# 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

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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.

**Effective deterrence controls escalation and is the best predictor for war**

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Moore concludes in Solving the War Puzzle that war arises from the interaction of all three Waltzian levels (individual, state or national, and international), whereas some proponents of the democratic peace principle focus only on government structures to explain war and some traditional realists focus only on the international system. Both realists and democratic peace proponents tend to emphasize institutions and systems, whereas Moore reminds us that people—leaders—decide to pursue war: Wars are not simply accidents. Nor, contrary to our ordinary language, are they made by nations. Wars are made by people; more specifically they are decided on by the leaders of nation states—and other nonnational groups in the case of terrorism—who make the decision to commit aggression or otherwise use the military instrument. These leaders make that decision based on the totality of incentives affecting them at the time of the decision. . . . . . . [Incentive theory] tells us that we simply have a **better chance of predicting war**, and fashioning **forms of intervention to control it**, if we focus squarely on the effect of variables from all levels of analysis in **generating incentives affecting the actual decisions** **made by those with the power to decide on war**.42 Incentive theory focuses on the **individual decisions that lead to war** and explains the synergistic relationship between the absence of effective deterrence and the absence of democracy. Together these three factors—the decisions of leaders made without the restraining effects of deterrence and democracy— are the cause of war: War is not strictly caused by an absence of democracy or effective deterrence or both together. Rather **war is caused by the human leadership decision to employ the military instrument**. The absence of democracy, the **absence of effective deterrence**, and most importantly, the synergy of an absence of both are **conditions** or factors **that predispose to war**. An absence of democracy likely predisposes by [its] effect on leadership and leadership incentives, and an absence of effective deterrence likely predisposes by its effect on incentives from factors other than the individual or governmental levels of analysis. To understand the cause of war is **to understand the human decision for war**; that is, major war and democide . . . are the consequence of **individual decisions responding to a totality of incentives**.43

#### Any alternative locks in the war system---an infinite number of non-falsifiable ‘root causes’ mean empirics and incentive theory are the only adequate methods to understand war

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If major interstate war is predominantly a product of a synergy between a potential nondemocratic aggressor and an absence of effective deterrence, what is the role of the many traditional "causes" of war? Past, and many contemporary, theories of war have focused on the role of specific disputes between nations, ethnic and religious differences, arms races, poverty or social injustice, competition for resources, incidents and accidents, greed, fear, and perceptions of "honor," or many other such factors. Such factors may well **play a role** in **motivating** aggression or in serving **as a means for generating fear** and manipulating public opinion. The reality, however, is that while some of these may have more potential to contribute to war than others, there may well be **an infinite set of motivating factors**, or human wants, **motivating aggression**. It is not the **independent existence of such motivating factors** for war but rather t**he circumstances permitting or encouraging high risk decisions** leading to war that is **the key to more effectively controlling war**. And the same may also be true of democide. The early focus in the Rwanda slaughter on "ethnic conflict," as though Hutus and Tutsis had begun to slaughter each other through spontaneous combustion, distracted our attention from the reality that a nondemocratic Hutu regime had carefully planned and orchestrated a genocide against Rwandan Tutsis as well as its Hutu opponents.I1 Certainly **if we were able to press a button** and **end** poverty, racism, religious intolerance, injustice, and endless disputes, we would want to do so. Indeed, democratic governments must remain committed to policies that will produce a better world by all measures of human progress. The broader achievement of democracy and the rule of law will itself assist in this progress. No one, however, has yet been able to demonstrate the kind of **robust correlation with any of these "traditional" causes of war** as is reflected in the "democratic peace." Further, given the **difficulties in overcoming many of these social problems**, an approach to war **exclusively dependent on their solution** may be to **doom us to war for generations to come**.¶ A useful framework in thinking about the war puzzle is provided in the Kenneth Waltz classic Man, the State, and War,12 first published in 1954 for the Institute of War and Peace Studies, in which he notes that previous thinkers about the causes of war have tended to assign responsibility at one of the three levels of individual psychology, the nature of the state, or the nature of the international system. This tripartite level of analysis has subsequently been widely copied in the study of international relations. We might summarize my analysis in this classical construct by suggesting that the most critical variables are the second and third levels, or "images," of analysis. Government structures, at the second level, seem to play a central role in levels of aggressiveness in high risk behavior leading to major war. In this, the "democratic peace" is an essential insight. The third level of analysis, the international system, or totality of external incentives influencing the decision for war, is also critical when government structures do not restrain such high risk behavior ¶ on their own. Indeed, nondemocratic systems may not only fail to constrain inappropriate aggressive behavior, they may even massively enable it by placing the resources of the state at the disposal of a ruthless regime elite. It is not that the first level of analysis, the individual, is unimportant. I have already argued that it is important in elite perceptions about the permissibility and feasibility of force and resultant necessary levels of deterrence. It is, instead, that the second level of analysis, government structures, may be a powerful proxy for settings bringing to power those who may be disposed to aggressive military adventures and in creating incentive structures predisposing to high risk behavior. We should keep before us, however, the possibility, indeed probability, that a war/peace model focused on democracy and deterrence might be further usefully refined by adding psychological profiles of particular leaders, and systematically applying other findings of cognitive psychology, as we assess the likelihood of aggression and levels of necessary deterrence in context. ¶ A post-Gulf War edition of Gordon Craig and Alexander George's classic, Force and Statecraft,13 presents an important discussion of the inability of the pre-war coercive diplomacy effort to get Saddam Hussein to withdraw from Kuwait without war.14 This discussion, by two of the recognized masters of deterrence theory, reminds us of the many important psychological and other factors operating at the individual level of analysis that may well have been crucial in that failure to get Hussein to withdraw without war. We should also remember that nondemocracies can have differences between leaders as to the necessity or usefulness of force and, as Marcus Aurelius should remind us, not all absolute leaders are Caligulas or Neros. Further, the history of ancient Egypt reminds us that not all Pharaohs were disposed to make war on their neighbors. Despite the importance of individual leaders, however, we should also keep before us that major international war is predominantly and critically an interaction, or synergy, of certain characteristics at levels two and three, specifically an absence of democracy and an absence of¶ effective deterrence.¶ Yet another way to conceptualize the importance of democracy and deterrence in war avoidance is to note that each in its own way internalizes the costs to decision elites of engaging in high risk aggressive behavior. Democracy internalizes these costs in a variety of ways including displeasure of the electorate at having war imposed upon it by its own government. And deterrence either prevents achievement of the objective altogether or imposes punishing costs making the gamble not worth the risk.I5¶ VI¶ Testing the Hypothesis¶ Theory without truth is but costly entertainment.¶ HYPOTHESES, OR PARADIGMS, are useful **if they reflect the real world better than previously held paradigms**. In the complex world of foreign affairs and the war puzzle, perfection is unlikely. **No general construct will fit all cases** even in the restricted category of "major interstate war"; **there are simply too many variables**. We should insist, however, on testing **against the real world** and on **results that suggest enhanced usefulness** over other constructs. In testing the hypothesis, we can test it for consistency with major wars; that is, in looking, for example, at the principal interstate wars in the twentieth century, did they present both a nondemocratic aggressor and an absence of effective deterrence?' And although it is by itself not going to prove causation, we might also want to test the hypothesis against settings of potential wars that did not occur. That is, in nonwar settings, was there an absence of at least one element of the synergy? We might also ask questions about the effect of changes on the international system in either element of the synergy; that is, what, in general, happens when a totalitarian state makes a transition to stable democracy or vice versa? And what, in general, happens when levels of deterrence are dramatically increased or decreased?

