# 1AC

### 1AC – Heg Advantage

#### CONTENTION 1: HEGEMONY

**Key military operations depend on the grid---SMRs are key**

**Robitaille 12** George E, Department of Army Civilian, March 21, "Small Modular Reactors: The Army’s Secure Source of Energy?", [www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA561802](http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA561802)

In recent years, the U.S Department of Defense (DoD) has identified a security issue at our installations related to the dependence on the civilian electrical grid.1 **The DoD depends on a steady source of electricity at military facilities to** perform the functions that **secure our nation**. The flow of electricity into military facilities is controlled by a public grid system that is susceptible to being compromised because of the age of the infrastructure, damage from natural disasters and the potential for cyber attacks. Although most major functions at military installations employ diesel powered generators as temporary backup, **the public grid may not be available to provide electricity when it is needed the most**. The United States electrical infrastructure system is prone to failures and **susceptible to terrorist attacks**.2 It is critical that the source of electricity for our installations is reliable and secure. In order to ensure that our military facilities possess a secure source of electricity, either the public system of electric generation and distribution is upgraded to increase its reliability as well as reducing its susceptibility to cyber attack or another source of electricity should be pursued. Although significant investments are being made to upgrade the electric grid, the current investment levels are not keeping up with the aging system.¶ **Small modular reactors** (**SMRs**) are nuclear reactors that are about an order of magnitude smaller than traditional commercial reactor used in the United States. SMRs are capable of generating electricity and at the same time, they are not a significant contributor to global warming because of green house gas emissions. The DoD needs to look at small modular nuclear reactors (SMRs) to determine if they can provide a safe and secure source of electricity.¶ Electrical Grid Susceptibility to Disruptions¶ According to a recent report by the Defense Science Board, the DoD gets **ninety nine percent** of their electrical requirements **from the civilian electric grid**.3 The electric grid, as it is currently configured and envisioned to operate for the foreseeable future, may not be reliable enough to ensure an uninterrupted flow of electricity for our critical military facilities given the influences of the aging infrastructure, its susceptibility to severe weather events, and the potential for cyber attacks. The DoD dependency on the grid is reflected in the $4.01 Billion spent on facilities energy in fiscal year 2010, the latest year which data was available.4 The electricity used by military installations amounts to $3.76 billion.5 As stated earlier, **the DoD relies on the commercial grid to provide a secure source of energy to support the operations that ensure the security of our nation and it may not be available when we need it**. The system could be taken down for extended periods of time by failure of aging components, acts of nature, or intentionally by cyber attacks.¶ Aging Infrastructure. The U.S electric power grid is made up of independently owned power plants and transmission lines. The political and environmental resistance to building new electric generating power plants combined with the rise in consumption and aging infrastructure increases the potential for grid failure in the future. There are components in the U.S. electric grid that are over one hundred years old and some of the recent outages such as the 2006 New York blackout can be directly attributed to this out of date, aging infrastructure. 6 Many of the components of this system are at or exceeding their operational life and the general trend of the utility companies is to not replace power lines and other equipment until they fail. 7 The government led deregulation of the electric utility industry that started in the mid 1970s has contributed to a three decade long deterioration of the electric grid and an increased state of instability. Although significant investments are being made to upgrade the electric grid, the many years of prior neglect will require a considerable amount of time and funding to bring the aging infrastructure up to date. Furthermore, the current investment levels to upgrade the grid are not keeping up with the aging system. 8 In addition, upgrades to the digital infrastructure which were done to increase the systems efficiency and reliability, have actually made the system more susceptible to cyber attacks. 9 Because of the aging infrastructure and the impacts related to weather, the extent, as well as frequency of failures is expected to increase in the future. Adverse Weather. According to a 2008 grid reliability report by the Edison Electric Institute, sixty seven per cent of all power outages are related to weather. Specifically, lightning contributed six percent, while adverse weather provided thirty one percent and vegetation thirty percent (which was predominantly attributed to wind blowing vegetation into contact with utility lines) of the power outages. 10 In 1998 a falling tree limb damaged a transformer near the Bonneville Dam in Oregon, causing a cascade of related black-outs across eight western states. 11 In August of 2003 the lights went out in the biggest blackout in North America, plunging over fifty million people into darkness over eight states and two Canadian provinces. Most areas did not have power restored four or five days. In addition, drinking water had to be distributed by the National Guard when water pumping stations and/or purification processes failed. The estimated economic losses associated with this incident were about five billion dollars. Furthermore, this incident also affected the operations of twenty two nuclear plants in the United States and Canada. 12 In 2008, Hurricane Ike caused approximately seven and a half million customers to lose power in the United States from Texas to New York. 13 The electric grid suffered numerous power outages every year throughout the United States and the number of outages is expected to increase as the infrastructure ages without sufficient upgrades and weather-related impacts continue to become more frequent. Cyber Attacks. The civilian grid is made up of three unique electric networks which cover the East, West and Texas with approximately one hundred eighty seven thousand miles of power lines. There are several weaknesses in the electrical distribution infrastructure system that could compromise the flow of electricity to military facilities. The flow of energy in the network lines as well as the main distribution hubs has become totally dependent on computers and internet-based communications. Although the digital infrastructure makes the grid more efficient, it also makes it more susceptible to cyber attacks. Admiral Mr. Dennis C. Blair (ret.), the former Director of National Intelligence, testified before Congress that “the growing connectivity between information systems, the Internet, and other infrastructures creates opportunities for attackers to disrupt telecommunications, electrical power, energy pipelines, refineries, financial networks, and other critical infrastructures. 14 ” The Intelligence Community assesses that **a number of nations already have the technical capability to conduct such attacks**. 15 In the 2009 report, Annual Threat Assessment of the Intelligence Community for the Senate Armed Services Committee, Adm. Blair stated that “Threats to cyberspace pose one of the most serious economic and national security challenges of the 21st Century for the United States and our allies.”16 In addition, the report highlights a growing array of state and non-state actors that are targeting the U.S. critical infrastructure for the purpose of creating chaos that will subsequently produce detrimental effects on citizens, commerce, and government operations. These actors have the ability to compromise, steal, change, or completely destroy information through their detrimental activities on the internet. 17 In January 2008, US Central Intelligence Agency senior analyst Tom Donahue told a gathering of three hundred international security managers from electric, water, oil & gas, and other critical industry, that data was available from multiple regions outside the United States, which documents cyber intrusions into utilities. In at least one case (outside the U.S.), the disruption caused a power outage affecting multiple cities. Mr. Donahue did not specify who executed these attacks or why, but did state that all the intrusions were conducted via the Internet. 18 During the past twenty years, advances in computer technologies have permeated and advanced all aspects of our lives. Although the digital infrastructure is being increasingly merged with the power grid to make it more efficient and reliable, it also makes it more vulnerable to cyber attack. In October 2006, a foreign hacker invaded the Harrisburg, PA., water filtration system and planted malware. 19 In June 2008, the Hatch nuclear power plant in Georgia shut down for two days after an engineer loaded a software update for a business network that also rebooted the plant's power control system. In April 2009, The Wall Street Journal reported that cyber spies had infiltrated the U.S. electric grid and left behind software that could be used to disrupt the system. The **hackers came from China, Russia and other nations** and were on a “fishing expedition” to map out the system. 20 According to the secretary of Homeland Security, Janet Napolitano at an event on 28 October 2011, cyber–attacks have come close to compromising the country’s critical infrastructure **on multiple occasions.** 21 Furthermore, during FY11, the United States Computer Emergency Readiness Team took action on more than one hundred thousand incident reports by releasing more than five thousand actionable cyber security alerts and information products. 22 The interdependence of modern infrastructures and digital based systems makes any cyber attacks on the U.S. electric grid potentially significant. The December 2008 report by the Commission on Cyber Security for the forty fourth Presidency states the challenge plainly: “America’s failure to protect cyberspace is one of the most urgent national security problems facing the new administration”. 23 The susceptibility of the grid to being compromised has resulted in a significant amount of resources being allocated to ensuring the systems security. Although a substantial amount of resources are dedicated to protecting the nation’s infrastructure, it may not be enough to ensure the continuous flow of electricity to our critical military facilities. **SMRs as they are currently envisioned may be able to provide a secure and independent alternative source of electricity in the event that the public grid is compromised.** SMRs may also provide additional DoD benefit by supporting the recent government initiatives related to energy consumption and by circumventing the adverse ramifications associated with building coal or natural gas fired power plants on the environment.

**Plan solves grid collapse---SMRs make bases resilient and deters attack**

**Andres and Breetz 11** Richard B, Professor of National Security Strategy at the National War College and a Senior Fellow and Energy and Environmental Security and Policy Chair in the Center for Strategic Research, Institute for National Strategic Studies, at the National Defense University and Hanna L, doctoral candidate in the Department of Political Science at The Massachusetts Institute of Technology, February, "Small Nuclear Reactors for Military Installations: Capabilities, Costs, and Technological Implications", www.ndu.edu/press/lib/pdf/StrForum/SF-262.pdf

Small Reactors and Energy Security¶ The DOD interest in small reactors derives largely from problems with base and logistics vulnerability. Over the last few years, the Services have begun to reexamine virtually every aspect of how they generate and use energy with an eye toward cutting costs, decreasing carbon emissions, and reducing energy-related vulnerabilities. These actions have resulted in programs that have significantly reduced DOD energy consumption and greenhouse gas emissions at domestic bases. Despite strong efforts, however, two critical security issues have thus far **proven resistant to existing solutions**: bases’ vulnerability to civilian power outages, and the need to transport large quantities of fuel via convoys through hostile territory to forward locations. Each of these is explored below.¶ Grid Vulnerability. DOD is unable to provide its bases with electricity when the civilian electrical grid is offline for an extended period of time. **Currently, domestic military installations receive 99 percent of their electricity from the civilian power grid.** As explained in a recent study from the Defense Science Board:¶ DOD’s key problem with electricity is that critical missions, such as national strategic awareness and national command authorities, are almost entirely dependent on the national transmission grid . . . [**which] is fragile, vulnerable, near its capacity limit, and outside of DOD control**. In most cases, neither the grid nor on-base backup power provides sufficient reliability to ensure continuity of critical national priority functions and oversight of strategic missions in the face of a long term (several months) outage.7¶ The grid’s fragility was demonstrated during the 2003 Northeast blackout in which 50 million people in the United States and Canada lost power, some for up to a week, when one Ohio utility failed to properly trim trees. The blackout created cascading disruptions in sewage systems, gas station pumping, cellular communications, border check systems, and so forth, and demonstrated the interdependence of modern infrastructural systems.8¶ More recently, awareness has been growing that the grid is also vulnerable to purposive attacks. A report sponsored by the Department of Homeland Security suggests that a coordinated cyberattack on the grid could result in a third of the country losing power for a period of weeks or months.9 Cyberattacks on critical infrastructure are not well understood. It is not clear, for instance, whether existing terrorist groups might be able to develop the capability to conduct this type of attack. It is likely, however, that some nation-states either have or are working on developing the ability to take down the U.S. grid. In the event of a war with one of these states, it is possible, if not likely, that parts of the civilian grid would cease to function, taking with them military bases located in affected regions.¶ **Government and private organizations are currently working to secure the grid against attacks; however, it is not clear that they will be successful**. Most military bases currently have backup power that allows them to function for a period of hours or, at most, a few days on their own. **If power were not restored after this amount of time, the results could be disastrous**. First, military assets taken offline by the crisis would not be available to help with disaster relief. Second, during an extended blackout, **global military operations could be seriously compromised**; this disruption would be particularly serious if the blackout was induced during major combat operations. During the Cold War, this type of event was far less likely because the United States and Soviet Union shared the common understanding that blinding an opponent with **a grid blackout could escalate to nuclear war**. America’s current opponents, however, may not share this fear or be deterred by this possibility.¶ In 2008, the Defense Science Board stressed that DOD should mitigate the electrical grid’s vulnerabilities by turning military installations into “islands” of energy self-sufficiency.10 The department has made efforts to do so by promoting efficiency programs that lower power consumption on bases and by constructing renewable power generation facilities on selected bases. Unfortunately, these programs will not come close to reaching the goal of islanding the vast majority of bases. **Even with massive investment in efficiency and renewables, most bases would not be able to function for more than a few days after the civilian grid went offline**.¶ **Unlike other alternative sources of energy, small reactors have the potential to solve DOD’s vulnerability to grid outages**. Most bases have relatively light power demands when compared to civilian towns or cities. Small reactors could easily support bases’ power demands separate from the civilian grid during crises. In some cases, the reactors could be designed to produce enough power not only to supply the base, but also to provide critical services in surrounding towns during long-term outages.¶ Strategically, islanding bases with small reactors has another benefit. One of the main reasons an enemy might be willing to risk reprisals by taking down the U.S. grid during a period of military hostilities would be to affect ongoing military operations. Without the lifeline of intelligence, communication, and logistics provided by U.S. domestic bases, American military operations would be compromised in almost any conceivable contingency**. Making bases more resilient to civilian power outages would reduce the incentive for an opponent to attack the grid**. An opponent might still attempt to take down the grid for the sake of disrupting civilian systems, but the powerful incentive to do so in order to win an ongoing battle or war would be greatly reduced.

**Grid failure wrecks US critical mission operations**

**Stockton 11** Paul, assistant secretary of defense for Homeland Defense and Americas’ Security Affairs, “Ten Years After 9/11: Challenges for the Decade to Come”, <http://www.hsaj.org/?fullarticle=7.2.11>

The cyber threat to the DIB is only part of a much larger challenge to DoD. Potential adversaries are seeking asymmetric means to cripple our force projection, warfighting, and sustainment capabilities, by targeting the critical civilian and defense supporting assets (within the United States and abroad) on which our forces depend. This challenge is not limited to man-made threats; DoD must also execute its mission-essential functions in the face of disruptions caused by naturally occurring hazards.20 Threats and hazards to DoD mission execution include incidents such as earthquakes, naturally occurring pandemics, solar weather events, and industrial accidents, as well as kinetic or virtual attacks by state or non-state actors. Threats can also emanate from insiders with ties to foreign counterintelligence organizations, homegrown terrorists, or individuals with a malicious agenda. From a DoD perspective, this global convergence of unprecedented threats and hazards, and vulnerabilities and consequences, is a particularly problematic reality of the post-Cold War world. Successfully deploying and sustaining our military forces are increasingly a function of interdependent supply chains and privately owned infrastructure within the United States and abroad, including transportation networks, cyber systems, commercial corridors, communications pathways, and energy grids. This infrastructure largely falls outside DoD direct control. Adversary actions to destroy, disrupt, or manipulate this highly vulnerable homeland- and foreign-based infrastructure may be relatively easy to achieve and extremely tough to counter. Attacking such “soft,” diffuse infrastructure systems could significantly affect our military forces globally – potentially blinding them, neutering their command and control, degrading their mobility, and isolating them from their principal sources of logistics support. The Defense Critical Infrastructure Program (DCIP) under Mission Assurance seeks to improve execution of DoD assigned missions to make them more resilient. This is accomplished through the assessment of the supporting commercial infrastructure relied upon by key nodes during execution. By building resilience into the system and ensuring this support is well maintained, DoD aims to ensure it can "take a punch as well as deliver one."21 It also provides the department the means to prioritize investments across all DoD components and assigned missions to the most critical issues faced by the department through the use of risk decision packages (RDP).22 The commercial power supply on which DoD depends exemplifies both the novel challenges we face and the great progress we are making with other federal agencies and the private sector. Today’s commercial electric power grid has a great deal of resilience against the sort of disruptive events that have traditionally been factored into the grid’s design. Yet, the grid will increasingly confront threats beyond that traditional design basis. This complex risk environment includes: disruptive or deliberate attacks, either physical or cyber in nature; severe natural hazards such as geomagnetic storms and natural disasters with cascading regional and national impacts (as in NLE 11); long supply chain lead times for key replacement electric power equipment; transition to automated control systems and other smart grid technologies without robust security; and more frequent interruptions in fuel supplies to electricity-generating plants. These risks are magnified by globalization, urbanization, and the highly interconnected nature of people, economies, information, and infrastructure systems. The department is highly dependent on commercial power grids and energy sources. As the largest consumer of energy in the United States, DoD is dependent on commercial electricity sources outside its ownership and control for secure, uninterrupted power to support critical missions. In fact, approximately 99 percent of the electricity consumed by DoD facilities originates offsite, while approximately 85 percent of critical electricity infrastructure itself is commercially owned. This situation only underscores the importance of our partnership with DHS and its work to protect the nation’s critical infrastructure – a mission that serves not only the national defense but also the larger national purpose of sustaining our economic health and competitiveness. DoD has traditionally assumed that the commercial grid will be subject only to infrequent, weather-related, and short-term disruptions, and that available backup power is sufficient to meet critical mission needs. As noted in the February 2008 Report of the Defense Science Board Task Force on DoD Energy Strategy, “In most cases, neither the grid nor on-base backup power provides sufficient reliability to ensure continuity of critical national priority functions and oversight of strategic missions in the face of a long term (several months) outage.”23 Similarly, a 2009 GAO Report on Actions Needed to Improve the Identification and Management of Electrical Power Risks and Vulnerabilities to DoD Critical Assets stated that DoD mission-critical assets rely primarily on commercial electric power and are vulnerable to disruptions in electric power supplies.24 Moreover, these vulnerabilities may cascade into other critical infrastructure that uses the grid – communications, water, transportation, and pipelines – that, in turn, is needed for the normal operation of the grid, as well as its quick recovery in emergency situations. To remedy this situation, the Defense Science Board (DSB) Task Force recommended that DoD take a broad-based approach, including a focused analysis of critical functions and supporting assets, a more realistic assessment of electricity outage cause and duration, and an integrated approach to risk management that includes greater efficiency, renewable resources, distributed generation, and increased reliability. DoD Mission Assurance is designed to carry forward the DSB recommendations. Yet, for a variety of reasons – technical, financial, regulatory, and legal – DoD has limited ability to manage electrical power demand and supply on its installations. As noted above, DHS is the lead agency for critical infrastructure protection by law and pursuant to Homeland Security Presidential Directive 7. The Department of Energy (DOE) is the lead agency on energy matters. And within DoD, energy and energy security roles and responsibilities are distributed and shared, with different entities managing security against physical, nuclear, and cyber threats; cost and regulatory compliance; and the response to natural disasters. And of course, production and delivery of electric power to most DoD installations are controlled by commercial entities that are regulated by state and local utility commissions. The resulting paradox: DoD is dependent on a commercial power system over which it does not – and never will – exercise control.

