equals **one million avoidable premature deaths** – a weighty fact which those who argue for bans or moratoria would do well to consider carefully. (The further fact that universal access will likely lag initial availability only adds to the reason for trying to hurry things along.)

#### Speed is a symptom not a cause – no solvency

Simons 10 – Petrus, Former Trader and Economist, PhD in Philosophy, Accelerate or Slow Down, Stimulus: The New Zealand Journal of Christian Thought & Practice, Vol. 18 (2010): 32-25

Our culture relies on science and technology as a means of solving all problems and a way of achiev- ing economic growth. Our single-minded focus on the latter tends to mask our dependence on scientific- technical innovation. The financial crisis, which erupted in 2007 and 2008 was caused, in part, by the application of highly complex technical financial instruments. By translating scientific technical progress, as understood, for example, by the Enlightenment thinker de Con- dorcet, in terms of limitless economic growth, we have embraced acceleration as a key principle. ¶ A financial crisis¶ For years American banks had originated cheap, and, therefore, risky sub-prime mortgages. To minimise their risks they pack- aged and sold them via complex financial instru- ments such as Credit Default Swaps, invented by financial/mathematical engineers, to other banks around the world. Each sale generated fee income. Hence, the demand for sub-prime mortgages ac- celerated. As house prices rose in response, bankers assured mortgagors that their debts were covered by the rising value of their houses. Thus, people could climb ladders towards wealth. So, new houses were built in large numbers. The sky ap- peared to be the limit. Until one day the bubble burst, house prices fell and mortgagors could not service their debts. Since banks hardly knew what liabilities they had incurred by dealing in the fancy parcels, they lost trust in each other, becoming extremely cautious. As the world’s credit machinery stalled, the crisis widened to virtually all economic sectors. As a result of globali- sation policies, jobs are now being eliminated at a fast pace around the globe. Governments and central bank- ers have tried to stop the rot by spending huge amounts on bailing out banks, without quite knowing how their actions will pan out.¶ This is serious because modern capitalism is driven by interest rates. Interest can only be paid if capital investment keeps growing. If banks stop providing credit, expansion ceases, turnover declines and unemployment rises. Acceleration: speed, change, and tempo¶

#### Virilio's an idiot - his scenario for an accident is a baseless assertion

**Sokal and Bricmont 98** – \*Professor of Physics at NYU AND \*\*Belgian theoretical physicist, philosopher of science and a professor at the Université catholique de Louvain (December 1998, Alan and Jean, “Fashionable Nonsense: Postmodern Intellectuals' Abuse of Science”, Library of Congress Cataloging-in-Publication Data, pg. 169-170)

The writings of Paul Virilio revolve principally around the themes of technology, communication, and speed. They contain a plethora of references to physics, particularly the theory of relativity. Though Virilio's sentences are slightly more meaningful than those of Deleuze-Guattari, what is presented as "science" is a mixture of monumental confusions and wild fantasies. Furthermore, his analogies between physics and social questions are the most arbitrary imaginable, when he does not simply become intoxicated with his own words. We confess our sympathy with many of Virilio's political and social views; but the cause is not, alas, helped by his pseudo-physics. Let us start with a minor example of the astonishing erudition vaunted by Le Monde: Recent MEGALOPOLITAN hyperconcentration (Mexico City, Tokyo ... ) being itself the result of the increased speed of economic exchanges, it seems necessary to reconsider the importance of the notions of ACCELERATION and DECELERATION (what physicists call positive and negative velocities [vitesses positive et negative selon les physiciens]) ... (Virilio 1995, p. 24, capitals in the original 220) Here Virilio mixes up velocity (vitesse) and acceleration, the two basic concepts of kinematics (the description of motion), which are introduced and carefully distinguished at the beginning of every introductory physics course. 221 Perhaps this confusion isn't worth stressing; but for a purported specialist in the philosophy of speed, it is nonetheless a bit surprising.

#### Virilio's argument is entirely unsupported and legitimized right wing take-over and rejection of all science - he himself also conceeds the alternative fails

**Rosha 3** (Rekha, Department of English and American Literature @ Brandeis University, " A Landscape of Events," http://muse.jhu.edu.ezproxy.baylor.edu/journals/postmodern\_culture/v013/13.2rosha.html, EMM)

Virilio offers a fairly convincing argument that there is no qualitative difference between a beneficent application of technology and a sinister application; technological developments, as well as aesthetic ones, never remain contained or restricted to the purposes for which they were designed. Yet, in spite of such compelling claims, Virilio is really at his best making wildly provocative connections rather than offering persuasive arguments based on proof. While Virilio's work connects various strands of thinking in a breathtaking intellectual performance, such an approach can sometimes backfire, particularly in his discussion of the triumph of Nietzschean man and the death of God in his chapter "The Near-Death Experience." He starts with the claim that in the absence of Judaic etiological stories, science posits its own account of the origins of species. Darwin's theory of evolution, which assigned to the ape all materials that evolve into man, is similar to current attempts to create androids with artificial intelligence. Virilio argues that the ape, the Ur-human, is later replaced with machines, the über-human: "And so we went from the metempsychosis of the evolutionary monkey to the embodiment of a human mind in an android; why not move on after that to those evolving machines whose rituals could be jolted into action by their own energy potential" (35). The problem is not evolution or artificial intelligence, but that these concepts are routinely used to diminish human agency. So much so, in fact, that Raymond A. Moody's book Life after Life, which encouraged people to simulate clinical death as a way of achieving spiritual insight, sold 10 million copies (99). Virilio, who cites this book as the reason for the near-death experience movement, takes this fact as an index of something much larger; the quickening of artificial life marks the slowing down and near immobilization of human life. What is difficult to accept in this account of a comatose human agency is that it identifies the removal of a God-centered account of humankind as its cause: If one eliminates God and if, soon after, it becomes fashionable to declare Him dead, it is only normal that through successive shifts, one ends up getting a little anxious about the origins of this 'man' who, once removed from the Judeo-Christian Genesis, suddenly finds himself robbed of his inheritance, deprived of identity. (34) Though Virilio implicitly accepts that the biblical narrative provides a template for scientific narratives--he calls it "a substitute faith" (33)--he doesn't explore the role the prior narrative plays in shaping the succeeding one. To call science a poor reflection of Christianity seems insufficient. (It is unclear why he links two vastly different religions together in the hybrid term Judeo-Christian that functionally dissolves that difference.) More to the point, Virilio doesn't explain how the theory of evolution supports an agenda similar to that offered in Christianity's version of human origins. So why does it appear to be the villain here? Perhaps Virilio wants to retain Christian rhetoric as a kind of counter-Enlightenment narrative, but he doesn't delineate this idea clearly enough to succeed in the task. Certainly Virilio's harrowing visions of humans in suspended animation waiting out the end times, of mountains crumbling into data, of buildings without substance, and of wars without trace have apocalyptic overtones that urge the reader to question the influences on his argument. While technology requires sustained, careful critiques, if for no other reason than its mammoth presence in contemporary life, it is unclear what Virilio intends to gain by attaching this sort of millenialism to his critique. Which is also to say: things end badly in this book. Virilio offers no suggestions as to how we might intervene in the processes he describes, or how we might stave off the horrific end he sees for us. In the final sentences of A Landscape, he explains that in fact no intervention is possible: "The countdown has in fact begun. In a few months, a few years at most, there will no longer be time to intervene; real time will have imploded" (96). While the dire tone of this prediction might be meant to galvanize the reader into action, it unnecessarily closes down the efficacy of that action--for what kind of intervention can be accomplished in a few months, a few years? This prompts a second, more cynical question: If the world has become so hostile to humans to the extent that we are barely animate with only months to live, why bother sounding the alarm at all? Indeed, there seem to be few, if any, means to re-appropriate, re-direct, sabotage, or poach the mechanisms of disappearance that Virilio critiques. Apparently, no subject, neither man nor woman, Westerner nor Easterner, rich nor poor, black nor white can find new ways to connect with one another under the given conditions. While other theorists--Deleuze and Guattari come immediately to mind--have suggested that possibilities for resistance remain even amidst the most limiting of circumstances, Virilio seems unconvinced. At times he seems so committed to his own apocalyptic vision that he does not pursue the possibilities his own arguments make available--that is, if information can dismantle matter, it might also be able reconstitute matter in perhaps radical and useful ways. With the increased, though exaggerated, emphasis on information, bodies disconnected from space might be free to renegotiate certain limitations. Yet in Virilio's critique, there is apparently no exit.

