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## plan

#### The United States Federal Government should substantially increase funding for downblending surplus highly enriched uranium for use in nuclear reactors.

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#### Advantage One: Fissile Material

#### Lax security at US nuclear facilities ensures terrorist acquisition—declaring HEU surplus and funding downblending crucial global commitment to control fissile material

Stockton, 12

(Consultant-Project on Government Overight & Former Special Assistant to DOE Secretary Bill Richardson, U.S. Nuclear Weapons Complex: How the Country Can Profit and Become More Secure by Getting Rid of Its Surplus Weapons-Grade Uranium, http://pogoarchives.org/m/nss/downblending/report-20100914.pdf)

A huge opportunity to save the U.S. taxpayers money, generate up to $23 billion in revenue for the Treasury, and improve security is right under the government’s nose. The U.S. has nearly 400 metric tons (MT) of highly enriched uranium (HEU), a fissile material used in nuclear weapons, that is not necessary for U.S. defense needs and either has been or **should be declared surplus and properly disposed of.** Although not necessary for defense purposes, this vast store of HEU **could be used for nefarious purposes by terrorists**. With just enough to fill a shoebox, terrorists could create what is known as an improvised nuclear device that has the potential for a blast on par with the weapon that devastated **Hiroshima**, Japan, in 1945. They could do this within minutes if they gained access to the material—a distinct possibility **given the chronic and well-documented weaknesses in securing nuclear materials at numerous U.S. sites**. Despite this danger, one of the most practical ways of reducing the risk has fallen by the wayside. The pace of converting surplus, expensive-to-secure HEU into low enriched uranium (LEU), which is unusable in weapons, has slowed to a snail’s crawl. Just years ago, this process—known as downblending—was occurring at a rate close to ten times that of the downblending rate planned for the next four decades. The reason for the slow-down is that the Department of Energy (DOE) has not made downblending a priority. The U.S. government has the capacity to ramp up downblending of surplus HEU to previous levels, and even exceed them. Also, far more HEU can be declared surplus than has been. The results would be win-win: Jobs would be created during the economic downturn; billions in revenue could be generated for the U.S. Treasury while security costs could be radically reduced; and Americans would be less vulnerable to devastating terrorist attacks. In an investigation into the government’s downblending efforts, POGO has found: • As much as 300 MT of HEU is unnecessary for America’s defense needs and can be designated as surplus. • Downblending more HEU into LEU would reduce a security risk, cut government spending, and raise up to $23 billion through sales of the LEU to nuclear power plants (minus the cost of downblending). • The federal government has slowed efforts to downblend the HEU already declared surplus from a high of 20 MT downblended in fiscal year (FY) 2004 to 3 MT to be downblended in FY 2010. • The government plans to downblend 90 MT of HEU from now until 2050, a rate of only 2-3 MT a year. • The government has the capacity now to downblend at a much faster rate. • A blueprint to “transform” the U.S. nuclear weapons complex does not include increasing the downblending rate. • The DOE has slowed its rate of dismantling the backlog of retired nuclear weapons, creating a hurdle to increasing the downblending rate. • **The DOE’s lack of emphasis on downblending weakens efforts to encourage other nations, such as Russia, to reduce their stockpiles of weapons and fissile materials.** 2• Security of nuclear materials is still insufficient. For example, there are three varying security standards for the same kind of nuclear material, depending on which government agency is in charge. While security of the nuclear weapons complex has improved since 9/11, there have been some troubling steps backwards; the results of performance tests make it clear that security is uneven, posing significant risks. RECOMMENDATIONS 1. The President should designate an additional amount of HEU, as much as 300 MT, surplus to defense needs and schedule that HEU for dismantling and downblending. 2. The President should direct the Department of Energy to accelerate the downblending rate of the approximately 90 MT of HEU that has already been designated surplus and scheduled for downblending so that the process is completed by 2015 rather than 2050. To accomplish this, the National Nuclear Security Administration should increase the dismantlement rate at the Pantex Plant in Texas—up to 800-1,000 weapons per year—and open up the Device Assembly Facility at the Nevada National Security Site (formerly known as the Nevada Test Site) for additional dismantlement activities to allow the backlog of 4,500 warheads to be dismantled by 2015. 3. Congress should appropriate additional funds to DOE for downblending and dismantlement.

#### US leadership vital—sends a global signal that is necessary to prevent nuclear attacks

Stockton, 12

(Consultant-Project on Government Overight & Former Special Assistant to DOE Secretary Bill Richardson, U.S. Nuclear Weapons Complex: How the Country Can Profit and Become More Secure by Getting Rid of Its Surplus Weapons-Grade Uranium, http://pogoarchives.org/m/nss/downblending/report-20100914.pdf)

When President Barack Obama took office, he acknowledged that **securing nuclear materials is critical to global security**. “We must ensure that terrorists never acquire a nuclear weapon. This is the most immediate and extreme threat to global security….Al Qaeda has said it seeks a bomb and that it would have no problem with using it. And we know that there is unsecured nuclear material across the globe. To protect our people, we must act with a sense of purpose without delay.” The President did not overstate the threat. Fissile material—particularly highly enriched uranium (**HEU)—is a prime target for rogue states and nuclear terrorists.** With only approximately 110 pounds of HEU, enough to fit in a shoebox, it is possible to create within minutes an improvised nuclear device (IND) that has the potential for a blast on par with the weapon that devastated Hiroshima, Japan. As Nobel Prize-winning physicist Luis Alvarez explained: With modern weapons-grade uranium…terrorists, if they had such material, would have a good chance of setting off a high-yield explosion simply by dropping one half of the material onto the other half. Most people seem unaware that if separated U 235 [highly enriched uranium] is at hand, it’s a trivial job to set off a nuclear explosion….Given a supply of U-235…**even a high school kid could make a bomb in short order**. Yet, nations around the globe continue to keep stocks of HEU which pose unnecessary security risks, and the U.S. is no exception. The U.S. currently has an estimated HEU inventory of 500-600 metric tons (MT) —equivalent to 20,000-24,000 warheads. To combat the risk posed by unsecured fissile material around the globe, in April 2010 President Obama called for and hosted a nuclear security summit in Washington, DC. The intent of the summit was to “prevent proliferation…by bringing together more than 40 nations…with the goal of securing the world’s vulnerable nuclear materials in four years.” While the President can be commended for his leadership on bringing this issue to the global stage, **it is problematic that he has not taken meaningful action to reduce our own stock of HEU. If the U.S. wants other nations to secure their fissile materials and advance a world free of nuclear weapons, we have to lead by example and reduce our own HEU inventory.** Although the Obama Administration has stated that “modernizing our nuclear infrastructure” is a priority, its version of modernization is to invest in Cold War-weapons production policies rather than in genuine post-9/11 modernization efforts to secure HEU in the U.S.