**Only deterrence is an empirically verifiable solution to war**

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As so broadly conceived, there is strong evidence that deterrence, that is, the effect of external factors on the decision to go to war, is **the missing link in the war/peace equation**. In my War/Peace Seminar, I have undertaken to examine the level of deterrence before the principal wars of the twentieth century.10 This examination has led me to believe that in every case the potential aggressor made a rational calculation that the war would be won, and won promptly.11 In fact, the longest period of time calculated for victory through conventional attack seems to be the roughly six reeks predicted by the German General Staff as the time necessary ) prevail on the Western front in World War I under the Schlieffen Plan. Hitler believed in his attack on Poland that Britain and France could not take the occasion to go to war with him. And he believed his 1941 Operation Barbarossa against the Soviet Union that “[w]e have only to kick in the door and the whole rotten structure will come crashing down."12 In contrast, following Hermann Goering's failure to obtain air superiority in the Battle of Britain, Hitler called off the invasion of Britain and shifted strategy to the nighttime bombing of population centers, which became known as the Blitz, in a mistaken effort to compel Britain to sue for peace. Calculations in the North Korean attack on South Korea and Hussein’s attack on Kuwait were that the operations would be completed in a matter of days. Indeed, virtually all principal wars in the twentieth century, at least those involving conventional invasion, were preceded by what I refer to as a "**double deterrence absence**." That is, the potential aggressor believed that they had the military force in place to prevail promptly and that nations that might have the military or diplomatic power to prevent this were not dined to intervene. This analysis has also shown that many of the perceptions we have about the origins of particular wars are flatly wrong. Anyone who seriously believes that World War I was begun by competing alliances drawing tighter should examine the al historical record of British unwillingness to enter a clear military alliance with the French or to so inform the Kaiser! Indeed, this pre-World War I **absence of effective alliance and resultant war** contrasts sharply with the later **robust NATO alliance and absence of World War III.**14¶ **Considerable** other **evidence seems to support this historical analysis as to the importance of deterrence**. Of particular note, Yale Professor Donald Kagan, a preeminent United States historian who has long taught a seminar on war, published in 1995 a superb book On the Origins of War and the Preservation of Peace.15 In this book he conducts a detailed examination of the Peloponnesian War, World War I, Hannibal's War, and World War II, among other case studies. A careful reading of these studies suggests that each war could have been prevented by achievable deterrence and that each occurred in the absence of such deterrence.16 **Game theory** seems to offer yet further support for the proposition that appropriate **deterrence can prevent war**. For example, Robert Axelrod's famous 1980s experiment in an iterated prisoner's dilemma, which is a reasonably close proxy for many conflict settings in international relations, repeatedly showed the effectiveness of a simple tit for tat strategy.17 Such a strategy is at core simply a basic deterrent strategy of influencing behavior through incentives. Similarly, much of the game-theoretic work on crisis bargaining (and danger of asymmetric information) in relation to war and the democratic peace assumes the importance of deterrence through communication of incentives.18 The well-known correlation between war and territorial contiguity seems also to underscore the importance of deterrence and is likely principally a proxy for levels of perceived profit and military achievability of aggression in many such settings.¶ It should further be noted that the democratic peace is not the only significant correlation with respect to war and peace, although it seems to be the most robust. Professors Russett and Oneal, in recently exploring the other elements of the Kantian proposal for "Perpetual Peace," have also shown a strong and statistically significant correlation between economically important bilateral trade between two nations and a reduction in the risk of war between them. Contrary to the arguments of "dependency theorists," such economically important trade seems to reduce the risk of war regardless of the size relationship or asymmetry in the trade balance between the two states. In addition, there is a statistically significant association between economic openness generally and reduction in the risk of war, although this association is not as strong as the effect of an economically important bilateral trade relationship.° Russett and Oneal also show a modest independent correlation between reduction in the risk of war and higher levels of common membership in international organizations.20 And they show that a large imbalance of power between two states significantly lessens the risk of major war between them.21 All of these empirical findings about war also seem to directly reflect incentives; that is, a higher level of trade would, if foregone in war, impose higher costs in the aggregate than without such trade,22 though we know that not all wars terminate trade. Moreover, with respect to trade, a, classic study, Economic Interdependence and War, suggests that the historic record shows that it is not simply aggregate levels of bilateral trade that matters, but expectations as to the level of trade into the future.23 This directly implicates expectations of the war decision maker as does incentive theory, and it importantly adds to the general finding about trade and war that even with existing high levels of bilateral trade, changing expectations from trade sanctions or other factors affecting the flow of trade can directly affect incentives and influence for or against war. A large imbalance of power in a relationship rather obviously impacts deterrence and incentives. Similarly, one might incur higher costs with high levels of common membership in international organizations through foregoing some of the heightened benefits of such participation or otherwise being presented with different options through the actions or effects of such organizations.¶ These external deterrence elements may also be yet another reason why democracies have a lower risk of war with one another. For their freer markets, trade, commerce, and international engagement may place them in a position where their generally higher level of interaction means that aggression will incur substantial opportunity costs. Thus, the "mechanism" of the democratic peace may be an aggregate of factors affecting incentives, both external as well as internal factors. Because of the underlying truth in the relationship between higher levels of trade and lower levels of war, it is not surprising that theorists throughout human history, including Baron de Montesquieu in 1748, Thomas Paine in 1792, John Stuart Mill in 1848, and, most recently, the founders of the European Union, have argued that increasing commerce and interactions among nations would end war. Though by themselves these arguments have been overoptimistic, it may well be that some level of "globalization" may make the costs of war and the gains of peace so high as to powerfully predispose to peace. Indeed, a 1989 book by John Mueller, Retreat From Doomsday,24 postulates the obsolescence of major war between developed nations (at least those nations within the "first and second worlds") as they become increasingly conscious of the rising costs of war and the rising gains of peace.¶ In assessing levels of democracy, there are indexes readily available, for example, the Polity III25 and Freedom House 26 indexes. I am unaware of any comparable index with respect to levels of deterrence that might be used to test the importance of deterrence in war avoidance?' Absent such an accepted index, discussion about the importance of deterrence is subject to the skeptical observation that one simply defines effective deterrence by whether a war did or did not occur. In order to begin to deal with this objection and encourage a more objective methodology for assessing deterrence, I encouraged a project to seek to develop a rough but objective measure of deterrence with a scale from minus ten to plus ten based on a large variety of contextual features that would be given relative weighting in a complex deterrence equation before applying the scaling to different war and nonwar settings.28 On the disincentive side of the scale, the methodology used a weighted calculation of local deterrence, including the chance to prevent a short- and intermediate-term military victory, and economic and political disincentives; extended deterrence with these same elements; and contextual communication and credibility multipliers. On the incentive side of the scale, the methodology also used a weighted calculation of perceived military, economic, and political benefits. The scales were then combined into an overall deterrence score, including, an estimate for any effect of prospect theory where applicable.2 This innovative first effort uniformly showed high deterrence scores in settings where war did not, in fact, occur. Deterring a Soviet first strike in the Cuban Missile Crisis produced a score of +8.5 and preventing a Soviet attack against NATO produced a score of +6. War settings, however, produced scores ranging from -2.29 (Saddam Hussein's decision to invade Kuwait in the Gulf War), -2.18 (North Korea's decision to invade South Korea in the Korean War), -1.85 (Hitler's decision to invade Poland in World War II), -1.54 (North Vietnam's decision to invade South Vietnam following the Paris Accords), -0.65 (Milosevic's decision to defy NATO in Kosovo), +0.5 (the Japanese decision to attack Pearl Harbor), +1.25 (the Austrian decision, egged on by Germany, to attack Serbia, which was the real beginning of World War I), to +1.75 (the German decision to invade Belgium and France in World War I). As a further effort at scaling and as a point of comparison, I undertook to simply provide an impressionistic rating based on my study of each pre-crisis setting. That produced high positive scores of +9 for both deterring a Soviet first strike during the Cuban Missile Crisis and NATO's deterrence of a Warsaw Pact attack and even lower scores than the more objective effort in settings where wars had occurred. Thus, I scored North Vietnam's decision to invade South Vietnam following the Paris Accords and the German decision to invade Poland at the beginning of World War II as -6; the North Korean/Stalin decision to invade South Korea in the Korean War as -5; the Iraqi decision to invade the State of Kuwait as -4; Milosevic's decision to defy NATO in Kosovo and the German decision to invade Belgium and France in World War I as -2; and the Austrian decision to attack Serbia and the Japanese decision to attack Pearl Harbor as -1. Certainly even knowledgeable experts would be likely to differ in their impressionistic scores on such pre-crisis settings, and the effort at a more objective methodology for scoring deterrence leaves much to be desired. Nevertheless, both exercises did seem to suggest that deterrence matters and that high levels of deterrence can prevent future war.¶ Following up on this initial effort to produce a more objective measure of deterrence, two years later I encouraged another project to undertake the same effort, building on what had been learned in the first iteration. The result was a second project that developed a modified scoring system, also incorporating local deterrence, extended deterrence, and communication of intent and credibility multipliers on one side of a scale, and weighing these factors against a potential aggressor's overall subjective incentives for action on the other side of the scale.3° The result, with a potential range of -5.5 to +10, produced no score higher than +2.5 for eighteen major wars studied between 1939 and the 1990 Gulf War.31 Twelve of the eighteen wars produced a score of zero or below, with the 1950-53 Korean War at -3.94, the 1965-75 Vietnam War at -0.25, the 1980-88 Iran-Iraq War at -1.53, and the 1990-91 Gulf War at -3.83. The study concluded that in more than fifty years of conflict there was "no situation in which a regime elite/decision making body subjectively faced substantial disincentives to aggressive military action and yet attacked."32¶ Yet another piece of the puzzle, which may clarify the extent of deterrence necessary in certain settings, may also assist in building a broader hypothesis about war. In fact, it has been incorporated into the just-discussed efforts at scoring deterrence. ¶ That is, newer studies of human behavior from cognitive psychology are increasingly showing that certain perceptions of decision makers can influence the level of risk they may be willing to undertake, or otherwise affect their decisions.33 It now seems likely that a number of such insights about human behavior in decision making may be useful in considering and fashioning deterrence strategies. Perhaps of greatest relevance is the insight of "prospect theory," which posits that individuals evaluate outcomes with respect to deviations from a reference point and that they may be more risk averse in settings posing potential gain than in settings posing potential loss.34 The evidence of this "cognitive bias," whether in gambling, trading, or, as is increasingly being argued, foreign policy decisions generally, is significant. Because of the newness of efforts to apply a laboratory based "prospect theory" to the complex foreign policy process generally, and ¶ particularly ambiguities and uncertainties in framing such complex events, our consideration of it in the war/peace process should certainly be cautious. It does, however, seem to elucidate some of the case studies.¶ In the war/peace setting, "prospect theory" suggests that deterrence may not need to be as strong to prevent aggressive action leading to perceived gain. For example, there is credible evidence that even an informal warning to Kaiser Wilhelm II from British Foreign Secretary Sir Edward Grey, if it had come early in the crisis before events had moved too far, might have averted World War I. And even a modicum of deterrence in Kuwait, as was provided by a small British contingent when Kuwait was earlier threatened by an irredentist Iraqi government in 1961, might have been sufficient to deter Saddam Hussein from his 1990 attack on Kuwait. Similarly, even a clear United States pledge for the defense of South Korea before the attack might have prevented the Korean War. Conversely, following the July 28 Austrian mobilization and declaration of war against Serbia in World War I, the issue for Austria may have begun to be perceived as loss avoidance, thus requiring much higher levels of deterrence to avoid the resulting war. Similarly, the Rambouillet Agreement may have been perceived by Milosevic as risking loss of Kosovo and his continued rule of Serbia and, as a result, may have required higher levels of NA-TO deterrence to have prevented Milosevic's actions in defiance. Certainly NATO's previous hesitant responses in 1995 against Milosevic in the Bosnia phase of the Yugoslav crisis and in 1998-99 in early attempts to deal with Kosovo did not create a high level of deterrence.35 One can only surmise whether the killing in Kosovo could have been avoided had NATO taken a different tack, both structuring the issue less as loss avoidance for Milosevic and considerably enhancing deterrence. Suppose, for example, NATO had emphasized that it had no interest in intervening in Serbia's civil conflict with the KLA but that it would emphatically take action to punish massive "ethnic cleansing" and other humanitarian outrages, as had been practiced in Bosnia. And on the deterrence side, it made clear in advance the severity of any NATO bombardment, the potential for introduction of ground troops if necessary, that in any assault it would pursue a "Leadership Strategy" focused on targets of importance to Milosevic and his principal henchmen (including their hold on power), and that it would immediately, unlike as earlier in Bosnia, seek to generate war crime indictments of all top Serbian leaders implicated in any atrocities. The point here is not to second-guess NATO's actions in Kosovo but to suggest that taking into account potential "cognitive bias," such as "prospect theory," may be useful in fashioning effective deterrence. "Prospect theory" may also have relevance in predicting that it may be easier to deter (that is, lower levels are necessary) an aggression than to undo that aggression. Thus, much higher levels of deterrence were probably required to compel Saddam Hussein to leave Kuwait than to prevent him initially from invading that state. In fact, not even the presence of a powerful Desert Storm military force and a Security Council Resolution directing him to leave caused Hussein to voluntarily withdraw. As this real-world example illustrates, there is considerable experimental evidence in "prospect theory" of an almost instant renormalization of reference point after a gain; that is, relatively quickly after Saddam Hussein took Kuwait, a withdrawal was framed as a loss setting, which he would take high risk to avoid. Indeed, we tend to think of such settings as settings of compellance, requiring higher levels of incentive to achieve compulsion producing an action, rather than deterrence needed for prevention.¶ One should also be careful not to overstate the effect of "prospect theory" or to fail to assess a threat in its complete context. We should remember that a belated pledge of Great Britain to defend Poland before the Nazi attack did not deter Hitler, who believed under the circumstances that the British pledge would not be honored. It is also possible that the greater relative wealth of democracies, which have less to gain in all out war, is yet another internal factor contributing to the "democratic peace."36 In turn, this also supports the extraordinary tenacity and general record of success of democracies fighting in defensive settings as they may also have more to lose.¶ In assessing adequacy of deterrence to prevent war, we might also want to consider whether extreme ideology, strongly at odds with reality, may be a factor requiring higher levels of deterrence for effectiveness. One example may be the extreme ideology of Pol Pot leading him to falsely believe that his Khmer Rouge forces could defeat Vietnam.37 He apparently acted on that belief in a series of border incursions against Vietnam that ultimately produced a losing war for him. Similarly, Osama bin Laden's 9/11 attack against America, hopelessly at odds with the reality of his defeating the Western World and producing for him a strategic disaster, seems to have been prompted by his extreme ideology rooted in a distorted concept of Islam at war with the enlightenment. The continuing suicide bombings against Israel, encouraged by radical rejectionists and leading to less and less for the Palestinians, may be another example. If extreme ideology is a factor to be considered in assessing levels of deterrence, it does not mean that deterrence is doomed to fail in such settings but only that it must be at higher levels (and properly targeted on the relevant decision elites behind the specific attacks) to be effective, as is also true in perceived loss or compellance settings.38 Even if major war in the modern world is predominantly a result of aggression by nondemocratic regimes, it does not mean that all nondemocracies pose a risk of war all, or even some, of the time. Salazar's Portugal did not commit aggression. Nor today do Singapore or Bahrain or countless other nondemocracies pose a threat. That is, today nondemocracy comes close to a necessary condition in generating the high risk behavior leading to major interstate war. But it is, by itself, not a sufficient condition for war. The many reasons for this, of course, include a plethora of internal factors, such as differences in leadership perspectives and values, size of military, and relative degree of the rule of law, as well as levels of external deterrence.39 But where an aggressive nondemocratic regime is present and poses a credible military threat, then it is **the totality of external factors**, **that is,** **deterrence, that become crucial.**