#### SMRs resolve convoy risks---islanding and reduced fuel needs

Bourget 11 Remy, worked at Center for Advanced Defense Studies, “Small Modular Reactors: Opportunity for Global Leadership and Innovation”, 7/1, Google Cache

Small Modular Reactors offer unambiguous national security advantages. Unlike other alternative energy sources such as solar and wind power, nuclear reactors can be relied on for energy 24/7, making them a very stable source of energy. The fragility of the U.S. electric grid was underscored in 2003 by a blackout which swept the north-east United States, affecting 45 million Americans. The electric grid is especially vulnerable to cyber-attack, though some experts claim it has already been penetrated and “prepared in advance” for cyber war. Putting greater military reliance on nuclear energy mitigates this risk. Small reactors would help to “island” domestic bases, making them invulnerable to such attacks. Another security advantage is independence from oil. Currently, cutting off the oil supply would cripple US defenses. Reactors deployed to Forward Operating Bases would reduce the need for fuel convoys, saving American lives and eliminating the possibility of a crisis on the scale of Pakistan's 2008 closure of the Khyber Pass. Proliferation is another important security concern, and there are two opposing views in the SMR debate. Some claim that because thorium is not a fissile material and there is only low-grade uranium used to start the fission reaction, the Liquid Fluoride Thorium Reactor model will avoid many of the security and proliferation concerns associated with traditional reactors. Ninety percent enriched uranium is needed for weapons, but only 20% (at most) would be used in the thorium reactions. Other scientists dispute this claim, saying that it is relatively easy to enrich uranium from 20% to 90%, which is weapons-grade. The environmental aspects of SMRs are also hotly debated. The smaller size of the modular reactors means they have smaller “radiological footprints” - a strong environmental case for the use of SMRs. However, opponents argue that more small reactors will produce more hazardous waste because they use more fuel per unit of energy produced than traditional reactors. They also argue that the radioactivity of thorium is 200 times that of the same mass of uranium. This point is still in dispute because other scientific models indicate that thorium reactors are more efficient and could produce 10,000 times less waste than a pressurized water reactor. This would help military bases achieve their goal of reducing carbon emissions 28% by 2020. Their small size also allows them to be buried underground to contain potential leaks. Additionally, Molten Salt Reactors that use thorium have a natural safety mechanism which does not require a cooling system run by vulnerable computers. This makes disastrous meltdowns like Fukushima, Three Mile Island and Chernobyl next to impossible. Naval vessels have been operating similar small reactors for decades without a single disaster. Proponents of SMRs argue that they overcome many of the financial drawbacks faced by traditional reactors. The overhead costs are lower, requiring only several hundred million compared to the $10 billion required for a traditional twin-core complex. However, opponents dispute this calculation, saying that the material cost per kilowatt of a reactor goes up as the size goes down, making the same amount of energy produced by numerous small reactors ultimately more expensive than one big one. If the reactors turn out to be economical, it could save the DoD billions in electric bills. The air conditioning bill alone for Iraq and Afghanistan is $20 billion each year. Another benefit is construction time. They take only three years to become operational, instead of five to six. It would also take less time to repair the reactors if they were damaged during an attack. Having a decentralized system of modular reactors makes it more difficult for enemies to achieve a decisive hit that will cripple a base's energy supply. Some argue that as a highly advanced industrialized nation, the US would be one of the few countries with the capabilities to manufacture the reactors, stimulating job growth. Others say that contracts would inevitably be given to another country like China that competes with lower wages. Congress must first decide what the nation's energy priorities are, then weigh the costs and benefits of developing Small Modular Reactors. This process will involve defining the precise scientific aspects of SMRs more clearly than has been done in the past. Ultimately, DOD and Congress must assess the question of whether the security benefits of SMRs are worth the potential costs. The United States has a history of bold innovation, but now the Chinese are trailblazing the development of thorium-based reactors, which could have major implications on great-power politics. The US still has the chance to lead the way in the next generation of nuclear energy, but recent budgetary decisions suggest a missed opportunity.

#### Convoy and fuel dependency risks collapsing mission effectiveness

Voth 12 Jeffrey M, President of Herren Associates leading a team of consultants advising the federal government on issues of national security, energy and environment, health care and critical information technology infrastructure, George Washing University Homeland Security Policy Institute, “In Defense of Energy – A Call to Action”, April 11, <http://securitydebrief.com/2012/04/11/in-defense-of-energy-a-call-to-action/>

Last month, the Pentagon released its widely anticipated roadmap to transform operational energy security. As published in a World Politics Review briefing, energy security has become a strategic as well as an operational imperative for U.S. national security. As tensions continue to escalate with Iran in the Strait of Hormuz, it has become clear that the U.S. military urgently requires new approaches and innovative technologies to improve fuel efficiency, increase endurance, enhance operational flexibility and support a forward presence for allied forces while reducing the vulnerability inherent in a long supply-line tether. Assured access to reliable and sustainable supplies of energy is central to the military’s ability to meet operational requirements globally, whether keeping the seas safe of pirates operating off the coast of Africa, providing humanitarian assistance in the wake of natural disasters in the Pacific or supporting counterterrorism missions in the Middle East. From both a strategic and an operational perspective, the call to action is clear. Rapid employment of energy-efficient technologies and smarter systems will be required to transform the military’s energy-security posture while meeting the increasing electric-power demands required for enhanced combat capability. As recently outlined by Chairman of the Joint Chiefs of Staff Gen. Martin Dempsey, “Without improving our energy security, we are not merely standing still as a military or as a nation, we are falling behind.”

**Loss of mission effectiveness results in nuclear war in every hotspot**

**Kagan and O’Hanlon 7** Frederick, resident scholar at AEI and Michael, senior fellow in foreign policy at Brookings, “The Case for Larger Ground Forces”, April 2007, http://www.aei.org/files/2007/04/24/20070424\_Kagan20070424.pdf

We live at a time when wars not only rage in nearly every region but threaten to erupt in many places where the current relative calm is tenuous. To view this as a strategic military challenge for the United States is not to espouse a specific theory of America’s role in the world or a certain political philosophy. Such an assessment flows directly from the basic bipartisan view of American foreign policy makers since World War II that overseas threats must be countered before they can directly threaten this country’s shores, that the basic stability of the international system is essential to American peace and prosperity, and that no country besides the United States is in a position to lead the way in countering major challenges to the global order. Let us highlight the threats and their consequences with a few concrete examples, emphasizing those that involve key strategic regions of the world such as the Persian Gulf and East Asia, or key potential threats to American security, such as the spread of nuclear weapons and the strengthening of the global Al Qaeda/jihadist movement. The Iranian government has rejected a series of international demands to halt its efforts at enriching uranium and submit to international inspections. What will happen if the US—or Israeli—government becomes convinced that Tehran is on the verge of fielding a nuclear weapon? North Korea, of course, has already done so, and the ripple effects are beginning to spread. Japan’s recent election to supreme power of a leader who has promised to rewrite that country’s constitution to support increased armed forces—and, possibly, even nuclear weapons— may well alter the delicate balance of fear in Northeast Asia fundamentally and rapidly. Also, in the background, at least for now, Sino Taiwanese tensions continue to flare, as do tensions between India and Pakistan, Pakistan and Afghanistan, Venezuela and the United States, and so on. Meanwhile, the world’s nonintervention in Darfur troubles consciences from Europe to America’s Bible Belt to its bastions of liberalism, yet with no serious international forces on offer, the bloodletting will probably, tragically, continue unabated. And as bad as things are in Iraq today, they could get worse. What would happen if the key Shiite figure, Ali al Sistani, were to die? If another major attack on the scale of the Golden Mosque bombing hit either side (or, perhaps, both sides at the same time)? Such deterioration might convince many Americans that the war there truly was lost—but the costs of reaching such a conclusion would be enormous. Afghanistan is somewhat more stable for the moment, although a major Taliban offensive appears to be in the offing. Sound US grand strategy must proceed from the recognition that, over the next few years and decades, the world is going to be a very unsettled and quite dangerous place, with Al Qaeda and its associated groups as a subset of a much larger set of worries. The only serious response to this international environment is to develop armed forces capable of protecting America’s vital interests throughout this dangerous time**. Doing so requires a military capable of a wide range of missions**—including not only deterrence of great power conflict in dealing with potential hotspots in Korea, the Taiwan Strait, and the Persian Gulf but also associated with a variety of Special Forces activities and stabilization operations. For today’s US military, which already excels at high technology and is increasingly focused on re-learning the lost art of counterinsurgency, this is first and foremost a question of finding the resources to field a large-enough standing Army and Marine Corps to handle personnel intensive missions such as the ones now under way in Iraq and Afghanistan. Let us hope there will be no such large-scale missions for a while. But preparing for the possibility, while doing whatever we can at this late hour to relieve the pressure on our soldiers and Marines in ongoing operations, is prudent. At worst, the only potential downside to a major program to strengthen the military is the possibility of spending a bit too much money. **Recent history shows no link between having a larger military and its overuse**; indeed, Ronald Reagan’s time in office was characterized by higher defense budgets and yet much less use of the military, an outcome for which we can hope in the coming years, but hardly guarantee. While the authors disagree between ourselves about proper increases in the size and cost of the military (with O’Hanlon preferring to hold defense to roughly 4 percent of GDP and seeing ground forces increase by a total of perhaps 100,000, and Kagan willing to devote at least 5 percent of GDP to defense as in the Reagan years and increase the Army by at least 250,000), we agree on the need to start expanding ground force capabilities by at least 25,000 a year immediately. Such a measure is not only prudent, it is also badly overdue.

**Hegemony prevents extinction**

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Events in Libya are a further reminder for Americans that we **stand at a crossroads in our continuing evolution as the world's sole full-service superpower**. Unfortunately, we are increasingly seeking change without cost, and shirking from risk because we are tired of the responsibility. We don't know who we are anymore, and our president is a big part of that problem. Instead of leading us, he explains to us. Barack Obama would have us believe that he is practicing strategic patience. But many experts and ordinary citizens alike have concluded that he is actually beset by strategic incoherence -- in effect, a man overmatched by the job. It is worth first examining the larger picture: We live in a time of arguably **the greatest structural change in the global order yet endured**, with this historical moment's most amazing feature being its relative and absolute **lack of mass violence**. That is something to consider when Americans contemplate military intervention in Libya, because if we do take the step to prevent larger-scale killing by engaging in some killing of our own, we will not be adding to some fantastically imagined global death count stemming from the ongoing "megalomania" and "evil" of American "empire." We'll be engaging in the same sort of system-administering activity that has marked our stunningly successful stewardship of global order since World War II. Let me be more blunt: As the **guardian of globalization**, the U.S. military has been the **greatest force for peace the world has ever known**. Had America been removed from the global dynamics that governed the 20th century, the **mass murder never would have ended**. Indeed, it's entirely conceivable **there would now be no identifiable human civilization left, once nuclear weapons entered the killing equation.**  But the world did not keep sliding down that **path of perpetual war**. Instead, America stepped up and changed everything by **ushering in our now-perpetual great-power peace**. We introduced the **international liberal trade order known as globalization** and played loyal Leviathan over its spread. What resulted was the collapse of empires, **an explosion of democracy**, the **persistent spread of human rights**, the liberation of women, **the doubling of life expectancy**, a roughly **10-fold increase in adjusted global GDP** and a **profound and persistent reduction in** battle deaths from **state-based conflicts.** That is what American "hubris" actually delivered. Please remember that the next time some TV pundit sells you the image of "unbridled" American military power as the cause of global disorder instead of its cure. With self-deprecation bordering on self-loathing, we now imagine a post-American world that is anything but. Just watch who scatters and who steps up as the Facebook revolutions erupt across the Arab world. While we might imagine ourselves the status quo power, we remain the world's most vigorously revisionist force. As for the sheer "evil" that is our military-industrial complex, again, let's examine what the world looked like before that establishment reared its ugly head. The last great period of global structural change was the first half of the 20th century, a period that saw a death toll of about 100 million across two world wars. That comes to an average of 2 million deaths a year in a world of approximately 2 billion souls. Today, with far more comprehensive worldwide reporting, researchers report an average of less than 100,000 battle deaths annually in a world fast approaching 7 billion people. Though admittedly crude, these calculations suggest a 90 percent absolute drop and a 99 percent relative drop in deaths due to war. We are clearly headed for a world order characterized by multipolarity, something the American-birthed system was designed to both encourage and accommodate. But given how things turned out the last time we collectively faced such a fluid structure, we would do well to keep U.S. power, in all of its forms, deeply embedded in the geometry to come. To continue the historical survey, after salvaging Western Europe from its half-century of civil war, the U.S. emerged as the progenitor of a new, far more just form of globalization -- one based on actual free trade rather than colonialism. America then successfully replicated globalization further in East Asia over the second half of the 20th century, setting the stage for the Pacific Century now unfolding.

#### Status seeking is inevitable --- heg is key to solve war

Wohlforth 9 – professor of government at Dartmouth (William, “Unipolarity, Status Competition, and Great Power War,” World Affairs, January, project muse)

The upshot is a near scholarly consensus that unpolarity’s consequences for great power conflict are indeterminate and that a power shift resulting in a return to bipolarity or multipolarity will not raise the specter of great power war. This article questions the consensus on two counts. First, I show that it depends crucially on a dubious assumption about human motivation. Prominent theories of war are based on the assumption that people are mainly motivated by the instrumental pursuit of tangible ends such as physical security and material prosperity. This is why such theories seem irrelevant to interactions among great powers in an international environment that diminishes the utility of war for the pursuit of such ends. Yet we know that people are motivated by a great many noninstrumental motives, not least by concerns regarding their social status. 3 As John Harsanyi noted, “Apart from economic payoffs, social status (social rank) seems to be the most important incentive and motivating force of social behavior.”4 This proposition rests on much firmer scientific ground now than when Harsanyi expressed it a generation ago, as cumulating research shows that humans appear to be hardwired for sensitivity to status and that relative standing is a powerful and independent motivator of behavior.5 [End Page 29] Second, I question the dominant view that status quo evaluations are relatively independent of the distribution of capabilities. If the status of states depends in some measure on their relative capabilities, and if states derive utility from status, then different distributions of capabilities may affect levels of satisfaction, just as different income distributions may affect levels of status competition in domestic settings. 6 Building on research in psychology and sociology, I argue that even capabilities distributions among major powers foster ambiguous status hierarchies, which generate more dissatisfaction and clashes over the status quo. And the more stratified the distribution of capabilities, the less likely such status competition is. Unipolarity thus generates far fewer incentives than either bipolarity or multipolarity for direct great power positional competition over status. Elites in the other major powers continue to prefer higher status, but in a unipolar system they face comparatively weak incentives to translate that preference into costly action. And the absence of such incentives matters because social status is a positional good—something whose value depends on how much one has in relation to others.7 “If everyone has high status,” Randall Schweller notes, “no one does.”8 While one actor might increase its status, all cannot simultaneously do so. High status is thus inherently scarce, and competitions for status tend to be zero sum.9

#### We control empirics

Wohlforth 8—Daniel Webster Professor of Government, Dartmouth. BA in IR, MA in IR and MPhil and PhD in pol sci, Yale (William, Unipolarity, Status Competition, and Great Power War, October 2008, World Politics Vol. 61, Iss. 1; pg. 28, 31 pgs, Proquest)

Despite increasingly compelling findings concerning the importance of status seeking in human behavior, research on its connection to war waned some three decades ago.38 Yet empirical studies of the relationship between both systemic and dyadic capabilities distributions and war have continued to cumulate. If the relationships implied by the status theory run afoul of well-established patterns or general historical findings, then there is little reason to continue investigating them. **The clearest empirical implication** of the theory **is that** status **competition is unlikely to cause great power military conflict in unipolar systems**. If status competition is an important contributory cause of great power war, then, ceteris paribus, unipolar systems should be markedly less war-prone than bipolar or multipolar systems. And this appears to be the case. As Daniel Geller notes in a review of the empirical literature: "**The only polar structure that appears to influence conflict probability is unipolarity**."39 In addition, a larger number of studies at the dyadic level support the related expectation that narrow capabilities gaps and ambiguous or unstable capabilities hierarchies increase the probability of war.40 These studies are based entirely on post-sixteenth-century European history, and most are limited to the post-1815 period covered by the standard data sets. Though the systems coded as unipolar, near-unipolar, and hegemonic are all marked by a high concentration of capabilities in a single state, these studies operationalize unipolarity in a variety of ways, often very differently from the definition adopted here. An ongoing collaborative project looking at ancient interstate systems over the course of two thousand years suggests that historical systems that come closest to the definition of unipolarity used here exhibit precisely the behavioral properties implied by the theory. 41 As David C. Kang's research shows, the East Asian system between 1300 and 1900 was an unusually stratified unipolar structure, with an economic and militarily dominant China interacting with a small number of geographically proximate, clearly weaker East Asian states.42 Status politics existed, but actors were channeled by elaborate cultural understandings and interstate practices into clearly recognized ranks. Warfare was exceedingly rare, and the major outbreaks occurred precisely when the theory would predict: when China's capabilities waned, reducing the clarity of the underlying material hierarchy and increasing status dissonance for lesser powers. Much more research is needed, but initial exploration of other arguably unipolar systems-for example, Rome, Assyria, the Amarna system-appears consistent with the hypothesis.43 Status Competition and Causal Mechanisms Both theory and evidence demonstrate convincingly that competition for status is a driver of human behavior, and social identity theory and related literatures suggest the conditions under which it might come to the fore in great power relations. Both the systemic and dyadic findings presented in large-N studies are broadly consistent with the theory, but they are also consistent with power transition and other rationalist theories of hegemonic war.

#### War is at its lowest level in history because of US primacy---best statistical studies prove

Owen 11 John M. Owen Professor of Politics at University of Virginia PhD from Harvard "DON’T DISCOUNT HEGEMONY" Feb 11 www.cato-unbound.org/2011/02/11/john-owen/dont-discount-hegemony/

Andrew Mack and his colleagues at the Human Security Report Project are to be congratulated. Not only do they present a study with a striking conclusion, driven by data, free of theoretical or ideological bias, but they also do something quite unfashionable: they bear good news. Social scientists really are not supposed to do that. Our job is, if not to be Malthusians, then at least to point out disturbing trends, looming catastrophes, and the imbecility and mendacity of policy makers. And then it is to say why, if people listen to us, things will get better. We do this as if our careers depended upon it, and perhaps they do; for if all is going to be well, what need then for us?¶ Our colleagues at Simon Fraser University are brave indeed. That may sound like a setup, but it is not. I shall challenge neither the data nor the general conclusion that violent conflict around the world has been decreasing in fits and starts since the Second World War. When it comes to violent conflict among and within countries, **things have been getting better**. (The trends have not been linear—Figure 1.1 actually shows that the frequency of interstate wars peaked in the 1980s—but the 65-year movement is clear.) Instead I shall accept that Mack et al. are correct on the macro-trends, and focus on their explanations they advance for these remarkable trends. With apologies to any readers of this forum who recoil from academic debates, this might get mildly theoretical and even more mildly methodological.¶ Concerning international wars, one version of the “nuclear-peace” theory is not in fact laid to rest by the data. It is certainly true that nuclear-armed states have been involved in many wars. They have even been attacked (think of Israel), which falsifies the simple claim of “assured destruction”—that any nuclear country A will deter any kind of attack by any country B because B fears a retaliatory nuclear strike from A.¶ But the most important “nuclear-peace” claim has been about mutually assured destruction, which obtains between two robustly nuclear-armed states. The claim is that (1) rational states having second-strike capabilities—enough deliverable nuclear weaponry to survive a nuclear first strike by an enemy—will have an overwhelming incentive not to attack one another; and (2) we can safely assume that nuclear-armed states are rational. It follows that states with a second-strike capability will not fight one another.¶ Their colossal atomic arsenals neither kept the United States at peace with North Vietnam during the Cold War nor the Soviet Union at peace with Afghanistan. But the argument remains strong that those arsenals did help keep the United States and Soviet Union at peace with each other. Why non-nuclear states are not deterred from fighting nuclear states is an important and open question. But in a time when calls to ban the Bomb are being heard from more and more quarters, we must be clear about precisely what the broad trends toward peace can and cannot tell us. They may tell us nothing about why we have had no World War III, and little about the wisdom of banning the Bomb now.¶ Regarding the **downward trend in international war**, Professor Mack is friendlier to more palatable theories such as the “**democratic peace**” (democracies do not fight one another, and the proportion of democracies has increased, hence less war); the interdependence or “**commercial peace**” (states with extensive economic ties find it irrational to fight one another, and interdependence has increased, hence less war); and the notion that people around the world are more anti-war than their forebears were. Concerning the downward trend in civil wars, he favors theories of economic growth (where commerce is enriching enough people, violence is less appealing—a logic similar to that of the “commercial peace” thesis that applies among nations) and the end of the Cold War (which end reduced superpower support for rival rebel factions in so many Third-World countries).¶ These are all **plausible mechanisms for peace**. What is more, none of them excludes any other; all could be working toward the same end. That would be somewhat puzzling, however. Is the world just lucky these days? How is it that an array of peace-inducing factors happens to be working coincidentally in our time, when such a magical array was absent in the past? The answer may be that one or more of these mechanisms reinforces some of the others, or perhaps some of them are mutually reinforcing. Some scholars, for example, have been focusing on whether economic growth might support democracy and vice versa, and whether both might support international cooperation, including to end civil wars.¶ We would still need to explain how this charmed circle of causes got started, however. And here let me raise another factor, perhaps even less appealing than the “nuclear peace” thesis, at least outside of the United States. That factor is what international relations scholars call hegemony—specifically **American hegemony**.¶ A theory that many regard as discredited, but that refuses to go away, is called hegemonic stability theory. The theory emerged in the 1970s in the realm of international political economy. It asserts that **for the global economy to remain open**—for countries to keep barriers to trade and investment low—**one powerful country must take the lead**. Depending on the theorist we consult, “taking the lead” entails paying for global public goods (keeping the sea lanes open, providing liquidity to the international economy), coercion (threatening to raise trade barriers or withdraw military protection from countries that cheat on the rules), or both. The theory is skeptical that international cooperation in economic matters can emerge or endure absent a hegemon. The distastefulness of such claims is self-evident: they imply that it is good for everyone the world over if one country has more wealth and power than others. More precisely, they imply that it has been good for the world that the United States has been so predominant.¶ There is no obvious reason why hegemonic stability theory could not apply to other areas of international cooperation, including in security affairs, human rights, international law, peacekeeping (UN or otherwise), and so on. What I want to suggest here—suggest, not test—is that **American hegemony might just be a deep cause of the steady decline of political deaths in the world**.¶ How could that be? After all, the report states that United States is the third most war-prone country since 1945. Many of the deaths depicted in Figure 10.4 were in wars that involved the United States (the Vietnam War being the leading one). Notwithstanding politicians’ claims to the contrary, a candid look at U.S. foreign policy reveals that the country is as ruthlessly self-interested as any other great power in history.¶ The answer is that U.S. hegemony might just be a **deeper cause of the proximate causes** outlined by Professor Mack. Consider economic growth and openness to foreign trade and investment, which (so say some theories) **render violence irrational**. American power and policies may be responsible for these in two related ways. First, at least since the 1940s Washington has **prodded other countries to embrace the market capitalism** that entails economic openness and produces **sustainable economic growth**. The United States promotes capitalism for selfish reasons, of course: its own domestic system depends upon growth, which in turn depends upon the efficiency gains from economic interaction with foreign countries, and the more the better. During the Cold War most of its allies accepted some degree of market-driven growth.¶ Second, the U.S.-led western victory in the Cold War damaged the credibility of alternative paths to development—communism and import-substituting industrialization being the two leading ones—and **left market capitalism the best model**. The end of the Cold War also involved an end to the billions of rubles in Soviet material support for regimes that tried to make these alternative models work. (It also, as Professor Mack notes, **eliminated the superpowers’ incentives to feed civil violence** in the Third World.) What we call **globalization** is **caused in part by the emergence of the United States as the global hegemon**.¶ The same case can be made, with somewhat more difficulty, concerning the **spread of democracy**. Washington has supported democracy only under certain conditions—the chief one being the absence of a popular anti-American movement in the target state—but those conditions have become much more widespread following the collapse of communism. Thus in the 1980s the Reagan administration—the most anti-communist government America ever had—began to dump America’s old dictator friends, starting in the Philippines. Today Islamists tend to be anti-American, and so the Obama administration is skittish about democracy in Egypt and other authoritarian Muslim countries. But general U.S. material and moral support for liberal democracy remains strong.