#### HEU terrorism’s extremely likely – specifically in Russia and at Pelindaba

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The threat of nuclear terrorism is real. 1 Osama bin Laden has called the acquisition of nuclear weapons or other weapons of mass destruction a “religious duty,” and al Qaeda operatives have attempted to buy nuclear material and recruit nuclear expertise. Plutonium and highly enriched uranium (HEU), the essential ingredients of nuclear weapons, are beyond the capabilities of terrorists to produce—but with enough of these materials in hand, some particularly well-organized groups could have the potential to make at least a crude nuclear bomb .One study by the now-defunct congressional Office of Technology Assessment summarized the threat: “A small group of people, none of whom have ever had access to the classified literature, could possibly design and build a crude nuclear explosive device…. .Only modest machine-shop facilities that could be contracted for without arousing suspicion would be required .” 2 Indeed, even before the revelations from Afghanistan, U .S . intelligence concluded that “fabrication of at least a ‘crude’ nuclear device was within al Qaeda’s capabilities, if it could obtain fissile material .” 3 President Obama has described nuclear terrorism as “the most immediate and extreme threat to global security,” and he has pledged to lead “a new international effort to secure all vulnerable nuclear material around the world within four years .” 4 This article surveys the programs that the United States has put in place to secure nuclear weapons and materials in order to prevent groups like al Qaeda from carrying out their nuclear threats, and provides a set of recommendations for expanding, accelerating, and improving these efforts to meet President Obama’s ambitious four-year objective . It also offers brief recommendations for strengthening other elements of a multilayered defense against nuclear terrorism NUCLEAR SECURITY: TWO CAUTIONARY TALES Nuclear weapons or their essential ingredients exist in hundreds of buildings in dozens of countries .Security measures for many of these stocks are excellent—but security for others is appalling, in some cases amounting to no more than a night watchman and a chain-link fence .No specific and binding global standards for how these stockpiles should be secured exist . The amounts required for a bomb are small .The Nagasaki bomb included some six kilograms of plutonium, which would fit easily in a soda can .(A similarly powerful HEU bomb would require three times as much material .For a simpler but less efficient gun-type design, roughly 50 kilograms of HEU would be needed—an amount that would fit easily into two two liter bottles .The world stockpiles of HEU and separated plutonium are enough to make roughly 200,000 nuclear weapons; a tiny fraction of 1 percent of these stockpiles going missing could cause a global catastrophe . Unfortunately, several incidents have already demonstrated how vulnerable some of these stockpiles actually are . For example, on February 1, 2006, Russian citizen Oleg Khintsagov was arrested in Tbilisi, Georgia (along with three Georgian accomplices) with 79 .5 grams of 89 percent enriched HEU . 5 Available evidence suggests that the material may have come from the Novosibirsk Chemical Concentrate Plant in Russia . And in 2003, an Armenian national was caught at the Armenia-Georgia border with 170 grams of HEU—also apparently pilfered from Novosibirsk .In order to transport the sample from Novosibirsk to Tbilisi, the smugglers needed to pass through a Russia Georgia border crossing equipped with U .S .-funded radiation-detection sensors, a feat that was accomplished in part with the assistance of the border guards .The smugglers had been shopping around their “sample” for more than a year—and claiming that there were two to three kilograms more available for sale—by the time they were caught in a sting operation by Georgia’s Ministry of Internal Affairs . Less than two years later, on the night of November 8, 2007, two teams of armed men attacked the Pelindaba nuclear facility in South Africa, where hundreds of kilograms of weapon-grade HEU are stored . One of the teams reportedly fired on the site’s security forces, who fled . The other team of four armed men went through a 10,000 volt security fence, disabled the intrusion detectors so that no alarms sounded— possibly using insider knowledge of the security system—then broke into the emergency control center, and shot a worker there in the chest after a brief struggle .The worker at the emergency control center raised an alarm for the first time .These intruders spent 45 minutes inside the secured perimeter without ever being engaged by site security forces, and then disappeared through the same point in the fence by which they had entered .No one on either team of intruders has been caught or identified . 6 The security manager resigned and some of the guards on duty that night were subsequently fired .The South African government has not released important details of its investigation of the attack .Moreover, both before and after the attack, South Africa has refused U.S. offers to remove the HEU at Pelindaba or to help improve security at the facility .Indeed, South Africa has delayed for years in establishing and implementing a specific requirement that the site be able to defend against a defined set of potential attacker capabilities, known as a design basis threat (DBT), as recommended by the International Atomic Energy Agency (IAEA) .As of the time of the attack, South African security regulations did not yet include a DBT . 7 Large uncertainties remain with both of these cases .In the former case, did Khintsagov have the two to three kilograms of HEU that he claimed? And, if so, where is that HEU now? In the latter case, there is no publicly available evidence that the Pelindaba attackers were after the HEU but, if not, what were two armed teams doing at a facility that had seemingly little else of value? Both cases raise very troubling questions about both the supply and demand for weapons-usable nuclear material . These two cases highlight the continuing dangers of nuclear theft in Russia and at research reactors fueled with HEU, such as the one at Pelindaba .Based on the limited data publicly available about the effectiveness of security arrangements for nuclear facilities and transport routes around the world, the kinds of adversary capabilities these security measures must protect against, and the quality and quantity of nuclear materials at different locations, Russian and Pakistani facilities, together with HEU-fueled research reactors, pose the highest risks of nuclear theft . 8 Russia still has the world’s largest stocks of nuclear weapons and weapons usable nuclear materials, stored in the world’s largest number of buildings and bunkers . The egregious weaknesses of security systems in the 1990s—gaping holes in fences, no detectors to sound the alarm if someone was carrying plutonium out in a briefcase—have, in general, been fixed, but crucial weaknesses remain. And the threats these facilities must protect against—not only possible large-scale terrorist attacks, but also widespread insider corruption and theft—are substantial .In 2008, for example, a colonel from the Ministry of Interior troops that guard Russia’s nuclear sites was reportedly arrested for soliciting thousands of dollars in bribes to overlook violations of security rules in the closed nuclear city of Snezhinsk .Earlier, the chief of security at Seversk, a huge plutonium and HEU processing facility, described a stunning array of weaknesses in his site’s guard forces, from guards patrolling with no ammunition in their guns to widespread corruption; he described the guards as “the most dangerous internal adversaries .” 9 By contrast, Pakistan has a small nuclear stockpile, in a small number of locations .Pakistan’s stockpile is believed to be heavily guarded, but it faces immense threats, from possible attacks by huge numbers of well-armed extremists to insiders with extremist sympathies .At least two Pakistani nuclear weapon scientists sat down with Osama bin Laden to discuss nuclear weapons, and while General Pervez Musharraf was president, active Pakistani military officers in league with al Qaeda wereinvolved with at least two nearly successful attempts to assassinate him .If the people guarding the president cannot be trusted, how much confidence can one have in the people guarding the nuclear weapons? Finally, there are an estimated 130 research reactors around the world that still use HEU as their fuel, and many of these have only the most minimal security measures in place .(Ironically, the security measures at Pelindaba are much more extensive than those in place for most HEU-fueled research reactors around the world .) Many of these facilities do not have enough material for a bomb at one site, but some do; and the 1998 embassy bombings as well as the 9/11 attacks are painful reminders of terrorists’ ability to strike in more than one place at the same time . The IAEA has documented 18 cases of theft or loss of plutonium or HEU .A key question is: how many other cases may have occurred without being detected? It is sobering to note that nearly all of the stolen HEU and plutonium that has been seized over the years had never been missed when it was originally stolen . Making either plutonium or HEU for a bomb is well beyond the plausible capabilities of any known terrorist group . If nuclear weapons and their essential ingredients can be kept out of terrorist hands, nuclear terrorism can be prevented .Theft and transfer to terrorists is by far the most likely pathway by which terrorists would get such material .Hence, by removing nuclear weapons and weapons-usable nuclear materials entirely from as many sites as possible worldwide and ensuring highly effective security for all the remaining locations where these stocks exist, the danger of nuclear terrorism can be reduced to a fraction of its current level.

#### Most qualified evidence

Us Russia Joint Threat Assessment May 11

http://belfercenter.ksg.harvard.edu/files/Joint-Threat-Assessment%20ENG%2027%20May%202011.pdf

ABOUT THE U.S.-RUSSIA JOINT THREAT ASSESSMENT ON NUCLEAR TERRORISM The U.S.-Russia Joint Threat Assessment on Nuclear Terrorism is a collaborative project of Harvard University’s Belfer Center for Science and International Affairs and the U.S.A. and Canada Studies Institute of the Russian Academy of Sciences led by Rolf Mowatt-Larssen and Pavel Zolotarev. Authors: • Matthew Bunn. Associate Professor of Public Policy at Harvard Kennedy School and Co-Principal Investigator of Project on Managing the Atom at Harvard University’s Belfer Center for Science and International Affairs. • Colonel Yuri Morozov (retired Russian Armed Forces). Professor of the Russian Academy of Military Sciences and senior fellow at the U.S.A and Canada Studies Institute of the Russian Academy of Sciences, chief of department at the General Staff of the Russian Armed Forces, 1995–2000. • Rolf Mowatt-Larssen. Senior fellow at Harvard University’s Belfer Center for Science and International Affairs, director of Intelligence and Counterintelligence at the U.S. Department of Energy, 2005–2008. • Simon Saradzhyan. Fellow at Harvard University’s Belfer Center for Science and International Affairs, Moscow-based defense and security expert and writer, 1993–2008. • William Tobey. Senior fellow at Harvard University’s Belfer Center for Science and International Affairs and director of the U.S.-Russia Initiative to Prevent Nuclear Terrorism, deputy administrator for Defense Nuclear Nonproliferation at the U.S. National Nuclear Security Administration, 2006–2009. • Colonel General Viktor I. Yesin (retired Russian Armed Forces). Senior fellow at the U.S.A and Canada Studies Institute of the Russian Academy of Sciences and advisor to commander of the Strategic Missile Forces of Russia, chief of staff of the Strategic Missile Forces, 1994–1996. • Major General Pavel S. Zolotarev (retired Russian Armed Forces). Deputy director of the U.S.A and Canada Studies Institute of the Russian Academy of Sciences and head of the Information and Analysis Center of the Russian Ministry of Defense, 1993–1997, deputy chief of staff of the Defense Council of Russia, 1997–1998. Contributor: • Vladimir Lukov, director general of autonomous non-profit organization “Counter-Terrorism Center.”

The expert community distinguishes pathways terrorists might take to the bomb (discussed in detail in the next section of the report). One is the use of a nuclear weapon that has been either stolen or bought on the black market. The probability of such a development is very low, given the high levels of physical security (guards, barriers, and the like) and technical security (electronic locks and related measures) of modern nuclear warheads. But we cannot entirely rule out such a scenario, especially if we recall the political instability in Pakistan, where the situation could conceivably develop in a way that would increase the chance that terrorist groups might gain access to a Pakistani nuclear weapon A second pathway is the use of an improvised nuclear device built either by terrorists or by nuclear specialists that the terrorists have secretly recruited, with use of weapons-usable fissile material either stolen or bought on the black market.1 The probability of such an attack is higher than using stolen nuclear warheads, because the acceleration of technological progress and globalization of information space make nuclear weapons technologies more accessible while the existence of the nuclear black market eases access of terrorists to weapons-usable fissile materials. A third pathway is the use of an explosive nuclear device built by terrorists or their accomplices with fissile material that they produced themselves—either highly enriched uranium (HEU) they managed to enrich, or plutonium they managed to produce and reprocess. Al-Qaeda and associated groups appear to have decided that enriching uranium lies well beyond the capabilities that they would realistically be able to develop. A fourth pathway is that terrorists might receive a nuclear bomb or the materials needed to make one from a state. North Korea, for example, has been willing to sell its missile technology to many countries, and transferred its plutonium production reactor technology to Syria, suffering few consequences as a result. Transferring the means to make a nuclear bomb to a terrorist group, however, would be a dramatically different act, for the terrorists might use that capability in a way that could provoke retaliation that would result in the destruction of the regime. A far more worrisome transfer of capability from state to group could occur without the witting cooperation of the regime. A future A.Q. Khan-type rogue nuclear supplier network operating out of North Korea or out of a future nuclear-armed Iran could potentially transfer such a capability to a surrogate group and/or sell it for profit to the highest bidder. Global trends make nuclear terrorism a real threat. Although the international community has recognized the dangers of nuclear terrorism, it has yet to develop a comprehensive strategy to lower the risks of nuclear terrorism. Major barriers include complacency about the threat and the adequacy of existing nuclear security measures; secrecy that makes it difficult for states to share information and to cooperate; political disputes; competing priorities; lack of funds and technical expertise in some countries; bureaucratic obstacles; and the sheer difficulty of preventing a potentially small, hard-to-detect team of terrorists from acquiring a small, hard-to-detect chunk of nuclear material with which to manufacture a crude bomb. These barriers must not be allowed to stand in the way of the panhuman universal priority of preventing this grave threat from materializing. If current approaches toward eliminating the threat are not replaced with a sense of urgency and resolve, the question will become not if, but when, where, and on what scale the first act of nuclear terrorism occurs.