### Satellites Good

#### Satellites blend the local and global in ways that allow reappropriation and resistance

Parks 99 [Lisa Ann Parks, PhD Candidate in Philosophy, University of Wisconsin, “CULTURES IN ORBIT: SATELLITE TECHNOLOGIES, GLOBAL MEDIA AND LOCAL PRACTICE”, EBSCO]

In addition to seeing the satellite as a technology of power/knowledge and as part of embodied social relations, I want to explore this machine's relation to what has been called the global/local nexus. Wilson and Dissanakey describe the global/local as "a new world-space of cultural production and national representation which is simultaneously becoming more globalized (unified around dynamics of capitalogic moving across borders) and more localized (fragmented into contestatory enclaves of difference, coalition, and resistance) in everyday texture and composition."37 The satellite, because of its orbital position and its linkage of specific points on the planet, is both global and local in reach. As such it is a technology of transnational mediation, one that structures relations between cultures rather than simply bolstering and consolidating already existing ones. Because the satellite is a global/local technology, its uses are implicated in Western cultural imperialism and neo-colonial information orders, as well as in postcolonial alliances and resistance. Situating the satellite as not only a global, but also a local technology means that we hold out the possibility for popular control over a machine historically used by elite Western corporate and military institutions. Just as Williams believes in alternative uses of emerging technologies, Wilson and Dissanayke believe that the local can be a meaningful site of resistance to imperialism. They write, "These spaces of the local, within the practice of everyday life under global capital, can provide the spawning ground for those various 'surreptitious creativities' of reuse, recoding, and deterritorialized invention that, in a related analysis of space viewed as everyday practice, Michel de Certeau saw emerging in the interstices and against the grain of capital's disciplinary structures."38 A popular appropriation of satellite technologies and satellite media would involve social formations outside corporate and governmental institutions, and might occur in very informal, haphazard and unpredictable ways.39 It is imperative, then, that we consider not only the hegemonic imperialism of the satellite, but also the situated applications of its use. In some cases, the global can be an important resource for local cultures, for it can be a source of collective resistance, affiliation, and cross-cultural pollination. As Haraway reminds us, "We don't want to theorize the world, much less act within it, in terms of Global Systems, but we do need an earth-wide network of connections, including the ability partially to translate knowledges among very different—and power-differentiated—communities."40 Aijun Appadurai suggests that when critiquing global/local phenomena, it is not readily apparent just where to draw the lines and limits of analysis, not only in terms of the cultures one might explore, but also in terms of the social and historical conditions that predate them.41 Addressing the question of transnational cultural studies, Appadurai further suggests that "while much has been written about the relationship between history and anthropology... few have given careful thought to what it means to construct geneaologies of the present."42 This project attempts to construct a "genealogy of the present" by exploring how specific uses of the satellite have given way to certain social, cultural and political conditions in the present. The project does not trace the historical development of satellite technologies, nor does it focus upon their official regulation nor their political economic control. Rather, it analyzes specific uses of the satellite in order to try and understand something about contemporary conditions—to explore what Appadurai refers to as the "global now."43 To do so, I bring together a collection of case studies in which satellites are used for television relay, surveillance, archaeology and astronomy. I link these case studies together by considering the broader theoretical implications of the satellite's involvement in temporal and spatial transformations. Historically, satellites have been directed by military, commercial and technocratic interests to spy on enemy territories, to link corporate offices, and to build a high tech society. Few scholars have examined these uses critically and framed them in socio- cultural terms. I want to consider what a popular use of satellites might involve.44 How might we reframe the discussion of satellite technology around the people? Popular control of the satellite might appear a difficult challenge, not only because satellites require immense financial resources to manufacture, deploy and maintain, but also because the technology is relatively invisible to the public in its earth orbit. The satellite's invisibility makes media discourses all the more significant to our understanding of the technology, the way it functions, and our ability to envision its future. The traces of satellite technology most widely available to ordinary people are satellite television broadcasts, remote sensing images and pictures of celestial phenomena. In other words, satellite technologies exists in everyday life as a series of media texts rather than as physical artifacts. Indeed, most people have never even seen a satellite, but they have seen live CNN newscasts, weather images, and pictures of Mars. In an effort to analyze satellite technologies in light of the way the people experience them, I examine the mediascapes they help produce. Not only are these the earthly traces of satellite usage—they are the discursive domain of satellite technology most open to popular contestation and intervention.

#### Even Liftin concedes that satellites could be used to resist power relations and protect indigenous groups from central power

Liftin 99 (Karen, Assistant Professor of Political Science at the University of Washington, Approaches to Global Governance Theory, 86-87)