#### The world getting better now because heg is peaceful

Busby 12 Josh, Assistant Professor of Public Affairs and a fellow in the RGK Center for Philanthropy and Community Service as well as a Crook Distinguished Scholar at the Robert S. Strauss Center for International Security and Law, <http://duckofminerva.blogspot.com/2012/01/get-real-chicago-ir-guys-out-in-force.html>

Is Unipolarity Peaceful? As evidence, Monteiro provides metrics of the number of years during which great powers have been at war. For the unipolar era since the end of the Cold War, the United States has been at war 13 of those 22 years or 59% (see his Table 2 below). Now, I've been following some of the discussion by and about Steven Pinker and Joshua Goldstein's [work](http://www.nytimes.com/2011/12/18/opinion/sunday/war-really-is-going-out-of-style.html?pagewanted=all" \t "_new) that suggests the world is becoming more peaceful with interstate wars and intrastate wars becoming more rare. I was struck by the graphic that Pinker used in a Wall Street Journal [piece](http://online.wsj.com/article/SB10001424053111904106704576583203589408180.html%22%20%5Ct%20%22_new) back in September that drew on the Uppsala Conflict Data, which shows a steep decline in the number of deaths per 100,000 people. How do we square this account by Monteiro of a unipolar world that is not peaceful (with the U.S. at war during this period in Iraq twice, Afghanistan, Kosovo) and Pinker's account which suggests declining violence in the contemporary period? Where Pinker is focused on systemic outcomes, Monteiro's measure merely reflect years during which the great powers are at war. Under unipolarity, there is only one great power so the measure is partial and not systemic. However, Monteiro's theory aims to be systemic rather than partial. In critiquing Wohlforth's early work on unipolarity stability, Monteiro notes: Wohlforth’s argument does not exclude all kinds of war. Although power preponderance allows the unipole to manage conflicts globally, this argument is not meant to apply to relations between major and minor powers, or among the latter (17). So presumably, a more adequate test of the peacefulness or not of unipolarity (at least for Monteiro) is not the number of years the great power has been at war but whether the system as a whole is becoming more peaceful under unipolarity **compared** to previous eras, including wars between major and minor powers or wars between minor powers and whether the wars that do happen are as violent as the ones that came before. Now, as Ross Douthat pointed [out](http://douthat.blogs.nytimes.com/2011/10/17/steven-pinkers-history-of-violence/%22%20%5Ct%20%22_new), Pinker's argument isn't based on a logic of benign hegemony. It could be that even if the present era is more peaceful, unipolarity has nothing to do with it. Moreover, Pinker may be wrong. Maybe the world isn't all that peaceful. I keep thinking about the places I don't want to go to anymore because they are violent (Mexico, Honduras, El Salvador, Nigeria, Pakistan, etc.) As Tyler Cowen [noted](http://marginalrevolution.com/marginalrevolution/2011/10/steven-pinker-on-violence.html), the measure Pinker uses to suggest violence is a per capita one, which doesn't get at the absolute level of violence perpetrated in an era of a greater world population. But, if my read of other [reports](http://www.hsrgroup.org/human-security-reports/20092010/graphs-and-tables.aspx) based on Uppsala data is right**,** war is becoming more rare and less deadly (though later [data](http://www.pcr.uu.se/research/ucdp/charts_and_graphs/%22%20%5Ct%20%22_new) suggests lower level armed conflict may be increasing again since the mid-2000s). The apparent violence of the contemporary era may be something of a presentist bias and reflect our own lived experience and the ubiquity of news media .Even if the U.S. has been at war for the better part of unipolarity, the deadliness is declining, even compared with Vietnam, let alone World War II. Does Unipolarity Drive Conflict? So, I kind of took issue with the Monteiro's premise that unipolarity is not peaceful. What about his argument that unipolarity drives conflict? Monteiro suggests that the unipole has three available strategies - defensive dominance, offensive dominance and disengagement - though is less likely to use the third. Like Rosato and Schuessler, Monteiro suggests because other states cannot trust the intentions of other states, namely the unipole, that minor states won't merely bandwagon with the unipole. Some "recalcitrant" minor powers will attempt to see what they can get away with and try to build up their capabilities. As an aside, in Rosato and Schuessler world, unless these are located in strategically important areas (i.e. places where there is oil), then the unipole (the United States) should disengage. In Monteiro's world, disengagement would inexorably lead to instability and draw in the U.S. again (though I'm not sure this necessarily follows), but neither defensive or offensive dominance offer much possibility for peace either since it is U.S. power in and of itself that makes other states insecure, even though they can't balance against it.

### 1AC – Water Advantage

#### CONTENTION 2: WATER

#### **Water wars coming now—most likely scenario for conflict**

Chellaney 13--Brahma, interviewed by Radio Free Europe Radio Liberty, "Interview: Author Discusses Asia's Water Woes", Jan 24, professor at the New Delhi-based Center for Policy Research, http://www.rferl.org/content/asia-water-woes/24882816.html

Brahma Chellaney, a professor at the New Delhi-based Center for Policy Research, has sounded alarms about the potential for conflict over water resources in Asia. ¶ In his award-winning book, "Water: Asia's Next Battleground," Chellaney argues that Asia has less freshwater per capita than any other continent, but is both guzzling and polluting its resources at an ever-increasing rate.¶ RFE/RL correspondent Courtney Brooks speaks with Chellaney about where the potential conflicts lie.¶ RFE/RL: What are some of the hotspots for water disputes in Asia and how do you see the situation evolving?¶ Brahma Chellaney: I see water becoming an increasingly divisive issue in large parts of Asia -- the Middle East, Central Asia, and [the] Caucasus, for example. I see water stress being a driver of conflict.¶RFE/RL: You mention in your book that battle lines in Afghanistan tend to follow the lines of water courses. What exactly does that mean? Can you give me some examples?¶ Chellaney: Afghanistan and Yemen are examples where internal conflicts are being waged along hydrological lines. Where waterways run those lines of water courses tend to be the lines separating feuding parties because the object of control in the feud is control of a water source.¶ And in Afghanistan we are finding that in some parts where scarcity is acute the control of wells and streams has become a source of conflict by itself. Warlords have emerged that can be called water warlords, whose basic job is to maintain control over a source of water. These are warlords with militias, and they are controlling sources of water for their community or for their province and such kind of overt use of force to assert control over a source of water is found in Afghanistan more than any other country.¶ RFE/RL: And the situation in Central Asia?¶ Chellaney: Water is the most divisive issue in Central Asia. Along with unsettled borders, water has become an even more explosive issue. Because you have in some parts of Central Asia borders that are not clearly demarcated and therefore the issue of water sharing and transnational water resources, their delineation. These issues are compounding the interstate and intrastate competition [and] the struggle for water.¶ Water is clearly, of all issues, the one that carries the highest risk of destabilizing Central Asia.¶Water is clearly, of all issues, the one that carries the highest risk of destabilizing Central Asia. And also, Central Asia is a very water-scarce region, and therefore the struggle is over scarce resources. The only countries that actually have the water resources are the small upstream countries of Kyrgyzstan and Tajikistan, [which are] small and powerless against the main users of water -- the countries located downstream: Uzbekistan, Turkmenistan, and Kazakhstan.’

#### Water scarcity causes wars in Asia

Priyadarshi 12 Nitish, lecturer in the department of environment and water management at Ranchi University in India, “War for water is not a far cry”, June 16, <http://www.cleangangaportal.org/node/44>

Water stress is set to become Asia’s defining crisis of the twenty-first century, creating obstacles to continued rapid economic growth, stoking interstate tensions over shared resources, exacerbating long time territorial disputes, and imposing further hardships on the poor. Asia is home to many of the world’s great rivers and lakes, but its huge population , pollution and exploding economic and agricultural demand for water make it the most water-scare continent on a per capita basis. Many of Asia’s water sources cross national boundaries, and as less and less water is available, international tensions will rise. The poor management of river basins, environmentally unsustainable irrigation practices, an overuse of groundwater, and the contamination of water sources have all helped aggravate Asian water woes. The over exploitation of subterranean water in the large parts of the Asia has resulted in a rapidly falling groundwater saturation level- known as the water table. In the Gangetic delta, wells have tapped into naturally occurring arsenic deposits, causing millions of people in Bangladesh, and Eastern India including Jharkhand and Bihar to be exposed to high levels of poisonous arsenic in drinking water and staple agricultural products like rice. In some Asian coastal areas, the depletion of groundwater has permitted saline seawater to flow in to replace the freshwater that has been extracted. The Ganga, which is virtually synonymous with Indian civilisation, is dying. Pollution, over-extraction of water, emaciated tributaries and climatic changes are killing the mighty river, on whose fecund plains live one in 12 people of this planet. The Ganga basin makes up almost a third of India's land area and its rich soil is home to millions of people. However, indiscriminate extraction of water with modern tube wells from the river as well as its basin, coupled with the damming of its tributaries for irrigation, have seriously reduced its flow. Climate change has added to the threat. Rivers are the lifeblood of the Bangladesh economy and social life. Its cultural life is also deeply related to rivers. It is extremely unfortunately that its three main rivers, Ganges-Padma, Brahmaputra-Jamuna and Surma-Meghna are dying. As per a survey of the Bangladesh Water Development Board (BWDB), there are three hundred and ten rivers in Bangladesh. Out of these fifty-seven are border rivers, the condition of one hundred and seventy five is miserable, and sixty five are almost dead. Eighty percent of the rivers lack proper depth. The latest study reveals that one hundred and seventeen rivers are either dead or have lost navigability . Such rivers/canals include Brahamaputra, Padma, Mahananda, Gorai, Meghna, Titas, Gomati, Kushiara, Dhaleswari, Bhairab, Sitalksha, Turag etc. As per a report of BWDB, India is controlling the water of 57 rivers along with the Farakka barrage. Because of inadequate facilities for dredging, these rivers have become canals. Additionally, India has withdrawn water of several rivers including Surma, Kushiara and Mahananda. Sluice gates have been constructed on the rivers Senoa, Jamuna, Panga, Pan, Hatoori and Sui (situated near Panchagarh). Apart from the scourge of Farakka barrage, a new dam, named Tipaimukh dam, is under construction in India. Asia will continue to have the world’s largest number of people without basic or adequate access to water. The Asian water sector is plagued by serious problems, including inadequate infrastructure and poor system maintenance, financially strapped utilities, low-cost recovery, growing pollution, watershed degradation, and unsustainable groundwater extraction. Owing to leaks and system inefficiencies, a sizable portion of the water supply is lost before reaching the consumer. As water distress intensifies and global warming accelerates, local, national, and interstate disputes over water are likely to become endemic in Asia. Water, for its part, could trigger increased conflicts within and between states, and open new political disputes in Asia. Water shortages, likely to be aggravated by fast-rising use and climate change, pose a potential threat to political stability, economic modernization, public health, food security, and internal cohesion in a number of Asian states. A study of Asia’s biggest rivers-the Indus, the Brahmaputra, the Yangtze, the Yellow, and the Ganges-by different experts has found that the “ upstream snow and ice reserves of these basins-important in sustaining seasonal water availability- are likely to be affected substantially by climate change,” although the extent of impact will vary from basin to basin.

#### Asian war goes nuclear---no defense

C. Raja Mohan 13, distinguished fellow at the Observer Research Foundation in New Delhi, March 2013, Emerging Geopolitical Trends and Security in the Association of Southeast Asian Nations, the People’s Republic of China, and India (ACI) Region,” background paper for the Asian Development Bank Institute study on the Role of Key Emerging Economies, <http://www.iadb.org/intal/intalcdi/PE/2013/10737.pdf>

Three broad types of conventional conflict confront Asia. The first is the prospect of war between great powers. Until a rising PRC grabbed the attention of the region, there had been little fear of great power rivalry in the region. The fact that all major powers interested in Asia are armed with nuclear weapons, and the fact that there is growing economic interdependence between them, has led many to argue that great power conflict is not likely to occur. Economic interdependence, as historians might say by citing the experience of the First World War, is not a guarantee for peace in Asia. Europe saw great power conflict despite growing interdependence in the first half of the 20th century. Nuclear weapons are surely a larger inhibitor of great power wars. Yet we have seen military tensions build up between the PRC and the US in the waters of the Western Pacific in recent years. The contradiction between the PRC’s efforts to limit and constrain the presence of other powers in its maritime periphery and the US commitment to maintain a presence in the Western Pacific is real and can only deepen over time.29 We also know from the Cold War that while nuclear weapons did help to reduce the impulses for a conventional war between great powers, they did not prevent geopolitical competition. Great power rivalry expressed itself in two other forms of conflict during the Cold War: inter-state wars and intra-state conflict. If the outcomes in these conflicts are seen as threatening to one or other great power, they are likely to influence the outcome. This can be done either through support for one of the parties in the inter-state conflicts or civil wars. When a great power decides to become directly involved in a conflict the stakes are often very high. In the coming years, it is possible to envisage conflicts of all these types in the ACI region. ¶ Asia has barely begun the work of creating an institutional framework to resolve regional security challenges. Asia has traditionally been averse to involving the United Nations (UN) in regional security arrangements. Major powers like the PRC and India are not interested in “internationalizing” their security problems—whether Tibet; Taipei,China; the South China Sea; or Kashmir—and give other powers a handle. Even lesser powers have had a tradition of rejecting UN interference in their conflicts. North Korea, for example, prefers dealing with the United States directly rather than resolve its nuclear issues through the International Atomic Energy Agency and the UN. Since its founding, the involvement of the UN in regional security problems has been rare and occasional.¶ The burden of securing Asia, then, falls squarely on the region itself. There are three broad ways in which a security system in Asia might evolve: collective security, a concert of major powers, and a balance of power system.30 Collective security involves a system where all stand for one and each stands for all, in the event of an aggression. While collective security systems are the best in a normative sense, achieving them in the real world has always been difficult. A more achievable goal is “cooperative security” that seeks to develop mechanisms for reducing mutual suspicion, building confidence, promoting transparency, and mitigating if not resolving the sources of conflict. The ARF and EAS were largely conceived within this framework, but the former has disappointed while the latter has yet to demonstrate its full potential. ¶ A second, quite different, approach emphasizes the importance of power, especially military power, to deter one’s adversaries and the building of countervailing coalitions against a threatening state. A balance of power system, as many critics of the idea point out, promotes arms races, is inherently unstable, and breaks down frequently leading to systemic wars. There is growing concern in Asia that amidst the rise of Chinese military power and the perception of American decline, many large and small states are stepping up their expenditure on acquiring advanced weapons systems. Some analysts see this as a structural condition of the new Asia that must be addressed through deliberate diplomatic action. 31 A third approach involves cooperation among the great powers to act in concert to enforce a broad set of norms—falling in between the idealistic notions of collective security and the atavistic forms of balance of power. However, acting in concert involves a minimum level of understanding between the major powers. The greatest example of a concert is the one formed by major European powers in the early 18th century through the Congress of Vienna after the defeat of Napoleonic France. The problem of adapting such a system to Asia is the fact that there are many medium-sized powers who would resent any attempt by a few great powers to impose order in the region.32 In the end, the system that emerges in Asia is likely to have elements of all the three models. In the interim, though, there are substantive disputes on the geographic scope and the normative basis for a future security order in Asia.

[ACI = ASEAN, China, India]

#### Pakistan water scarcity causes war with India

Dr Akmal Hussain 11, The Express Tribune, “Pakistan’s water crisis”, 8-25, http://tribune.com.pk/story/231905/pakistans-water-crisis/

A water crisis is emerging which could have major implications for Pakistan’s economy and society. Effective management of this crisis first requires urgent mitigation and adaptation measures with close cooperation amongst Pakistan’s provinces of Khyber-Pakhtunkhwa, Punjab and Sindh on the one hand and then between Pakistan and India on the other. If the necessary collaboration for cooperative management of the Indus basin water resources is not undertaken expeditiously, the resultant economic crisis could lead to a war with India.¶ The problem of water scarcity in the Indus basin is predicated partly on the inherent limitations of water supply in the Indus River System and partly on the growing water demand associated with inefficient water use in the process of economic and population growth. Unsustainable development practices have exacerbated the problem with intrusion of salinity into the ground water, contamination of aquifers with harmful chemicals such as fluoride and arsenic and pollution of surface water due to lack of an institutional framework for environmentally safe disposal of urban and industrial waste. An important dimension of the water issue in the years ahead is the phenomenon of climate change, which could take the crisis to a critical level.¶ Water scarcity can be measured by the availability of water compared with the generally accepted minimum per capita requirement of 1,700 cubic metres per person per year. In their book, Freshwater Under Threat: South Asia, Mukand S Babel and Shahriar M Wahid have estimated that the per capita availability of water in the Indus basin is 1,329 cubic metres per capita per year. This is significantly below the threshold requirement. Another interesting indicator of the water problem is the measure of development pressure on water resources, which is the percentage of available water supply relative to the total water resources. This ratio is as high as 89 per cent for the Indus basin compared to only 15 per cent for the Ganges-Brahmaputra-Meghna (GBM) basin. This indicates the relatively greater development pressure on the Indus basin.¶ Worse, the utilisation of water for production is also highly inefficient by global standards. Water use efficiency is measured in terms of the GDP per unit of water used. In the case of the five top food producers in the world (Brazil, China, France, Mexico and the US) the water use efficiency is $23.8 per cubic metre. The figure is as low as $3.34 for the Indus basin.¶ The problem of water scarcity is expected to become more acute in the future due to the adverse impact of climate change. Dr Leena Srivastava, in a recent research paper, provides evidence to show that some of the Himalayan glaciers are melting more rapidly than the global average and this could increase the frequency of floods in the short run and increase water shortages in the long term by reducing river flows in South Asia. Furthermore, according to the UN’s Intergovernmental Panel on Climate Change report, given the sensitivity of existing seeds to heat, global warming could result in a 30 per cent reduction in the yield per acre of food crops in South Asia.¶ Science and empirical evidence make clear that existing water scarcity, when combined with the impact of climate change, could place critical stress on the economy and society of Pakistan in particular and South Asia in general: major food shortages, increased frequency of natural disasters, large scale dislocations of population and destabilising contention between upper and lower riparian regions.¶ Effective management of this crisis in Pakistan requires close cooperation with India in joint watershed management, increasing the efficiency of irrigation and water use, joint development of technologies, sustainable agriculture practices and institutional arrangements to manage food shortages as well as natural disasters. When faced with a common threat, ideology must be replaced by rationality in the conduct of governance. If we fail to do so, natural disasters could trigger the man-made catastrophe of war.