#### Extinction

**Ayson 10**, Robert Ayson, Professor of Strategic Studies and Director of the Centre for Strategic Studies: New Zealand at the Victoria University of Wellington, 2010 (“After a Terrorist Nuclear Attack: Envisaging Catalytic Effects,” Studies in Conflict & Terrorism, Volume 33, Issue 7, July, Available Online to Subscribing Institutions via InformaWorld)

But these two nuclear worlds—a non-state actor nuclear attack and a catastrophic interstate nuclear exchange—are not necessarily separable. It is just possible that some sort of terrorist attack, and especially an act of nuclear terrorism, could precipitate a chain of events leading to a massive exchange of nuclear weapons between two or more of the states that possess them. In this context, today’s and tomorrow’s terrorist groups might assume the place allotted during the early Cold War years to new state possessors of small nuclear arsenals who were seen as raising the risks of a catalytic nuclear war between the superpowers started by third parties. These risks were considered in the late 1950s and early 1960s as concerns grew about nuclear proliferation, the so-called n+1 problem. It may require a considerable amount of imagination to depict an especially plausible situation where an act of nuclear terrorism could lead to such a massive inter-state nuclear war. For example, in the event of a terrorist nuclear attack on the United States, it might well be wondered just how Russia and/or China could plausibly be brought into the picture, not least because they seem unlikely to be fingered as the most obvious state sponsors or encouragers of terrorist groups. They would seem far too responsible to be involved in supporting that sort of terrorist behavior that could just as easily threaten them as well. Some possibilities, however remote, do suggest themselves. For example, how might the United States react if it was thought or discovered that the fissile material used in the act of nuclear terrorism had come from Russian stocks,40 and if for some reason Moscow denied any responsibility for nuclear laxity? The correct attribution of that nuclear material to a particular country might not be a case of science fiction given the observation by Michael May et al. that while the debris resulting from a nuclear explosion would be “spread over a wide area in tiny fragments, its radioactivity makes it detectable, identifiable and collectable, and a wealth of information can be obtained from its analysis: the efficiency of the explosion, the materials used and, most important … some indication of where the nuclear material came from.”41 Alternatively, if the act of nuclear terrorism came as a complete surprise, and American officials refused to believe that a terrorist group was fully responsible (or responsible at all) suspicion would shift immediately to state possessors. Ruling out Western ally countries like the United Kingdom and France, and probably Israel and India as well, authorities in Washington would be left with a very short list consisting of North Korea, perhaps Iran if its program continues, and possibly Pakistan. But at what stage would Russia and China be definitely ruled out in this high stakes game of nuclear Cluedo? In particular, if the act of nuclear terrorism occurred against a backdrop of existing tension in Washington’s relations with Russia and/or China, and at a time when threats had already been traded between these major powers, would officials and political leaders not be tempted to assume the worst? Of course, the chances of this occurring would only seem to increase if the United States was already involved in some sort of limited armed conflict with Russia and/or China, or if they were confronting each other from a distance in a proxy war, as unlikely as these developments may seem at the present time. The reverse might well apply too: should a nuclear terrorist attack occur in Russia or China during a period of heightened tension or even limited conflict with the United States, could Moscow and Beijing resist the pressures that might rise domestically to consider the United States as a possible perpetrator or encourager of the attack? Washington’s early response to a terrorist nuclear attack on its own soil might also raise the possibility of an unwanted (and nuclear aided) confrontation with Russia and/or China. For example, in the noise and confusion during the immediate aftermath of the terrorist nuclear attack, the U.S. president might be expected to place the country’s armed forces, including its nuclear arsenal, on a higher stage of alert. In such a tense environment, when careful planning runs up against the friction of reality, it is just possible that Moscow and/or China might mistakenly read this as a sign of U.S. intentions to use force (and possibly nuclear force) against them. In that situation, the temptations to preempt such actions might grow, although it must be admitted that any preemption would probably still meet with a devastating response.

#### And causes US nuclear lashout

Lt Col Henry W **Conley 3** (Chief of the Systems Analysis Branch, Directorate of Requirements, Headquarters Air Combat Command (ACC), Langley AFB, Virginia, http://www.airpower.maxwell.af.mil/airchronicles/apj/apj03/spr03/conley.html)

The number of American casualties suffered due to a WMD attack may well be the most important variable in determining the nature of the US reprisal. A key question here is how many Americans would have to be killed to prompt a massive response by the United States. The bombing of marines in Lebanon, the Oklahoma City bombing, and the downing of Pan Am Flight 103 each resulted in a casualty count of roughly the same magnitude (150–300 deaths). Although these events caused anger and a desire for retaliation among the American public, they prompted no serious call for massive or nuclear retaliation. The body count from a single biological attack could easily be one or two orders of magnitude higher than the casualties caused by these events. Using the rule of proportionality as a guide, one could justifiably debate whether the United States should use massive force in responding to an event that resulted in only a few thousand deaths. However, what if the casualty count was around 300,000? Such an unthinkable result from a single CBW incident is not beyond the realm of possibility: “According to the U.S. Congress Office of Technology Assessment, 100 kg of anthrax spores delivered by an efficient aerosol generator on a large urban target would be between two and six times as lethal as a one megaton thermo-nuclear bomb.” Would the deaths of 300,000 Americans be enough to trigger a nuclear response**?** In this case, proportionality does not rule out the use of nuclear weapons. Besides simply the total number of casualties, the types of casualties- predominantly military versus civilian- will also affect the nature and scope of the US reprisal action. Military combat entails known risks, and the emotions resulting from a significant number of military casualties are not likely to be as forceful as they would be if the attack were against civilians.World War II provides perhaps the best examples for the kind of event or circumstance that would have to take place to trigger a nuclear response. A CBW event that produced a shock and death toll roughly equivalent to those arising from the attack on Pearl Harbor might be sufficient to prompt a nuclear retaliation. President Harry Truman’s decision to drop atomic bombs on Hiroshima and Nagasaki- based upon a calculation that up to one million casualties might be incurred in an invasion of the Japanese homeland47- is an example of the kind of thought process that would have to occur prior to a nuclear response to a CBW event. Victor Utgoff suggests that **“**if nuclear retaliation is seen at the time to offer the best prospects for suppressing further CB attacks and speeding the defeat of the aggressor, and if the original attacks had caused severe damage that had outraged American or allied publics, nuclear retaliation would be more than just a possibility, whatever promises had been made**.”**

#### Dispersal of weapons material causes microprolif – extinction

Carrico, Lecturer – UC Berkeley, Fellow Institute for Ethics and Emerging Technologies – SF Art Institute, PhD Rhetoric – Berkeley, ‘6

(Dale, <http://amormundi.blogspot.com/2006/03/technology-and-terror.html>)

"Key technologies of the future -— in particular, genetic engineering, nanotech, and robotics (or GNR) because they are self-replicating and increasingly easier to craft —- would be radically more dangerous than technologies of the past," writes Lessig in terms that evoke an earlier [essay](http://www.wired.com/wired/archive/8.04/joy.html) by Bill Joy, but the technophobic conclusions of which Lessig significantly rejects. "It is impossibly hard to build an atomic bomb; when you build one, you've built just one. But the equivalent evil implanted in a malevolent virus will become easier to build, and if built, could become self-replicating. This is P2P (peer-to-peer) meets WMD (weapons of mass destruction), producing IDDs (insanely destructive devices)."  
Rorty writes in a similar vein that "[w]ithin a year or two, suitcase-sized nuclear weapons (crafted in Pakistan or North Korea) may be commercially available. Eager customers will include not only rich playboys like Osama bin Laden but also the leaders of various irredentist movements that have metamorphosed into well-financed criminal gangs. Once such weapons are used in Europe, whatever measures the interior ministers have previously agreed to propose will seem inadequate."   
It is probably inevitable that discussions of the threat of weaponized emerging technologies will reflect the distress of the so-called contemporary "War on Terror." But it is important to recognize that present-day terrorism, however devastating, is a timid anticipation of the dangers and dilemmas to come. The March 11, 2004 Madrid attacks made use of conventional explosives, and the September 11, 2001 attacks in the United States involved the crude hijacking and repurposing of fuel-fat jets as missiles.   
To the extent that these attacks have provoked as a response (or worse, have provided a pretext for) "preemptive" and essentially unilateral military adventures abroad, and assaults on civil liberties at home, it is increasingly difficult to maintain much hope that we are mature enough as a civilization to cope with the forces we have ourselves set in motion.   
**Regulation Between Relinquishment and Resignation**  
Both Lessig and Rorty anticipate that when confronted with the horrifying reality or even simply the *prospect* of new technological threats the first impulse of the North Atlantic democracies is almost certain to be misguided compensatory expansions of state surveillance and control.   
Both essays point to the likely futility of such efforts to perfectly police the creation and traffic of unprecedented technologies. In the worst case, with Lessig's designer pathogen or with the [goo bestiary](http://www.homoexcelsior.com/omega.db/toc/N__) that preoccupies the nightmares of nanotech Cassandras (and don't forget the actual story: Cassandra was *right!*), we are confronted with the prospect of new massively destructive technologies that might be cooked up in obscure laboratories at comparably modest costs, using easily obtainable materials, employing techniques in the public domain, and distributed via stealthy networks.   
In the Bill Joy essay that inspired Lessig's piece, the epic scale of the threats posed by emerging technologies prompted Joy to recommend banning their development altogether. The typical rejoinder to Joy's own proposal of "relinquishment," of a principled (or panic-stricken) pre-emptive ban on these unprecedentedly destructive technological capacities is that it is absolutely unenforceable, and hence would too likely shift the development and use of such technologies to precisely the least scrupulous people and least regulated conditions. And all of this would, of course, exacerbate the very risks any such well-meaning but misguided ban would have been enacted to reduce in the first place.   
Definitely I agree with this rejoinder, but it's important not to misapply its insights. The fact that laws prohibiting murder don't perfectly eliminate the crime scarcely recommends we should strike these laws off the books. If Joy's technological relinquishment was the best or only hope for humanity's survival, then we would of course be obliged to pursue it whatever the challenges.   
But surely the stronger reason to question relinquishment is simply that it would deny us the extraordinary benefits of emerging technologies -— spectacularly safe, strong, cheap materials and manufactured goods; abundant foodstuffs; new renewable energy technologies; and incomparably effective medical interventions.   
Technophiles often seem altogether too eager to claim that technological regulation is unenforceable, or that developmental outcomes they happen to desire themselves are "inevitable." But of course the shape that development will take —- its pace, distribution, and deployments -— is anything but inevitable in fact. And all technological development is obviously and absolutely susceptible to [regulation](http://cyber.law.harvard.edu/works/lessig/laws_cyberspace.pdf), for good or ill, by laws, norms, market forces and structural limits.   
Market libertarian technophiles such as Ronald Bailey sometimes [seem to suggest](http://www.reason.com/rb/rb033104.shtml) that any effort to regulate technological development at all is tantamount to Joy's desire to ban it altogether. Bailey counters both Joy's relinquishment thesis and Lessig's more modest proposals with a faith that "robust" science on its own is best able to defend against the threats science itself unleashes. This is an argument and even a profession I largely share with him, but only to the extent that we recognize just how much of what makes science "robust" is produced and maintained in the context of well-supported research traditions, stable institutions, steady funding and rigorous oversight, most of which look quite like the "regulation" that negative libertarians otherwise rail against. For me, robust scientific culture looks like the [fragile attainment](http://amormundi.blogspot.com/2005/07/is-science-democratic.html) of democratic civilization, not some "spontaneous order."   
So too "deregulation" is a tactic that is obviously *occasionally* useful within the context of a broader commitment to reform and good regulation. But treated as an end in itself the interminable market fundamentalist drumbeat of "deregulation" -— so [prevalent](http://amormundi.blogspot.com/2005/04/pxiv-revenge-of-crystal-or-who-are.html) among especially American technophiles —- amounts to an advocacy of lawlessness. Does this really seem the best time to call for lawlessness? Market libertarian ideologues often promote a policy of "market-naturalist" resignation that seems to me exactly as disastrous in its consequences as Joy's recommendation of relinquishment.   
In fact, the consequence of both policies seems precisely the same —- to abandon technological development to the least scrupulous, least deliberative, least accountable forces on offer. My point is not to demonize commerce, of course, but simply to recognize that good governance encourages good and discourages antisocial business practices, while a healthy business climate is likewise the best buttress to good democratic governance.   
While I am quite happy to leave the question of just which toothbrush consumers prefer to market forces, it seems to me a kind of lunacy to suggest that the answer to coping with emerging existential technological threats is, "Let the market decide." What we need is neither resignation nor relinquishment, but critical deliberation and reasonable regulation. What we need is Regulation between Relinquishment and Resignation (RRR).   
**Resources for Hope?**  
Lessig and Rorty make different but complementary recommendations in the face of the dreadful quandaries of cheap and ubiquitous, massively destructive emerging technologies. Taken together, these recommendations provide what looks to me like the basis for a more reasonable and hopeful strategy.  
Rorty insists, first and foremost, that citizens in the North Atlantic democracies must challenge what he describes as "the culture of government secrecy":   
"Demands for government openness should start in the areas of nuclear weaponry and of intelligence-gathering," which are, he points out, "the places where the post-World War Two obsession with secrecy began." More specifically, we must demand that our governments "publish the facts about their stockpiles of weapons of mass destruction [and] make public the details of two sets of planned responses: one to the use of such weapons by other governments, and another for their use by criminal gangs such as al-Qaida."  
He goes on to point out that "[i]f Western governments were made to disclose and discuss what they plan to do in various sorts of emergency, it would at least be slightly harder for demagogic leaders to argue that the most recent attack justifies them in doing whatever they like. Crises are less likely to produce institutional change, and to have unpredictable results, if they have been foreseen and publicly discussed."   
Never has the need for global collaboration been more conspicuous. Never has the need to unleash the collective, creative, critical intelligence of humanity been more urgent. And yet the contemporary culture of the "War on Terror" has seemed downright hostile to intelligence in all its forms. Efforts to understand the social conditions that promote terror are regularly dismissed as "appeasement." Critical thinking about our response to terror is routinely denigrated as "treason." Authorities strive to insulate their conduct from criticism and scrutiny behind veils of secrecy in the name of "security." (And all of this is depressingly of a piece, of course, with the current Bush Administration's assaults on consensus environmental science, genetic research, effective sex education, and all the rest.)   
It is no wonder so many of us fear the "War on Terror" quite as much as we fear terrorism itself. But how much more damaging than the self-defeating and authoritarian responses to conventional terrorism can we expect the response to the emerging threats of Lessig's "Insanely Destructive Devices" to be?  
When devastating technologies become cheap and ubiquitous we must redress the social discontent that makes their misuse seem justifiable to more people than we can ever hope to manage or police. Since we cannot hope to halt the development of all the cheap, disastrously weaponizable technologies on the horizon, nor can we hope to perfectly control their every use, Lessig suggests that "perhaps the rational response is to reduce the incentives to attack... maybe we should focus on ways to eliminate the reasons to annihilate us." Fantasies of an absolute control over these technologies, or of an absolute control through technology (SDI, TIA, and its epigones, anyone?), are sure to exacerbate the very discontent that will make their misuse more widespread.   
Anticipating the inevitable objection, Lessig is quick to point out that "[c]razies, of course, can't be reasoned with. But we can reduce the incentives to become a crazy. We could reduce the reasonableness -— from a certain perspective -— for finding ways to destroy us." Criminals, fanatics and madmen are in fact a manageable minority in any culture. (Racist know-nothing slogans to the contrary about a so-called epic and epochal "Clash of Civilizations" deserve our utter contempt.) Although there is no question that Lessig's "Insanely Destructive Devices" could still do irreparable occasional harm in their hands, it is profoundly misleading to focus on the threats posed by crazy and criminal minorities when it is as often as not the exploitation of legitimate social discontent that makes it possible for lone gunmen to recruit armies to their "causes."   
Lessig concludes that "[t]here's a logic to p2p threats that we as a society don't yet get. Like the record companies against the Internet, our first response is war. But like the record companies, that response will be either futile or self-destructive. If you can't control the supply of IDDs, then the right response is to reduce the demand for IDDs. [Instead, America's] present course of unilateral cowboyism will continue to produce generations of angry souls seeking revenge on us."  
For generations, progressives have sought to ameliorate the suffering of the wretched of the Earth. We have struggled to diminish poverty, widen the franchise, and ensure through education and shared prosperity that more and more people (though still obscenely too few people) have a personal stake as citizens in their societies. We have fought for these things because we have been moved by the tragedy of avoidable suffering, and by the unspeakable waste of intelligence, creativity and pleasure that is denied us all when any human being is oppressed into silence by poverty or tyranny.   
The emerging threat of cheap and ubiquitous, massively destructive technologies provides a new reason to redress social injustice and the discontent it inspires (for those among you who really need another reason): The existence of injustice anywhere might soon threaten you quite literally, and needlessly, with destruction.