While the technocratic potential of ERS may be evident, other forces could compel the architects of ERS technology to become more accountable to the users. Even if many users appear to be "high priests," the very multiplicity of their voices suggests the potential for a diffusion of power along multiple channels. The state may be an important channel, but it is neither the only one nor a univocal one. As Big Science projects lose their appeal in a time of budgetary conservatism, and as their prestige value is diminished with the end of the Cold War, space agencies must increasingly justify ERS programs in terms of their users' requirements. One space scientist calls this a "thoroughly post-modern approach," stating that "No longer will the development of new technology be driven by an elite of scientists and engineers, but a broader base of consultation will be required with the many user constituencies."55 As a multifaceted power/knowledge complex, ERS incorporates sometimes contradictory tendencies. On the one hand, the global view afforded from the vantage point of space seems especially conducive to notions of "planetary management" and the centralization of power. Indeed, in the discourse surrounding ERS, terms like "managing the planet" and "global management" abound.\*6 Yet global science is inherently decentralized, depending upon "countless loosely knit and continually shifting networks of individual researchers—most of whom resist outside intervention—in communication that crisscrosses the borders of well over a hundred sovereign nations."57 The decentralized nature of global science is likely to have important social and political implications for efforts to cope with global ecological interdependence. While the global science based upon ERS data has many of the earmarks of a mammoth technocratic enterprise, it is not immune to public opinion; nor are its fruits available only to the elite. For instance, NASA's Mission to Planet Earth program was conceived as a vehicle for restoring the confidence of the American public, newly concerned about the environment, in the space agency after the Challenger disaster.58 Even in Japan, popular environmental concern shifted the emphasis of its Earth resources spacecraft, ADEOS, away from pure research objectives.59 In the future, ERS satellite systems could provide citizen groups with the means to verify compliance not only with environmental treaties, but with arms control treaties as well, with potentially interesting ramifications for the globalization of participatory democracy. Thus, ERS may contribute to the decentralization of epistemic authority on a global scale, indicating that global governance may not be as monolithic an enterprise as it sounds. Moreover, ERS data can facilitate the localization of control in some surprising ways. Perhaps most interesting is the use of satellite data by indigenous peoples for mapping their customary land rights and documenting the role of the state and multinational corporations in environmental destruction. Environmental advocacy groups and indigenous rights groups in Indonesia, Nepal, Thailand, and the Pacific Northwest are using satellite-generated data to reterritorialize their political practices to an extent previously inconceivable.60 Although ERS data may deterritorialize political practice at the level of the nation-state, when used for "counter mapping" by indigenous peoples it seems to be have exactly the opposite effect.61 We should note, however, that while spatial information technologies may facilitate claims of local people against the state, that power "comes with a price—it destroys the fluid and flexible nature of their traditional perimeters."62 The democratization of epistemic authority through the use of ERS data validates a particular technologically mediated perspective on the natural world.

### No Weaponization

#### SPS creates cooperation through the NSP

Garretson 12 – Peter Garretson, Lieutenant Colonel of the USAF serving on CSAF's Strategic Studies Group, Spring 2012 "Solar Power in Space?" Strategic Studies Quarterly Spring

Our current National Space Policy articulates the top three space-related goals as: • Energize competitive domestic industries to participate in global markets and advance the development of satellite manufacturing, satellite-based services, space launch, terrestrial applications, and increased entrepreneurship; • Expand international cooperation; and • Strengthen stability in space. It continues by articulating several foundational activities important to the nation: • Strengthen US leadership in space-related science, technology, and industrial bases. Encourage an innovative and entrepreneurial commercial space sector. • Enhance capabilities for assured access to space. Develop launch systems and technologies necessary to assure and sustain future reliable and efficient access to space, in cooperation with US industry. • Develop and retain space professionals. Promote and expand publicprivate partnerships to foster educational achievement in science, technology, engineering, and mathematics (STEM) programs; embrace innovation to cultivate and sustain an entrepreneurial US research and development environment. • Strengthen interagency partnerships. • International cooperation. Strengthen US space leadership. Facilitate new market opportunities for US commercial space capabilities and services, including commercially viable terrestrial applications that rely on government-provided space systems.6 SBSP can be seen as a desirable strategy to achieve these national-level goals, consistent with the foundational activities, and with desirable effects for the USAF and the DoD. Fundamentally, a successful SBSP program would transform our industrial base and competitiveness and be at least as significant for American STEM programs as were the post-Sputnik and Apollo expansions in aerospace engineering. It would greatly expand the role of commercial space, and the effect on assured access and launch would be profound. Its natural confluence of challenges in space, energy, and security offers exciting options to further interagency partnerships between NASA, DOE, DoD, FAA, FCC, EPA, DOC, and DOS. It presents excellent opportunities for the United States to lead in international cooperation.

### Conditionality

#### Conditionality---reject the team---destroys a stable advocacy---key to defending real world proposals---kills 2AC strategic flex---[magnified by multiple worlds]---1 conditional world and pre-round conditionality solves their offense

#### We get ADVOCATE the permutation EVEN IF they kick their alternatives---key to test negative flexibility---they get to make strategic choices, we should too

## \*Bataille K

#### No climate fatigue – the media is bombarded with anti-warming messages now – the plan’s representations mobilize public response

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.

### Science Claims

#### We can make objective claims about warming---greenhouse gas emissions exist and influence global climate patterns---we must present environmental claims to mobilize support for change

Saarikoski 7 (Heli, Economics and Management @ Helsinki, "Objectivity and the Environment – epistemic value of biases" Environmental Politics 16 (3) p. Informa)

The suggestion that we could choose between knowledge claims on the basis of their truth value might sound objectionable to environmental constructivists who emphasise the thoroughly negotiated nature of knowledge. Szerszynski (1996: 117), for example, denies the existence of any extra-discursive reality to which we can resort in order to judge between different interpretations; **the world and our understanding of it are unavoidably constituted through language** and meaning. Therefore, he urges social scientists to abandon the 'the ghostly vestige of a “real”' in favour of a more antagonistic vision of cultural competition between competing discourses (Szerszynski, 1996: 117).

**Not all environmental constructivists are willing**, however, **to dispense with empirical evidence and scientific knowledge altogether.** Hannigan (1995: 34) distinguishes between 'strict constructionists', who reject all notions of reality external to discourse, and 'contextual constructionists', who maintain that claims can be evaluated on the basis of empirical evidence. Hannigan (1995: 188) explicates the latter position by using an example of global warming. The constructionist claim that the issue of global warming is socially constructed **does not imply that** **g**reen**h**ouse **g**a**s** emissions do not exist or that they might not influence global climate. Instead, the argument is that the actual changes in global climate are rendered meaningful only through social processes of assembling and **presenting environmental claims, visualising them, and mobilising support and acknowledgement for them.**

The 'contextual constructionists' position is compatible with a revised realist view of science put forward by Antony and Nelson. The world is indeed out there, imposing on us 'brute facts' such as increased levels of atmospheric CO2 emissions or losses of biodiversity. What is more, **it is possible to formulate theories which represent the outside world in the relevant respects**. However, though empirical evidence can help us to evaluate the effects and their magnitude, it cannot decide whether the effects are 'serious' and 'harmful' and constitute a 'problem'. As Bluhdorn (2000: 47) notes, the extent to which the undeniable changes in the physical environment can be described as environmental problems is always and necessarily a social construction. He writes (2000: 46): '[Constructionists] emphasise that processes of political agenda-setting and environmental policy making respond first and foremost to socially constructed concerns rather than to the so-called objective empirical realities.