#### Indo-Pak war causes extinction

Greg Chaffin 11, Research Assistant at Foreign Policy in Focus, July 8, 2011, “Reorienting U.S. Security Strategy in South Asia,” online: http://www.fpif.org/articles/reorienting\_us\_security\_strategy\_in\_south\_asia

The greatest threat to regional security (although curiously not at the top of most lists of U.S. regional concerns) is the possibility that increased India-Pakistan tension will erupt into all-out war that could quickly escalate into a nuclear exchange. Indeed, in just the past two decades, the two neighbors have come perilously close to war on several occasions. India and Pakistan remain the most likely belligerents in the world to engage in nuclear war. ¶ Due to an Indian preponderance of conventional forces, Pakistan would have a strong incentive to use its nuclear arsenal very early on before a routing of its military installations and weaker conventional forces. In the event of conflict, Pakistan’s only chance of survival would be the early use of its nuclear arsenal to inflict unacceptable damage to Indian military and (much more likely) civilian targets. By raising the stakes to unacceptable levels, Pakistan would hope that India would step away from the brink. However, it is equally likely that India would respond in kind, with escalation ensuing. Neither state possesses tactical nuclear weapons, but both possess scores of city-sized bombs like those used on Hiroshima and Nagasaki. ¶ Furthermore, as more damage was inflicted (or as the result of a decapitating strike), command and control elements would be disabled, leaving individual commanders to respond in an environment increasingly clouded by the fog of war and decreasing the likelihood that either government (what would be left of them) would be able to guarantee that their forces would follow a negotiated settlement or phased reduction in hostilities. As a result any such conflict would likely continue to escalate until one side incurred an unacceptable or wholly debilitating level of injury or exhausted its nuclear arsenal. ¶ A nuclear conflict in the subcontinent would have disastrous effects on the world as a whole. In a January 2010 paper published in Scientific American, climatology professors Alan Robock and Owen Brian Toon forecast the global repercussions of a regional nuclear war. Their results are strikingly similar to those of studies conducted in 1980 that conclude that a nuclear war between the United States and the Soviet Union would result in a catastrophic and prolonged nuclear winter, which could very well place the survival of the human race in jeopardy. In their study, Robock and Toon use computer models to simulate the effect of a nuclear exchange between India and Pakistan in which each were to use roughly half their existing arsenals (50 apiece). Since Indian and Pakistani nuclear devices are strategic rather than tactical, the likely targets would be major population centers. Owing to the population densities of urban centers in both nations, the number of direct casualties could climb as high as 20 million. ¶ The fallout of such an exchange would not merely be limited to the immediate area. First, the detonation of a large number of nuclear devices would propel as much as seven million metric tons of ash, soot, smoke, and debris as high as the lower stratosphere. Owing to their small size (less than a tenth of a micron) and a lack of precipitation at this altitude, ash particles would remain aloft for as long as a decade, during which time the world would remain perpetually overcast. Furthermore, these particles would soak up heat from the sun, generating intense heat in the upper atmosphere that would severely damage the earth’s ozone layer. The inability of sunlight to penetrate through the smoke and dust would lead to global cooling by as much as 2.3 degrees Fahrenheit. This shift in global temperature would lead to more drought, worldwide food shortages, and widespread political upheaval.¶ Although the likelihood of this doomsday scenario remains relatively low, the consequences are dire enough to warrant greater U.S. and international attention. Furthermore, due to the ongoing conflict over Kashmir and the deep animus held between India and Pakistan, it might not take much to set them off. Indeed, following the successful U.S. raid on bin Laden’s compound, several members of India’s security apparatus along with conservative politicians have argued that India should emulate the SEAL Team Six raid and launch their own cross-border incursions to nab or kill anti-Indian terrorists, either preemptively or after the fact. Such provocative action could very well lead to all-out war between the two that could quickly escalate.

#### SMRs solve desalination---solves water wars and mission effectiveness

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The idea of using nuclear power to produce synthetic fuels, originally proposed in 1963, remains feasible today and is gaining significant attention because of recent advances in fuel cell technology, hydrogen liquefaction, and storage. At the same time, nuclear power has become a significant part of the energy supply in more than 20 countries—providing energy security, reducing air pollution, and cutting greenhouse gas emissions. The performance of the world's nuclear power plants has improved steadily and is at an all-time high. Assuming that nuclear power experiences further technological development and increased public acceptance as a safe and efficient energy source, its use will continue to grow. Nuclear power possibly could provide district heating, industrial process heating, desalination of seawater, and marine transportation.¶ Demand for cost-effective chemical fuels such as hydrogen and methanol is expected to grow rapidly. Fuel cell technology, which produces electricity from low-temperature oxidation of hydrogen and yields water as a byproduct, is receiving increasing attention. Cheap and abundant hydrogen eventually will replace carbon-based fuels in the transportation sector and eliminate oil's grip on our society. But hydrogen must be produced, since terrestrial supplies are extremely limited. Using nuclear power to produce hydrogen offers the potential for a limitless chemical fuel supply with near-zero greenhouse gas emissions. As the commercial transportation sector increasingly moves toward hydrogen fuel cells and other advanced engine concepts to replace the gasoline internal combustion engine, DOD eventually will adopt this technology for its tactical vehicles.¶ The demand for desalination of seawater also is likely to grow as inadequate freshwater supplies become an urgent global concern. Potable water in the 21st century will be what oil was in the 20th century—a limited natural resource subject to intense international competition. In many areas of the world, rain is not always dependable and ground water supplies are limited, exhausted, or contaminated. Such areas are likely to experience conflict among water-needy peoples, possibly prompting the deployment of U.S. ground forces for humanitarian relief, peacekeeping, or armed intervention. A mobile desalination plant using waste heat from a nuclear reactor could help prevent conflicts or provide emergency supplies of freshwater to indigenous populations, and to U.S. deployed forces if necessary.¶ Promising Technology for Tomorrow¶ Compact reactor concepts based on high-temperature, gas-cooled reactors are attracting attention worldwide and could someday fulfill the role once envisioned for the energy depot. One proposed design is the pebble bed modular reactor (PBMR) being developed by Eskom in South Africa. Westinghouse, BNFL Instruments Ltd., and Exelon Corporation currently are supporting this project to develop commercial applications.¶ A similar design is the remote site-modular helium reactor (RS-MHR) being developed by General Atomics. If proven feasible, this technology could be used to replace retiring power plants, expand the Navy's nuclear fleet, and provide mobile electric power for military or disaster relief operations. Ideally, modular nuclear power plants could be operated by a small staff of technicians and monitored by a central home office through a satellite uplink.¶ The technology of both the PBMR and the RS-MHR features small, modular, helium-cooled reactors powered by ceramic-coated fuel particles that are inherently safe and cannot melt under any scenario. This results in simpler plant design and lower capital costs than existing light water reactors. The PBMR, coupled with a direct-cycle gas turbine generator, would have a thermal efficiency of about 42 to 45 percent and would produce about 110 megawatts of electricity (MWe). The smaller RS-MHR would produce about 10 to 25 MWe, which is sufficient for powering remote communities and military bases. Multiple modules can be installed on existing sites and refueling can be performed on line, since the fuel pebbles recycle through the reactor continuously until they are expended. Both designs also feature coolant exit temperatures high enough to support the thermochemical water-splitting cycles needed to produce hydrogen.¶ For military applications, RS-MHR equipment could be transported inland by truck or railroad, or single modules could be built on barges and deployed as needed to coastal regions. The Army's nuclear reactor on the barge Sturgis, which provided electric power to the Panama Canal from 1968 to 1976, demonstrated the feasibility of this concept. In fact, the military previously used several power barges (oil-fired, 30-MWe power plants) during World War II and in Korea and Okinawa as emergency sources of electric power.¶ Research teams around the world also are examining other reactor concepts based on liquid-metal-cooled reactor systems with conventional sodium or lead-alloy coolants and advanced water-cooled systems. The Department of Energy (DOE) is supporting research and development of innovative concepts that are based on ultra-long-life reactors with cartridge cores. These reactors would not require refueling, and they could be deployed in the field, removed at the end of their service life, and replaced by a new system. The proposed international reactor innovative and secure (IRIS) design, funded by DOE's Nuclear Energy Research Initiative, would have a straight burn core lasting 8 years and may be available by 2010. Based on increasing costs of fossil fuels, a growing consensus that greenhouse gas emissions must be reduced, and a growing demand for energy, there is little doubt that we will continue to see significant advances in nuclear energy research and development.¶ Nuclear power is expected to grow in the 21st century, with potential benefits applicable to the military. Small, modular nuclear power reactors in mobile or portable configurations, coupled with hydrogen production and desalination systems, could be used to produce fuel and potable water for combat forces deployed in remote areas and reduce our logistics requirements. Assuming the inevitability of hydrogen fuel replacing fossil fuels, a clearly defined objective that was missing in 1966 now exists.¶ The partnership between DOD and the former AEC to develop Army nuclear reactors contributed to the technology of both military and small commercial power plants. This historical relationship should be renewed based on recent technological advances and projected logistics requirements. DOD logistics planners should reconsider military applications of nuclear power and support ongoing DOE research and development initiatives to develop advanced reactors such as RS-MHR, IRIS, and others. For the Army to fight and win on tomorrow's distant battlefields, nuclear power will have to play a significant role.

#### Only SMR’s solve

IAEA 7 “Economics of Nuclear Desalination: New Developments and Site Specific Studies”, July, <http://www-pub.iaea.org/MTCD/publications/PDF/te_1561_web.pdf>

Seventy percent of the planet is covered with water, but only 2.5% of that is fresh water. Nearly 70% of this fresh water is frozen in the icecaps of Antarctica and Greenland. Most of the rest is in the form of soil moisture or in deep inaccessible aquifers or comes in the form of heavy rains and floods that are difficult to contain and exploit. Consequently, only less than 0.008% (about 70 000 km3) of the world’s water is readily accessible for direct human use, and even that is very unevenly distributed. Recent statistics show that currently 2.3 billion people live in water-stressed areas and among them 1.7 billion live in water-scarce areas, where the water availability per person is less than 1000 m3/year. In fact, the situation is expected to worsen further since, by 2025, the number of people suffering from water stress or scarcity could swell to 3.5 billion, out of which 2.4 billion would live in water-scarce regions. Water scarcity is a global issue. Every year new countries are affected by growing water problems.¶ It is for this reason that the Millennium Declaration by UN General Assembly in 2000 set up a target¶ to halve, by the year 2015, the world population, which is unable to reach, or to afford, safe drinking¶ water. Vision 21: shared vision for Hygiene, Water Supply and Sanitation, has a target to provide¶ water, sanitation and hygiene for all by 2025.¶ Better water conservation, water management, pollution control and water reclamation are all part of the integrated solution to projected water stresses. So too are new sources of fresh water, including the desalination of seawater.¶ Desalination technologies have been well established since the mid-20th century and widely deployed in the Middle East and North Africa. The contracted capacity of desalination plants has increased steadily since 1965 and is now about 36 million m3/day worldwide, as shown in Figure 1. This capacity could cater to world’s population roughly 6 litres a day per capita of fresh potable water. If this capacity were available to 1.5 billion in the world without direct access to drinking water, it would provide approximately 20 litres/day/capita.¶ Large scale commercially available desalination processes can generally be classified into two categories: (a) distillation processes that require mainly heat plus some electricity for ancillary equipment, and (b) membrane processes that require only electricity. In the first category (distillation) there are two major processes: multi-stage flash (MSF) and multi-effect distillation (MED). In both processes, seawater is heated; the steam that evaporates is condensed and collected as freshwater; and the residual brine is discharged.¶ In the second category (membranes) is the reverse osmosis process (RO), in which pure water passes from the high-pressure seawater side of a semi-permeable membrane to the low-pressure freshwater side. The pressure differential must be high enough to overcome the natural tendency for water to move from the low concentration freshwater side of a membrane to the high concentration seawater side in order to balance osmotic pressures.¶ The energy for the desalination plants is generally supplied in the form of either steam or electricity. Conventional fossil fuel-powered plants have normally been utilized as the primary sources but their intensive use raises increasing environmental concerns, specifically in relation to greenhouse gas emissions (Section 1.3.3). The depleting sources and the future price uncertainty of the fossil fuels and their better use for other vital industrial applications are also the factors to be considered.¶ 1.3. THE ROLE OF NUCLEAR POWER IN DESALINATION¶ The world energy requirements are presently met from oil, coal, gas, hydro, nuclear and renewable energies in that order as shown in Table 1.¶ It is now universally recognized that there will be an increase in the world’s requirement for electricity over the next few decades. The present trend towards meeting this demand includes the building of fossil fuel plants, particularly combined cycle gas fired plants.¶ However, the spiralling increase in greenhouse gas (GHG) emissions has resulted in setting the emission targets in international meetings held at Toronto, Rio de Janeiro and Kyoto. The IAEA predicts that the GHG emissions would be 36-50% higher by 2010 compared to 1990 levels. Many analysts, therefore, feel that the only viable alternative to fossil fuels is nuclear energy to reduce the rate of increase of GHG, particularly, carbon dioxide.¶ Yet another incentive for nuclear power is to maintain diversity of supply. A national strategy limited to one particular form of energy (fossil fuels) will be vulnerable to increased fuel costs and pressures from exporting countries.¶ Nuclear power is a proven technology, which has provided more than 16% of world electricity supply in over 30 countries. More than ten thousand reactor-years of operating experience have been accumulated over the past 5 decades.¶ There are many reasons which favour a possible revival of the nuclear power production in the years to come. It is thus expected that this revival would also lead to an increased role of nuclear energy in non-electrical energy services, which, at the moment, are almost entirely dominated by fossil energy sources. Among various utilization of nuclear energy for non-electrical products, using it for the production of freshwater from seawater (nuclear desalination) has been drawing broad interest in the IAEA Member States as a result of acute water shortage issues in many arid and semi-arid zones worldwide. With technical co-ordination or support of the IAEA, several demonstration programs of nuclear desalination are also in progress in several Member States to confirm its technical and economical viability under country-specific conditions¶ The desalination of seawater using nuclear energy is a feasible option to meet the growing demand for potable water. Over 175 reactor-years of operating experience on nuclear desalination have already been accumulated worldwide.¶ 1.3.1. Nuclear desalination¶ In the IAEA terminology, nuclear desalination is defined to be the production of potable water from seawater in a facility in which a nuclear reactor is used as the source of energy for the desalination process. Electrical and/or thermal energy may be used in the desalination process on the same site. The facility may be dedicated solely to the production of potable water, or may be used for the generation of electricity and production of potable water, in which case only a portion of the total energy output of the reactor is used for water production.¶ The design approaches for a nuclear desalination plant are essentially derived from those of the nuclear reactor alone, with some additional aspects to be considered in the design of a desalination plant and its integration with the nuclear system.¶ All nuclear reactor types can provide the energy required by the various desalination processes. In this regard, it has been shown that Small and Medium Reactors (SMRs) offer the largest potential as coupling options to nuclear desalination systems in developing countries. The development of innovative reactor concepts and fuel cycles with enhanced safety features as well as their attractive economics are expected to improve the public acceptance and further the prospects of nuclear desalination.¶ The coupling with nuclear system is not difficult technically but needs some consideration in (a)¶ avoiding cross-contamination by radioactivity, (b) providing backup heat or power sources in case the¶ nuclear system is not in operation (e.g. for refuelling and maintenance), (c) incorporation of certain¶ design features, minimising the impact of the thermal desalination systems’ coupling to the nuclear¶ reactors (Section 1.6).¶ 1.3.2. Why nuclear desalination?¶ The International Atomic Energy Agency is a specialized organization of the UN system that seeks to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world. The institutional basis for the IAEA’s involvement in nuclear desalination is in its Statute and Medium Term Strategy.¶ Article II of the IAEA Statute provides that:¶ “ The Agency shall seek to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world”.¶ This refers implicitly to nuclear desalination as an option for the use of nuclear technologies.¶ The same applies to the Article III of the Statute, which authorizes the IAEA:¶ “ To encourage and assist research on, and development and practical application of, atomic energy for peaceful uses throughout the world….”; (Article III, A.1); and¶ “To foster the exchange of scientific and technical information on peaceful uses of atomic energy.” (Article III, A.3).¶ In addition, Objective A.3 of the Agency’s Medium Term Strategy requires the Agency:¶ “ To support and facilitate the development of new and emerging applications of nuclear technologies by co-generation and heat applications, including seawater desalination”.¶ Request of assessing feasibility of using nuclear energy for seawater desalination was first made by the five North African countries to the IAEA in 1989 and the General Conference adopted its resolution to resume the study. These countries are located in semi-arid zones and already suffer from water shortages.¶ In recent years, interests have been also been indicated by Member States in South and South East Asia for the feasibility, as well as the demonstration, of nuclear desalination projects. The issue has since then been repeatedly stressed at the General Conference (Committee on the Whole) and supported by many Member States including most members of Group-77. The support stems not only from their expectation of its possible contribution to the freshwater issue but has also been motivated by a variety of reasons that include: the economic competitiveness of nuclear desalination in areas lacking cheap hydropower or fossil fuel resources, energy supply diversification, conservation of fossil fuel resources and spin-off effects of nuclear technology for industrial development.¶ Looking to the future, there are several reasons for focusing now on expanding nuclear power’s contribution to desalination. Apart from the expanding demand for freshwater and the increasing concern about GHG emissions and pollution from fossil fuels, there is a renewed and growing emphasis on small and medium sized nuclear reactors, and this is particularly important for desalination because the countries most in need of new sources of freshwater often have limited industrial infrastructures and relatively weaker electricity grids. The size of the grid limits the possibilities for integrating a co-generating nuclear power plant into the grid to supply the electricity market, in addition to meeting the energy requirements of a desalination plant. The largest power unit that can be integrated into an electricity grid must not exceed about 10-20 % of the total grid capacity. Of course, smaller nuclear reactors would be more appropriate for remote areas that are not suitable for connections to the grid.¶ For nuclear desalination to be attractive in any given country, two conditions have to be satisfied simultaneously: a lack of water and the ability to use nuclear energy for desalination. In most regions, only one of the two is present. Both are present for example in China, the Republic of Korea, India and Pakistan. These regions already account for almost half the world’s population, and thus represent a potential long term market for nuclear desalination. The market will expand further to the extent that regions with high projected water needs, such as the Middle East and North Africa, increase their nuclear expertise and capabilities.¶ 1.3.3. Environmental impact of desalination by fossil fuelled energy sources¶ Desalination is an energy intensive process. A future desalination strategy based only on the use of fossil fuelled systems is not sustainable: Fossil fuel reserves are finite and must be conserved for more important uses such as transport, petrochemical industry etc. Besides, the demands for desalted water would continue increasing as population grows and standards of living improve. Conservation measures such as the modernisation of water networks to minimise leakages, the recycling of used water etc. will certainly reduce the future water demands slightly but they would not be able to halt the dissemination of desalination plants and consequently of the fossil fuelled based systems for the production of needed electricity and heat.¶ The following paragraphs illustrate the damaging consequences of such a policy by taking the example of the Mediterranean region.¶ Following the recent “Blue Plan” [2], the total available natural water resources (1), based on the statistics from 1990 to 1998, in the principle countries of the Mediterranean region, are as shown in Table 2.¶ The projected demands (3) for the year 2025 [31] are also included in Table 1.¶ It is obvious that available natural water resources would rather decrease in 2025 because of increased pollution, over exploitation and other human activities. However, to keep matters simple, it would be supposed that they would remain at the same level as in 1998.¶ It can be observed that, in 2025, the total projected water deficit (balance) in the Mediterranean region would of the order of 294 km3/per year.¶ Not all this required capacity would be met by desalination plants. Current contribution of desalination is of the order of 1 to 2 %. If it is supposed that in 2025, this contribution would be about 2.5 %, then the total required desalting capacity would be 7.3 km3/year (20.1 million m3/day).¶ According to the EC ExternE study2, the total emissions of GHG per MW(e).h of electricity produced by representative fossil fuelled power plants in France, are as presented in Table 3.¶ The specific heat and electricity consumptions of three main desalination plants are given in Table 4, [3].¶ The data presented in the above Tables allows to calculate the approximate3 total GHG emissions produced by the fossil fuelled plants and the three desalination plants.¶ Results for a total desalting capacity of 20.1 million m3/day are presented in Table 5.¶ It can thus be concluded that for a desalting capacity of 20.1 million m3/day in the Mediterranean region alone, required in 2025, one would produce, depending upon the energy source and the desalination process used,¶ 13 to 264 million tonnes/year of CO2.¶ 1350 to 1 310 000 tonnes/year of SOx.¶ 21 100 to 540 000 tonnes/year of NOx.¶ 1190 to 40 000 tonnes/year of particles.¶ The potential levels of GHG and particle emissions on the world scale could then be more than double these figures.¶ These could naturally be avoided through the use of nuclear energy.