#### Russian follow-on solves accidents on the Kola peninsula, which cause extinction

Rousseau, 12

(Associate Professor and Chairman of the Department of Political Science and International Relations at Khazar University, 3/20, Perfect Nuclear Storm Waiting To Happen In Russia’s Northwest Region, http://www.eurasiareview.com/20032012-perfect-nuclear-storm-waiting-to-happen-in-russia%E2%80%99s-northwest-region-analysis/)

The volume of radioactive material on the Kola Peninsula is equivalent to about 150 nuclear reactors and thousands of tons of depleted uranium and plutonium. There are nine radioactive waste (RW) and spent nuclear fuel (SNF) storage facilities. In addition many shipyards, where civilian ships and military submarines are built, assembled and repaired, are located on the Kola Peninsula, particularly in Murmansk, Severodvinsk (“Sevmash” and “Zvezdochka”) and Polyarny. These shipyards are an integral segment of the Russian Military Industrial Complex but also more closely connected to the Northern Fleet. In addition to the threat of radioactive pollution, the level of “conventional” pollution is also very high in that re-ion, principally due to airborne chemical pollution from the mining, steel and metallurgical industries. Unfortunately Russia has a historically dismal record of nuclear accidents and has never adequately demonstrated a capacity to cope efficiently and effectively with environmental emergencies. The risk**s of accidents on the Kola Peninsula are considerable and these could directly affect the Arctic and Scandinavian countries. The next radioactive toxic cloud formed on the Kola Peninsula might** **easily drift over Central Europe and the northern coast of Canada and even reach the U**nited **S**tates. The dreadful consequences of such an accident **would be disastrous for Russia’s future economic development**. Moreover, it would inflict enormous damage, not only on humans and the environment, but also on the reputation of a country which has made its civilian nuclear power industry the spear-head of its export and technology development. In spite of the many irregularities and deficiencies in the nuclear reactor technology, Russian reactors are still in great demand on the international market. In 2006 Rosatom announced that it wants nuclear produced energy to account for about one forth (23%) of the country’s total energy production, and approximately one third (32%) of European Russia, by 2020 [10]. To achieve this objective, the focus will be placed on the development of fast neutron reactors (FNRs), the Generation IV component of Rosatom’s future nuclear energy policy. FNRs use uranium 238 (U-238) as fuel instead of the uranium 235 (U-235) commonly used by conventional reactors, such as PWRs. The 880 MWe capacity BN-800, a FNR reactor expected to enter into operation in 2014, offers, ac-cording to Rosatom, “natural radiation safety in all credible accidents caused by internal or external impacts, including sabotage, with no need for people evacuation.” [11] Conceptually, the refueling process for these reactors is more cost-efficient and simple to operate. They use only about 1 or 2% of the natural or depleted uranium required by a comparable PWR reactor (http://www.nikiet.ru/eng/structure/mr-innovative/brest.html). FNRs will permit Russia to produce more civilian energy with less fissile material and this advantage will allow for the further use of the depleted uranium now stockpiled as a result of the dismantling of nuclear submarines and warheads under the “new” START (Strategic Arms Reduction Treaty) agreement between the Russia and the United States. This transformation is part of the Mega-ton to Megawatts Program as first initiated by the two nuclear superpowers in 1993, which aimed to kill “two birds with one stone,” i.e. to both proceed with disarmament and bring down the consumption and global price of non-renewable uranium, a resource now on the verge of being monopolized by China [12]. **However, the U.S.-Russian agreement will expire in 2013 and will have to be renegotiated.** Economies made by introducing FNRs have been earmarked for the military. The plan is to replace Russia’s Soviet-era nuclear submarines (the Typhoon class) with SSN (Ship Submersible Nuclear) Yasen-class attack submarines, also known as the Graney class and Severodvinsk class, by 2014. These new SSNs are also considered as a crucial tool for Russia to capture new arms markets. For instance, Russia is waiting for the Indian Maritime Force (IMF) to exercise its right to enforce the Indo-Russian agreement on the lease of a new Akula II class submarine, the SSN Nerpa. This 2005 deal is worth an estimated $1.8 billion to Russia. After some problems with the reactor cooling system, the Russia international News Agency (RIA Novosti) quoted a Russian Navy Staff admiral as saying, on March 16, 2011, that Russia will deliver the Nerpa to India by the end of this year. [13] Since the 1990s the Kremlin has not paid much attention to the situation at the Kola Peninsula. The only initiatives of significance taking place are the trilateral agreements with Norway and the United States, known as the “Murmansk Initiatives,” signed in 1996, and still in force. These agreements set up a fund to “improve the capability of the Russian Federation to comply with the requirements of the London Convention that prohibit ocean dumping of low-level liquid radioactive waste (LLRW)” and increase the pace of the construction of centers for the decommissioning of nuclear submarines. [14] All in all, the investment of several tens of millions of dollars still has not consistently improved the situation to an acceptable level. In Murmansk, the site for refining and disposal of Liquid Radioactive Waste (LRW) has been working for many years now and it is still involved in cleaning up what remains of the former floating technological base “Lepse.” The aftermath of the Fukushima nuclear power plant catastrophe in Japan resulted in the evacuation of all residents living within a 20 km radius of the Japanese nuclear plant, which is located in the city of Daichi. In late April 2011, the United States, Australia and South Korea, for their part, urged their citizens to move from areas within 80 km of the crippled plant, an evacuation zone which was substantially larger than the one mandated by the Japanese government. The disaster has been recognized as a perfect storm with the meltdown of three Japanese nuclear reactors, each involving approximately 300 tons of uranium. The event came as a surprise to many industry experts since it took place in such a technologically advanced country, especially one that is on the cutting edge in nuclear and earthquake mitigation engineering. Considering the **huge amount of spent fuel and depleted nuclear materials present on the Kola Peninsula**, the poor state of maintenance on land-based storage sites, the decrepit infrastructure for the safe transport of spent fuel from naval bases and the aging technology and increased possibilities for human errors, **the possible occurrence of an accident with even far more negative outcomes than the one that took place in Japan is not a far-fetched scenario**. Based on recent problems experienced at the Kola Power Plant (NPP-1), the situation on the ground should be monitored closely by the world’s leading countries and, particularly, by major European energy companies, as the nuclear reactors currently operational in Europe are very similar to those found in the KPP-1 plant and throughout the former USSR. Despite the constant warnings of environmental NGOs and European governments, the Kremlin continues to invest colossal sums in the development of a new generation of nuclear energy production and associated technology – as well as new in drilling and mining projects – thus further aggravating the environmental situation. Consequently, many Russian regions and neighboring countries are exposed to the danger of uncontrolled nuclear energy chain re-actions. Finally, in light of the new battle for Arctic oil fields, the Russian government is motivated to rejuvenate its nuclear programs and to rebuild its nuclear icebreaker fleet. When all things are considered, it is clear that **the Kola Peninsula – and the world as a whole – will continue to be at high risk for many years to come**.