#### 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) 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) 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/), 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/) 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 shortages coming --- causes instability

AFP 9/10, “World water crisis must be top UN priority: report”, http://www.google.com/hostednews/afp/article/ALeqM5gcIGn59te-BGkDoG1uG6XrAMXO\_A?docId=CNG.96ef5382d53f44338468570447594103.851

WASHINGTON — A rapidly worsening water shortage threatens to destabilize the planet and should be a top priority for the UN Security Council and world leaders, a panel of experts said in a report.¶ The world's diminishing water supply carries serious security, development and social risks, and could adversely affect global health, energy stores and food supplies, said the report titled "The Global Water Crisis: Addressing an Urgent Security Issue," published Monday.¶ The study was released by the InterAction Council (IAC), a group of 40 prominent former government leaders and heads of state, along with the United Nations University's Institute for Water, Environment and Health, and Canada's Walter and Duncan Gordon Foundation.¶ "As some of these nations are already politically unstable, such crises may have regional repercussions that extend well beyond their political boundaries," said Norway's former Prime Minister Gro Harlem Brundtland, a member of the group.¶ The Norwegian leader underscored that the danger is particularly acute in sub-Saharan Africa, western Asia and North Africa, where critical water shortages already exist.¶ She added that water insecurity could wreak havoc "even in politically stable regions."

#### 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

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

Pfeffer and Macon 2 Robert A, physical scientist at the Army Nuclear and Chemical Agency in Springfield, Virginia, working on nuclear weapons effects, a graduate of Trinity University and has a master's degree in physics from The Johns Hopkins University and William A, project manager at the Nuclear Regulatory Commission, formerly the acting Army Reactor Program Manager at the Army Nuclear and Chemical Agency, "Nuclear Power: An Option for the Army's Future", Jan 16 2002 is last date modified, [www.almc.army.mil/alog/issues/SepOct01/MS684.htm](http://www.almc.army.mil/alog/issues/SepOct01/MS684.htm)

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.

### 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

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

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.

#### 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

## Colonialism K

### 2AC FW

#### Public sphere discussion of energy policy spurs government policy---the alt is coopted

Hager 92 Carol J, Professor of political science at Bryn Mawr College, “Democratizing Technology: Citizen & State in West German Energy Politics, 1974-1990” Polity, Vol. 25, No. 1, p. 45-70