#### Water wars threat is real---securitization doesn’t cause war

Shlomi Dinar 2 is a Ph.D. candidate at the Johns Hopkins University School of Advanced International Studies, “Water, Security, Conflict, and Cooperation”, SAIS Review 22.2 (2002) 229-253

The dichotomy of conflict and cooperation over water and its relationship to national and regional security reflects the reality of hydropolitics. While military clashes have been associated with water, the concept of security does not end with nor does it only imply armed conflict. Because the pursuit of peace, and thus conflict and cooperation, constitutes the flip side of security, water is indeed relevant to the concept of security. It is this phenomenon that traditionalists have cast off as irrelevant and other rejectionists of the environment-security link have ignored.¶ Linking security with the environment does not increase the possibility that nations will engage in more armed action against other states for the sake of natural resources such as water. Albeit minimal, evidence already exists as to the military skirmishes and military threats that have taken place over water. Nations will engage in armed conflict and political disputes over water whether or not scholars acknowledge the link between the environment and security. Similarly, the existence of more than 3,600 water treaties, the oldest dating to 805 AD, demonstrates a rich history of cooperation [End Page 239] over water regardless of scholarly debate on cooperation and the environment. The debate regarding the link between water, conflict, and cooperation is thus futile and has become a scholarly debate marred by polemics and semantics.¶ Given its geographical attributes, freshwater truly straddles the notion of sovereignty that traditionalists cherish so deeply and the international or regional conception that environmental globalists hold true. The problems that arise from shared water resources are both national and regional in nature. Similarly, the solutions that are needed to solve such problems are both national and regional. Most importantly for the debate on the environment and security, however, the impediments to cooperation and the instigation of conflict over water are both national and international in their sources. States in particular regions will continue to see water as a national security concern. Even though a regional agreement may be the best solution to states' water problems, they will continue to couch their need to access sufficient and clean freshwater in security and nationalist terms.

### 1AC – Plan

#### The Executive branch of the United States should acquire small modular nuclear reactors for military installations in the United States.

### 1AC – Solvency

#### CONTENTION 2: SOLVENCY

#### Plan’s key to ensure availability of SMRs for the military and doesn’t pick winners

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DOD as First Mover¶ Thus far, this paper has reviewed two of DOD’s most pressing energy vulnerabilities—grid insecurity and fuel convoys—and explored how they could be addressed by small reactors. We acknowledge that there are many uncertainties and risks associated with these reactors. On the other hand, failing to pursue these technologies raises its own set of risks for DOD, which we review in this section: first, small reactors may fail to be commercialized in the United States; second, the designs that get locked in by the private market may not be optimal for DOD’s needs; and third, expertise on small reactors may become concentrated in foreign countries. By taking an early “first mover” role in the small reactor market, DOD could mitigate these risks and secure the long-term availability and appropriateness of these technologies for U.S. military applications.¶ The “Valley of Death.” Given the promise that small reactors hold for military installations and mobility, DOD has a compelling interest in ensuring that they make the leap from paper to production. However, if DOD does not provide an initial demonstration and market, there is a chance that the U.S. small reactor industry may never get off the ground. The leap from the laboratory to the marketplace is so difficult to bridge that it is widely referred to as the “Valley of Death.” Many promising technologies are never commercialized due to a variety of market failures— including technical and financial uncertainties, information asymmetries, capital market imperfections, transaction costs, and environmental and security externalities— that impede financing and early adoption and can lock innovative technologies out of the marketplace. 28 In such cases, the Government can help a worthy technology to bridge the Valley of Death by accepting the first mover costs and demonstrating the technology’s scientific and economic viability.29¶ Historically, nuclear power has been “the most clear-cut example . . . of an important general-purpose technology that in the absence of military and defense related procurement would not have been developed at all.”30 Government involvement is likely to be crucial for innovative, next-generation nuclear technology as well. Despite the widespread revival of interest in nuclear energy, Daniel Ingersoll has argued that radically innovative designs face an uphill battle, as “the high capital cost of nuclear plants and the painful lessons learned during the first nuclear era have created a prevailing fear of first-of-a-kind designs.”31 In addition, Massachusetts Institute of Technology reports on the Future of Nuclear Power called for the Government to provide modest “first mover” assistance to the private sector due to several barriers that have hindered the nuclear renaissance, such as securing high up-front costs of site-banking, gaining NRC certification for new technologies, and demonstrating technical viability.32¶ It is possible, of course, that small reactors will achieve commercialization without DOD assistance. As discussed above, they have garnered increasing attention in the energy community. Several analysts have even argued that small reactors could play a key role in the second nuclear era, given that they may be the only reactors within the means of many U.S. utilities and developing countries.33 However, given the tremendous regulatory hurdles and technical and financial uncertainties, it appears far from certain that the U.S. small reactor industry will take off. If DOD wants to ensure that small reactors are available in the future, then it should pursue a leadership role now.¶ Technological Lock-in. A second risk is that if small reactors do reach the market without DOD assistance, the designs that succeed may not be optimal for DOD’s applications. Due to a variety of positive feedback and increasing returns to adoption (including demonstration effects, technological interdependence, network and learning effects, and economies of scale), the designs that are initially developed can become “locked in.”34 Competing designs—even if they are superior in some respects or better for certain market segments— can face barriers to entry that lock them out of the market. If DOD wants to ensure that its preferred designs are not locked out, then it should take a first mover role on small reactors**.**¶ It is far too early to gauge whether the private market and DOD have aligned interests in reactor designs. On one hand, Matthew Bunn and Martin Malin argue that what the world needs is cheaper, safer, more secure, and more proliferation-resistant nuclear reactors; presumably, many of the same broad qualities would be favored by DOD.35 There are many varied market niches that could be filled by small reactors, because there are many different applications and settings in which they can be used, and it is quite possible that some of those niches will be compatible with DOD’s interests.36¶ On the other hand, DOD may have specific needs (transportability, for instance) that would not be a high priority for any other market segment. Moreover, while DOD has unique technical and organizational capabilities that could enable it to pursue more radically innovative reactor lines, DOE has indicated that it will focus its initial small reactor deployment efforts on LWR designs.37¶ If DOD wants to ensure that its preferred reactors are developed and available in the future, it should take a leadership role now. Taking a first mover role does not necessarily mean that DOD would be “picking a winner” among small reactors, as the market will probably pursue multiple types of small reactors. Nevertheless, DOD leadership would likely have a profound effect on the industry’s timeline and trajectory.

#### SMRs solve nuclear downsides

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

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

#### DOE funding SMRs now---more to come

Holly 12 Derrill, ECT Staff Writer, "DOE Advances Small Nuclear Reactors", 12/6, [www.ect.coop/power-supply/power-plants/doe-funds-small-nuclear-reactors-project/50667](http://www.ect.coop/power-supply/power-plants/doe-funds-small-nuclear-reactors-project/50667)

The Department of Energy has agreed to help fund a small modular nuclear reactor design backed by a consortium that includes several generation and transmission electric cooperatives.¶ After reviewing several proposals, DOE selected a project led by Bechtel Corp., Babcock & Wilcox and the Tennessee Valley Authority. The mPower Consortium was formed in in 2010 to support the Generation mPower small modular nuclear reactor design. The consortium includes investor-owned FirstEnergy, TVA, and 13 G&Ts.¶ The lead companies have proposed deployment of up to five 180 megawatt Babcock & Wilcox mPower reactors at TVA’s abandoned Clinch River Breeder Reactor site in Oak Ridge, Tenn.¶ “DOE will match future engineering and design development, design certification and licensing activities up to a cap of $452 million,” said Sandra Byrd, vice president of member and public relations for Little Rock-based Arkansas Electric Cooperative Corp. “Although the mPower design is already far along, it still requires more testing and the design certification documents have to be developed and submitted to the Nuclear Regulatory Commission for approval.”¶ Plans call for the consortium to submit documentation to NRC by December 2013. An early site permit and a construction and operating license application will also be developed for submission over the next year.¶ “This will be the first time that a small nuclear design has been submitted to NRC for review and approval,” said Byrd, adding that commercial operation could begin between 2020 and 2022. Successful deployment of the technology is expected to lead to development of nuclear power plants roughly one-third the size of existing facilities, and DOE plans to issue additional funding opportunities.¶ “More is obviously better. Different designs may lend themselves to different utility operating situations,” said Byrd. Co-ops supported proposals from three of the four companies that sought consideration under the initial DOE cost-sharing grant.¶ Arkansas Electric Cooperative Corp. is among mPower Consortium backers also supporting the NexStart SMR Alliance led by Westinghouse and investor-owned Ameren Missouri. Springfield, Mo.-based Associated Electric Cooperative is also supporting the group.

#### Policies matter---effective energy choices depend on technical political literacy

Hodson 10 Derek, professor of education – Ontario Institute for Studies @ University of Toronto, “Science Education as a Call to Action,” Canadian Journal of Science, Mathematics and Technology Education, Vol. 10, Issue 3, p. 197-206

\*\*note: SSI = socioscientific issues

The final (fourth) level of sophistication in this issues-based approach is concerned with students findings ways of putting their values and convictions into action, helping them to prepare for and engage in responsible action, and assisting them in **developing the skills**, attitudes, and values **that will enable them to** take control of their lives, **cooperate with others to bring about change**, and work toward a more just and sustainable world in which power, wealth, and resources are more equitably shared. Socially and environmentally responsible behavior will not necessarily follow from knowledge of key concepts and possession of the “right attitudes.” As Curtin (1991) reminded us, it is important to distinguish between caring about and caring for. It is almost always much easier to proclaim that one cares about an issue than to do something about it. Put simply, our values are worth nothing until we live them. Rhetoric and espoused values will not bring about social justice and will not save the planet. We must change our actions. A politicized ethic of care (caring for) entails active involvement in a local manifestation of a particular problem or issue, exploration of the complex sociopolitical contexts in which the problem/issue is located, and attempts to resolve conflicts of interest. FROM STSE RHETORIC TO SOCIOPOLITICAL ACTION Writing from the perspective of environmental education, Jensen (2002) categorized the **knowledge** that is **likely to promote sociopolitical action** and encourage pro-environmental behavior into four dimensions: (a) **scientific and technological knowledge** that informs the issue or problem; (b) knowledge about the underlying social, political, and economic issues, conditions, and structures and how they contribute to creating social and environmental problems; (c) knowledge about how to bring about changes in society through direct or indirect action; and (d) knowledge about the likely outcome or direction of possible actions and the **desirability of those outcomes.** Although formulated as a model for environmental education, it is reasonable to suppose that Jensen's arguments are applicable to all forms of SSI-oriented action. Little needs to be said about dimensions 1 and 2 in Jensen's framework beyond the discussion earlier in the article. With regard to dimension 3, students need knowledge of actions that are likely to have positive impact and knowledge of how to engage in them. **It is essential** that they gain robust knowledge of the social, legal, and **political system(s)** that prevail in the communities in which they live and develop a clear understanding of how **decisions** are **made within** local, regional, and **national government** and within industry, commerce, and the military. Without knowledge of where and with whom power of decision making is located and awareness of the **mechanisms by which decisions are reached**, **intervention is not possible.** Thus, the curriculum I propose requires a concurrent program designed to achieve a measure of political literacy, including knowledge of how to engage in collective action with individuals who have different competencies, backgrounds, and attitudes but share a common interest in a particular SSI. Dimension 3 also includes knowledge of likely sympathizers and potential allies and strategies for encouraging cooperative action and group interventions. What Jensen did not mention but would seem to be a part of dimension 3 knowledge is the nature of science-oriented knowledge that would enable students to appraise the statements, reports, and arguments of scientists, politicians, and journalists and to present their own supporting or opposing arguments in a coherent, robust, and convincing way (see Hodson [2009b] for a lengthy discussion of this aspect of science education). Jensen's fourth category includes awareness of how (and why) others have sought to bring about change and entails formulation of a vision of the kind of world in which we (and our families and communities) wish to live. It is important for students to explore and develop their ideas, dreams, and aspirations for themselves, their neighbors and families and for the wider communities at local, regional, national, and global levels—a clear overlap with futures studies/education. An essential step in cultivating the critical scientific and technological literacy on which **sociopolitical action depends** is the application of a social and political critique capable of challenging the notion of technological determinism. We can control technology and its environmental and social impact. More significantly, we can control the controllers and redirect technology in such a way that adverse environmental impact is substantially reduced (if not entirely eliminated) and issues of freedom, equality, and justice are kept in the forefront of discussion during the **establishment of policy**.

# 2AC

## Heg Adv

### AT: Iraq DA

#### Heg is ethical

Christian Reus-Smit 4 IR @ Australian Nat’l, American Power and World Order p. 109-115

The final ethical position — the polar opposite of the first — holds that the exercise of hegemonic power is never ethically justifiable. One source of such a position might be pacifist thought, which abhors the use of violence even in unambiguous cases of self-defence. This would not, however, provide a comprehensive critique of the exercise of hegemonic power, which takes forms other than overt violence, such as economic diplomacy or the manipulation of international institutions. A more likely source of such critique would be the multifarious literature that equates all power with domination. Postmodernists (and anarch­ists, for that matter) might argue that behind all power lies self-interest and a will to control, both of which are antithetical to genuine human freedom and diversity. Rad­ical liberals might contend that the exercise of power by one human over another transforms the latter from a moral agent into a moral subject, thus violating their in­tegrity as self-governing individuals. Whatever the source, these ideas lead to radical scepticism about all institutions of power, of which hegemony is one form. The idea that the state is a source of individual security is replaced here with the idea of the state as a tyranny; the idea of hegem­ony as essential to the provision of global public goods is A framework for judgement Which of the above ideas help us to evaluate the ethics of the Bush Administration's revisionist hegemonic project? There is a strong temptation in international relations scholarship to mount trenchant defences of favoured para­digms, to show that the core assumptions of one's pre­ferred theory can be adapted to answer an ever widening set of big and important questions. There is a certain discipline of mind that this cultivates, and it certainly brings some order to theoretical debates, but it can lead to the 'Cinderella syndrome', the squeezing of an un­gainly, over-complicated world into an undersized theor­etical glass slipper. The study of international ethics is not immune this syndrome, with a long line of scholars seeking master normative principles of universal applic­ability. My approach here is a less ambitious, more prag­matic one. With the exceptions of the first and last positions, each of the above ethical perspectives contains kernels of wisdom. The challenge is to identify those of value for evaluating the ethics of Bush's revisionist grand strategy, and to consider how they might stand in order of priority. The following discussion takes up this challenge and arrives at a position that I tentatively term 'procedural solidarism'. The first and last of our five ethical positions can be dismissed as unhelpful to our task. The idea that might is right resonates with the cynical attitude we often feel to­wards the darker aspects of international relations, but it does not constitute an ethical standpoint from which to judge the exercise of hegemonic power. First of all, it places the right of moral judgement in the hands of the hegemon, and leaves all of those subject to its actions with no grounds for ethical critique. What the hegemon dictates as ethical is ethical. More than this, though, the principle that might is right is undiscriminating. It gives us no resources to determine ethical from unethical hegemonic conduct. The idea that might is never right is equally unsatisfying. It is a principle implied in many critiques of imperial power, including of American power. But like its polar opposite, it is utterly undiscriminating. No matter what the hegemon does we are left with one blanket assessment. No procedure, no selfless goal is worthy of ethical endorsement. This is a deeply impoverished ethical posture, as it raises the critique of power above all other human values. It is also completely counter-intuitive. Had the United States intervened militarily to prevent the Rwandan genocide, would this not have been ethically justifiable? If one answers no, then one faces the difficult task of explaining why the exercise of hegemonic power would have been a greater evil than allowing almost a million people to be massacred. If one answers yes, then one is admitting that a more discriminating set of ethical principles is needed than the simple yet enticing propos­ition that might is never right.

#### Heg is key to decease excess American interventionism

**Kagan and Kristol, 2k** (Robert and William, “Present Dangers”, Kagan is a Senior Associate at the Carnegie Endowment for International Peace, and Kristol is the editor of The Weekly Standard, and a political analyst and commentator, page 13-14 )

http://www2.uhv.edu/fairlambh/asian/present\_dangers.htm

It is worth pointing out, though, that a foreign policy premised on American hegemony, and on the blending of principle with material interest, may in fact mean fewer, not more, overseas interventions than under the "vital interest" standard. (13). The question, then, is not whether the US should intervene everywhere or nowhere. The decision Americans need to make is whether the US should generally lean forward, as it were, or sit back. A strategy aimed at preserving American hegemony should embrace the former stance, being more rather than less inclined to weigh in when crises erupt, and preferably before they erupt. This is the standard of a global superpower that intends to shape the international environment to its own advantage. By contrast, the vital interest standard is that of a "normal" power that awaits a dramatic challenge before it rouses itself into action.