## 2

#### Downblending maintains the Y-12 complex until the new Uranium Processing Facility comes online

D Ray Smith 12, member of the Oak Ridge Heritage and Preservation Association (ORHPA) and historian at the Y-12 plant at Oak Ridge, Building 9212 and the Uranium Processing Facility, part 1, May 7, <http://www.oakridger.com/article/20120507/NEWS/305079982#art-tit>

Recently, Building 9212 has been the focus of much attention regarding its suitability to continue to serve this function and how long can it be maintained sufficient to allow the highly enriched uranium processing to be done there. Regular and extensive maintenance and repair is needed to keep the building meeting requirements.

As funding was recently increased for the design and construction of the Uranium Processing Facility at the Y-12 National Security Complex, the debate increased regarding the need for a new facility to process uranium. While there are lots of opinions on nuclear weapons and nuclear energy, the facts are usually more precise, less sensational and often very straight forward.

First and foremost in all our minds is the desire to see a world without nuclear weapons being necessary to maintain peace. However, the growth of nuclear weapons, both during the Cold War and continuing even today in some countries, make it necessary that the United States continue to maintain a superior nuclear force. The peace in the world that has prevented a third world war for more than 71 years still depends on it for now.

Nuclear power is the ultimate answer to the world's ever increasing need for energy. Achieving the fusion of deuterium and tritium in the International Thermonuclear Experimental Reactor is the goal at present. More advances will be forthcoming as this clean technology moves forward. However, proven fission reactors can fill in the gap until we can achieve the ultimate energy source.

Down blending of former Soviet Union nuclear weapons material now serves as feed material for the Tennessee Valley Authority's nuclear reactors that send electricity to our homes. At least one third of the lights use electricity generated using these nuclear reactors. In some other countries nuclear power is much more extensively relied upon.

Advanced techniques in the United States are leading us to small modular reactors, one of which may well take the entire city of Oak Ridge and all the Department of Energy sites off the TVA grid in a few years. Many of the scientific research reactors around the world use highly enriched uranium and Y-12 is engaged in the creation of alternative uranium fuel for those reactors.

The Strategic Arms Reduction Treaty known as "New START" entered into force on Feb. 5, 2011. This treaty calls for the reduction of deployed nuclear warheads to 1,550. Y-12 disassembles all the nation's nuclear weapons secondaries and stores the nuclear material. This is a huge workload that will last for years to come. Suitable facilities such as UPF will be required to maintain the needed pace of this important work.

All these uranium related technological advances depend on the Y-12 National Security Complex maintaining the capability to process highly enriched uranium and other nuclear related materials. To assure the nation that the capability will remain at Y-12, the Uranium Processing Facility is being designed and constructed. It is not something that has been rushed into, it is being well thought out and planned with engineering advances and cost saving measures included.

#### That’s key to prevent capability gaps

Frank Munger 11, reporter for Knox News in Knoxville, Report: Y-12 may not meet uranium requirements by 2019, August 26, <http://www.knoxnews.com/news/2011/aug/26/report-y-12-may-not-meet-uranium-requirements-by/>

A new report raises questions of whether a 60-year-old uranium processing operation at the Y-12 nuclear weapons plant will be able to fulfill its mission requirements for another decade, when a proposed multibillion-dollar replacement facility is scheduled to come online.

The staff of the Defense Nuclear Facilities Safety Board, in a brief report dated July 22, said that B&W Y-12 — the managing contractor at Y-12 — had informed the government that the 9212 complex will be "unable to produce a sufficient quantity of purified enriched uranium metal to support customer requirements beginning in 2019." The report said B&W made the statement based on recent changes in the National Nuclear Security Administration's "Production and Planning Directive."

It's not clear whether there'll be an increased demand for purified uranium metal for weapons work and/or fuel for the U.S. Navy's fleet of nuclear-powered vessels or if the contractor's assessment is due to declining conditions at 9212 — parts of which were constructed during the World War II Manhattan Project.

"Planning and production assumptions frequently require adjustments," Steven Wyatt, a federal spokesman at Y-12, said in an email response to questions. "Our plan addresses the national security requirement to refurbish weapons or supply fuel for the U.S. Navy or research reactors."

One of the primary arguments for building a new Uranium Processing Facility is the sad shape of 9212, which the Defense Nuclear Facilities Safety Board has characterized as increasingly unsafe for workers to process highly enriched uranium. UPF is currently in the design stages, with initial construction expected to begin late next year. The National Nuclear Security Administration has estimated the new Y-12 facility would cost between $4.2 billion and $6.5 billion. An independent study by the U.S. Army Corps of Engineers reportedly said the price tag could be as high as $7.5 billion.

Millions of dollars have been spent trying to upgrade 9212 in recent years, and other investments are planned as the National Nuclear Security Administration tries to stretch the operational lifetime at 9212 until UPF comes online. Initial operations of UPF are projected for 2021, with full operations by 2024, but those dates depend on congressional approval and funding.

"NNSA monitors and analyzes near- and long-term capacity needed for the production of HEU (highly enriched uranium) metal to support all customer requirements," Wyatt said. "The 2019 date referenced (in the safety board report) was a formal communication from B&W Y-12 to the Y-12 Site Office stating that if no changes to current practices are made, an issue would arise eight years from now."

B&W is evaluating actions that could be taken to increase production of enriched uranium metal, according to the Defense Nuclear Facilities Safety Board report.

The safety board said the production issue is exacerbated by a "capability gap" created by the government's plan to shut down some operations at 9212 before starting up the equivalent operations at UPF.

The report noted that "numerous" equipment problems during the past year had "significantly hampered" operations associated with enriched uranium purification and metal production at the 9212 complex.

According to the report, key equipment or processes were shut down for lengthy periods. Those included the intermediate evaporator (4 months); oxide dissolver (3 months); oxide conversion (7 months); and reduction process (5 months).

"The serial nature of these operations compounds the overall operational impact of these equipment issues," the report said.

#### And we free up critical space at the facility

Drake, 8

(POGO Analyst, “Deciphering NNSA's Complex Transformation,” 6/23, http://thebulletin.org/web-edition/features/deciphering-nnsas-complex-transformation)

With great fanfare in 2005, the NNSA declared an additional 200 metric tons of HEU unnecessary for the weapons program. But it turned out only 20 metric tons would be downblended--most of the remainder would be stored for nuclear naval fuel. In total, since 1994, when then Energy Secretary Hazel O'Leary declared 174 metric tons of HEU excess. Since then, only 20 metric tons of additional quantities of HEU have actually been declared excess. And of that 194 metric tons, only about one-half has been downblended. Thus, instead of declaring most of the HEU inventory at Y-12 excess and downblending it, Energy will store it at the site's Highly Enriched Uranium Materials Facility when it's completed in later this year. **If it were downblended, adequate space would exist at the facility to accommodate the proposed functions of the Uranium Processing Facility**, saving about $3.5 billion in construction costs. POGO has learned from sources at Nuclear Fuel Services in Tennessee and the Nuclear Products Division of BWXT in Virginia that they have plenty of downblending capacity. But the NNSA hasn't used Complex Transformation to set any future downblending goals. In fact, a senior NNSA official told us during a recent meeting that downblending had nothing to do with Complex Transformation.

#### That space can be used for the facility’s other missions

Civiak, 9

(Ph.D. in physics from the University of Pittsburgh & Former visiting scientist at Lawrence Livermore National Laboratory, “Transforming the U.S. Strategic Posture and Weapons Complex for Transition to a Nuclear Weapons-Free World,” April, http://docs.nrdc.org/nuclear/files/nuc\_09040701a.pdf)

We believe that NNSA should move more rapidly to consolidate HEU storage into the HEUMF and to close down the old storage facilities. Furthermore, we recommend that NNSA promptly **blend down all excess HEU** to an enrichment level of less than 20 percent U-235, at which point it could treat the product as low enriched uranium (LEU). LEU cannot be used as readily for making nuclear weapons as HEU and the security requirements for storing LEU are much lower. LEU would not have to be stored in the HEUMF. It could be stored outside the high security area at Y-12, sold for use in power reactors, or moved to medium security facilities elsewhere. Since downblending HEU to LEU would **reduce the amount of material that would ultimately have to be stored in the HEUMF, a portion of that facility could be used to add blending capacity or other processing operations that could speed the ability of Y-12 to process and eliminate its excess inventory of HEU**. In addition, the Nuclear Fuel Services Plant in Erwin, TN, which is now owned by Babcock and Wilcox (B&W), and B&W’s Nuclear Products Division in Lynchburg, VA, both have excess capacity for downblending HEU to LEU that could be applied to the process. Under our plan, all HEU—except that in weapons in the stockpile; in a two metric ton working inventory of HEU for fabrication of replacement components, if necessary; and in a 50-year reserve held to fuel US naval vessels—would be blended down to LEU. Depending on how much HEU is retained for the U.S. Navy; it might take about a decade beyond 2020 to finish the dismantlement and blending operations. Thus, some facilities at Y-12 may have to stay in operation that long. However, we believe this would not stand in the way of moving Y-12’s remaining nuclear warhead support functions to LANL once the stockpile is reduced to 500 warheads or less. Once the stockpile support mission is moved out of Y-12 and NNSA completes the dismantlement of excess CSAs, which we anticipate could occur in 2025, Y-12 could become an excess HEU storage, processing, and downblending facility and it would no longer be considered part of the weapons complex. Moving the stockpile support mission from Y-12 and moving additional processing activities into the HEUMF as HEU is removed will greatly reduce the extent of operations in the old facilities at the site. At some point, the only remaining HEU at Y-12 would be the stockpile held for the Navy. That too might eventually be moved to another facility, or eliminated, if the Navy were to switch from using HEU fuel.