During this phase, the citizen initiative attempted to overcome its defensive posture and **implement an alternative politics.** The strategy of legal and technical challenge might delay or even prevent plant construction, but it would not by itself accomplish the broader goal on the legitimation dimension, i.e., democratization. Indeed, it worked against broad participation. The activists had to find a viable means of achieving change. Citizens had proved they could contribute to a **substantive policy discussion.** Now, some activists turned to the parliamentary arena as a possible forum for an energy dialogue. Until now, parliament had been conspicuously absent as a relevant policy maker, but if parliament could be reshaped and activated, citizens would have a forum in which to address the broad questions of policy-making goals and forms. They would also have an **institutional lever** with which to pry apart the bureaucracy and utility. None of the established political parties could offer an alternative program. Thus, local activists met to discuss forming their own voting list. These discussions provoked internal dissent. Many citizen initiative members objected to the idea of forming a political party. If the problem lay in the role of parliament itself, another political party would not solve it. On the contrary, parliamentary participation was likely to destroy what political innovations the extraparliamentary movement had made. Others argued that a political party would give the movement an institutional platform from which to introduce some of the grassroots democratic political forms the groups had developed. Founding a party as the parliamentary arm of the citizen movement would allow these groups to play an active, critical role in institutionalized politics, participating in the policy debates while retaining their outside perspective. Despite the disagreements, the Alternative List for Democracy and Environmental Protection Berlin (AL) was formed in 1978 and first won seats in the Land parliament with 7.2 percent of the vote in 1981.43 The founders of the AL were encouraged by the success of newly formed local green parties in Lower Saxony and Hamburg,44 whose evolution had been very similar to that of the West Berlin citizen move-ment. Throughout the FRG, unpopular administrative decisions affect-ing local environments, generally in the form of state-sponsored indus-trial projects, prompted the development of the citizen initiative and ecology movements. The groups in turn focused constant attention on state planning "errors," calling into question not only the decisions themselves, but also the conventional forms of political decision making that produced them.45 Disgruntled citizens increasingly aimed their critique at the established political parties, in particular the federal SPD/ FDP coalition, which seemed unable to cope with the economic, social, and political problems of the 1970s. Fanned by publications such as the Club of Rome's report, "The Limits to Growth," the view spread among activists that the crisis phenomena were not merely a passing phase, but indicated instead "a long-term structural crisis, whose cause lies in the industrial-technocratic growth society itself."46 As they broadened their critique to include the political **system as a whole**, many grassroots groups found the extraparliamentary arena too restrictive. Like many in the West Berlin group, they reasoned that the necessary change would require a degree of political restructuring that could only be accomplished through their direct participation in parliamentary politics. Green/alternative parties and voting lists sprang up nationwide and began to win seats in local assemblies. The West Berlin Alternative List saw itself not as a party, but as the parliamentary arm of the citizen initiative movement. One member explains: "the starting point for alternative electoral participation was simply the notion of achieving a greater audience for [our] own ideas and thus to work in support of the extraparliamentary movements and initia-tives,"47 including non-environmentally oriented groups. The AL wanted to avoid developing structures and functions autonomous from the citizen initiative movement. Members adhered to a list of principles, such as rotation and the imperative mandate, designed to keep parliamentarians attached to the grassroots. Although their insistence on grassroots democracy often resulted in interminable heated discussions, the participants recognized the importance of experimenting with new forms of decision making, of not succumbing to the same hierarchical forms they were challenging. Some argued that the proper role of citizen initiative groups was not to represent the public in government, but to mobilize other citizens to **participate directly in politics themselves**; self-determination was the aim of their activity.48 Once in parliament, the AL proposed establishmento f a temporary parliamentaryco mmissiont o studye nergyp olicy,w hichf or the first time would draw all concernedp articipantst ogetheri n a discussiono f both short-termc hoicesa nd long-termg oals of energyp olicy. With help from the SPD faction, which had been forced into the opposition by its defeat in the 1981 elections, two such commissions were created, one in 1982-83 and the other in 1984-85.49T hese commissionsg ave the citizen activists the forum they sought to push for modernizationa nd technicali nnovation in energy policy. Although it had scaled down the proposed new plant, the utility had produced no plan to upgrade its older, more polluting facilities or to install desulfurizationd evices. With proddingf rom the energyc ommission, Land and utility experts began to formulate such a plan, as did the citizen initiative. By exposing administrative failings in a public setting, and **by producing a** modernization **plan itself**, the combined citizen initiative and AL forced bureaucratic authorities to push the utility for improvements. They also forced the authorities to consider different technological solutions to West Berlin's energy and environmental problems. In this way, the activists served as technological innovators. In 1983, the first energy commission submitted a list of recommendations to the Land parliament which reflected the influence of the citizen protest movement. It emphasized goals of demand reduction and efficiency, noted the value of expanded citizen participation and urged authorities to "investigate more closely the positive role citizen participation can play in achieving policy goals."50 The second energy commission was created in 1984 to discuss the possibilities for modernization and shutdown of old plants and use of new, environmentally friendlier and cheaper technologies for electricity and heat generation. Its recommendations strengthened those of the first commission.51 Despite the non-binding nature of the commissions' recommendations, the public discussion of energy policy motivated policy makers to take stronger positions in favor of environmental protection. III. Conclusion The West Berlin energy project eventually cleared all planning hurdles, and construction began in the early 1980s. The new plant now conforms to the increasingly stringent environmental protection requirements of the law. The project was delayed, scaled down from 1200 to 600 MW, moved to a neutral location and, unlike other BEWAG plants, equipped with modern desulfurization devices. That the new plant, which opened in winter 1988-89, is the technologically most advanced and environmen-tally sound of BEWAG's plants is due entirely to the long legal battle with the citizen initiative group, during which nearly every aspect of the original plans was changed. In addition, through the efforts of the Alter-native List (AL) in parliament, the Land government and BEWAG formulated a long sought modernization and environmental protection plan for all of the city's plants. The AL prompted the other parliamentary parties to take pollution control seriously. Throughout the FRG, energy politics evolved in a similar fashion. As Habermas claimed, underlying the **objections against particular projects** was a reaction against the administrative-economic system in general. One author, for example, describes the emergence of two-dimensional protest against nuclear energy: The resistance against a concrete project became understood simul-taneously as resistance against the entire atomic program. Questions of energy planning, of economic growth, of understanding of democracy entered the picture. . . . Besides concern for human health, for security of conditions for human existence and protec-tion of nature arose critique of what was perceived as undemocratic planning, the "shock" of the delayed public announcement of pro-ject plans and the fear of political decision errors that would aggra-vate the problem.52 This passage supports a West Berliner's statement that the citizen initiative began with a project critique and arrived at *Systemkritik*.53 I have labeled these two aspects of the problem the public policy and legitima-tion dimensions. In the course of these conflicts, the legitimation dimen-sion emergd as the more important and in many ways the more prob-lematic. Parliamentary Politics In the 1970s, energy politics began to develop in the direction Offe de-scribed, with bureaucrats and protesters avoiding the parliamentary channels through which they should interact. The citizen groups them-selves, however, have to a degree reversed the slide into irrelevance of parliamentary politics. Grassroots groups overcame their defensive posture enough to begin to **formulate an alternative politics**, based upon concepts such as decision making through mutual understanding rather than technical criteria or bargaining. This new politics required new modes of interaction which the old corporatist or pluralist forms could not provide. Through the formation of green/alternative parties and voting lists and through new parliamentary commissions such as the two described in the case study, some members of grassroots groups attempted to both operate within the political system and fundamentally change it, to restore the link between bureaucracy and citizenry. Parliamentary politics was partially revived in the eyes of West German grassroots groups as a legitimate realm of citizen participation, an outcome the theory would not predict. It is not clear, however, that strengthening the parliamentary system would be a desirable outcome for everyone. Many remain skeptical that institutions that operate as part of the "system" can offer the kind of substantive participation that grass-roots groups want. The constant tension between institutionalized politics and grassroots action emerged clearly in the recent internal debate between "fundamentalist" and "realist" wings of the Greens. Fundis wanted to keep a firm footing outside the realm of institutionalized politics. They refused to bargain with the more established parties or to join coalition governments. Realos favored participating in institutionalized politics while pressing their grassroots agenda. Only this way, they claimed, would they have a chance to implement at least some parts of their program. This internal debate, which has never been resolved, can be interpreted in different ways. On one hand, the tension limits the appeal of green and alternative parties to the broader public, as the Greens' poor showing in the December 1990 all-German elections attests. The failure to come to agreement on basic issues can be viewed as a hazard of grass-roots democracy. The Greens, like the West Berlin citizen initiative, are opposed in principle to forcing one faction to give way to another. Disunity thus persists within the group. **On the other hand**, the tension can be understood not as a failure, but as a kind of success: grassroots politics has not been absorbed into the bureaucratized system; it retains its critical dimension, both in relation to the political system and within the groups themselves. The **lively debate** stimulated by grassroots groups and parties **keeps questions of democracy on the public agenda.** Technical Debate In West Berlin, the two-dimensionality of the energy issue forced citizen activists to become both participants in and critics of the policy process. In order to defeat the plant, **activists engaged in technical debate.** They won several decisions in favor of environmental protection, often **proving to be more informed than bureaucratic experts** themselves. The case study demonstrates that grassroots groups, far from impeding techno-logical advancement, can actually serve as technological innovators. The activists' role as technical experts, while it helped them achieve some success on the policy dimension, had mixed results on the legitimation dimension. On one hand, it helped them to challenge the legitimacy of technocratic policy making. They turned back the Land government's attempts to displace political problems by formulating them in technical terms.54 By demonstrating the fallibility of the technical arguments, activists forced authorities to acknowledge that energy demand was a political variable, whose value at any one point was as much influenced by the choices of policy makers as by independent technical criteria. Submission to the form and language of technical debate, however, weakened activists' attempts to introduce an alternative, goal-oriented form of decision making into the political system. Those wishing to par-ticipate in energy politics on a long-term basis have had to accede to the language of bureaucratic discussion, if not the legitimacy of bureaucratic authorities. They have helped break down bureaucratic authority but have not yet offered a viable long-term alternative to bureaucracy. In the tension between form and language, goals and procedure, the legitima-tion issue persists. At the very least, however, grassroots action challenges critical theory's notion that technical discussion is inimical to democratic politics.55 Citizen groups have raised the possibility of a dialogue that is both technically sophisticated and democratic. In sum, although the legitimation problems which gave rise to grass-roots protest have not been resolved, citizen action has worked to counter the marginalization of parliamentary politics and the technocratic character of policy debate that Offe and Habermas identify. The West Berlin case suggests that the solutions to current legitimation problems may not require total repudiation of those things previously associated with technocracy.56 In Berlin, the citizen initiative and AL continue to search for new, more legitimate forms of organization consistent with their principles. No permanent Land parliamentary body exists to coordinate and con-solidate energy policy making.57 In the 1989 Land elections, the CDU/ FDP coalition was defeated, and the AL formed a governing coalition with the SPD. In late 1990, however, the AL withdrew from the coali-tion. It remains to be seen whether the AL will remain an effective vehi-cle for grassroots concerns, and whether the citizenry itself, now includ-ing the former East Berliners, will remain active enough to give the AL direction as united Berlin faces the formidable challenges of the 1990s. On the policy dimension, grassroots groups achieved some success. On the legitimation dimension, it is difficult to judge the results of grass-roots activism by normal standards of efficacy or success. Activists have certainly not radically restructured politics. They agree that democracy is desirable, but troublesome questions persist about the degree to which those processes that are now bureaucratically organized can and should be restructured, where grassroots democracy is possible and where bureaucracy is necessary in order to get things done. In other words, grassroots groups have tried to remedy the Weberian problem of the marginalization of politics, but it is not yet clear what the boundaries of the political realm should be. It is, however, the act of calling existing boundaries into question that keeps democracy vital. In raising alternative possibilities and encouraging citizens to take an active, critical role in their own governance, the **contribution of grassroots** environmental **groups has been significant.** As Melucci states for new social movements in general, these groups mount a "symbolic" challenge by proposing "a different way of perceiving and naming the world."58 Rochon concurs for the case of the West German peace movement, noting that its effect on the public discussion of secur-ity issues **has been tremendous**.59 The effects of the legitimation issue in the FRG are evident in increased citizen interest in areas formerly left to technical experts. Citizens have formed nationwide associations of environmental and other grassroots groups as well as alternative and green parties at all levels of government. The level of information within the groups is generally quite high, and their participation, especially in local politics, has raised the awareness and engagement of the general populace noticeably.60 **Policy concessions** and new legal provisions for citizen participation **have not quelled grassroots action.** The attempts of the established political parties to coopt "green" issues have also met with limited success. Even green parties themselves have not tapped the full potential of public support for these issues. The persistence of legitima-tion concerns, along with the growth of a culture of informed political activism, will ensure that the search continues for a space for a delibera-tive politics in modern technological society.61

### Owen

#### 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.

### Death/NW Outweighs

#### Death outweighs

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

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

### War Down

#### Finishing Busby

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/), 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/) 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.