## Water Adv

#### Desalination key to prevent billions from dying from structural violence

Beller 4 Dr. Denis E, Beller, 2004 - Department of Mechanical Engineering, University of Nevada, Las Vegas, "Atomic Time Machines: Back to the Nuclear Future," 24 J. Land Resources & Envtl. L. 41

Our global neighbors need much more energy to achieve the standards of living of the developed world. One-third of the six billion people on Earth today lack access to electricity.3 Another two billion use just 1000 kilowatt hours (kWh) per year, which is barely enough to keep a single 100-watt light bulb lit.4 In addition, one billion people have no sanitary water,5 which could be provided easily and inexpensively if energy were available to operate desalination and/or purification plants. Energy is needed for development, prosperity, health, and international security. The alternative to development, which is easily sustained with ample energy, is suffering in the form of poverty, disease, and death. This suffering creates instability and the potential for widespread violence, such that national security requires developed nations to help increase energy production in their more populous developing counterparts. The relationship between energy use and human well being is demonstrated by correlating the United Nations’ Human Development Index (HDI) with the annual per capita use of electricity. The UN compiles the HDI for almost every nation annually. It is a composite of average education level, health and well being (average life expectancy), and per capita income or gross domestic product. One such correlation that was done a few years ago showed that electric consumption first increases human well being, then people who are well off increase their electric consumption.6 Figure 1 illustrates this for almost every nation on Earth (the data includes more than 90 percent of the Earth’s population). Note there is a threshold at about 4000 kWh per capita. Below this threshold, human development increases rapidly with increases in available electricity (there are, of course, exceptions to every rule). Above this threshold, use of electricity increases rapidly as people become more healthy, wealthy, and educated. A deeper investigation into the data underlying the HDI reveals the effects of what Dr. Eric Loewen, a delegate to the United Nations 2002 World Summit on Sustainable Development in Johannesburg, South Africa, now calls “energy apartheid.”7 People in the Western world, who have and use large amounts of energy, have a life expectancy of about eighty years, while those on the lower left side of this graph, undeveloped nations where most people have no access to electricity, will die decades earlier. Thus, billions of our global neighbors without sufficient electricity die decades before they should. Those who live in poverty live in the most dangerous of conditions. Without substantial increases in electricity generation, the proportion of the Earth’s population without sufficient electricity will increase in the next fifty years as it grows by 50 percent to near 9 billion people.8 Preventing global conflict will require even more addition of electricity. The product of increased population and increased per capita energy usage by people who today have access to nearly none is a great growth in global electricity usage. Estimates for future increases in energy and electricity use, even with substantial efficiency improvements and conservation efforts, range between doubling and tripling in the next fifty years.9 Even with conservation, “energy star” appliances and homes, mandated fuel economy, massive government purchases of “renewables,” and energy saving and efficiency measures, our use of electrical energy has been growing faster than total energy usage; electricity use in the United States increased 57 percent between 1980 and 2000, while total energy use increased just 27 percent.10

## K

### FW

#### The role of the ballot is to determine between a topical plan and the status quo or a competitive policy option – the aff should get to simulate case impacts against the kritik

#### We allow many voices into the conversion---technical discussion of policy key to combatting experts through dialogue and speaking in their language – only the aff does that – the alt is coopted – that’s Hodson – this balances local knowledge with empirics

#### Util is ethical as per their systems

### Dispo Bad – 2AC

#### Dispo is a voting issue—destroys 2AC strategic flexibility which is the arc of clash and education in debate—magnified because no one has a standard for what dispo means—depth is key to debate’s political value—they cause late developing debates – reject the team to set a precedent – unconditionality solves their offense

### Gender K

#### Prior questions fail and paralyze politics

Owen 2 (David Owen, Reader of Political Theory at the Univ. of Southampton, Millennium Vol 31 No 3 2002 p. 655-7)

Commenting on the ‘philosophical turn’ in IR, Wæver remarks that ‘[a] frenzy for words like “epistemology” and “ontology” often signals this philosophical turn’, although he goes on to comment that these terms are often used loosely.4 However, loosely deployed or not, it is clear that debates concerning ontology and epistemology play a central role in the contemporary IR theory wars. In one respect, this is unsurprising since it is a characteristic feature of the social sciences that periods of disciplinary disorientation involve recourse to reflection on the philosophical commitments of different theoretical approaches, and there is no doubt that such reflection can play a valuable role in making explicit the commitments that characterise (and help individuate) diverse theoretical positions. Yet, such a philosophical turn is not without its dangers and I will briefly mention three before turning to consider a confusion that has, I will suggest, helped to promote the IR theory wars by motivating this philosophical turn. The first danger with the philosophical turn is that it has an inbuilt tendency to prioritise issues of ontology and epistemology over explanatory and/or interpretive power as if the latter two were merely a simple function of the former. But while the explanatory and/or interpretive power of a theoretical account is not wholly independent of its ontological and/or epistemological commitments (otherwise criticism of these features would not be a criticism that had any value), it is by no means clear that it is, in contrast, wholly dependent on these philosophical commitments. Thus, for example, one need not be sympathetic to rational choice theory to recognise that it can provide powerful accounts of certain kinds of problems, such as the tragedy of the commons in which dilemmas of collective action are foregrounded. It may, of course, be the case that the advocates of rational choice theory cannot give a good account of why this type of theory is powerful in accounting for this class of problems (i.e., how it is that the relevant actors come to exhibit features in these circumstances that approximate the assumptions of rational choice theory) and, if this is the case, it is a philosophical weakness—but this does not undermine the point that, for a certain class of problems, rational choice theory may provide the best account available to us. In other words, while the critical judgement of theoretical accounts in terms of their ontological and/or epistemological sophistication is one kind of critical judgement, it is not the only or even necessarily the most important kind. The second danger run by the philosophical turn is that because prioritisation of ontology and epistemology promotes theory-construction from philosophical first principles, it cultivates a theory-driven rather than problem-driven approach to IR. Paraphrasing Ian Shapiro, the point can be put like this: since it is the case that there is always a plurality of possible true descriptions of a given action, event or phenomenon, the challenge is to decide which is the most apt in terms of getting a perspicuous grip on the action, event or phenomenon in question given the purposes of the inquiry; yet, from this standpoint, ‘theory-driven work is part of a reductionist program’ in that it ‘dictates always opting for the description that calls for the explanation that flows from the preferred model or theory’.5 The justification offered for this strategy rests on the mistaken belief that it is necessary for social science because general explanations are required to characterise the classes of phenomena studied in similar terms. However, as Shapiro points out, this is to misunderstand the enterprise of science since ‘whether there are general explanations for classes of phenomena is a question for social-scientific inquiry, not to be prejudged before conducting that inquiry’.6 Moreover, this strategy easily slips into the promotion of the pursuit of generality over that of empirical validity. The third danger is that the preceding two combine to encourage the formation of a particular image of disciplinary debate in IR—what might be called (only slightly tongue in cheek) ‘the Highlander view’—namely, an image of warring theoretical approaches with each, despite occasional temporary tactical alliances, dedicated to the strategic achievement of sovereignty over the disciplinary field. It encourages this view because the turn to, and prioritisation of, ontology and epistemology stimulates the idea that there can only be one theoretical approach which gets things right, namely, the theoretical approach that gets its ontology and epistemology right. This image feeds back into IR exacerbating the first and second dangers, and so a potentially vicious circle arises.

#### Their essentialization of women’s values creates dichotomy they described

#### The perm is the best option---combining traditional and unconventional epistemologies allows for more thorough analysis of problems---the alt alone is worse because it refuses to acknowledge its own biases

Conway 97—philosophy, Penn State (Daniel, Nietzsche and the political, 135-6)

This preference is clearly political in nature, and Haraway makes no pretense of aspiring to epistemic purity or foundational innocence. For Haraway, any epistemic privilege necessarily implies a political (i.e., situated) preference. Her postmodern orientation elides the boundaries traditionally drawn between politics and epistemology, and thus renders otiose the ideal of epistemic purity. All perspectives are partial, all standpoints situated—including those of feminist theorists. It is absolutely crucial to Haraway's postmodern feminist project that we acknowledge her claims about situated knowledge as themselves situated within the political agenda she sets for postmodern feminism; feminist theorists must therefore accept and accommodate the self-referential implications of their own epistemic claims.

The political agenda of postmodern feminism thus assigns to (some) subjugated standpoints a political preference or priority. Haraway, for example, believes that some subjugated standpoints may be more immediately revealing, especially since they have been discounted and excluded for so long. They may prove especially useful in coming to understand the political and psychological mechanisms whereby the patriarchy discounts the radically situated knowledges of others while claiming for its own (situated) knowledge an illicit epistemic privilege:

The standpoints of the subjugated ... are savvy to modes of denial through repression, forgetting, and disappearing acts— ways of being nowhere while claiming to sec comprehensively. The subjugated have a decent chance to be on to the god-trick and all its dazzling—and, therefore, blinding—illuminations.34

But these subjugated standpoints do not afford feminist theorists an epistemically privileged view of the world, independent of the political agendas they have established. Reprising elements of Nietzsche's psychological profile of the "slave" type, Haraway warns against the

serious danger of romanticizing and/or appropriating the vision of the less powerful while claiming to see from their positions. To see from below is neither easily learned nor unproblematic, even if "we" "naturally" inhabit the great underground terrain of subjugated knowledges. The positionings of the subjugated are not exempt from critical re-examination, decoding, deconstruction, and interpretation; that is, from both semiological and hermeneutic modes of critical enquiry. The standpoints of the subjugated are not "innocent" positions.35

A subjugated standpoint may shed new light on the ways of an oppressor, but it in no way renders superfluous or redundantthe standpoint of the oppressor. Because neither standpoint fully comprises the other, the aggregation of the two would move both parties (or a third party) closer to a more objective understanding of the world. If some feminists have political reasons for disavowing this project of aggregation, or for adopting it selectively, then they must pursue their political agenda at the expense of the greater objectivity that they might otherwise have gained.

#### No intrinsic connection between women commodification and nature

Their patriarchy impacts are contrived, reductionist, essentialist, and fracture resistance

**Crenshaw 2** [Carrie Crenshaw PhD, Former President of CEDA, “Perspectives In Controversy: Selected Articles from Contemporary Argumentation and Debate” 2002 p. 119-126]

Feminism is not dead. It is alive and well in intercollegiate debate. Increasingly, students rely on feminist authors to inform their analysis of resolutions. While I applaud these initial efforts to explore feminist thought, I am concerned that such arguments only exemplify the general absence of sound causal reasoning in debate rounds. Poor causal reasoning results from a debate practice that privileges empirical proof over rhetorical proof, fostering ignorance of the subject matter being debated. To illustrate my point, I claim that debate arguments about feminists suffer from a reductionism that tends to marginalize the voices of significant feminist authors. David Zarefsky made a persuasive case for the value of causal reasoning in intercollegiate debate as far back as 1979. He argued that causal arguments are desirable for four reasons. First, causal analysis increases the control of the arguer over events by promoting understanding of them. Second, the use of causal reasoning increases rigor of analysis and fairness in the decision-making process. Third, causal arguments promote understanding of the philosophical paradox that presumably good people tolerate the existence of evil. Finally, causal reasoning supplies good reasons for “commitments to policy choices or to systems of belief which transcend whim, caprice, or the non-reflexive “claims of immediacy” (117-9). Rhetorical proof plays an important role in the analysis of causal relationships. This is true despite the common assumption that the identification of cause and effect relies solely upon empirical investigation. For Zarefsky, there are three types of causal reasoning. The first type of causal reasoning describes the application of a covering law to account for physical or material conditions that cause a resulting event This type of causal reasoning requires empirical proof prominent in scientific investigation. A second type of causal reasoning requires the assignment of responsibility. Responsible human beings as agents cause certain events to happen; that is, causation resides in human beings (107-08). A third type of causal claim explains the existence of a causal relationship. It functions “to provide reasons to justify a belief that a causal connection exists” (108). The second and third types of causal arguments rely on rhetorical proof, the provision of “good reasons” to substantiate arguments about human responsibility or explanations for the existence of a causal relationship (108). I contend that the practice of intercollegiate debate privileges the first type of causal analysis. It reduces questions of human motivation and explanation to a level of empiricism appropriate only for causal questions concerning physical or material conditions. Arguments about feminism clearly illustrate this phenomenon. Substantive debates about feminism usually take one of two forms. First, on the affirmative, debaters argue that some aspect of the resolution is a manifestation of patriarchy. For example, given the spring 1992 resolution, “[rjesolved: That advertising degrades the quality of life," many affirmatives argued that the portrayal of women as beautiful objects for men's consumption is a manifestation of patriarchy that results in tangible harms to women such as rising rates of eating disorders. The fall 1992 topic, "(rjesolved: That the welfare system exacerbates the problems of the urban poor in the United States," also had its share of patri- archy cases. Affirmatives typically argued that women's dependence upon a patriarchal welfare system results in increasing rates of women's poverty. In addition to these concrete harms to individual women, most affirmatives on both topics, desiring "big impacts," argued that the effects of patriarchy include nightmarish totalitarianism and/or nuclear annihilation. On the negative, many debaters countered with arguments that the some aspect of the resolution in some way sustains or energizes the feminist movement in resistance to patriarchal harms. For example, some negatives argued that sexist advertising provides an impetus for the reinvigoration of the feminist movement and/or feminist consciousness, ultimately solving the threat of patriarchal nuclear annihilation. likewise, debaters negating the welfare topic argued that the state of the welfare system is the key issue around which the feminist movement is mobilizing or that the consequence of the welfare system - breakup of the patriarchal nuclear family -undermines patriarchy as a whole. Such arguments seem to have two assumptions in common. First, there is a single feminism. As a result, feminists are transformed into feminism. Debaters speak of feminism as a single, monolithic, theoretical and pragmatic entity and feminists as women with identical motivations, methods, and goals. Second, these arguments assume that patriarchy is the single or root cause of all forms of oppression. Patriarchy not only is responsible for sexism and the consequent oppression of women, it also is the cause of totalitarianism, environmental degradation, nuclear war, racism, and capitalist exploitation. These reductionist arguments reflect an unwillingness to debate about the complexities of human motivation and explanation. They betray a reliance upon a framework of proof that can explain only material conditions and physical realities through empirical quantification. The transformation of feminists 'Mo feminism and the identification of patriarchy as the sole cause of all oppression is related in part to the current form of intercollegiate debate practice. By "form," I refer to Kenneth Burke's notion of form, defined as the "creation of appetite in the mind of the auditor, and the adequate satisfying of that appetite" (Counter-Statement 31). Though the framework for this understanding of form is found in literary and artistic criticism, it is appropriate in this context; as Burke notes, literature can be "equipment for living" (Biilosophy 293). He also suggests that form "is an arousing and fulfillment of desires. A work has form in so far as one part of it leads a reader to anticipate another part, to be gratified by the sequence" (Counter-Statement 124). Burke observes that there are several aspects to the concept of form. One of these aspects, conventional form, involves to some degree the appeal of form as form. Progressive, repetitive, and minor forms, may be effective even though the reader has no awareness of their formality. But when a form appeals as form, we designate it as conventional form. Any form can become conventional, and be sought for itself - whether it be as complex as the Greek tragedy or as compact as the sonnet (Counter-Statement 126). These concepts help to explain debaters' continuing reluctance to employ rhetorical proof in arguments about causality. Debaters practice the convention of poor causal reasoning as a result of judges' unexamined reliance upon conventional form. Convention is the practice of arguing single-cause links to monolithic impacts that arises out of custom or usage. Conventional form is the expectation of judges that an argument will take this form. Common practice or convention dictates that a case or disadvantage with nefarious impacts causally related to a single link will "outweigh" opposing claims in the mind of the judge. In this sense, debate arguments themselves are conventional. Debaters practice the ¶ convention of establishing single-cause relationships to large monolithic impacts in order to conform to audience expectation. Debaters practice poor causal reasoning because they are rewarded for it by judges. The convention of arguing single-cause links leadsthe judge to anticipate the certainty of the impact and to be gratified by the sequence. I suspect that the sequence is gratifying for judges because it relieves us from the responsibility and difficulties of evaluating rhetorical proofs. We are caught between our responsibility to evaluate rhetorical proofs and our reluctance to succumb to complete relativism and subjectivity. To take responsibility for evaluating rhetorical proof is to admit that not every question has an empirical answer. However, when we abandon our responsibility to rhetorical proofs, we sacrifice our students' understanding of causal reasoning. The sacrifice has consequences for our students' knowledge of the subject matter they are debating. For example, when feminism is defined as a single entity, not as a pluralized movement or theory, that single entity results in the identification of patriarchy as the sole cause of oppression. The result is ignorance of the subject position of the particular feminist author, for highlighting his or her subject position might draw attention to the incompleteness of the causal relationship between link and impact Consequently, debaters do not challenge the basic assumptions of such argumentation and ignorance of feminists is perpetuated. Feminists are not feminism. The topics of feminist inquiry are many and varied, as are the philosophical approaches to the study of these topics. Different authors have attempted categorization of various feminists in distinctive ways. For example, Alison Jaggar argues that feminists can be divided into four categories: liberal feminism, marxist feminism, radical feminism, and socialist feminism. While each of these feminists may share a common commitment to the improvement of women's situations, they differ from each other in very important ways and reflect divergent philosophical assumptions that make them each unique. Linda Alcoff presents an entirely different categorization of feminist theory based upon distinct understandings of the concept "woman," including cultural feminism and post-structural feminism. Karen Offen utilizes a comparative historical approach to examine two distinct modes of historical argumentation or discourse that have been used by women and their male allies on behalf of women's emancipation from male control in Western societies. These include relational feminism and individualist feminism. Elaine Marks and Isabelle de Courtivron describe a whole category of French feminists that contain many distinct versions of the feminist project by French authors. Women of color and third-world feminists have argued that even these broad categorizations of the various feminism have neglected the contributions of non-white, non-Western feminists (see, for example, hooks; Hull; Joseph and Lewis; Lorde; Moraga; Omolade; and Smith). In this literature, the very definition of feminism is contested. Some feminists argue that "all feminists are united by a commitment to improving the situation of women" (Jaggar and Rothenberg xii), while others have resisted the notion of a single definition of feminism, bell hooks observes, "a central problem within feminist discourse has been our inability to either arrive at a consensus of opinion about what feminism is (or accept definitions) that could serve as points of unification" (Feminist Theory 17). The controversy over the very definition of feminism has political implications. The power to define is the power both to include and exclude people and ideas in and from that feminism. As a result, [bjourgeois white women interested in women's rights issues have been satisfied with simple definitions for obvious reasons. Rhetorically placing themselves in the same social category as oppressed women, they were not anxious to call attention to race and class privilege (hooks. Feminist Wieory 18). Debate arguments that assume a singular conception of feminism include and empower the voices of race- and class-privileged women while excluding and silencing the voices of feminists marginalized by race and class status. This position becomes clearer when we examine the second assumption of arguments about feminism in intercollegiate debate - patriarchy is the sole cause of oppression. Important feminist thought has resisted this assumption for good reason. Designating patriarchy as the sole cause of oppression allows the subjugation of resistance to other forms of oppression like racism and classism to the struggle against sexism. Such subjugation has the effect of denigrating the legitimacy of resistance to racism and classism as struggles of equal importance. "Within feminist movement in the West, this led to the assumption that resisting patriarchal domination is a more legitimate feminist action than resisting racism and other forms of domination" (hooks. Talking Back 19). The relegation of struggles against racism and class exploitation to offspring status is not the only implication of the "sole cause" argument In addition, identifying patriarchy as the single source of oppression obscures women's perpetration of other forms of subjugation and domination, bell hooks argues that we should not obscure the reality that women can and do partici- pate in politics of domination, as perpetrators as well as victims - that we dominate, that we are dominated. If focus on patriarchal domination masks this reality or becomes the means by which women deflect attention from the real conditions and circumstances of our lives, then women cooperate in suppressing and promoting false consciousness, inhibiting our capacity to assume responsibility for transforming ourselves and society (hooks. Talking Back 20). Characterizing patriarchy as the sole cause of oppression allows mainstream feminists to abdicate responsibility for the exercise of class and race privilege. It casts the struggle against class exploitation and racism as secondary concerns. Current debate practice promotes ignorance of these issues because debaters appeal to conventional form, the expectation of judges that they will isolate a single link to a large impact Feminists become feminism and patriarchy becomes the sole cause of all evil. Poor causal arguments arouse and fulfill the expectation of judges by allowing us to surrender our responsibility to evaluate rhetorical proof for complex causal relationships. The result is either the mar-ginalization or colonization of certain feminist voices. Arguing feminism in debate rounds risks trivializing feminists. Privileging the act of speaking about feminism over the content of speech "often turns the voices and beings of non-white women into commodity, spectacle" (hooks, Talking Back 14). Teaching sophisticated causal reasoning enables our students to learn more concerning the subject matter about which they argue. In this case, students would learn more about the multiplicity of feminists instead of reproducing the marginalization of many feminist voices in the debate itself. The content of the speech of feminists must be investigated to subvert the colonization of exploited women. To do so, we must explore alternatives to the formal expectation of single-cause links to enormous impacts for appropriation of the marginal voice threatens the very core of self-determination and free self-expression for exploited and oppressed peoples. If the identified audience, those spoken to, is determined solely by ruling groups who control production and distribution, then it is easy for the marginal voice striving for a hearing to allow what is said to be overdetermined by the needs of that majority group who appears to be listening, to be tuned in (hooks, Talking Back 14).