#### Key to nuclear maintenance

D Ray Smith 12, member of the Oak Ridge Heritage and Preservation Association (ORHPA) and historian at the Y-12 plant at Oak Ridge, Y‐12’s Building 9212 and the Uranium Processing Facility, part 2, May 11, <http://www.y12.doe.gov/library/pdf/about/history/2012-05-11.pdf>

At present Y‐12 is operating highly enriched uranium processing in a series of buildings that have long since outlived their intended lifespan. Multiple renovations, repairs and increased cost of upkeep have become the experienced norm for Building 9212 and other old World War II era and early Cold War era structures used for highly enriched uranium processing. None of these structures were designed for uranium processing as it is needed today. The ten separate wings of Building 9212 resulted from expanding into the spaces between the four original wings and adding E and E1 wings. Never would a facility be designed like that today to process uranium. Yet, the workers at Y‐12 have, for years, managed to sustain the Y‐12 “Can Do” attitude and generate high quality nuclear work in facilities that were, of necessity, modified to meet safety requirements and altered to work around substantial and unavoidable productivity hurdles. Building 9212 and associated facilities were my maintenance responsibility several years back now. At that time considerable modifications and improvements to the work flow were made to the extent possible and practical. The necessary adaptations needed in these older facilities would not be required in the new and appropriately designed UPF. In the interim years to the completion of UPF, these aged facilities of Building 9212 and associated structures will continue to be maintained for safe use. Repairs and modifications will continue to be required just to keep going until an appropriately designed facility can be constructed and made operational. The work is not to modernize Building 9212; that is not feasible and cannot be done. It is merely shoring up deteriorated aspects of the structure. Finally, Y‐12 has not built a newly designed nuclear weapon for well over 20 years. The existing active nuclear weapons secondaries are brought back to Y‐12 as needed for specific actions normally referred to as “life extension” programs. The enriched uranium from previously disassembled nuclear weapons is recycled as needed and is used as fuel for the nation’s nuclear navy and research reactors as well as down blending to be used in nuclear power reactors. Y‐12 is a far cry from what is less and less frequently thought of now as a “bomb plant.” It has transitioned into a multifaceted state‐of‐the‐art national nuclear security enterprise. In addition to being the nation’s Uranium Center of Excellence and National Prototype Center, Y‐12 leads the way in advanced, precision machining and measurement. Additionally, training is provided for many National Guard units and police forces in the detection and handling of nuclear materials. Y‐12’s missions remain vital to the world’s security, safety and freedom. Efforts to ensure nuclear materials are kept safe from terrorists continue, with materials being removed from former Soviet Union locations, Libya, Chile and, most recently, Mexico. Whenever the United States finds and purchases highly enriched uranium, Y‐12 is sent to safely and securely retrieve it. Y‐12 continues to disassemble the secondaries from every weapon removed from active status. And, as the nation’s nuclear weapon arsenal is being reduced from tens of thousands to 1,550 active weapons, Y‐12’s workload remains high. The need for the UPF increases with the workload. In summary, the facts support the UPF as a key element in our nation’s nuclear strategy. UPF will provide all of the nation's uranium processing needs, including nuclear weapons, protecting and finding peaceful and productive uses for our nation's nuclear stockpile, fueling the nuclear Navy, and supplying fuel for nuclear research reactors.

#### Weak stockpile stewardship causes miscalc and collapses deterrence—escalates to WMD warfare

John P. Caves 10, Senior Research Fellow in the Center for the Study of Weapons of Mass Destruction at the National Defense University, “Avoiding a Crisis of Confidence in the U.S. Nuclear Deterrent”, <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ada514285>

Perceptions of a compromised U.S. nuclear deterrent as described above would have profound policy implications, particularly if they emerge at a time when a nucleararmed great power is pursuing a more aggressive strategy toward U.S. allies and partners in its region in a bid to enhance its regional and global clout. ■ A dangerous period of vulnerability would open for the United States and those nations that depend on U.S. protection while the United States attempted to rectify the problems with its nuclear forces. As it would take more than a decade for the United States to produce new nuclear weapons, ensuing events could preclude a return to anything like the status quo ante. ■ The assertive, nuclear-armed great power, and other major adversaries, could be willing to challenge U.S. interests more directly in the expectation that the United States would be less prepared to threaten or deliver a military response that could lead to direct conflict. They will want to keep the United States from reclaiming its earlier power position. ■ Allies and partners who have relied upon explicit or implicit assurances of U.S. nuclear protection as a foundation of their security could lose faith in those assurances. They could compensate by accommodating U.S. rivals, especially in the short term, or acquiring their own nuclear deterrents, which in most cases could be accomplished only over the mid- to long term. A more nuclear world would likely ensue over a period of years. ■ Important U.S. interests could be compromised or abandoned, or a major war could occur as adversaries and/or the United States miscalculate new boundaries of deterrence and provocation. At worst, war could lead to state-on-state employment of weapons of mass destruction (WMD) on a scale far more catastrophic than what nuclear-armed terrorists alone could inflict. Continuing Salience of Nuclear Weapons Nuclear weapons, like all instruments of national security, are a means to an end— national security—rather than an end in themselves. Because of the catastrophic destruction they can inflict, resort to nuclear weapons should be contemplated only when necessary to defend the Nation’s vital interests, to include the security of our allies, and/or in response to comparable destruction inflicted upon the Nation or our allies, almost certainly by WMD. The retention, reduction, or elimination of nuclear weapons must be evaluated in terms of their contribution to national security, and in particular the extent to which they contribute to the avoidance of circumstances that would lead to their employment. Avoiding the circumstances that could lead to the employment of nuclear weapons involves many efforts across a broad front, many outside the military arena. Among such efforts are reducing the number of nuclear weapons to the level needed for national security; maintaining a nuclear weapons posture that minimizes the likelihood of inadvertent, unauthorized, or illconsidered use; improving the security of existing nuclear weapons and related capabilities; reducing incentives and closing off avenues for the proliferation of nuclear and other WMD to state and nonstate actors, including with regard to fissile material production and nuclear testing; enhancing the means to detect and interdict the transfer of nuclear and other WMD and related materials and capabilities; and strength ening our capacity to defend against nuclear and other WMD use. For as long as the United States will depend upon nuclear weapons for its national security, those forces will need to be reliable, adequate, and credible. Today, the United States fields the most capable strategic nuclear forces in the world and possesses globally recognized superiority in any conventional military battlespace. No state, even a nuclear-armed near peer, rationally would directly challenge vital U.S. interests today for fear of inviting decisive defeat of its conventional forces and risking nuclear escalation from which it could not hope to claim anything resembling victory. But power relationships are never static, and current realities and trends make the scenario described above conceivable unless corrective steps are taken by the current administration and Congress. Consider the challenge posed by China. It is transforming its conventional military forces to be able to project power and compete militarily with the United States in East Asia, 1 and is the only recognized nuclear weapons state today that is both modernizing and expanding its nuclear forces. 2 It weathered the 2008 financial crisis relatively well, avoiding a recession and already resuming robust economic growth. 3 Most economists expect that factors such as openness to foreign investment, high savings rates, infrastructure investments, rising productivity, and the ability to leverage access to a large and growing market in commercial diplomacy are likely to sustain robust economic growth for many years to come, affording China increasing resources to devote to a continued, broadbased modernization and expansion of its military capabilities. In contrast, the 2008 financial crisis was the most severe for the United States since the Great Depression, 4 and it led in 2009 to the largest Federal budget deficit—by far—since the Second World War 5 (much of which is financed by borrowing from China). Continuing U.S. military operations in Iraq and Afghanistan are expensive, as will be the necessary refurbishment of U.S. forces when those con flicts end. Those military expenses, however, are expected to be eclipsed by the burgeoning entitlement costs of the aging U.S. “baby boomer” generation. 6 As The Economist recently observed: China’s military build-up in the past decade has been as spectacular as its economic growth. . . . There are growing worries in Washington, DC, that China’s military power could challenge America’s wider military dominance in the region. China insists there is nothing to worry about. But even if its leadership has no plans to displace American power in Asia . . . America is right to fret this could change. 7 As an emerging nuclear-armed near peer like China narrows the wide military power gap that currently separates it from the United States, Washington could find itself more, rather than less, reliant upon its nuclear forces to deter and contain potential challenges from great power competitors. The resulting security dynamics may resemble the Cold War more than the U.S. “unipolar moment” of the 1990s and early 2000s. Concerns about Longterm Reliability With continuing U.S. dependence upon nuclear forces to deter conflict and contain challenges from (re-)emerging great power(s), perceptions of the reliability, adequacy, and credibility of those forces will determine how well they serve those purposes. Perception is all important when it comes to nuclear weapons, which have not been operationally employed since 1945 and not tested (by the United States) since 1992, and, hopefully, will never have to be employed or tested again. If U.S. nuclear forces are to deter other nuclear-armed great powers, the individual weapons must be perceived to work as intended (reliability), the overall forces must be perceived as adequate to deny the adversary the achievement of his goals regardless of his actions (adequacy), and U.S. leadership must be perceived as prepared to employ the forces under conditions that it has communicated via its declaratory policy (credibility) These perceptions must be, of course, those of the leadership of adversaries that we seek to deter (as well as of the allies that we seek to assure), but they also need to be those of the U.S. leadership lest our leaders fail to convey the confidence and resolve necessary to shape adversaries’ perceptions to achieve deterrence. Weapons reliability is the essential foundation for deterrence since there can be no adequacy or credibility without it. Reliability is a serious emerging issue for U.S. nuclear weapons. As Secretary of Defense Robert Gates observed, “No one has designed a nuclear weapon in the United States since the 1980s, and no one has built a new one since the early 1990s.” 8 Indeed, the United States is the only nuclear weapons state party to the Nuclear Nonproliferation Treaty (NPT) that does not have the capability to produce a new nuclear warhead. 9 Russia, China, and France currently are modernizing their nuclear weapons systems, and the United Kingdom has decided to replace its current Vanguard-class ballistic missile submarines and is investing in the sustainment of its nuclear warhead maintenance and replacement capabilities. 10 In lieu of a nuclear weapons production infrastructure and nuclear testing, the United States relies upon its Stockpile Stewardship Program (utilizing computer simulation and component testing) to evaluate and validate the continued viability of existing warheads; service life extension programs to prolong the operational life of warheads (and delivery vehicles); and a stockpile of nonoperationally deployed warheads to provide spares for destructive component testing under the Stockpile Stewardship Program and a reserve to be pressed back into service to augment operationally deployed warheads, if deemed necessary. The Achilles’ heel of this current approach to ensuring the reliability of U.S. nuclear forces is the possible advent of critical systemic failure(s) in entire classes of aging warheads. That such failures could occur can be anticipated as a general matter for any aging system, particularly one that is no longer physically tested as a complete assembly. Specific failures, however, cannot be accurately forecast since the United States has no prior experience with warheads of this age. The potential for such failures emerging is increased by the relatively narrow performance margins to which the warheads were engineered by Cold War nuclear weapons designers tasked with maximizing the number and explosive power of warheads that could be delivered by a ballistic missile. 11 U.S. nuclear weapons scientists have warned of this problem for years. 12 The preceding administration proposed to address this problem by reconstituting and exercising the infrastructure needed to develop and produce nuclear weapons. The proposal involved both facilities (consolidation, refurbishment, and replacement), work force (maintenance of highly specialized nuclear weapons skills), and nuclear weapons design, development, and production work (for refurbishment and replacement of existing warheads). The Department of Energy’s National Nuclear Security Administration, which is responsible for the nuclear weapons infrastructure, expected that the infrastructure transformation plan could be implemented within its existing budget projections if the savings realized from the plan were allowed to be reinvested into the infrastructure. 13 While some aspects of the proposed new infrastructure have moved forward (for example, the National Ignition Facility), much of the plan has not because Congress has declined to provide the requisite funding.