### Impact D

#### Democracy checks

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

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

### SVio Decreasing Now

#### The squo is structurally improving

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Although global population is no longer growing exponentially, it has quadrupled since 1900. Concurrently, affluence (or GDP per capita) has sextupled, global economic product (a measure of aggregate consumption) has increased 23-fold and carbon dioxide has increased over 15-fold (Maddison 2003; GGDC 2008; World Bank 2008a; Marland et al. 2007).4 But contrary to Neo- Malthusian fears, average **human well-being,** measured by any objective indicator, **has never been higher**. Food supplies, Malthus’ original concern, are up worldwide. Global food supplies per capita increased from 2,254 Cals/day in 1961 to 2,810 in 2003 (FAOSTAT 2008). This helped reduce hunger and malnutrition worldwide. The proportion of the population in the developing world, suffering from chronic hunger declined from 37 percent to 17 percent between 1969–71 and 2001–2003 despite an 87 percent population increase (Goklany 2007a; FAO 2006). The reduction in hunger and malnutrition, along with improvements in basic hygiene, improved access to safer water and sanitation, broad adoption of vaccinations, antibiotics, pasteurization and other public health measures, helped reduce mortality and increase life expectancies. These improvements first became evident in today’s developed countries in the mid- to late-1800s and started to spread in earnest to developing countries from the 1950s. The infant mortality rate in developing countries was 180 per 1,000 live births in the early 1950s; today it is 57. Consequently, global life expectancy, perhaps the single most important measure of human well-being, increased from 31 years in 1900 to 47 years in the early 1950s to 67 years today (Goklany 2007a). Globally, average **annual per capita incomes tripled** since 1950. The proportion of the world’s population outside of high-income OECD countries living in absolute poverty (average consumption of less than $1 per day in 1985 International dollars adjusted for purchasing power parity), fell from 84 percent in 1820 to 40 percent in 1981 to 20 percent in 2007 (Goklany 2007a; WRI 2008; World Bank 2007). Equally important, the world is more literate and better educated. Child labor in low income countries declined from 30 to 18 percent between 1960 and 2003. In most countries, people are freer politically, economically and socially to pursue their goals as they see fit. More people choose their own rulers, and have freedom of expression. They are more likely to live under rule of law, and less likely to be arbitrarily deprived of life, limb and property. Social and professional mobility has never been greater. It is easier to transcend the bonds of caste, place, gender, and other accidents of birth in the lottery of life. People work fewer hours, and have more money and better health to enjoy their leisure time (Goklany 2007a). Figure 3 summarizes the U.S. experience over the 20th century with respect to growth of population, affluence, material, fossil fuel energy and chemical consumption, and life expectancy. It indicates that population has multiplied 3.7-fold; income, 6.9-fold; carbon dioxide emissions, 8.5-fold; material use, 26.5-fold; and organic chemical use, 101-fold. Yet its life expectancy increased from 47 years to 77 years and infant mortality (not shown) declined from over 100 per 1,000 live births to 7 per 1,000. It is also important to note that not only are people living longer, they are healthier. The disability rate for seniors declined 28 percent between 1982 and 2004/2005 and, despite better diagnostic tools, major diseases (e.g., cancer, and heart and respiratory diseases) occur 8–11 years later now than a century ago (Fogel 2003; Manton et al. 2006). If similar figures could be constructed for other countries, most would indicate qualitatively similar trends, especially after 1950, except Sub-Saharan Africa and the erstwhile members of the Soviet Union. In the latter two cases, life expectancy, which had increased following World War II, declined after the late 1980s to the early 2000s, possibly due poor economic performance compounded, especially in Sub-Saharan Africa, by AIDS, resurgence of malaria, and tuberculosis due mainly to poor governance (breakdown of public health services) and other manmade causes (Goklany 2007a, pp.66–69, pp.178–181, and references therein). However, there are signs of a turnaround, perhaps related to increased economic growth since the early 2000s, although this could, of course, be a temporary blip (Goklany 2007a; World Bank 2008a). Notably, in most areas of the world, the healthadjusted life expectancy (HALE), that is, life expectancy adjusted downward for the severity and length of time spent by the average individual in a less-than-healthy condition, is greater now than the unadjusted life expectancy was 30 years ago. HALE for the China and India in 2002, for instance, were 64.1 and 53.5 years, which exceeded their unadjusted life expectancy of 63.2 and 50.7 years in 1970–1975 (WRI 2008). Figure 4, based on cross country data, indicates that contrary to Neo-Malthusian fears, both life expectancy and infant mortality improve with the level of affluence (economic development) and time, a surrogate for technological change (Goklany 2007a). Other indicators of human well-being that improve over time and as affluence rises are: access to safe water and sanitation (see below), literacy, level of education, food supplies per capita, and the prevalence of malnutrition (Goklany 2007a, 2007b).

### Reps Don’t Cause War

#### Reps don’t cause war

Reiter 95 DAN REITER is a Professor of Political Science at Emory University and has been an Olin post-doctoral fellow in security studies at Harvard “Exploring the Powder Keg Myth” International Security v20 No2 Autumn 1995 pp 5-34 JSTOR

A criticism of assessing the frequency of preemptive wars by looking only at wars themselves is that this misses the non-events, that is, instances in which preemption would be predicted but did not occur. However, excluding non-events should bias the results in favor of finding that preemptive war is an important path to war, as the inclusion of non-events could only make it seem that the event was less frequent. Therefore, if preemptive wars seem infrequent within the set of wars alone, then this would have to be considered strong evidence in favor of the third, **most skeptical view of preemptive war**, because even when the sample is rigged to make preemptive wars seem frequent (by including only wars), they are still rare events. Below, a few cases in which preemption did not occur are discussed to illustrate factors that constrain preemption.¶ The rarity of preemptive wars offers preliminary support for the third, most skeptical view, that the preemption scenario does not tell us much about how war breaks out. Closer examination of the three cases of preemption, set forth below, casts doubt on the validity of the two preemption hypotheses discussed earlier: that hostile images of the enemy increase the chances of preemption, and that belief in the dominance of the offense increases the chances of preemption. In each case there are motives for war aside from fear of an imminent attack, indicating that such fears may not be sufficient to cause war. In addition, in these cases of war the two conditions hypothesized to stimulate preemption—hostile images of the adversary and belief in the military advantages of striking first—are present to a very high degree. This implies that these are insubstantial causal forces, as they are associated with the outbreak of war only when they are present to a very high degree. This reduces even further the significance of these forces as causes of war. To illustrate this point, consider an analogy: say there is a hypothesis that saccharin causes cancer. Discovering that rats who were fed a lot of saccharin and also received high levels of X-ray exposure, which we know causes cancer, had a higher risk for cancer does not, however, set off alarm bells about the risks of saccharin. Though there might be a relationship between saccharin consumption and cancer, this is not demonstrated by the results of such a test.

### AT: Heg Bad K

#### 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.

#### Our advantage isn’t based on myopic security discourse- multiple independent fields support our hegemony advantage, prefer our advantage because it is interdisciplinary

Wohlforth 9 William, professor of government at Dartmouth College, “ Unipolarity, Status Competition, and Great Power War”Project Muse

Mainstream theories generally posit that states come to blows over an international status quo only when it has implications for their security or material well-being. The guiding assumption is that a state’s satisfaction [End Page 34] with its place in the existing order is a function of the material costs and benefits implied by that status.24 By that assumption, once a state’s status in an international order ceases to affect its material wellbeing, its relative standing will have no bearing on decisions for war or peace. But the assumption is undermined by cumulative research in disciplines ranging from **neuroscience and evolutionary biology to economics, anthropology, sociology, and psychology** that human beings are powerfully motivated by the desire for favorable social status comparisons. This research suggests that the preference for status is a basic disposition rather than merely a strategy for attaining other goals.25 People often seek tangibles not so much because of the welfare or security they bring but because of the social status they confer. Under certain conditions, the search for status will cause people to behave in ways that directly contradict their material interest in security and/or prosperity.