#### Perm do both

#### Rethinking fails to alter material realities and gets coopted

Whitworth 94 [Assistant Professor of Political Science York University, Feminism and International Relations, Towards a Political Economy of Gender in Interstate and Non-Governmental Institutions, page 22-23]

Even when not concerned with mothering as such, much of the politics that emerge from radical feminism within IR depend upon a 're-thinking' from the perspective of women. What is left unexplained is how simply thinking differently will alter the material realities of relations of domination between men and women.46 Structural (patriarchal) relations are acknowledged, but not analysed in radical feminism's reliance on the experiences, behaviours and perceptions of 'women'. As Sandra Harding notes, the essential and universal 'man', long the focus of feminist critiques, has merely been replaced here with the essential and universal 'woman'.47 And indeed, that notion of 'woman' not only ignores important differences amongst women, but it also reproduces exactly the stereotypical vision of women and men, masculine and feminine, that has been produced under patriarchy.48 Those women who do not fit the mould - who, for example, take up arms in military struggle - are quickly dismissed as expressing 'negative' or 'inauthentic' feminine values (the same accusation is more rarely made against men).49 In this way, it comes as no surprise when mainstream IR theorists such as Robert Keohane happily embrace the tenets of radical feminism.50 It requires little in the way of re-thinking or movement from accepted and comfortable assumptions and stereotypes. Radical feminists find themselves defending the same account of women as nurturing, pacifist, submissive mothers as do men under patriarchy, anti-feminists and the New Right. As some writers suggest, this in itself should give feminists pause to reconsider this position.51

#### Not the root cause

Goldstein 1 – IR, American U (Joshua, War and Gender, p. 412)

First, peace activists face a dilemma in thinking about causes of war and working for peace. Many peace scholars and activists support the approach, “if you want peace, work for justice.” Then, if one believes that sexism contributes to war, one can work for gender justice specifically (perhaps. among others) in order to pursue peace. This approach brings strategic allies to the peace movement (women, labor, minorities), but rests on the assumption that injustices cause war. The evidence in this book suggests that causality runs at least as strongly the other way. War is not a product of capitalism, imperialism, gender, innate aggression, or any other single cause, although all of these influence wars’ outbreaks and outcomes. Rather, war has in part fueled and sustained these and other injustices.9 So, “if you want peace, work for peace.” Indeed, if you want justice (gender and others), work for peace. Causality does not run just upward through the levels of analysis, from types of individuals, societies, and governments up to war. It runs downward too. Enloe suggests that changes in attitudes towards war and the military may be the most important way to “reverse women’s oppression.” The dilemma is that peace work focused on justice brings to the peace movement energy, allies, and moral grounding, yet, in light of this book’s evidence, the emphasis on injustice as the main cause of war seems to be empirically inadequate.

#### Perm do both

### Nuclear Link

#### SMRs solve nuclear downsides---reduce radiation and accident risks because they’re underground and smaller – that’s Ringle – their link ev is too generic

#### Incentives-based environmental action in the context of nuclear power 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.

### Security Link

#### Threats real and not constructed—rational risk assessment goes aff

**Knudsen 1**– PoliSci Professor at Sodertorn (Olav, Post-Copenhagen Security Studies, Security Dialogue 32:3)

Moreover, I have a problem with the underlying implication that it is unimportant whether states 'really' face dangers from other states or groups. In the Copenhagen school, threats are seen as coming mainly from the actors' own fears, or from what happens when the fears of individuals turn into paranoid political action. In my view, this emphasis on the subjective is a **misleading conception of threat**, in that it discounts an independent existence for what- ever is perceived as a threat. Granted, political life is often marked by misperceptions, mistakes, pure imaginations, ghosts, or mirages, but such phenomena **do not occur simultaneously** to large numbers of politicians, and **hardly most of the time**. During the Cold War, threats - in the sense of plausible possibilities of danger - referred to 'real' phenomena, and they **refer to 'real' phenomena** now. The objects referred to are often not the same, but that is a different matter. Threats have to be dealt with both ín terms of perceptions and in terms of the phenomena which are perceived to be threatening. The point of Waever’s concept of security is not the potential existence of danger somewhere but the use of the word itself by political elites. In his 1997 PhD dissertation, he writes, ’One can View “security” as that which is in language theory called a speech act: it is not interesting as a sign referring to something more real - it is the utterance itself that is the act.’24 The deliberate disregard of objective factors is even more explicitly stated in Buzan & WaeVer’s joint article of the same year.” As a consequence, the phenomenon of threat is reduced to a matter of pure domestic politics.” It seems to me that the security dilemma, as a central notion in security studies, then loses its foundation. Yet I see that Waever himself has no compunction about referring to the security dilemma in a recent article." This discounting of the objective aspect of threats shifts security studies to insignificant concerns. What has long made 'threats' and ’threat perceptions’ important phenomena in the study of IR is the implication that **urgent action may be required**. Urgency, of course, is where Waever first began his argument in favor of an alternative security conception, because a convincing sense of urgency has been the chief culprit behind the abuse of 'security' and the consequent ’politics of panic', as Waever aptly calls it.” Now, here - in the case of urgency - another baby is thrown out with the Waeverian bathwater. When real situations of urgency arise, those situations are challenges to democracy; they are actually at the core of the problematic arising with the process of making security policy in parliamentary democracy. But in Waever’s world, threats are merely more or less persuasive, and the claim of urgency is just another argument. I hold that instead of 'abolishing' threatening phenomena ’out there’ by reconceptualizing them, as Waever does, we should continue paying attention to them, because **situations with a credible claim to urgency will keep coming back** and then we need to know more about how they work in the interrelations of groups and states (such as civil wars, for instance), not least to find adequate democratic procedures for dealing with them.

### AT: SVio Outweighs

#### Heg solves it---unipolarity has created a new global middle class that is a substantial improvement from the period preceding – that’s Barnett

#### The status quo is structurally improving

Dash 2/4 Co-Founder and Managing Director at Activate, a new kind of strategy consultancy that advises companies about the opportunities at the intersection of technology and media co-founder and CEO of ThinkUp, which shows you how to be better at using your social networks, publisher, editor and owner of Dashes.com, my personal blog where I've been publishing continuously since 1999, entrepreneur, writer and geek living in New York City (Anil Dash, 4 February 2013, “THE WORLD IS GETTING BETTER. QUICKLY.,” http://dashes.com/anil/2013/02/the-world-is-getting-better-quickly.html)

The world is getting better, faster, than we could ever have imagined. For those of us who are fortunate enough to live in wealthy communities or countries, we have a common set of reference points we use to describe the world's most intractable, upsetting, unimaginable injustices. Often, we only mention these horrible realities in minimizing our own woes: "Well, that's annoying, but it's hardly as bad as children starving in Africa." Or "Yeah, this is important, but it's not like it's the cure for AIDS." Or the omnipresent description of any issue as a "First World Problem". But let's, for once, look at the actual data around developing world problems. Not our condescending, world-away displays of emotion, or our slacktivist tendencies to see a retweet as meaningful action, but the actual numbers and metrics about how progress is happening for the world's poorest people. Though metrics and measurements are always fraught and flawed, Gates' single biggest emphasis was the idea that measurable progress and metrics are necessary for any meaningful improvements to happen in the lives of the world's poor. So how are we doing? THE WORLD HAS CHANGED The results are astounding. Even if we caveat that every measurement is imprecise, that billionaire philanthropists are going to favor data that strengthens their points, and that some of the most significant problems are difficult to attach metrics to, it's inarguable that the past two decades have seen the greatest leap forward in the lives of the global poor in the history of humanity. Some highlights: Children are 1/3 less likely to die before age five than they were in 1990. The global childhood mortality rate for kids under 5 has dropped from 88 in 1000 in 1990 to 57 in 1000 in 2010. The global infant mortality rate for kids dying before age one has plunged from 61 in 1000 to 40 in 1000. Now, any child dying is of course one child too many, but this is astounding progress to have made in just twenty years. In the past 30 years, the percentage of children who receive key immunizations such as the DTP vaccine has quadrupled. The percentage of people in the world living on less than $1.25 per day has been cut in half since 1990, ahead of the schedule of the Millennium Development Goals which hoped to reach this target by 2015. The number of deaths to tuberculosis has been cut 40% in the past twenty years. The consumption of ozone-depleting substances has been cut 85% globally in the last thirty years. The percentage of urban dwellers living in slums globally has been cut from 46.2% to 32.7% in the last twenty years. And there's more progress in hunger and contraception, in sustainability and education, against AIDS and illiteracy. After reading the Gates annual letter and following up by reviewing the UN's ugly-but-data-rich Millennium Development Goals statistics site, I was surprised by how much progress has been made in the years since I've been an adult, and just how little I've heard about the big picture despite the fact that I'd like to keep informed about such things. I'm not a pollyanna — there's a lot of work to be done. But I can personally attest to the profound effect that basic improvements like clean drinking water can have in people's lives. Today, we often use the world's biggest problems as metaphors for impossibility. But the evidence shows that, actually, we're really good at solving even the most intimidating challenges in the world. What we're lacking is the ability to communicate effectively about how we make progress, so that we can galvanize even more investment of resources, time and effort to tackling the problems we have left.

#### Nuke war outweighs structural violence – prioritizing structural violence makes preventing war impossible

Boulding 78 [Ken, is professor of economics and director, Center for Research on Conflict Resolution, University of Michigan, “Future Directions in Conflict and Peace Studies,” The Journal of Conflict Resolution, Vol. 22, No. 2 (Jun., 1978), pp. 342-354]

Galtung is very legitimately interested in problems of world poverty and the failure of development of the really poor. He tried to amalga- mate this interest with the peace research interest in the more narrow sense. Unfortunately, he did this by downgrading the study of inter- national peace, labeling it "negative peace" (it should really have been labeled "negative war") and then developing the concept of "structural violence," which initially meant all those social structures and histories which produced an expectation of life less than that of the richest and longest-lived societies. He argued by analogy that if people died before the age, say, of 70 from avoidable causes, that this was a death in "war"' which could only be remedied by something called "positive peace." Unfortunately, the concept of structural violence was broadened, in the word of one slightly unfriendly critic, to include anything that Galtung did not like. Another factor in this situation was the feeling, certainly in the 1960s and early 1970s, that nuclear deterrence was actually succeeding as deterrence and that the problem of nuclear war had receded into the background. This it seems to me is a most dangerous illusion and diverted conflict and peace research for ten years or more away from problems of disarmament and stable peace toward a grand, vague study of world developments, for which most of the peace researchers are not particularly well qualified. To my mind, at least, the quality of the research has suffered severely as a result.' The complex nature of the split within the peace research community is reflected in two international peace research organizations. The official one, the International Peace Research Association (IPRA), tends to be dominated by Europeans somewhat to the political left, is rather, hostile to the United States and to the multinational cor- porations, sympathetic to the New International Economic Order and thinks of itself as being interested in justice rather than in peace. The Peace Science Society (International), which used to be called the Peace Research Society (International), is mainly the creation of Walter Isard of the University of Pennsylvania. It conducts meetings all around the world and represents a more peace-oriented, quantitative, science- based enterprise, without much interest in ideology. COPRED, while officially the North American representative of IPRA, has very little active connection with it and contains within itself the same ideological split which, divides the peace research community in general. It has, however, been able to hold together and at least promote a certain amount of interaction between the two points of view. Again representing the "scientific" rather than the "ideological" point of view, we have SIPRI, the Stockholm International Peace Research Institute, very generously (by the usual peace research stand- ards) financed by the Swedish government, which has performed an enormously useful service in the collection and publishing of data on such things as the war industry, technological developments, arma- ments, and the arms trade. The Institute is very largely the creation of Alva Myrdal. In spite of the remarkable work which it has done, how- ever, her last book on disarmament (1976) is almost a cry of despair over the folly and hypocrisy of international policies, the overwhelming power of the military, and the inability of mere information, however good, go change the course of events as we head toward ultimate ca- tastrophe. I do not wholly share her pessimism, but it is hard not to be a little disappointed with the results of this first generation of the peace research movement. Myrdal called attention very dramatically to the appalling danger in which Europe stands, as the major battleground between Europe, the United States, and the Soviet Union if war ever should break out. It may perhaps be a subconscious recognition-and psychological denial-of the sword of Damocles hanging over Europe that has made the European peace research movement retreat from the realities of the international system into what I must unkindly describe as fantasies of justice. But the American peace research community, likewise, has retreated into a somewhat niggling scientism, with sophisticated meth- odologies and not very many new ideas. I must confess that when I first became involved with the peace research enterprise 25 years ago I had hopes that it might produce some- thing like the Keynesian revolution in economics, which was the result of some rather simple ideas that had never really been thought out clearly before (though they had been anticipated by Malthus and others), coupled with a substantial improvement in the information system with the development of national income statistics which rein- forced this new theoretical framework. As a result, we have had in a single generation a very massive change in what might be called the "conventional wisdom" of economic policy, and even though this conventional wisdom is not wholly wise, there is a world of difference between Herbert Hoover and his total failure to deal with the Great Depression, simply because of everybody's ignorance, and the moder- ately skillful handling of the depression which followed the change in oil prices in 1-974, which, compared with the period 1929 to 1932, was little more than a bad cold compared with a galloping pneumonia. In the international system, however, there has been only glacial change in the conventional wisdom. There has been some improvement. Kissinger was an improvement on John Foster Dulles. We have had the beginnings of detente, and at least the possibility on the horizon of stable peace between the United States and the Soviet Union, indeed in the whole temperate zone-even though the tropics still remain uneasy and beset with arms races, wars, and revolutions which we cannot really afford. Nor can we pretend that peace around the temper- ate zone is stable enough so that we do not have to worry about it. The qualitative arms race goes on and could easily take us over the cliff. The record of peace research in the last generation, therefore, is one of very partial success. It has created a discipline and that is something of long-run consequence, most certainly for the good. It has made very little dent on the conventional wisdom of the policy makers anywhere in the world. It has not been able to prevent an arms race, any more, I suppose we might say, than the Keynesian economics has been able to prevent inflation. But whereas inflation is an inconvenience, the arms race may well be another catastrophe. Where, then, do we go from here? Can we see new horizons for peace and conflict research to get it out of the doldrums in which it has been now for almost ten years? The challenge is surely great enough. It still remains true that war, the breakdown of Galtung's "negative peace," remains the greatest clear and present danger to the human race, a danger to human survival far greater than poverty, or injustice, or oppression, desirable and necessary as it is to eliminate these things. Up to the present generation, war has been a cost and an inconven- ience to the human race, but it has rarely been fatal to the process of evolutionary development as a whole. It has probably not absorbed more than 5% of human time, effort, and resources. Even in the twenti- eth century, with its two world wars and innumerable smaller ones, it has probably not acounted for more than 5% of deaths, though of course a larger proportion of premature deaths. Now, however, advancing technology is creating a situation where in the first place we are developing a single world system that does not have the redundancy of the many isolated systems of the past and in which therefore if any- thing goes wrong everything goes wrong. The Mayan civilization could collapse in 900 A.D., and collapse almost irretrievably without Europe or China even being aware of the fact. When we had a number of iso- lated systems, the catastrophe in one was ultimately recoverable by migration from the surviving systems. The one-world system, therefore, which science, transportation, and communication are rapidly giving us, is inherently more precarious than the many-world system of the past. It is all the more important, therefore, to make it internally robust and capable only of recoverable catastrophes. The necessity for stable peace, therefore, increases with every improvement in technology, either of war or of peace.

#### Perm do the plan and all non-competitive parts of the alt – endorse ecofem in all other instances

### AT: Water Link

#### Water link doesn’t make sense---shortage exist and we connect that shortage to human oppression – that’s Dinar – securitization key to action

#### Perm solves – we can critique security but still assess the water war impacts

Shlomi Dinar 2 is a Ph.D. candidate at the Johns Hopkins University School of Advanced International Studies, “Water, Security, Conflict, and Cooperation”, SAIS Review 22.2 (2002) 229-253

Can some sort of compromise be sought in this ongoing debate? One issue often neglected in the traditional school of security studies is that, in addition to the study of war as a part of security, one must also consider the study of peace. While traditionalists and other critics have mounted a compelling attack on the expansion of the concept of security, the relevance of hydropolitics to conflict and cooperation and thus peace studies is clear. Therefore, the door should be open to a great variety of causal factors, theories, and explanations under the condition that they logically and empirically affect war, peace, and nonmilitary causes or means affecting national as well as regional and international security. 28 The water-security link is therefore valid so long as hydropolitics logically and empirically affects conflict and cooperation, which in turn affects national, regional, and international security. Therefore, water scarcity and hydropolitics should be considered part of the security field to the extent that freshwater issues affect the likelihood of violence, war, or peace. 29

### AT: Control Nature

#### We don’t try to control nature

#### We don't have absolute control over nature, but measures to reduce existential environmental risks are still good---we can use science to confirm environmental trends which solves extinction

Highfield 4--editor of New Scientist and former Telegraph science editor. DPhil in physical chemistry, conducted at Oxford University and the Institut Laue Langevin (Roger, We can't control nature, but we can prepare for the worst, http://www.telegraph.co.uk/comment/personal-view/3613845/We-cant-control-nature-but-we-can-prepare-for-the-worst.html)

We can't control nature, but we can prepare for the worst

This week's devastating tsunami came as no surprise to scientists. The quake that triggered the destruction was just off the western tip of Sumatra in a geologically violent region where two of the plates that make up the Earth's surface collide, and where similar upheavals have been seen before.

The Indian Ocean floor is being pushed under Eurasia along a long fault line known as a subduction zone. A few miles beneath the ocean floor, the plates slipped violently and abruptly over a 700-mile stretch, creating a seabed cliff as tall as 10 metres and a tsunami that moved at 560mph. The death toll in its wake is still rising. Once again, scientists will ask whether society should do more to prepare for such rare but catastrophic events.

Although earthquakes are unpredictable, tsunamis are not. An international warning system in the Pacific was first considered in 1960, when around 1,000 people died after a tsunami struck Chile, Hawaii, Japan and elsewhere. In 1964, a 9.2-magnitude quake in Alaska triggered a wave that killed more than 100 people as it swept down the west coast. Driven by this modest death toll, relative to the tragedy of the past few days, the United States and Japan have prepared evacuations, special construction codes for coastal buildings and shoreline embankments to lessen the impact of these waves.

Within 15 minutes of this week's earthquake, scientists running the Pacific warning system sent an alert to 26 participating countries, including Thailand and Indonesia, that destructive waves might be generated. The problem is that not all submarine earthquakes make waves.

To turn earthquake detection into tsunami prediction, America uses pressure sensors that sit on the ocean floor to measure the water column and detect any tsunami in the deep ocean. That information is relayed to a buoy that sends the data via satellite to tsunami warning centres in Hawaii and Alaska, where computers can model their threat.

The detection system was transferred to the US National Data Buoy Centre in October 2003. A month later, the system had its first operational test. A 7.5-magnitude earthquake off the Aleutian Islands generated a tsunami that led to Alaska issuing a warning. Importantly, this alert was subsequently cancelled, based on the buoy information. Hawaii has had a number of false alarms about pending tsunamis. These evacuations cost millions in lost productivity.

Tsunami prediction is still a budding science. Much of the size, direction and speed of a wave is determined by the contours of the seabed and local topography. More ocean-bed data collection is needed to make predictions more accurate. But in southern Asia there were no tidal gauges, no buoys and thus no warning.

Close to the epicentre of the 9.0-magnitude earthquake that triggered the waves of destruction, any warning given by an alert system would have been too late, given that the waves move as fast as a jumbo jet. At best, those on the Sumatran coast would have known of impending disaster when the sea moved out abnormally far and fast. That would have given them as much as 10 minutes to flee.

An early warning system still could have saved many lives. The deadly surge struck southern Thailand about an hour after the earthquake. After two or so hours, the torrents had travelled some 1,000 miles and slammed India and Sri Lanka. At a meeting in June of the UN's Intergovernmental Oceanographic Commission, experts concluded that the Indian Ocean should have a warning network.

The problem is that tsunamis as large and destructive as that seen this week happen only a few times in a century, a threat that countries find hard to take seriously. Governments change over much shorter time scales, undermining the political will to prepare for such events. And here we are talking about more than tsunamis.

Many other hazards fall into the same huge-but-rare category. Today's increasingly populous and mobile world faces a rising threat of pandemics. Despite the horrors of the 1918 influenza outbreak that killed some 40 million, politicians seem strangely unmoved by the threat of a new bird flu strain called H5N1. The disease could result in 100 million deaths if the virus responsible adapts to spread from person to person, according to one World Heath Organisation estimate.

We can do something. An analysis of the 1918 outbreak by a team at the Harvard School of Public Health suggests a number of measures to prepare for the worst, notably stockpiling antiviral drugs in the Far East, where pandemics originate because of the proximity of birds and people.

Then there is the risk of a doomsday asteroid. An impact equivalent to 10 million tons of TNT, which could kill millions of people, is thought likely to occur about once every 1,000 years. The fossil record suggests there have been several mass extinctions where impacts may have contributed, notably one coinciding with the death of the dinosaurs 65 million years ago, and the "great dying" - which wiped out 95 per cent of species - 200 million years ago. Again, it is possible to warn of catastrophe and, Bruce Willis capers aside, there are some serious proposals for a "track and whack" policy to scan the skies in a systematic way and avert disaster by diverting or destroying incoming objects.