#### Key to prevent great power wars

Morgan and Paul 9

Patrick Morgan, UC Irvine Peace Research Professor, Global Peace and Conflict Studies Center Director, and Paul, McGill University IR Professor, 2009, Complex Deterrence: Strategy in the global age p 9-11

Among the great powers (the five permanent members of the United Nations Security Council), nuclear weapons are largely seen as a hedge against the emergence of great-power conflict in the future. The great-power relationships in the post-cold war era are characterized by "recessed general deterrence," or dissuasion, in which states do not expect immediate militarized conflict, but weapons are kept in the background as insurance given the inherent uncertainties of world politics. The end of the cold war witnessed substantial changes in the deterrence dynamics involving great powers, and, as a result, general deterrence and dissuasion became operational concepts. Although they do maintain large arsenals, neither the United States nor Russia is presumed to hold automatic launch-on-warning attack plans anymore, although some of the elements of the previous era are continuing. In addition, they have reduced the number of weapons they possess, although the numbers still exceed a minimum nuclear deterrence posture. The three other old nuclear powers - China, the United Kingdom, and France - also have been maintaining their smaller arsenals, but this might change as Chinese nuclear force modernization plans come to fruition in the coming decades. The logic behind the maintenance of nuclear capabilities is that the great powers want to be prepared in case their relations deteriorate in the future. Nuclear capability can also be construed as an assurance against the expansionist pathologies of great powers as described in perspectives such as offensive realism. Moreover, uncertainties in Russia and China give pause to western nuclear powers, while, for Moscow, the fear of American influence in its former spheres in Eastern Europe and Central Asia is the cardinal source of anxiety. For the rising power, China, nuclear weapons offer a major insurance against direct assault on its strategic sphere, allowing it to rise peacefully. Nuclear weapons also offer a limited but crucial deterrent against potential conflict escalation between the United states and China involving Taiwan. The great-power deterrence calculations are thus based on "recessed general deterrence" as well as "existential deterrence": no immediate expectations of war exist among them. However, as Patrick Morgan states, "if serious conflicts emerge again, then deterrence will be in vogue-if not, at least for a lengthy period, then deterrence will operate offstage, held in reserve, and will not be the cornerstone of security management for the system." this does not mean that the relations in the US-Russia and US-China dyads would remain the same in the long run. Power transition has invariably been turbulent in the international system, and herein lies the role that nuclear weapons may play in deterring a transition war. US-Russia relations could deteriorate, and deterrence could become more relevant if tensions build up over the establishment of missile defense in Eastern Europe and over Russian efforts to repudiate major arms-control agreements in its effort to regain its lost superpower status. As discussed in Morgan and Paul's chapter in this volume, nuclear deterrence in this context has offered the major powers greater maneuverability. It has allowed the major power states to sustain the credentials as system managers and has prevented the emergence of active security dilemmas among them that can be caused by conventional arms races and technological breakthroughs. Absent the fear of existential wars, the potentially rival states have engaged in greater economic interactions. The increasing trade relations between the United States and China and China and India, an emerging power, suggest that general nuclear deterrence may offer economic spin-off benefits. To some extent, the stability in relations among the great powers, with no war in sight between them, points to the pacifying role that nuclear weapons may be playing, although other causes are present as well. In that sense, nuclear weapons may act as crucial factors in preventing a power-transition war akin to those that the world experienced in the nineteenth and twentieth centuries. For Russia, the superpower that declined, nuclear deterrence offers an opportunity not to be excessively alarmed by the expansion of the North Atlantic Treaty Organization.

#### Solves escalation of impacts

Robinson 1

Paul Robinson, Sandia National Lab President and Director, 2001, "Pursuing a New Nuclear Weapons Policy for the 21st Century," <http://www.nukewatch.org/importantdocs/resources/pursuing_a_new_nuclear_weapons_p.html>

Let me first stress that nuclear arms must never be thought of as a single “cure-all” for security concerns. For the past 20 years, only 10 percent of the U.S. defense budget has been spent on nuclear forces. The other 90 percent is for “war fighting” capabilities. Indeed, conflicts have continued to break out every few years in various regions of the globe, and these nonnuclear capabilities have been regularly employed. By contrast, we have not used nuclear weapons in conflict since World War II. This is an important distinction for us to emphasize as an element of U.S. defense policy, and one not well understood by the public at large. Nuclear weapons must never be considered as war fighting tools. Rather we should rely on the catastrophic nature of nuclear weapons to achieve war prevention, to prevent a conflict from escalating (e.g., to the use of weapons of mass destruction), or to help achieve war termination when it cannot be achieved by other means, e.g., if the enemy has already escalated the conflict through the use of weapons of mass destruction. Conventional armaments and forces will remain the backbone of U.S. defense forces, but the inherent threat to escalate to nuclear use can help to prevent conflicts from ever starting, can prevent their escalation, as well as bring these conflicts to a swift and certain end. In contrast to the situation facing Russia, I believe we cannot place an over-reliance on nuclear weapons, but that we must maintain adequate conventional capabilities to manage regional conflicts in any part of the world. Noting that the U.S. has always considered nuclear weapons as “weapons of last resort,” we need to give constant attention to improving conventional munitions in order to raise the threshold for which we would ever consider nuclear use. It is just as important for our policy makers to understand these interfaces as it is for our commanders. Defenses Although it is beyond the scope of this paper to strictly consider “defensive” tactics and armaments, I believe it is important for the United States to consider a continuum of defensive capabilities, from boost phase intercept to terminal defenses. Defenses have always been an important element of war fighting, and are likely to be so when defending against missiles. Defenses will also provide value in deterring conflicts or limiting escalations. Moreover, the existence of a credible defense to blunt attacks by armaments emanating from a rogue state could well eliminate that rogue nation’s ability to dissuade the U.S. from taking military actions. If any attack against the U.S., its allies, or its forces should be undertaken with nuclear weapons or other weapons of mass destruction, there should be no doubt in the attacker’s mind that the United States might retaliate for such an attack with nuclear weapons; but the choice would be in our hands. If high effectiveness defenses can be achieved, they will enhance deterrence by eliminating an aggressor’s confidence in attacking the U.S. homeland with long-range missiles, and thus make our use of nuclear weapons more credible (if the conflict could not be terminated otherwise.) Whereas, nuclear weapons should always remain weapons of last resort, defensive systems would likely be our weapons of first resort. Nuclear Weapons: An Enduring Strategic Tool? Throughout my career, I have had the opportunity to participate in a number of “war games” in which the roles and uses of nuclear weapons had to be faced in scenarios that imagined military conflicts developing between the U.S. and other potential adversaries. The totality of those games brought new realizations as to the role and purpose of nuclear weapons, in particular, how essential it is that deterrence be tailored in a different way for each potential aggressor nation. It also seemed abundantly clear that any use of nuclear weapons is, and always will be, strategic. Thus, I would propose we ban the term “nonstrategic nuclear weapons” as a non sequitur. The intensity of the environment of any war game also demonstrates just how critical it is for the U.S. to have thought through in advance exactly what messages we would want to send to other nations (combatants and noncombatants) and to “history,” should there be any future use of nuclear weapons—including threatened use—in conflicts. Similarly, it is obvious that we must have policies that are well thought through in advance as to the role of nuclear weapons in deterring the use of, or retaliating for the use of, all weapons of mass destruction. Let me then state my most important conclusion directly: I believe nuclear weapons must have an abiding place in the international scene for the foreseeable future. I believe that the world, in fact, would become more dangerous, not less dangerous, were U.S. nuclear weapons to be absent. The most important role for our nuclear weapons is to serve as a “sobering force,” one that can cap the level of destruction of military conflicts and thus force all sides to come to their senses. This is the enduring purpose of U.S. nuclear weapons in the post-Cold War world. I regret that we have not yet captured such thinking in our public statements as to why the U.S. will retain nuclear deterrence as a cornerstone of our defense policy, and urge that we do so in the upcoming Nuclear Posture Review. Nuclear deterrence becomes in my view a “countervailing” force and, in fact, a potent antidote to military aggression on the part of nations. But to succeed in harnessing this power, effective nuclear weapons strategies and policies are necessary ingredients to help shape and maintain a stable and peaceful world.