#### Your K is just a bunch of non-falsifiable conspiracy theories – they cherry-pick examples – this turns their methodology arguments

Marijke Breuning (professor of political science at the University of North Texas) December 2009 “Thinking Critically About Security Studies” International Studies Review Volume 11, Issue 4, Pages 792-794

In their zeal to critique conspicuous consumption and the American love affair with the SUV, Simon Dalby and Matthew Paterson resort to the familiar argument that the Dutch consume less oil because they choose "to walk, ride bicycles, or take the train" (p. 184). They forget to mention that this is an easy choice in a very densely populated country with public transportation plentiful in most locations, whereas gas is pricey and parking expensive (and difficult to find)—just as public transportation is preferred by many in New York City but generally not an option for residents of the many small towns of the American Midwest. These examples are typical of the interpretations offered in the volume's chapters. Greater reflection on initial judgments might have enabled the authors to arrive at deeper insights. Finally, there is the issue of assumptions. The contributors share a conviction that their perceptions are on target. There is no serious consideration of alternative explanations. Moreover, the explanations tend to attribute a unity of purpose to decisions **made by disparate entities** (e.g., government, business, and media) and occasionally resemble **conspiracy theories**. For instance, Marie Thorsten implies that TV shows such as 24 are designed to facilitate citizens' acceptance of the Bush administration's position that torture was both effective and acceptable. She does not consider the possibility that such shows may also turn people against such tactics or that they simply may have little impact because viewers understand them to be fictional entertainment. She also does not consider that the appearance of this show may have been a lucky happenstance for its creator, not something done by design and collusion. Ultimately, critical security studies as presented in this volume is remarkably uncritical. Careful investigation and considered judgment is replaced with the **affirmation of foregone conclusions**. More is required to successfully address contemporary security challenges.

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

**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.

### AT: Colonialism K

#### Criticizing Western “colonialism” obscures more insidious practices by regional powers

Shaw 2 **–** Sussex IR Professor (Martin, The Problem of the Quasi-Imperial State, www.martinshaw.org/empire.htm)

Nor have many considered the possibility that if the concept of imperialism has a relevance today, it applies to certain aggressive, authoritarian regimes of the non-Western world rather than to the contemporary West. In this paper I fully accept that there is a concentration of much world power - economic, cultural, political and military - in the hands of Western elites. In my recent book, Theory of the Global State, I discuss the development of a 'global-Western state conglomerate' (Shaw 2000). I argue that 'global' ideas and institutions, whose significance characterizes the new political era that has opened with the end of the Cold War, depend largely - but not solely - on Western power. I hold no brief and intend no apology for official Western ideas and behaviour. And yet I propose that the idea of a new imperialism is a profoundly misleading, indeed ideological concept that obscures the realities of power and especially of empire in the twenty-first century. This notion is an obstacle to understanding the significance, extent and limits of contemporary Western power. It simultaneously serves to obscure many real causes of oppression, suffering and struggle for transformation against the quasi-imperial power of many regional states. I argue that in the global era, this separation has finally become critical. This is for two related reasons. On the one hand, Western power has moved into new territory, largely uncharted -- and I argue unchartable -- with the critical tools of anti-imperialism. On the other hand, the politics of empire remain all too real, in classic forms that recall both modern imperialism and earlier empires, in many non-Western states, and they are revived in many political struggles today. Thus the concept of a 'new imperialism' fails to deal with both key post-imperial features of Western power and the quasi-imperial character of many non-Western states. The concept overstates Western power and understates the dangers posed by other, more authoritarian and imperial centres of power. Politically it identifies the West as the principal enemy of the world's people, when for many of them there are far more real and dangerous enemies closer to.

### AT: Nuclear Power K

#### Nuclear technocracy’s key to solve

Ted Nordhaus 11, chairman – Breakthrough Instiute, and Michael Shellenberger, president – Breakthrough Institute, MA cultural anthropology – University of California, Santa Cruz, 2-25, <http://thebreakthrough.org/archive/the_long_death_of_environmenta>)

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

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

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

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

### AT: Consumption K

#### Sustainability is impossible and causes extinction in the short term---market incentives are key

Barnhizer 6 -- Professor of Law, Cleveland State University. (David, Waking from Sustainability's "Impossible Dream": The Decisionmaking Realities of Business and Government, 18 Geo. Int'l Envtl. L. Rev. 595, Lexis)

Medieval alchemists sought unsuccessfully to discover the process that would enable them to turn base metal into gold--assigning the name "Philosopher's Stone" to what they sought. The quest was doomed to failure. Just as a "sow's ear" cannot become a "silk purse," a base metal cannot become gold. Sustainability is impossible for the same reasons. It asks us to be something we are not, both individually and as a political and economic community. **It is impossible to convert humans into the** wise, **selfless, and** nearly **omniscient creatures** required to build and operate a system that incorporates sustainability. Even if it were ultimately possible (and it is not), **it would take** many **generations** to achieve **and we are running out of time.**¶There is an enormous gap among what we claim we want to do, what we actually want to do, and our ability to achieve our professed goals. **I admit to an absolute distrust of** cheap and easy proclamations of lofty ideals **and commitments to** voluntary or unenforceable **codes of practice**. The only thing that counts is the actor's actual behavior. For most people, that **behavior is shaped by self-interest** determined by the opportunity to benefit or to avoid harm. In the economic arena this means that if a substantial return can be had without a high risk of significant negative consequences, the decision will be made to seek the benefit. It is the reinvention of Hardin's Tragedy of the Commons. n1¶ This essay explores the nature of human decisionmaking and motivation within critical systems. These systems include business and governmental decisionmaking with a focus on environmental and social areas of emerging crisis where the consequence of acting unwisely or failing to act wisely produces large-scale harms for both human and natural systems. The analysis begins by suggesting that nothing humans create is "sustainable." Change is inevitable and [\*597] irresistible whether styled as systemic entropy, Joseph Schumpeter's idea of a regenerative "creative destruction," or Nikolai Kondratieff's "waves" of economic and social transformation. n2¶ Business entities and governmental decisionmakers play critical roles in both causing environmental and social harms and avoiding those consequences. Some have thought that the path to avoiding harm and achieving positive benefits is to develop codes of practice that by their language promise that decisionmakers will behave in ways consistent with the principles that have come to be referred to as "**sustainability**." That belief **is a delusion--an "impossible dream**." Daniel Boorstin once asked: "Have we been doomed to make our dreams into illusions?" n3 He adds: "An illusion . . . is an image we have mistaken for reality. . . . [W]e cannot see it is not fact." n4 Albert Camus warns of the inevitability of failing to achieve unrealistic goals and the need to become more aware of the limited extent of our power to effect fundamental change. He urges that we concentrate on devising **realistic strategies** and behaviors that allow us to be effective in our actions. n5¶ As companies are expected to implement global codes of conduct such as the U.N. Global Compact and the Organisation for Economic Co-operation and Development's (OECD) Guidelines for Multinational Enterprises, n6 and governments [\*598] and multilateral institutions supposedly become more concerned about limiting the environmental and social impacts of business decisionmaking, it may be useful to consider actual behavior related to corporate and governmental responses to codes of practice, treaties, and even national laws. Unfortunately, business, government, and multilateral institutions have poor track records vis-a-vis conformity to such codes of practice and treaties.¶ **Despite good intentions, empty** dreams and **platitudes may be counterproductive**. This essay argues that the ideal of sustainability as introduced in the 1987 report of the Brundtland Commission and institutionalized in the form of Agenda 21 at the 1992 Rio Earth Summit is false and counterproductive. The ideal of sustainability assumes that we are almost god-like, capable of perceiving, integrating, monitoring, organizing, and controlling our world. These assumptions create an "impossible" character to the "dream" of sustainability in business and governmental decisionmaking.¶ Sustainability of the Agenda 21 kind is a utopian vision **that is the enemy of the possible and the good.** The problem is that while on paper we can always sketch elegant solutions that appear to have the ability to achieve a desired utopia, such solutions work "if only" everyone will come together and behave in the way laid out in the "blueprint." n7 Humans should have learned from such grand misperceptions as the French Enlightenment's failure to accurately comprehend the quality and limits of human nature or Marxism's flawed view of altruistic human motivation that **the "if only" is an impossibly utopian reordering of human nature we will never achieve**. n8¶ [\*599] A critical defect in the idea of sustainable development is that it continues the flawed assumptions about human nature and motivation that provided the foundational premises of Marxist collectivism and centralized planning authorities. n9 Such perspectives inject rigidity and bureaucracy into a system that requires monitoring, flexibility, adaptation, and accountability. But, in criticizing the failed Marxist-Leninist form of organization, my argument should not be seen as a defense of supposed free market capitalism. Like Marxism, a true free market capitalism does not really exist.¶ The factors of greed and self interest, limited human capacity, inordinate systemic complexity, and the power of large-scale driving forces beyond our ability to control lead to the unsustainability of human systems. **Human self-interest is an** insurmountable barrier **that can be affected** to a degree **only by effective laws, the promise of significant financial** or career **returns, or fear of consequences.** The only way to change the behavior of business and governmental decisionmakers is through the use of the "carrot" and the "stick." n10 Yet even this approach can only be achieved incrementally with limited positive effects.