#### The alternative to science is genocide—science promotes openness that is key to preventing fear-mongering and fascism

Gleick 9 (Dr. Peter, president of the Pacific Institute, an internationally recognized water expert and a MacArthur Fellow, “New McCarthyism: Fear of science and the war on rationality,” http://www.sfgate.com/cgi-bin/blogs/gleick/detail??blogid=104&entry\_id=47022)

As more and more of the world looks to knowledge, education, and science as the routes out of poverty and conflict, parts of America seems to be slipping back toward the Dark Ages, when fear of knowledge and science led to an impoverishment of civilization that had lasting effects for centuries. I've recently returned from two weeks in northern Europe and a series of scientific water meetings and discussions with people from over 130 countries. They read the news from the United States with incredulity. America is still seen as the place to come for aspiring students and scientists around the world. Our public universities, despite assaults on budgets, independence, and knowledge, still struggle to maintain their excellence. But my friends and colleagues from overseas are increasingly shocked, as are many of us in the U.S., by the expanding efforts of home-grown extremists to undermine rational discourse, eliminate the use of fact and science in policymaking, and shut down public debate over the vital issues of our times through hate, vitriol, and ad hominem attacks. Looking through the eyes of my overseas colleagues, what do we see? We see a debate over providing health care to every American that is based -- not on facts or civilized discourse -- but on screaming mobs shutting down public discussions and the use of straw man arguments to promote fear among the public and policymakers. Yet every major country of Europe provides basic health care for its population. We see President Obama appoint one of the nation's best scientists in the areas of energy, environment, and national security -- Dr. John Holdren -- to be his Science Advisor, and then have right-wing mouthpieces like Glenn Beck spread ad hominem lies about him because of their fear that facts and actual science may once again inform Presidential action. This should be a recognizable tactic to us -- lying about a person to diminish their effectiveness. In fact, these extremists want to undermine the forward-looking policies that would prevent the very draconian measures they say they deplore. We see unambiguous evidence that climate change is already affecting human health and the global economy -- evidence often collected by world-leading American scientists and scientific institutions -- while public opinion polls show that the American people continue to be misled about the risks facing us by conservative pundits who ignore, misunderstand, or intentionally misuse that science to mislead the public into fear of change. Yet we already see huge economic and environmental opportunities in adapting to the reality of climate change. Fear is an effective tool -- as hate groups and extremists know. It is no accident that repressive regimes of all kinds -- fascists, the Nazis, Stalin, religious states, madrasses -- use tools of hatred, anti-intellectualism, and fear to control knowledge, universities, and intellectuals. Fear grows best when sown in fields of ignorance, while science, rationality, and education are the greatest weapons modern societies have against irrational fear. No wonder Beck and his ilk have intellectuals in their sights; so do the leaders of Iran, and Burma, and the Taliban, and North Korea, for similar reasons. What does this have to do with water -- the ostensible focus of my blog? Nothing and everything. I try to focus on numbers here and what they mean for international and local water issues. Yet water policy, or any policy, must also be based on rationality, facts, and civil discourse. Similarly, solving any bad water contamination problem requires one of two approaches: don't let the contamination into our water supply in the first place, or apply the right filters to clean it up when it does. The same rule applies to those who would pollute our public discourse with hate and noise: don't let their vitriol into our media supply or filter it out before it can poison our democracy.

#### Economic valuation of the environment is good---key to policy effectiveness

Economist 5 (The Economist, April 21, “Rescuing environmentalism”, http://www.economist.com/node/3888006)

“THE environmental movement's foundational concepts, its method for framing legislative proposals, and its very institutions are outmoded. Today environmentalism is just another special interest.” Those damning words come not from any industry lobby or right-wing think-tank. They are drawn from “The Death of Environmentalism”, an influential essay published recently by two greens with impeccable credentials. They claim that environmental groups are politically adrift and dreadfully out of touch.

They are right. In America, greens have suffered a string of defeats on high-profile issues. They are losing the battle to prevent oil drilling in Alaska's wild lands, and have failed to spark the public's imagination over global warming. Even the stridently ungreen George Bush has failed to galvanise the environmental movement. The solution, argue many elders of the sect, is to step back from day-to-day politics and policies and “energise” ordinary punters with talk of global-warming calamities and a radical “vision of the future commensurate with the magnitude of the crisis”.

Europe's green groups, while politically stronger, are also starting to lose their way intellectually. Consider, for example, their invocation of the woolly “precautionary principle” to demonise any complex technology (next-generation nuclear plants, say, or genetically modified crops) that they do not like the look of. A more sensible green analysis of nuclear power would weigh its (very high) economic costs and (fairly low) safety risks against the important benefit of generating electricity with no greenhouse-gas emissions.

Small victories and bigger defeats

The coming into force of the UN's Kyoto protocol on climate change might seem a victory for Europe's greens, but it actually masks a larger failure. The most promising aspect of the treaty—its innovative use of market-based instruments such as carbon-emissions trading—was resisted tooth and nail by Europe's greens. With courageous exceptions, American green groups also remain deeply suspicious of market forces.

If environmental groups continue to reject pragmatic solutions and instead drift toward Utopian (or dystopian) visions of the future, they will lose the battle of ideas. And that would be a pity, for the world would benefit from having a thoughtful green movement. It would also be ironic, because far-reaching advances are already under way in the management of the world's natural resources—changes that add up to a different kind of green revolution. This could yet save the greens (as well as doing the planet a world of good).

“Mandate, regulate, litigate.” That has been the green mantra. And it explains the world's top-down, command-and-control approach to environmental policymaking. Slowly, this is changing. Yesterday's failed hopes, today's heavy costs and tomorrow's demanding ambitions have been driving public policy quietly towards market-based approaches. One example lies in the assignment of property rights over “commons”, such as fisheries, that are abused because they belong at once to everyone and no one. Where tradable fishing quotas have been issued, the result has been a drop in over-fishing. Emissions trading is also taking off. America led the way with its sulphur-dioxide trading scheme, and today the EU is pioneering carbon-dioxide trading with the (albeit still controversial) goal of slowing down climate change.

These, however, are obvious targets. What is really intriguing are efforts to value previously ignored “ecological services”, both basic ones such as water filtration and flood prevention, and luxuries such as preserving wildlife. At the same time, advances in environmental science are making those valuation studies more accurate. Market mechanisms can then be employed to achieve these goals at the lowest cost. Today, countries from Panama to Papua New Guinea are investigating ways to price nature in this way (see article).

Rachel Carson meets Adam Smith

If this new green revolution is to succeed, however, three things must happen. The most important is that prices must be set correctly. The best way to do this is through liquid markets, as in the case of emissions trading. Here, politics merely sets the goal. How that goal is achieved is up to the traders.

A proper price, however, requires proper information. So the second goal must be to provide it. The tendency to regard the environment as a “free good” must be tempered with an understanding of what it does for humanity and how. Thanks to the recent Millennium Ecosystem Assessment and the World Bank's annual “Little Green Data Book” (released this week), that is happening. More work is needed, but thanks to technologies such as satellite observation, computing and the internet, green accounting is getting cheaper and easier.

Which leads naturally to the third goal, the embrace of cost-benefit analysis. At this, greens roll their eyes, complaining that it reduces nature to dollars and cents. In one sense, they are right. Some things in nature are irreplaceable—literally priceless. Even so, it is essential to consider trade-offs when analysing almost all green problems. The marginal cost of removing the last 5% of a given pollutant is often far higher than removing the first 5% or even 50%: for public policy to ignore such facts would be inexcusable.