The appliance of science has seen a huge surge in the Earth's population, lifespan and in the extent of civilised society. The tsunami has taught us humility, once again underlining how nature, and not mankind, is still the real master. The plates that slide, shift and grind under our feet, the viruses that multiply in our bodies and objects in orbit are indifferent to our plight. The chances of a natural Armageddon might be remote, but the destruction of human life and impact on modern lifestyles would be so extreme that we should use science to defend ourselves better.

#### Abandoning nature causes extinction

Soulé 95– Natural Resources Professor, California (Michael and Gary Lease, Reinventing Nature?, p 159-60)

The decision has already been made in most places. Some of the ecological myths discussed here contain, either explicitly or implicitly, the idea that nature is self-regulating and capable of caring for itself. This notion leads to the theory of management known as benign neglect—nature will do fine, thank you, if human beings just leave it alone. Indeed, a century ago, a hands-off policy was the best policy. Now it is not. Given nature's current fragmented and stressed condition, neglect will result in an accelerating spiral of deterioration. Once people create large gaps in forests, isolate and disturb habitats, pollute, overexploit, and introduce species from other continents, the viability of many ecosystems and native species is compromised, resiliency dissipates, and diversity can collapse. When artificial disturbance reaches a certain threshold, even small changes can produce large effects, and these will be compounded by climate change.' For example, a storm that would be considered normal and beneficial may, following widespread clearcutting, cause disastrous blow-downs, landslides, and erosion. If global warming occurs, tropical storms are predicted to have greater force than now. Homeostasis, balance, and Gaia are dangerous models when applied at the wrong spatial and temporal scales. Even fifty years ago, neglect might have been the best medicine, but that was a world with a lot more big, unhumanized, connected spaces, a world with one-third the number of people, and a world largely unaffected by chain saws, bulldozers, pesticides, and exotic, weedy species. The alternative to neglect is active caring—in today's parlance, an affirmative approach to wildlands: to maintain and restore them, to become stewards, accepting all the domineering baggage that word carries. Until humans are able to control their numbers and their technologies, **management is the only viable alternative** to massive attrition of living nature.

### AT: Ecofeminist Alt

#### The alternative is an intellectual fantasy---impossible to implement

Anderson 96 -- political scientist, social psychologist, and author of numerous non-fiction books. President Emeritus of the World Academy of Art and Science; a founding Fellow of the Meridian Intl Institute; a Fellow of the Western Behavioral Sciences Institute; and a Distinguished Consulting Faculty member of Saybrook U. (Walter, There's no going back to nature, Sept/Oct 96 Issue, http://www.motherjones.com/politics/1996/09/theres-no-going-back-nature)

This doesn't mean the future is going to be terrible -- far from it. It only means that there will be tough challenges, things for people and societies to work on and learn about. And it doesn't mean, either, that environmentalism -- at least all the varieties of it that we hear about today -- will be a potent force in this global civilization. Don't look for a great surge toward Green parties, or a worldwide burst of enthusiasm for deep ecology or bioregionalism. That back-to-nature sort of environmentalism seems to be enjoying a certain vogue at the moment, but actually the future will likely belong to what I call proactive environmentalists -- people who are able to use information and technology, who don't mind living in this world as it is, and who are unafraid to engage in the hands-on management of ecosystems.

It's really amazing -- especially in a society said to have reached the end of ideology almost 40 years ago -- that the various strains of back-to-nature environmentalism such as deep ecology, bioregionalism, ecofeminism, and neo-Luddism have congealed so quickly into what any student of politics would recognize immediately as another ideology. It certainly has all the earmarks of one -- a philosophy, a political movement, and enough jargon to gag a Washington speechwriter. Its dogma includes opposition to "anthropocentric" -- i.e., human-centered -- thought or action, a hands-off approach to nature, a deep suspicion of all things technological, a passion for the primitive, and a desire to get back to some kind of decentralized world in which people live and work within their bioregions, preferably with native plants and animals.

This hankering for the past is one of the chief badges of membership in the movement. Some Americans -- such as farmer-author Wendell Berry -- merely want to get back to the agricultural lifestyles of a few decades past, before the midcentury wave of mechanization. Many European Greens revere the medieval era. The real high rollers scorn agriculture altogether and yearn for the good old life of hunting and gathering. This last position was eloquently expressed by a former Earth First! Journal editor who wrote that "many of us...would like to see human beings live much more the way they did 15,000 years ago..." Such ideas as these are remarkably popular on the campuses and in the coffee shops -- and remarkably irrelevant to most of the valuable environmental work that is being done now and will be done in the future.

And that's the problem: The world is changing very quickly, and we desperately need a vision that engages this new world honestly and creatively, with daring and hope and perhaps even a touch of optimism. The appealing fantasies of back-to-nature environmentalism have the same effect on public dialogue that Gresham's law has on the economy. Bad money drives out good, and muzzy slogans drown out serious thinking. We simply are not in, nor about to be in, a world that resembles the bioregionalist dream of a small human population, most folks happily living simple lives in the country and leaving nature alone. It might be nice if we were, or it might not. But that really doesn't matter, because events aren't headed in that direction. The world is becoming more densely populated, not less; more urbanized, not less; more technological, not less. Most important of all, human beings are exerting ever more -- not less -- power in nature, having a greater impact on ecosystems. This is our world, and this is our work.

The idea that people should somehow learn to "leave nature alone" has an aura of commendable humility, and it's the easiest thing imaginable to put into words, but it's quite impossible to put into practice in today's world. Proactive environmentalism -- which deserves greater support and understanding from progressives -- involves managing ecosystems, sometimes in ways that totally transform them. Every ecosystem, every population of wild animals, is, in one way or another, managed by human beings right now. Sure, there are different kinds of management, some of them trying to keep ecosystems relatively pristine and protect wildlife. But everywhere conservation is an active business that involves much more than merely battling exploitation. It also involves understanding information, using technology, and often making decisions that change ecosystems and affect the evolutionary future of species.

Restoration is one of the most important pieces of the new environmentalism. People are rebuilding rivers and streams and ponds and beaches, reconstructing forests and prairies and deserts, sometimes coaxing populations of near-extinct species back to a sustainable size. I don't know whether to call ecological restoration an art or a science or a technology, because it's a bit of all those; but it's sure as hell not a matter of leaving nature alone. In most places, certainly in the more developed parts of the world, you don't get a restored ecosystem by fencing it off and doing nothing. Do that, and the result will be a lot of native plants and animals coexisting more or less peacefully with a lot of non-native ones. Many such mixed ecosystems can be found in national, state, and regional parks, and in the privately held rural areas that are not-too-accurately called "nature preserves." And there's nothing wrong with that; they maintain open space, habitat, and watershed, and they're valuable and beautiful and productive in many ways.

But a true restoration project -- like the piece of American prairie that the great naturalist Aldo Leopold and his associates began carving out of a Wisconsin cornfield about 60 years ago -- is a deliberate human creation. Those pioneer restorationists hauled in tons of soil, ripped out everything that didn't have proof of citizenship, and planted thousands of native seeds and seedlings they had found in various places more or less close to the site. Nowadays we have lots of small restoration projects, even in urban areas. Volunteers in Marin County, near San Francisco, pitch in to restore local salmon streams where construction work and erosion from neighboring pastures have ruined spawning beds. Work crews spend their weekends making small check dams on the tributaries to prevent sediment from spilling into the creeks, wrestling rocks into place along the cattle-damaged banks, and rebuilding the spawning areas.

You can also find similar projects undertaken on a larger scale by professional restorationists such as the "river doctors" who work in places like Washington and Montana and Colorado, bringing back streams that have suffered badly at the hands (and feet) of miners, cattle herds, and developers.

Larger yet is the project to repair the Florida Everglades, which -- if it's carried out as currently proposed -- will be the largest water-system restoration in history. Most of the work will be done by the U.S. Army Corps of Engineers, which in the past has taken a beating from environmental writers, myself included. But the corps' mind-set is changing. Instead of master-planning everything, the restorers are using what they call "adaptive management," which means proceeding with a general objective, trying some things (different ways of modifying levees, for example), and seeing what works best. It's a pragmatic and flexible approach that, while far from "hands-off" restoration, certainly isn't the same as the heavy-handed replumbing of ecosystems so often practiced in the past.

The Everglades are not, of course, going to be restored to what they were a few hundred years ago -- not in southern Florida with its enormous agricultural areas, its cities with millions of inhabitants, and God knows how many tourists coming to fish and take romantic boat rides through the sloughs. But restorations -- even "true restorations" like the Wisconsin prairie -- are never perfect reproductions of a past ecosystem. They are different because of what's not there -- species that have become extinct -- and also because of what is there: Inevitably, some bird, insect, or plant newcomer succeeds in sneaking in and making itself at home. Also, the restorationist always has to make a choice about what past state to emulate. The image of homeostasis -- like much of the rest of the pop ecology that informs the back-to-nature mystique -- is inaccurate. "Undisturbed" ecosystems change too, sometimes dramatically, and any restoration project mimics a certain era, much as an "old town" mimics a certain stage in a city's history. You have to decide what nature to go back to -- which is yet another way of saying you can't get away from human agency. Furthermore, restored ecosystems don't stay restored unless somebody puts in a lot of work keeping them that way.

A restoration project, then, is a technique of environmental management in the present and not a return to the past. Some restoration projects are about improving the depleted soil of farmlands. Some are about restoring populations of certain plant or animal species, like the controversial return of the wolves now roaming in and around Yellowstone National Park. Others -- like Holistic Resource Management (HRM), which includes a style of cattle ranching being tried out in many parts of the American West -- are essentially techniques for using natural resources without using them up.

### AT: Enviro Impact

#### All environmental factors getting better

Lomberg 10**—**Ph.D in pol science (4/21, Bjorn Earth Day: Smile, don't shudder; Ignore doomsday environmentalists. Things aren't so bad. And if rich countries would worry about the right things, all the better, USA Today, LexisNexis)

Given all the talk of impending catastrophe, this may come as a surprise, but as we approach the 40th anniversary of the first Earth Day, people who care about the environment actually have a lot to celebrate. Of course, that's not how the organizers of Earth Day 2010 see it. In their view (to quote a recent online call to arms), "The world is in greater peril than ever." But consider this: In virtually every developed country, the air is more breathable and the water is more drinkable than it was in 1970. In most of the First World, deforestation has turned to reforestation. Moreover, the percentage of malnutrition has been reduced, and ever-more people have access to clean water and sanitation. Apocalyptic predictions from concerned environmental activists are nothing new. Until about 10 years ago, I took it for granted that these predictions were sound. Like many of us, I believed that the world was in a terrible state that was only getting worse with each passing day. My thinking changed only when, as a university lecturer, I set out with my students to disprove what I regarded at the time as the far-fetched notion that global environmental conditions were actually improving. To our surprise, the data showed us that many key environmental measures were indeed getting better. ,

### Judge Choice

#### Judge choice --- you can reject the problematic parts of the 1AC if we still prove the plan is good idea through our heg or water advantage

### Reject Alts Bad – 2AC

#### Reject alts bad – they turn into floating PIKs in the block, are infinitely regressive and steal the 1AC – makes it impossible to get offense. No advocate for the alt means you reject it – makes it impossible for the aff to find answers

### Alt Fails – Wright

#### The alt’s all-or-nothing choice fails --- small reforms like the plan are key to institutional change and getting others to sign on to the alt

Erik Olin Wright 7, Vilas Distinguished Professor of Sociology at the University of Wisconsin, “Guidelines for Envisioning Real Utopias”, Soundings, April, www.ssc.wisc.edu/~wright/Published%20writing/Guidelines-soundings.pdf

5. Waystations¶ The final guideline for discussions of envisioning real utopias concerns the importance of waystations. The central problem of envisioning real utopias concerns the **viability of institutional alternatives** that embody emancipatory values, but the practical achievability of such institutional designs often **depends upon the existence of smaller steps**, intermediate institutional innovations **that move us in the right direction but only partially embody these values.** Institutional proposals which have an **all-or-nothing quality** to them are both **less likely to be adopted in the first place, and may pose more difficult transition-cost problems** if implemented. The catastrophic experience of Russia in the “shock therapy” approach to market reform is historical testimony to this problem.¶ Waystations are a difficult theoretical and practical problem because there are many instances in which partial reforms may have very different consequences than full- bodied changes. Consider the example of unconditional basic income. Suppose that a very limited, below-subsistence basic income was instituted: not enough to survive on, but a grant of income unconditionally given to everyone. One possibility is that this kind of basic income would act mainly as a subsidy to employers who pay very low wages, since now they could attract more workers even if they offered below poverty level¶ earnings. There may be good reasons to institute such wage subsidies, but they would not generate the positive effects of a UBI, and therefore might not function as a stepping stone.¶ What we ideally want, therefore, are **intermediate reforms** that have two main properties: first, they concretely **demonstrate the virtues of the fuller program of transformation, so they contribute to the ideological battle of convincing people that the alternative is credible and desirable;** and second, they **enhance the capacity for action of people**, increasing their ability to push further in the future. Waystations that increase popular participation and **bring people together in problem-solving deliberations** for collective purposes are particularly salient in this regard. This is what in the 1970s was called “nonreformist reforms”: reforms that are **possible within existing institutions** and that **pragmatically solve real problems** while at the same time **empowering people in ways which** **enlarge their scope of action in the future.**

# 1AR

## Heg

### AT: Lashout

#### No risk of lash-out – institutional safeguards check

Allen Buchanan 7, Professor of Philosophy and Public Policy at Duke, 2007 (Preemption: military action and moral justification, pg. 128)

The intuitively plausible idea behind the 'irresponsible act' argument is that, other things being equal, the higher the stakes in acting and in particular the greater the moral risk, the higher are the epistemic requirements for justified action. The decision to go to war is generally a high stakes decision par excellence and the moral risks are especially great, for two reasons. First, unless one is justified in going to war, one's deliberate killing of enemy combatants will he murder, indeed mass murder. Secondly, at least in large-scale modem war, it is a virtual certainty that one will kill innocent people even if one is justified in going to war and conducts the war in such a way as to try to minimize harm to innocents. Given these grave moral risks of going to war, quite apart from often substantial prudential concerns, some types of justifications for going to war may simply be too subject to abuse and error to make it justifiable to invoke them. The 'irresponsible act' objection is not a consequentialist objection in any interesting sense. It does not depend upon the assumption that every particular act of going to war preventively has unacceptably bad consequences (whether in itself or by virtue of contributing lo the general acceptance of a principle allowing preventive war); nor does it assume that it is always wrong lo rely on a justification which, if generally accepted, would produce unacceptable consequences. Instead, the "irresponsible act' objection is more accurately described as an agent-centered argument and more particularly an argument from moral epistemic responsibility. The 'irresponsible act' objection to preventive war is highly plausible if— but only if—one assumes that the agents who would invoke the preventive-war justification are, as it were, on their own in making the decision to go to war preventively. In other words, the objection is incomplete unless the context of decision-making is further specified. Whether the special risks of relying on the preventive-war justification are unacceptably high will depend, *inter alia,* upon whether the decision-making process includes effective provisions for redu­cing those special risks. Because the special risks are at least in significant part epistemic—due to the inherently speculative character of the preventive war-justification—the epistemic context of the decision is crucial. Because institutions can improve the epistemic performance of agents, it is critical to know what the institutional context of the preventive-war decision is, before we can regard the 'irresponsible agent' objection as conclusive. Like the 'bad practice' argument, this second objection to preventive war is inconclusive because it does not consider— and rule out—the possibility that well-designed institutions for decision-making could address the problems that would otherwise make it irresponsible for a leader to invoke the preventive-war justification.

## K

### AT: Tech Optimism

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

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

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

### No Prior Questions

#### Empiricism is best---no prior questions

Houghton 8 – Associate Professor of International Relations Theory at the University of Central Florida (David Patrick, Positivism ‘vs’ Postmodernism: Does Epistemology Make a Difference? *International Politics* (2008) 45)

As long ago as 1981, Yale Ferguson and Richard Mansbach effectively laid the influence of the dogmatic behaviouralism of the 1960s to rest in their book *The Elusive Quest*, signaling the profound disillusionment of mainstream IR with the idea that a cumulative science of IR would ever be possible ([Ferguson and Mansbach, 1988](http://www.palgrave-journals.com/ip/journal/v45/n2/full/8800222a.html%22%20%5Cl%20%22bib6%23bib6%22%20%5Ct%20%22_blank)). The popularity of the ‘naïve’ form of positivism, wed to a view of inexorable scientific progress and supposedly practiced by wide-eyed scholars during the 1960s, has long been a thing of the past. Postmodernists hence do the discipline a disservice when they continue to attack the overly optimistic and dogmatic form of positivism as if it still represented a dominant orthodoxy, which must somehow be overthrown. Equally, supporters of the contemporary or ‘neo-’ version of positivism perform a similar disservice when they fail to articulate their epistemological assumptions clearly or at all. Indeed, the first error is greatly encouraged by the second, since by failing to state what they stand for, neo-positivists have allowed postmodernists to fashion a series of straw men who burn rapidly at the slightest touch. Articulating a full list of these assumptions lies beyond the scope of this article, but contemporary neo-positivists are, I would suggest, committed to the following five assumptions, none of which are especially radical or hard to defend: (1) That explaining the social and political world ought to be our central objective, (2) That — subjective though our perceptions of the world may be — many features of the political world are at least potentially explainable. What remains is a conviction that there are at least some empirical propositions, which can be demonstrably shown to be ‘true’ or ‘false’, some underlying regularities that clearly give shape to IR (such as the proposition that democracies do not fight one another), (3) That careful use of appropriate methodological techniques can establish what patterns exist in the political world, (4) That positive and normative questions, though related, are ultimately separable, although both constitute valid and interesting forms of enquiry. There is also a general conviction (5) that careful use of research design may help researchers avoid logical pitfalls in their work. Doubtless, there are some who would not wish to use the term ‘positivism’ as an umbrella term for these five assumptions, in which case we probably require a new term to cover them. But to the extent that there exists an ‘orthodoxy’ in the field of IR today, this is surely it. Writing in 1989, Thomas Biersteker noted that ‘the vast majority of scholarship in international relations (and the social sciences for that matter) proceeds without conscious reflection on its philosophical bases or premises. In professional meetings, lectures, seminars and the design of curricula, we do not often engage in serious reflection on the philosophical bases or implications of our activity. Too often, consideration of these core issues is reserved for (and largely forgotten after) the introductory weeks of required concepts and methods courses, as we socialize students into the profession’ ([Biersteker, 1989](http://www.palgrave-journals.com/ip/journal/v45/n2/full/8800222a.html%22%20%5Cl%20%22bib2%23bib2%22%20%5Ct%20%22_blank)). This observation — while accurate at the time — would surely be deemed incorrect were it to be made today. Even some **scholars** who profess regret at the philosophically self-regarding nature of contemporary of IR theory, nevertheless feel compelled to **devote huge chunks of their work to epistemological issues** before getting to more substantive matters (see for instance[Wendt, 1999](http://www.palgrave-journals.com/ip/journal/v45/n2/full/8800222a.html%22%20%5Cl%20%22bib21%23bib21%22%20%5Ct%20%22_blank)). The recent emphasis on epistemology has helped to push IR as a discipline further and further away from the concerns of those who actually practice IR. The consequent decline in the policy relevance of what we do, and our retreat into philosophical self-doubt, is ironic given the roots of the field in very practical political concerns (most notably, how to avoid war). What I am suggesting is not that IR scholars should ignore philosophical questions, or that such ‘navel gazing’ is always unproductive, for questions of epistemology surely undergird every vision of IR that ever existed. Rather, I would suggest that the existing debate is sterile and unproductive in the sense that the various schools of thought have much more in common than they suppose; stated more specifically, postpositivists have much more in common than they would like to think with the positivists they seek to condemn. Consequently, to the extent that there is a meaningful dialogue going on with regard to **epistemological questions, it has no real impact on what we do as scholars when we look at the world** ‘out there’. Rather than focusing on epistemology, it is inevitably going to be more fruitful to subject the substantive claims made by positivists (of all metatheoretical stripes) and postpositivists to the cold light of day. My own view, as the reader may have gathered already, is that the empirical claims of scholars like Der Derian and Campbell will not often stand up to such harsh scrutiny given the inattention to careful evidence gathering betrayed by both, but this is a side issue here; the point is that substantive theoretical and empirical claims, rather than metatheoretical or epistemological ones, ought to be what divides the international relations scene today.