#### Consumption and consumerism are inevitable and build ethical democratic solidarity

Cohen 2 (Patricia, Writer for the New York Times, citing James B. Twitchell, Professor of English at the University of Florida, “In Defense Of Our Wicked, Wicked Way”, The New York Times, July 7, http://www.clas.ufl.edu/users/jtwitche/nytimesarticle.pdf)

"I CAN stand here and look at this for hours," said James B. Twitchell as he parked himself in front of the bottled water section in City Market, just past the jars of $30-per-pound teas and behind the eight-foot display of imported olive oils. Mr. Twitchell, a professor of English at the University of Florida in Gainesville, specializes in the Romantic poets, but his real obsession is shopping. Given the choice of reading literary theorists like Foucault or gazing at shelves stacked with artfully shaped bottles of water piled up like Jay Gatsby's beautifully tailored shirts, he would quickly choose the latter. "There is more that I can sustain myself with at the water aisle than in all of modern criticism," he said. In a series of books, the latest of which is "Living It Up: Our Love Affair With Luxury" (Columbia University Press), Mr. Twitchell has detailed the consumption habits of Americans with all the scholarly delight of a field anthropologist who has discovered the secret courting rituals of a remote tribe. He is exquisitely attuned to the subtle gradations of status conferred by the labels on what people wear, eat, drink, drive and freeze ice cubes in. And he is not alone. Whether prompted by the 90's spendathon or the endless fascination not only with shopping, but with reading about shopping, a new title by an academic or journalist on the subject appears practically every week. Burlington, where Mr. Twitchell grew up and where he now spends summers, was singled out by David Brooks in his wickedly funny "Bobos in Paradise" as a model Latte Town, a city that has perfectly reconciled the mercenary instincts of the bourgeoisie with the artistic spirit of the bohemians to create an upscale consumer culture. What distinguishes Mr. Twitchell's study of excessive consumerism, though, is that he applauds it. To him, Evian and Pellegrino, Vermont Pure and Dasani are evidence of what could be called his trickledown theory of luxury: that the defining characteristic of today's society is the average person's embrace of unnecessary consumption, superficial indulgence, wretched excess and endless status-seeking. Oh, earthly paradise! Once defined by exclusiveness, luxury is now available -- whether in the form of limited-edition coffee at Starbucks or Michael Graves tea kettles at Target -- to all. And that, Mr. Twitchell maintains, is a good thing. Sure, he argues in his book, buying essentially useless luxury items "is one-dimensional, shallow, ahistorical, without memory and expendable. **But it is also strangely democratic and unifying. If what you want is peace on earth, a unifying system that transcends religious, cultural and caste differences**, well, whoops!, **here it is**. The Global Village is not the City on the Hill, not quite the Emerald City, and certainly not quite what millennial utopians had in mind, but it is closer to equitable distribution of rank than what other systems have provided." That is, to say the least, a minority report. For centuries, philosophers, artists and clerics railed against luxury. Ecclesiastical courts forbade most people from eating chocolate, drinking coffee or wearing colors like Prussian blue and royal purple -- "luxuria" that signaled living above one's God-ordered place. Thorstein Veblen offered the first modern critique of "conspicuous consumption" in his 1899 treatise "The Theory of the Leisure Class." Post-World War II social critics and economists extended Veblen's critique to the expanding middle class. John Kenneth Galbraith warned in "The Affluent Society" of the binge afflicting the postwar generation. Unwitting consumers, he said, were essentially suckered by admen and salesmen into spending money on things they didn't need. In his 1970 study "The Cultural Contradictions of Capitalism" Daniel Bell argued that "the culture was no longer concerned with how to work and achieve, but with how to spend and enjoy." This trend, he warned, could end up undermining the very work ethic that made capitalism function. That, obviously, did not happen. If anything people worked more so they could spend more. In "The Overspent American," Juliet B. Schor noted that people no longer compared themselves with others in the same income bracket, but with the richer and more famous they saw on television, propelling them to spend more than they could afford. To Mr. Twitchell, the naysayers are scolds and spoilsports. Indoor plumbing, sewing machines, dishwashers, college educations, microwaves, coronary bypasses, birth control and air travel all began as luxury items for the wealthy. Nor are buyers mindlessly duped by canny advertisers into buying items they don't really want, he said. Quite the opposite. They enjoy the sensual feel of an Hermes silk tie, the briny delicacy of Petrossian caviar or simply the sensation of indulging themselves. These things may not bring happiness, but neither does their absence from the lives of people too poor to afford them. It may seem an odd moment to champion luxury. The spectacular boom of the 90's now looks as if it was partly built on spectacular sleight of hand, with Enron, Global Crossing, Adelphia and WorldCom all recently admitting that billions in reported profits were nonexistent. The moment seems ripe for a chastened culture to repent its indulgences. Reassessing the get-and-spend ethic -- not defending consumerism -- might well be the defining current of the next few years. The problem with Mr. Twitchell's view, said Robert H. Frank, author of "Luxury Fever," is that our sense of what we need to live comfortably keeps spiraling upward. It is not that luxury spending isn't good for particular individuals, but that it is bad for society overall. "It's like when everybody stands up for a better view, you don't see better than before," Mr. Frank said from his home in Ithaca. There's a lot of waste in luxury spending. Instead of building safer roads or providing better health care, we are spending that money on bigger diamonds and faster cars. Mr. Twitchell is unpersuaded, however. Walking down Church Street, Burlington's busy pedestrian mall, he pointed out the transformation that the consumer culture has wrought in his hometown. Lean and tanned, with cropped gray hair and rounded tortoise-shell glasses, Mr. Twitchell looks a bit like Dennis the Menace's father after Dennis has grown up, moved across the country and given his old man a few years to recover. "Church Street once serviced needs, now it services desires," Mr. Twitchell said. The optician's shop is gone, and so is Sears and JCPenney. He pointed out the Ann Taylor store, where the Masonic temple used to be. A chic French children's store sits in the old bank. "The key to modern luxe is that most of us can have a bit of it on the plate," Mr. Twitchell said. "I can't own a Lexus, but I can rent one. I can't go to Bermuda for a winter, but I can have a time share for a weekend. I don't own a yacht but I'm taking a Princess cruise." The process of democratization is mirrored in Mr. Twitchell's family history. His great-grandfatherAndrew A. Buell made his fortune building wooden boxes from Adirondack lumber. Driving up Lodge Road to "the hill," where Mr. Buell built a red stone Romanesque mansion with a copper-topped tower, Mr. Twitchell passed the Burlington Country Club, which his grandfather Marshall Coleman Twitchell helped found. The family's sprawling former home is now a women's dormitory, and the surrounding 66-acre estate serves as the University of Vermont's Redstone campus. A couple of blocks from the hilltop, both in location and status, is the relatively modest white wooden house that Mr. Twitchell, thes son of Marshall Coleman Twitchell Jr., an ophthalmologist, and his sisters grew up in. At that time, said Mr. Twitchell, now 59, one's social place was determined by birth, or "what I call the lucky sperm culture." Today, birth-ordained status has been supplanted by store-bought status. Mr. Twitchell has no regrets about this lost world. "Though I was a beneficiary of it, I'm glad it's over," he said. "There is something refreshing about the material world that downtown Burlington opened up." Compared to the traditional ways of marking status -- race, parentage, accent, private schools -- one's purchases are a preferable way of telling who's up and who's down, he said. On that point, Mr. Twitchell is not alone. Gary Cross, a historian at Penn State University, said that **consumer culture in one sense is "democracy's highest achievement, giving meaning and dignity to people when workplace participation, ethnic solidarity and even representative democracy have failed."** Still, as Mr. Cross argued in 2000 in "An All-Consuming Century: Why Commercialism Won in Modern America," "most of us, no matter our politics, are repulsed by the absolute identity of society with the market and individual choice with shopping." True enough, Mr. Twitchell readily conceded. But he maintains the critics are missing the essential characteristic of luxury spending. "Luxury has very little to do with money or things," he said. "Luxury is a story we tell about things," and it's ultimately the story we are after. That is, our purchases are imbued with elaborate narratives about the life we want to live. It is advertisers and manufacturers who give objects meaning by constructing the stories about them, Mr. Twitchell said, and that meaning is as much a source of desire as the object itself. Think of the elaborate fantasies spun by marketers like Ralph Lauren and Martha Stewart. It goes for whatever you're buying, whether it's Jimmy Choo, Birkenstock or Payless shoes. When Mr. Twitchell, a dedicated factory outlet shopper, flashes his member's card at Sam's Club, "the allure is not just that I'm saving money," he said, "but that I'm smarter and savvier, that I'm duping the duper." Or consider an experiment he performed on his colleagues. He told some English professors that he was going to spend $6,000 to buy an 1850 copy of Wordsworth's "Prelude." Brilliant idea, everyone said. A few days later, Mr. Twitchell told the same colleagues that he had changed his mind and was going to use the $6,000 to buy a used BMW. "I could have said that I was investing in a collection of Beanie Babies comics or a diamond pinkie ring for the shocked response that I got," he wrote. Critics of consumption will say they are making a moral argument, Mr. Twitchell said, but "often what is condemned as luxury is really just a matter of taste." To Mr. Twitchell, as long as human beings crave sensation, they will desire material goods and luxurious ones at that, Wall Street scandals notwithstanding. "If this year it's Enron and WorldCom, then another year it was Long-Term Capital Management," he said. **Recessions may come and go, but** consumption is eternal**. The ad slogan is right: Diamonds are forever.**

### AT: Science Bad

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

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

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

## Water K

### AT: Water K

#### Water violence is real and their K doesn’t apply

Dinar 2 Shlomi, Ph.D. candidate at the Johns Hopkins University School of Advanced International Studies, SAIS Review 22.2 (2002) 229-253, Water, Security, Conflict, and Cooperation, "Negotiation and International Relations: A Framework for Hydropolitics”, International Negotiation 5, no. 2

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.