If governments invest seriously in green data acquisition and co-ordination, they will no longer be flying blind. And by advocating data-based, analytically rigorous policies rather than pious appeals to “save the planet”, the green movement could overcome the scepticism of the ordinary voter. It might even move from the fringes of politics to the middle ground where most voters reside.

Whether the big environmental groups join or not, the next green revolution is already under way. Rachel Carson, the crusading journalist who inspired greens in the 1950s and 60s, is joining hands with Adam Smith, the hero of free-marketeers. The world may yet leapfrog from the dark ages of clumsy, costly, command-and-control regulations to an enlightened age of informed, innovative, incentive-based greenery.

### AT: Instrumental Rationality

#### Instrumental rationality is inevitable and good – rejecting it results in incoherent stances incapable of dealing with existential crises

Bronner 4—Professor of Political Science, Comparative Literature, and German Studies at Rutgers University (Stephen Eric, Reclaiming the Enlightenment, 159-60)

Much has been written about the need for a "new science" no longer defined by instrumental rationality and incapable of reifying the world. But these new understandings always seem to ignore the need for criteria of verification or falsification; science without such criteria is, however, no science at all. Contempt for "instrumental" scientific rationality, moreover, undermines the possibility of meaningful dialogue between the humanities and the sciences. And that is a matter of crucial importance: popular debates are now taking place on issues ranging from the eco-system to cloning, the assumptions of western medicine to the possibilities of acupuncture, using animals for experiments to state support for space travel. ¶ This shows ethical progress, again perhaps not in the sense that people have become more "moral," but surely in the sense that more questions of every-day life have become open to moral debate. Science has not eroded ethics. The Frankfurt School misjudged the impact of science from the beginning. It is still the case that science plays a crucial role in subverting religious authority--considering only the battle between evolutionists and the Christian coalition--and fostering political equality by enabling each to judge the veracity of truth claims. There is also nothing exaggerated in the claim that "the scientific revolution of the seventeenth century was perhaps the single greatest influence on the development of the idea that political resistance is a legitimate act."6¶ Critics of the Enlightenment may have correctly emphasized the price of progress, the costs of alienation and reification, and the dangers posed by technology and scientific expertise for nature anda democratic society. Even so, this does not justify romantic attempts to roll back technology. They conflate far too easily with ideological justifications for rolling back the interventionist state and progressive legislation for cleaning up the environment. Such a stance also pits the Enlightenment against environmentalism: technology, instrumental rationality, and progress are often seen as inimical to preserving the planet. Nevertheless, this is to misconstrue the problem. ¶ Technology is crucial for dealing with the ecological devastation brought about by modernity. A redirection of technology will undoubtedly have to take place: but seeking to confront the decay of the environment without it is like using an umbrella to defend against a hurricane. Institutional action informed by instrumental rationality and guided by scientific specialists is unavoidable. Investigations are necessary into the ways government can influence ecologically sound production, provide subsidies or tax-benefits for particular industries, fund particular forms of knowledge creation, and make “risks” a matter of public debate. It is completely correct to note that: “neither controversial social issues nor cultural concerns can be settled simply by scientific fiat, particularly in a world where experts usually disagree and where science can be compromised by institutional sponsors. No laboratory can dictate what industrial practices are tolerable or what degree of industrialization is permissible. These questions transcend the crude categories of technical criteria and slide- rule measurements.”7

### Double-Bind

#### Bataille is in a double bind---either sacrifice is meaningless and it’s senseless massacre---OR it’s significant, and used to justify genocide

Minkoff 7 – C. Michael, “Existence is Sacrificeable, But It Is Not Sacrifice,” April 25, http://smartech.gatech.edu/dspace/bitstream/1853/14446/8/Michael%20Minkoff--LCC%204100--Animal\_Sacrifice.pdf

What Nancy admits is that “strictly speaking we know nothing decisive about the old sacrifice” and that “the Western economy of sacrifice has come to a close…it is closed by the decomposition of the sacrificial apparatus itself” (Nancy, 35). These confessions are significant because it indicates the fear that Nancy has of appropriating a symbol which has a remainder and a vector he cannot predict or control. What Bataille wanted from sacrifice was one thing, but Nancy fears that sacrifice carries its own valence. It is like the art that accedes to extinction, but suspends above it indefinitely. The force to accede to extinction is not guaranteed to suspend. The force that Bataille borrows from sacrifice is not guaranteed to behave in the way atheism dictates. Nancy reasserts that Western sacrifice always knew it sacrificed to nothing, but this latent knowledge makes the institution of sacrifice absurd, and Nancy is not willing to deny that sacrifice “sustained and gave meaning to billions of individual and collective existences” (Nancy, 35) What Nancy fears is this ignorance. He knows he does not understand the significance of the old sacrifice. If sacrifice was to no one and everyone knew it; why was and is it so universal and why have so many been tempted into believing its significance? But if one assumes that there is no one to whom one sacrifices, Bataille may not use sacrifice as the centerpiece of his philosophy because if sacrifice is not to anyone, it is not truly significant. If it is not significant or meaningful, it has no power. It becomes comedic. And it becomes massacre. That is why Nancy spends much of his time talking about the sacrifice of the Jews at Auschwitz. Without over-determining the significance, the sacrifice becomes a genocide or a holocaust. Bataille is trapped between two uncomfortable positions—let the blood continue to spill to make sacrifice real and significant and concrete, or deny the death the status of sacrifice, which in Bataille’s mind, would be to deny it realization. Nancy asks if Bataille’s “dialectical negativity expunges blood or whether, on the contrary, blood must ineluctably continue to spurt” (Nancy, 27). If Bataille spiritualizes sacrifice, it no longer has the power of real death, the concreteness of finiteness and the ability to rupture finitude. But if Bataille insists on the real death, **he necessitates the constant spilling of blood in mimetic repetition until history is completed**.

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### No State Impact

#### Reform the state solves their turns—rejection fails

Habermas 98 [Jürgen Habermas teaches philosophy at the University of Frankfurt, “The European Nation-State: On the Past and Future of Sovereignty and Citizenship,” Public Culture10(2): 397–416]

Talk of overcoming the nation-state is ambiguous. On one reading—let us call it the postmodern—the end of the nation-state also marks the end of the project of civic autonomy, which, on this view, has in any case hopelessly overdrawn its credit. According to the other, nondefeatist reading, the project of a society that is capable of learning and of consciously shaping itself through its political will is still viable even after the demise of a world of nation-states. The dispute concerns the normative self-understanding of the democratic constitutional state. Can we still identify with it in an era of globalization, or must we renounce it as a cherished, though obsolete, relic of the old Europe? If not only the nation-state has run its course but along with it all forms of political integration, then individual citizens are abandoned to a world of anonymously interconnected networks in which they must choose between systemicallygenerated options in accordance with their preferences. In this postpolitical world, the multinational corporation becomes the model for all conduct. The impotence of a normatively guided politics in the face of an increasingly independent global economic system appears, from a systems-theoretical perspective at any rate, only as a special case of a more general development. Its vanishing point is a completely decentered world society that splinters into a disordered mass of self-reproducing and self-steering functional systems. Like Hobbesian individuals in the state of nature, these systems form environments for one another. They no longer speak a common language. Lacking a universe of intersubjectively shared meanings, they merely observe one another and behave toward one another in accordance with imperatives of self-preservation. J. M. Guéhenno depicts this anonymous world from the perspective of individual citizens who have become detached from the obsolete solidarity of democratic communities and must now orient themselves in the chaotic bustle of mutually adapting functional systems. These “new” human beings have sloughed off the illusory self-understanding of modernity. The neoliberal inspiration of this Hellenistic vision is all too clear. The autonomy of the citizen is unceremoniously stripped of the moral components of democratic self-determination and pared back to private autonomy: “Like the Roman citizen of the time of Caracalla, the citizen of the imperial age of the networks deﬁnes himself less and less by his participation in the exercise of sovereignty and more and more by the possibility he has to act in a framework in which the procedures obey clear and predictable rules. . . . It matters little whether a norm is imposed by a private enterprise or by a committee of bureaucrats. It is no longer the expression of sovereignty but simply something that reduces uncertainties, a means of lowering the cost of transactions, of increasing transparency.”11Through a perverse play on Hegel’s polemic against the administrative state (Not- und Verstandesstaat), the democratic state is replaced by a “state of law deprived of all philosophical reference to natural law, reduced to an ensemble of rules with no other basis than the daily administered proof of its smooth functioning.”12 Norms that are both effective andresponsive to expectations of popular sovereignty and human rights are replaced—under the guise of a “logic of networks”—by the invisible hand of supposedly spontaneously regulated processes of the global economy. However, these mechanisms, which are insensitive to external costs, do not exactly inspire conﬁdence. This is true at any rate of the two best-known examples of global self-regulation. The “balance of powers” on which the international system was based for three hundred years collapsed between the First and Second World Wars, if not before. Without an international court and a supranational sanctioning power, international law could not be invoked and enforced like state law. However, conventional morality and the “ethics” of dynastic relations ensured a certain level of normative regulation of warfare. In the twentieth century, total war has destroyed even this weak normative framework. The advanced state of weapons technology, the arms buildup, and the spread of weapons of mass destruction have made abundantly clear the risks inherent in this anarchy of powers unregulated by any invisible hand.13The founding of the League of Nations was the ﬁrst attempt at least to domesticate the unpredictable dynamic of power relations within a collective security system. With the foundation of the United Nations, a second attempt was made to set up supranational political agencies responsible for instituting peace on a global scale. With the end of the bipolar balance of terror, the prospect of a “global domestic politics” (Carl Friedrich von Weizsäcker) seems to have opened up, in spite of all the setbacks in the ﬁeld of international human rights and security policy. The failure of the anarchistic balance of power has at least made evident the desirability of political interventions and arrangements. Similar observations hold true for the other prime example of spontaneous self-regulation. Obviously, even the global market cannot be managed exclusively by the World Bank and the International Monetary Fund if the asymmetrical interdependence between the OECD countries and the marginalized countries that have not yet developed self-sustaining economies is to be overcome. The conclusion reached by the recent U.N. global summit on social problems in Copenhagen is unsettling. There is a lack of competent agencies on the international level which would have the power to agree on the necessary arrangements, procedures, and political frameworks. Not only the disparities between north and south call for such cooperation but also the drop in standards of living in the wealthy North Atlantic countries, where social policies restricted to the nation-state are powerless to deal with the effects of lower wages on globalized and rapidly expanding labor markets. The lack of supranational agencies is especially acute when it comes to dealing with the ecological problems that were addressed from a global perspective at the Earth Summit in Rio. A more peaceful and just political and economic world order is unthinkable without international institutions capable of taking initiatives, and above all without harmony among the continental regimes that are today just emerging, and without the kind of policies that could only be carried out under pressure from a mobilized global civil society. This tends to support the competing reading according to which the nationstate should be “**transformed” rather than abolished**. But could its normative content then be preserved, too? The optimistic vision of supranational agencies that would empower the United Nations and its regional organizations to institute a new political and economic world order is clouded by the troubling question of whether democratic opinion- and will-formation could ever achieve a binding force that extends beyond the level of the nation-state.