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

Dinar 2 Shlomi, Ph.D. candidate at the Johns Hopkins University School of Advanced International Studies, SAIS Review 22.2 (2002) 229-253, Water, Security, Conflict, and Cooperation, "Negotiation and International Relations: A Framework for Hydropolitics”, International Negotiation 5, no. 2

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: Commodification/Incentives K

#### Commodification arguments are wrong---policy solutions are the only way to prevent extinction

Wagner 11 Gernot, economist at EDF, where he works in the office of economic policy and analysis, “But Will the Planet Notice? How Smart Economics Can Save the World.” Hill and Wang Press, p. 11-12

The fundamental forces guiding the behavior of billions are much larger than any one of us. It's about changing our system, creating a new business as usual. And to do that we need to think about what makes our system run. In the end, it comes down to markets, and the rules of the game that govern what we chase and how we chase it. Scientists can tell us how bad it will get. Activists can make us pay attention to the ensuing instabilities and make politicians take note. When the task comes to formulating policy, only economists can help guide us out of this morass and save the planet. In an earlier time with simpler problems, environmentalists took direct action against the market's brutal forces by erecting roadblocks or chaining themselves to trees. That works if the opposing force is a lumberjack with a chain saw. It might even work for an entire industry when the task is to ban a particular chemical or scrub a pollutant out of smokestacks. But that model breaks down when the opposing force is ourselves: each and every one of us demanding that the globalized market provide us with cheaper and better food, clothes, and vacations. There is no blocking the full, collective desires of the billions who are now part of the market economy and the billions more who want to—and ought to—be part of it. The only solution is to guide all-powerful market forces in the right direction and create incentives for each of us to make choices that work for all of us. The guideposts we have today for market forces evolved helter- skelter from a historical process that gave almost no weight to the survival of the planet, largely because the survival of the planet was not at stake. Now it is. Since we can't live without market forces, we need to guide them to help us keep the human adventure going in workable ways, rather than continue on the present path right off the edge of a cliff.

### Alt Fails – Wright

#### The alt’s abandonment 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

### AT: Epist First

#### Epistemological questioning can’t stand the scrutiny of science—a pragmatic approach to IR is the only effective political strategy

Kratochwil, IR Prof @ Columbia, 8 [Friedrich Kratochwil is Assistant Professor of International Relations at Columbia University, Pragmatism in International Relations “Ten points to ponder about pragmatism” p11-25]

In what follows, I claim that the shift in focus from ‘demonstration’ to science as practice provides strong prima facie reasons to choose pragmatic rather than traditional epistemological criteria in social analysis. Irrespective of its various forms, the epistemological project includes an argument that all warranted knowledge has to satisfy certain field-independent criteria that are specified by philosophy (a ‘theory of knowledge’). The real issue of how our concepts and the world relate to each other, and on which non-idiosyncratic grounds we are justified to hold on to our beliefs about the world, is ‘answered’ by two metaphors. The first is that of an inconvertible ground, be it the nature of things, certain intuitions (Descartes’‘clear anddistinct ideas’) or methods and inferences; the second is that of a ‘mirror’ that shows what is the case. There is no need to rehearse the arguments demonstrating that these underlying beliefs and metaphors could not sustain the weight placed upon them. A ‘method’ á la Descartes could not make good on its claims, as it depended ultimately on the guarantee of God that concepts and things in the outer world match. On the other hand, the empiricist belief in direct observation forgot that ‘facts’ which become ‘data’ are – as the derivation of the term from "facere" suggests –‘made’. They are based on the judgements of the observer using cultural criteria, even if they appear to be based on direct perception, as is the case with colours.4 Besides, there had always been a sneaking suspicion that the epistemological ideal of certainty and rigour did not quite fit the social world, an objection voiced first by humanists such as Vico, and later rehearsed in the continuing controversies about erklären and verstehen (Weber 1991; for a more recent treatment see Hollis 1994). In short, both the constitutive nature of our concepts, and the value interest in which they are embedded, raise peculiar issues of meaning and contestation that are quite different from those of description. As Vico (1947) suggested, we ‘understand’ the social world because we have ‘made it’, a point raised again by Searle concerning both the crucial role played by ascriptions of meaning (x counts for y) in the social world and the distinction between institutional ‘facts’ from ‘brute’ or natural facts (Searle 1995). Similarly, since values constitute our ‘interests’, the concepts we use always portray an action from a certain point of view; this involves appraisals and prevents us from accepting allegedly ‘neutral’ descriptions that would be meaningless. Thus, when we say that someone ‘abandoned’ another person and hence communicate a (contestable) appraisal, we want to call attention to certain important moral implications of the act. Attempting to eliminate the value tinge in the description and insisting that everything has to be cast in neutral, ‘objective’, observational language – such as ‘he opened the door and went through it’–would indeed make the statement ‘pointless’, even if it is (trivially) ‘true’ (for a powerful statement of this point, see Connolly 1983). The most devastating attack on the epistemological project, however, came from the history of science itself. It not only corrected the naive view of knowledge generation as mere accumulation of data, but it also cast increasing doubt on the viability of various field-independent ‘demarcation criteria’. This was, for the most part, derived from the old Humean argument that only sentences with empirical content were ‘meaningful’, while value statements had to be taken either as statements about individual preferences or as meaningless, since de gustibus non est disputandum. As the later discussion in the Vienna circle showed, this distinction was utterly unhelpful (Popper 1965: ch. 2). Although it seemed to solve the problem of induction, it failed to acknowledge that not all meaningful theoretical sentences must correspond with natural facts. Karl Popper’s ingenious solution of making ‘refutability’ the logical criterion and interpreting empirical ‘tests’ as a special mode of deduction (rather than as a way of increasing supporting evidence) seemed to respond to this epistemological quandary for a while. Thus, a ‘historical reconstruction’ of science as a progressive development seemed possible, as did the specification of a pragmatic criterion for conducting research. Yet again, studies in the history of science undermined both hopes. The different stages in Popper’s own intellectual development are, in fact, rather telling. He started out with a version of conjectures and refutations that was based on the notion of a more or less self-correcting demonstration. Confronted with the findings that scientists did not use the refutation criterion in their research, he emphasized then the role of the scientific community on which the task of ‘refutation’ devolved. Since the individual scientist might not be ready to bite the bullet and admit that she or he might have been wrong, colleagues had to keep him or her honest. Finally, towards the end of his life, Popper began to rely less and less on the stock of knowledge or on the scientists’ shared theoretical understandings – simply devalued as the ‘myth of the framework’–and emphasized instead the processes of communication and of ‘translation’ among different schools of thought within a scientific community (Popper 1994). He still argued that these processes follow the pattern of ‘conjecture and refutation’, but the model was clearly no longer that of logic or of scientific demonstration, but one which he derived from his social theory – from his advocacy of an ‘open society’ (Popper 1966). Thus, a near total reversal of the ideal of knowledge had occurred. While formerly everything was measured in terms of the epistemological ideal derived from logic and physics, ‘knowledge’ was now the result of deliberation and of certain procedural notions for assessing competing knowledge claims. Now, politics and law, rather than physics, provided the template. Thus the history of science has gradually moved away from the epistemological ideal to focus increasingly on the actual practices of various scientific communities engaged in knowledge production, particularly on how they handle problems of scientific disagreement.5 This reorientation implied a move away from field-independent criteria and from the demonstrative ideal to one in which ‘arguments’ and the ‘weight’ of evidence had to be appraised. This, in turn, not only generated a bourgeoning field of ‘science studies’ and their ‘social’ epistemologies (see Fuller 1991) but also suggested more generally that the traditional understandings of knowledge production based on the model of ‘theory’ were in need of revision. If the history of science therefore provides strong reasons for a pragmatic turn, as the discussion above illustrates, what remains to be shown is how this turn relates to the historical, linguistic and constructivist turns that preceded it. To start with, from the above it should be clear that, in the social world, we are not dealing with natural kinds that exist and are awaiting, so to speak, prepackaged, their placement in the appropriate box. The objects we investigate are rather conceptual creations and they are intrinsically linked to the language through which the social world is constituted. Here ‘constructivists’, particularly those influenced by Wittgenstein and language philosophy, easily link up with ‘pragmatists’ such as Rorty, who emphasizes the productive and pragmatic role of ‘vocabularies’ rather than conceiving of language as a ‘mirror of nature’ (Rorty 1979). Furthermore, precisely because social facts are not natural, but have to be reproduced through the actions of agents, any attempt to treat them like ‘brute’ facts becomes doubly problematic. For one, even ‘natural’ facts are not simply ‘there’ they are interpretations based on our theories. Second, different from the observation of natural facts, in which perceptions address a ‘thing’ through a conceptually mediated form, social reality is entirely ‘artificial’ in the sense that it is dependent on the beliefs and practices of the actors themselves. This reproductive process, directed by norms, always engenders change either interstitially, when change is small-scale or adaptive – or more dramatically, when it becomes ‘transformative’–for instance when it produces a new system configuration, as after the advent of nationalism (Lapid and Kratochwil 1995) or after the demise of the Soviet Union (Koslowski and Kratochwil 1994). Consequently, any examination of the social world has to become in a way ‘historical’ even if some ‘structuralist’ theories attempt to minimize this dimension, distinguishing between ‘surface’ phenomena and ‘deep’ structure; addressing this problem explicitly (á la Braudel); or using different modes of narratives for the eventful, the medium-and the long-term examination of change. Therefore a pragmatic approach to social science and IR seems both necessary and promising. On the one hand, it is substantiated by the failure of the epistemological project that has long dominated the field. On the other, it offers a different positive heuristics that challenges IR’s traditional disciplinary boundaries and methodological assumptions. Hence, interest in pragmatism does not seem to be just a passing fad – even if such an interpretation cannot entirely be discounted, given the incentives of academia to find, just like advertising agencies, ‘new and improved’ versions of familiar products.