# 1AR

## Knowledge K

#### Best evidence proves – apocalyptic rhetoric is key to sustainable environmental activism

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Some of the strongest evidence of a connection between environmental apocalypticism and activism comes from a national survey that examined whether Americans perceived climate change to be dangerous. As part of his analysis, Anthony Leiserowitz identified several “interpretive communities,” which had consistent demographic characteristics but varied in their levels of risk perception. The group who perceived the risk to be the greatest, which he labeled “alarmists,” described climate change [End Page 5] using apocalyptic language, such as “Bad…bad…bad…like after nuclear war…no vegetation,” “Heat waves, it’s gonna kill the world,” and “Death of the planet” (2005, 1440). Given such language, this would seem to be a reasonable way to operationalize environmental apocalypticism. If such apocalypticism encouraged fatalism, we would expect alarmists to be less likely to have engaged in environmental behavior compared to groups with moderate or low levels of concern. To the contrary, however, Leiserowitz found that alarmists “were significantly more likely to have taken personal action to reduce greenhouse gas emissions” (ibid.) than respondents who perceived climate change to pose less of a threat. Interestingly, while one might expect such radical views to appeal only to a tiny minority, Leiserowitz found that a respectable eleven percent of Americans fell into this group (ibid).¶ Further supporting Leiserowitz’s findings, in a separate national survey conducted in 2008, Maibach, Roser-Renouf, and Leiserowitz found that a group they labeled “the Alarmed” (again, due to their high levels of concern about climate change) “are the segment most engaged in the issue of global warming. They are very convinced it is happening, human-caused, and a serious and urgent threat. The Alarmed are already making changes in their own lives and support an aggressive national response” (2009, 3, emphasis added). This group was far more likely than people with lower levels of concern over climate change to have engaged in consumer activism (by rewarding companies that support action to reduce global warming with their business, for example) or to have contacted elected officials to express their concern. Additionally, the authors found that “[w]hen asked which reason for action was most important to them personally, the Alarmed were most likely to select preventing the destruction of most life on the planet (31%)” (2009, 31)—a finding suggesting that for many in this group it is specifically the desire to avert catastrophe, rather than some other motivation, that encourages pro-environmental behavior. Taken together, these and other studies (cf. Semenza et al. 2008 and DerKarabetia, Stephenson, and Poggi 1996) provide important evidence that many of those who think environmental problems pose a severe threat practice some form of activism, rather than giving way to fatalistic resignation.¶ National surveys give a good overview of the association between apocalypticism and activism among the general public, but they do not [End Page 6] provide sufficient ethnographic detail. To complement this broader picture I now turn to case studies, which provide greater insight into how adherents themselves understand what motivates their environmental behavior.¶ When seeking a subset of environmentalists with apocalyptic beliefs, the radical wing is an obvious place to look. For example, many Earth First!ers believe that the collapse of industrial society is inevitable (Taylor 1994). At the same time, the majority are actively committed to preventing ecological disaster. As Earth First! co-founder Howie Wolke acknowledged, the two are directly connected: “As ecological calamity unravels the living fabric of the Earth, environmental radicalism has become both common and necessary” (1989, 29).3 This logic underlies efforts to preserve wilderness areas, which many radical environmentalists believe will serve as reservoirs of genetic diversity, helping to restore the planet after industrial society collapses (Taylor 1994). In addition to encouraging activism to preserve wilderness, apocalyptic beliefs also motivate practices such as “monkeywrenching,” or ecological sabotage, civil disobedience, and the more conventional “paper monkeywrenching” (lobbying, engaging in public information campaigns to shift legislative priorities, or using lawsuits when these tactics fail). Ultimately, while there are disagreements over what strategies will best achieve their desired goals, for most radical environmentalists, apocalypticism and activism are bound closely together.¶ The connection between belief in impending disaster and environmental activism holds true for Wiccans as well. During fieldwork in the southeastern United States, for example, Shawn Arthur reported meeting “dozens of Wiccans who professed their apocalyptic millenarian beliefs to anyone who expressed interest, yet many others only quietly agreed with them without any further elaboration” (2008, 201). For this group, the coming disaster was understood as divine retribution, the result of an angry Earth Goddess preparing to punish humans for squandering her ecological gifts (Arthur 2008, 203). In light of Gaia’s impending revenge, Arthur found that Wiccans advocated both spiritual and material forms of activism. For example, practices such as Goddess worship, the use of herbal remedies for healing, and awareness of the body and its energies were considered important for initiating a more harmonious relationship with the earth (Arthur 2008, 207). As for material activism, Arthur notes [End Page 7] that the notion of environmental apocalypse played a key role in encouraging pro-environmental behavior:¶ images of immanent [sic] ecological crisis and apocalyptic change often were utilized as motivating factors for developing an environmentally and ecologically conscious worldview; for stressing the importance of working for the Earth through a variety of practices, including environmental activism, garbage collecting, recycling, composting, and religious rituals; for learning sustainable living skills; and for developing a special relationship with the world as a divine entity.¶ (2008, 212)¶ What these studies and my own experiences in the environmentalist milieu4 suggest is that people who make a serious commitment to engaging in environmentally friendly behavior, people who move beyond making superficial changes to making substantial and permanent ones, are quite likely to subscribe to some form of the apocalyptic narrative.¶ All this is not to say that apocalypticism directly or inevitably causes activism, or that believing catastrophe is imminent is the only reason people become activists. However, it is to say that activism and apocalypticism are associated for some people, and that this association is not arbitrary, for there is something uniquely powerful and compelling about the apocalyptic narrative. Plenty of people will hear it and ignore it, or find it implausible, or simply decide that if the situation really is so dire there is nothing they can do to prevent it from continuing to deteriorate. Yet to focus only on the ability of apocalyptic rhetoric to induce apathy, indifference or reactance is to ignore the evidence that it also fuels quite the opposite—grave concern, activism, and sometimes even outrage. It is also to ignore the movement’s history. From Silent Spring (Carson [1962] 2002) to The Limits to Growth (Meadows et al 1972) to The End of Nature (McKibben 1989), apocalyptic arguments have held a prominent place within environmental literature, topping best-seller lists and spreading the message far and wide that protecting the environment should be a societal priority. Thus, while it is not a style of argument that will be effective in convincing everyone to commit to the environmental cause (see Feinberg and Willer 2011), there does appear to be a close relationship between apocalyptic belief and activism among a certain minority. The next section explores the implications of that relationship further. [End Page 8]

### 1AR Ev About Warming

#### We need the warranted knowledge provided by climate science to resolve environmental disputes and set correct goals – don't make the perfect [ontology, epistemology] the enemy of the good

Paavola 8 (Jouni, Sustainability Research Inst. School of Earth and Environment @ Leeds (UK) 2008 "Science and social justice in the governance of adaptation to climate change" Environmental Politics 17 (4) p. Informa)

**Climate change is one area where science and social justice must go hand in hand**. International climate change negotiations have not progressed slowly in the past decade because of the lack of scientific understanding of the phenomenon. An important sticking point for the negotiations has been the distribution of costs and benefits of the status quo use of atmospheric sinks for GHGs. It favours developed countries which are big emitters, and is likely to harm vulnerable developing countries (Mendelsohn et al. 2006). Curtailing emissions of GHGs to the atmosphere would entail redistribution of these benefits and costs. As Henry Shue (1992, p. 376) has said, 'If one is profiting from injustice, it is hardly going to be in one's interest to pursue justice'. However, justice among the nation-states is but one aspect of climate justice (Paavola 2005). Choosing to emit GHGs has adverse effects on present and future humans and non-humans. Does the consent or non-consent of the affected parties matter, and to what extent? How can those who are affected by, and those who are concerned about, climate change make their interests count? Can these parties only voice their concerns through markets by choosing low-carbon consumer good baskets, or is decarbonisation sought through democratic decision-making and mandatory public policies? Decarbonisation through markets and through democratic decision-making and mandatory public policies recognise different sets of stakeholders, afford different kinds of participation, and also imply different distributions of power. These are all matters of social justice, broadly conceived. This article seeks to demonstrate that even rational choice reasoning can, after some elaboration, provide a justification for the role of social justice in environmental decision-making and governance. The key argument of the article is that science and social justice make complementary contributions to environmental decision-making and governance, and that the current tendency to prioritise science in the 'evidence based policy' strategy of the UK government (see Stern 2007), and in the science-reliance of the climate change regime (see Parry et al. 2007), should be complemented by a greater sensitivity to social justice. The next section discusses how a rational choice model that admits imperfect social knowledge and limited cognitive capacity can give a role to science in environmental decision-making. The section thereafter discusses how the acknowledgement of motivational pluralism in rational choice reasoning suggests that both distributive and procedural justice are needed to guarantee the legitimacy of environmental decisions. Finally, I exemplify and substantiate the foregoing arguments by applying them to the governance of adaptation to climate change. Rational choice and environmental decision-making The model of rational choice is based on three core assumptions (Elster 1986, Hargreaves et al. 1992). First, agents are thought to be motivated exclusively by the improvement of their own utility. Secondly, agents are thought to possess perfect knowledge, so that they can identify what best enhances their utility. Thirdly, agents are thought to have unlimited cognitive capacity. The assumptions of unlimited cognitive capacity and perfect knowledge are related. Perfect knowledge requires unlimited cognitive capacity, but unlimited cognitive capacity does not guarantee perfect knowledge: perfect knowledge also requires that the reality is knowable (Paavola and Adger 2005). Strict adherence to these standard assumptions would have absurd implications. As one aspect of perfect knowledge, perfect foresight would mean that agents anticipate all utility enhancing opportunities that appear in the future. They would complete all beneficial transactions at once when markets are established. By implication the status quo would be optimal and would not leave any possibilities for utility enhancement (Samuels 1992). Yet standard informational and cognitive assumptions are useful as starting points, with which more realistic assumptions can be compared. Collective environmental decisions would be straightforward under the standard rational choice assumptions: their goodness would be a matter of maximising the utilities of individual agents. Under ideal conditions of collective decision-making that resemble those of perfect markets (Paavola 2002), agents would have reasons to approve all Pareto-better decisions that harm nobody but are beneficial at least to somebody. All environmental decisions where winners could and would compensate the losers would also be made. Utility enhancement could be achieved even under a majority rule by using contracting between winners and losers over a sequence of collective decisions: losers would agree to a decision if they could expect to make up the loss as a result of a similar consent of current winners in future decisions. In the light of rational choice reasoning, environmental decisions would not need any science support, cost-benefit analyses, or environmental impact assessments. Involved agents would know from the outset what best enhances their utility and they would be able to reach all beneficial environmental decisions by costless negotiation. The difficulty with the rational choice account of environmental decisions is to explain why beneficial choices remain available, and have not already been made earlier. Indeed, the only way for the rational choice approach to make space for science in collective environmental decision-making is to relax the informational and cognitive assumptions. Imperfect knowledge can have several sources (see Paavola and Adger 2005): 1. Limited cognitive capacity can prevent the attainment of perfect knowledge; 2. Self-interested agents do not have incentives to disclose information to others; 3. Resources and goods have attributes which can only be learned over time, if at all; 4. Behavioural and other adjustments require learning, time and resources; 5. Institutions can make information gathering costly instead of economising on it. The admission of limited cognitive capacity means that agents **cannot attain perfect knowledge** and that they have to develop ways to cope with imperfect knowledge with their limited cognitive capacity. Heiner (1983) suggests that a gap between our cognitive capacity and the challenges posed by the choice problems forces us to use a narrow set of behavioural and decision rules. Tversky (1972) argues in parallel that individuals use aspects of choice alternatives to reduce the number of alternatives that they have to consider. Herbert Simon has in turn suggested that agents have multiple goals and that they satisfy them rather than maximise their utility (Simon 1986). Unsurprisingly, empirical research has discovered the use of rules of thumbs, preference reversals, the influence of frames of reference and irrelevant alternatives, and asymmetric valuation of gains and losses to be common in choice behaviour (Simon 1986, Tversky and Kahneman 1986). The rational choice approach that relaxes informational and cognitive assumptions can acknowledge the contribution of science to environmental decision-making. Our knowledge of the physical world is limited because of our limited cognitive capacity, and information may be withheld from the public domain because of self-interest as the controversy about the evidence on the adverse effects of smoking illustrates. Science can improve our understanding of the world we live in and protect public interests by providing credible and **warranted knowledge**. Moreover, to the extent that agents' goals, alternatives and preferences are interdependent, science can also indirectly contribute to the clarification of goals and preferences. On the other hand, the role of science may be limited because decision-making processes and rules may facilitate the making of decisions by reducing the complexity of decision problems. This is not misguided: **perfection of choice** may be detrimental if it delays or prevents needed action as highlighted by a Finnish saying 'the best is the worst enemy of good'.

## Satellites K

### 1AR Not a Weapon

#### SPS is not a weapon and will not be attacked

Smith 8 – PhD Student @ University of Reading M.V., Lt. Col, PhD student in the strategic studies program under Professor Colin Gray at the University of Reading in the UK, winner of the National Space Society’s 2008 Space Pioneer Award, Chief of Future Concepts (Dream Works) the Pentagon “Weaponization, Environmental Risk, and Multinational Approaches”

 “Your concern about weaponization of the system and environmental risks are proper and deserve solid answers. For the answers (and a whole bunch of other great information) let me point you to a special edition of Ad Astra magazine produced by the National Space Society. If you look on page 29 you’ll see the answers as to why space-based [SPS] solar power satellites cannot be weaponized. Let me add to that list the following items: **The DoD will not own or operate SBSP satellites**. Energy production and distribution is outside of its Title X authority. In my opinion the DoD merely wants to be a customer of safe, clean energy and is most comfortable purchasing its energy from commercial vendors, just as it does today. The interest shown by the National Security Space Office (NSSO) in hosting the work done by the Space-Based Solar Power Study Group was largely because NASA does not do energy and the DoE does not do space. In other words, it was a ball being dropped along organizational lines. The security-related interest of the NSSO as it stepped in to host the study was three fold: Provide more energy sources to hopefully alleviate energy competition as a trigger for war between the major powers in the 21st Century Achieve American energy independence from foreign oil suppliers who attract US vital interests in areas and with peoples with whom we really would prefer to interact with in ways other than a dependent customer-supplier relationship. Provide a source of clean energy that provides America with broader options regarding carbon contamination and clean-up, as well as improved ability to make progress on treaties such as Kyoto. **Simple inspections of the waveguides for either laser or microwave transmitters on the satellites can easily verify that the beam cannot be focused narrowly to create a weapons effect**. Such inspections can and likely will be conducted at time of insurance inspection, licensing, and registration before launch. **International inspectors would be welcome and encouraged**. The goal is to have international corporations own and operate these satellites and provide power to international customers–that’s the key to defense of these huge birds–deterrence by mutual defense through broad international ownership and international customership–an attack on a satellite is an attack against all.

## Satellites K

### NEW SPACE CARD READ

#### The K is not a pre-requisite – it goes in the opposite direction. Exploration remedies their terrestrial K.

Ashworth 10 (Stephen Ashworth is a long-standing Fellow of the British Interplanetary Society. He works in academic publishing in the Voltaire Foundation, part of Oxford University – Towards the Sociology of the Universe, part 1 – “A Review of Dickens and Ormrod, Cosmic Society – 18 December 2010 – http://www.astronist.demon.co.uk/space-age/essays/Sociology1.html)

Clearly, that cannot be planned in advance. But one certainty is that production in space, using the natural raw materials and energy of space and of other worlds, will be significantly different from production on Earth, and therefore, according to Marx and Engels, will trigger changes in social relations. Not, however, according to Dickens and Ormrod, who write that extending terrestrial society into space seems likely “Tragically [...] to make outer space in the image of the Earth itself, with all its power relations and consequent social injustices” (p.176). But would they also argue that the power relations and social injustices of today’s internet world are the same as in the Victorian England of child labour and women’s subordination? Then why imagine that space development will not also change society? Dickens and Ormrod’s fundamental thesis might be stated in a nutshell as: first solve all social problems on Earth, only then, after justice and equality have been achieved for all, turn to the exploration and development of outer space. But they have no idea of when or even whether their social objectives can be achieved. While even if they are achieved, our authors have no guarantee that the resulting society, without the impetus to growth generated by capitalism, will still be capable of expansion into space. Their equation of change with “crisis” strongly suggests that it will not. In the light of historical materialism, which after all “provides a solid foundation for thinking about the cosmos and how and why it is being humanized” (p.50), that programme must be inverted: first go into space and set up space production. The consequences of such an industrial revolution may then play out into a fairer society for all – just as, on Earth, the revolutionary ideals and technologies of the Enlightenment lagged behind the start of colonisation of the Americas by a century or more.