#### Collapse of US deterrence causes CBW and EMP attacks that cause extinction

Schneider, 8

(National Institute for Public Policy, “The Future of the U.S. nuclear deterrent,” Comparative Strategy 27.4, ebscohost)

Today, the United States, the world’s only superpower with global responsibilities, is the only nuclear weapons state that is seriously debating (admittedly largely inside the beltway) about whether the United States should retain a nuclear deterrent. By contrast, the British Labour Government has decided to retain and modernize its nuclear deterrent. In every other nuclear weapons state—Russia, China, France, India, Pakistan, and allegedly Israel—there is general acceptance of the need for a nuclear deterrent and its modernization. Amazingly, the United States is the only nuclear-armed nation that is not modernizing its nuclear deterrent. Distinguished former leaders such a George P. Shultz, William J. Perry, Henry A. Kissinger, and Sam Nunn, despite the manifest failure of arms control to constrain the weapons of mass destruction (WMD) threat, call for “A world free of Nuclear Weapons” because “. . . the United States can address almost all of its military objectives by non-nuclear means.”1 This view ignores the monumental verification problems involved and the military implication of different types of WMD—chemical and biological (CBW) attack, including the advanced agents now available to potential enemies of the United States and our allies. A U.S. nuclear deterrent is necessary to address existing threats to the very survival of the U.S., its allies, and its armed forces if they are subject to an attack using WMD. As former Secretary of Defense Harold Brown and former Deputy Secretary of Defense John Deutch wrote in The Wall Street Journal, “However, the goal, even the aspirational goal, of eliminating all nuclear weapons is counterproductive. It will not advance substantive progress on nonproliferation; and it risks compromising the value that nuclear weapons continue to contribute, through deterrence, to U.S. security and international stability.”2 Why can’t the United States deter WMD (nuclear, chemical, biological) attack with conventional weapons? The short answer is that conventional weapons can’t deter a WMD attack because of their minuscule destructiveness compared with WMD, which are thou- sands to millions of times as lethal as conventional weapons. Existing WMD can kill millions to hundreds of millions of people in an hour, and there are national leaders who would use them against us if all they had to fear was a conventional response. The threat of nuclear electromagnetic pulse (EMP) attack, as assessed by a Congressional Commission in 2004, is so severe that one or at most a handful of EMP attacks could **demolish industrial civilization** in the United States.3 The view that conventional weapons can replace nuclear weapons in deterrence or warfighting against a state using WMD is not technically supportable. Precision-guided conventional weapons are fine substitutes for non-precision weapons, but they do not remotely possess the lethality of WMD warheads. Moreover, their effectiveness in some cases can be seriously degraded by counter-measures and they clearly are not effective against most hard and deeply buried facilities that are associated with WMD threats and national leadership protection. If deterrence of WMD attack fails, conventional weapons are unlikely to terminate adversary WMD attacks upon us and our allies or to deter escalation. Are there actual existing threats to the survival of the United States? The answer is unquestionably “yes.” Both Russia and China have the nuclear potential to destroy the United States (and our allies) and are modernizing their forces with the objective of targeting the United States.4 China is also increasing the number of its nuclear weapons.5 Russia is moving away from democracy, and China remains a Communist dictatorship. A number of hostile dictatorships—North Korea, Iran, and possibly Syria—have or are developing longer-range missiles, as well as chemical, biological, and nuclear weapons.6 They already have the ability to launch devastating WMD attacks against our allies and our forward deployed forces, and in time may acquire capabilities against the United States. Iran will probably have nuclear weapons within approximately 2 to 5 years.7 The United States already faces a chemical and biological weapons threat despite arms control prohibitions. Due to arms control, we do not have an in-kind deterrent. Both Iranian and Syria acquisition of nuclear weapons could be affected by sales from North Korea, which have been reported in the press.8

#### Also key to naval power and supply of nuclear medicine

Eschenberg, 12

(Former Manager-Oak Ridge DOE Facility, 10/2, Public Meeting: THE DEFENSE NUCLEAR FACILITIES SAFETY BOARD, http://www.dnfsb.gov/sites/default/files/Board%20Activities/Public%20Hearings/2012/Factors%20That%20Could%20Affect%20Safety%20for%20the%20Uranium%20Processing%20Facility%20(UPF)%20Project%20/Transcripts/phtr\_2012102\_21006.pdf)

Today, some 70 years later, as we embark on one of the most important projects for the Department since that time, building our modern Uranium Processing Facility, a facility that's **urgently needed to maintain our nation's national security posture**. This modernization effort will accelerate the transition out of original World War II era facilities, most notably Building 9212. It has served as America's uranium processing hub for nearly 70 years. Our suite of uranium processing capabilities is nearing the end of its useful life and simply we cannot meet the nation's future critical nuclear security needs with these facilities. The consensus is clear. **We must build a Uranium Processing Facility to ensure our nation's nuclear deterrent**, to fuel our Navy's submarines and aircraft carriers, and to continue our commitment to dismantle and reprocess nuclear materials from old nuclear weapons for use today in peacetime missions, such as fueling our next generation commercial power reactors or in **research reactors for medical isotope production, to aid in the treatment and fight against cancer and other life-threatening illnesses**. The Department has greatly improved its performance in managing and delivering large first-of a-kind projects. It is fair to acknowledge that we, that is both the Department and our contractors, have learned many tough lessons over the last decade in managing these pioneering projects. The Uranium Processing Facility Project is our opportunity to put these tough lessons into application, and that's just what we're doing. We are fully committed to these foundational tenants, and I'd like to talk through some of them for you.

#### Naval power key to prevent a laundry list of wars

Eaglen 11, research fellow for national security – Heritage, and McGrath, former naval officer and director – Delex Consulting, Studies and Analysis, 5/16/’11

(Mackenzie and Bryan, “Thinking About a Day Without Sea Power: Implications for U.S. Defense Policy,” Heritage Foundation)

Global Implications. Under a scenario of dramatically reduced naval power, **the** **U**nited **S**tates **would cease to be active in any international alliances.** While it is reasonable to assume that land and air forces would be similarly reduced in this scenario, the lack of credible maritime capability to move their bulk and establish forward bases would render these forces irrelevant, even if the Army and Air Force were retained at today’s levels. In Iraq and Afghanistan today, 90 percent of material arrives by sea, although material bound for Afghanistan must then make a laborious journey by land into theater.

China’s claims on the South China Sea, previously disputed by virtually all nations in the region and routinely contested by U.S. and partner naval forces, are accepted as a fait accompli, effectively **turning the region into a “Chinese lake.”** China establishes expansive oil and gas exploration with new deepwater drilling technology and secures its local sea lanes from intervention. Korea, unified in 2017 after the implosion of the North, signs a mutual defense treaty with China and solidifies their relationship.

Japan is increasingly isolated and in 2020–2025 executes long-rumored plans to create an indigenous nuclear weapons capability.[11] By 2025, Japan has 25 mobile nuclear-armed missiles ostensibly targeting China, toward which Japan’s historical animus remains strong.

China’s entente with Russia leaves the Eurasian landmass dominated by Russia looking west and China looking east and south. Each cedes a sphere of dominance to the other and remains largely unconcerned with the events in the other’s sphere.

Worldwide, trade in foodstuffs collapses. Expanding populations in the Middle East increase pressure on their governments, which are already stressed as the breakdown in world trade disproportionately affects food importers. Piracy increases worldwide, driving food transportation costs even higher.

In the Arctic, Russia aggressively asserts its dominance and effectively shoulders out other nations with legitimate claims to seabed resources. No naval power exists to counter Russia’s claims.

India, recognizing that its previous role as a balancer to China has lost relevance with the retrenchment of the Americans, agrees to supplement Chinese naval power in the Indian Ocean and Persian Gulf to protect the flow of oil to Southeast Asia. In exchange, China agrees to exercise increased influence on its client state Pakistan.

The great typhoon of 2023 strikes Bangladesh, killing 23,000 people initially, and 200,000 more die in the subsequent weeks and months as the international community provides little humanitarian relief. Cholera and malaria are epidemic.

Iran dominates the Persian Gulf and is a nuclear power. Its navy aggressively patrols the Gulf while the Revolutionary Guard Navy harasses shipping and oil infrastructure to force Gulf Cooperation Council (GCC) countries into Tehran’s orbit. Russia supplies Iran with a steady flow of military technology and nuclear industry expertise. Lacking a regional threat, the Iranians happily control the flow of oil from the Gulf and benefit economically from the “protection” provided to other GCC nations.

In Egypt, the decade-long experiment in participatory democracy ends with the ascendance of the Muslim Brotherhood in a violent seizure of power. The United States is identified closely with the previous coalition government, and riots break out at the U.S. embassy. Americans in Egypt are left to their own devices because the U.S. has no forces in the Mediterranean capable of performing a noncombatant evacuation when the government closes major airports.

Led by Iran, a coalition of Egypt, Syria, Jordan, and Iraq attacks Israel. Over 300,000 die in six months of fighting that includes a limited nuclear exchange between Iran and Israel. Israel is defeated, and the State of Palestine is declared in its place. Massive “refugee” camps are created to house the internally displaced Israelis, but a humanitarian nightmare ensues from the inability of conquering forces to support them.

The NATO alliance is shattered. The security of European nations depends increasingly on the lack of external threats and the nuclear capability of France, Britain, and Germany, which overcame its reticence to military capability in light of America’s retrenchment. Europe depends for its energy security on Russia and Iran, which control the main supply lines and sources of oil and gas to Europe. Major European nations stand down their militaries and instead make limited contributions to a new EU military constabulary force. No European nation maintains the ability to conduct significant out-of-area operations, and Europe as a whole maintains little airlift capacity.

Implications for America’s Economy. If the United States slashed its Navy and ended its mission as a guarantor of the free flow of transoceanic goods and trade, globalized world trade would decrease substantially. As early as 1890, noted U.S. naval officer and historian Alfred Thayer Mahan described the world’s oceans as a “great highway…a wide common,” underscoring the long-running importance of the seas to trade.[12]

#### Nuclear medicine solves zoonotic disease

International Atomic Energy Agency 2011

(*Nuclear Technology Review*, <http://www.iaea.org/Publications/Reports/ntr2011.pdf>)

The development, testing, validation, and implementation of rapid and accurate **nuclear** and nuclear related **techniques for early disease diagnosis have played a major role** in improving food security. An example is the global eradication of rinderpest, which is expected to be officially declared by the Food and Agriculture Organization of the United Nations (FAO) and the World Animal Health Organisation (OIE) in 2011. Nevertheless, the world still faces challenges from other transboundary animal diseases (TADs), some of **which can potentially affect humans**. **It is vital that these diseases are diagnosed quickly**, accurately and preferably in the field, and that the appropriate control measures are subsequently implemented. New irradiation technologies for the development of safe and effective vaccines, stable and radioactive labelling, and tracing platforms for sensitive and specific pathogen identification, as well as the use of stable isotopes to monitor migratory animals, are currently being developed. When the pathogen components of the vaccine are attenuated or noninfective, **irradiated vaccines** retain their ability to **stimulate a strong immune response**. Some Member States are receiving support for the development of such vaccines for a number of TADs for which there are currently no effective vaccines. For example, vaccines are being developed against brucellosis (a widespread zoonotic disease) in Argentina and Georgia; parasitic worm infections in Ethiopia, Sudan and Sri Lanka; theileriosis in China and Turkey; trypanosomosis in India and Kenya; anaplasmosis in Thailand; and fish borne parasites in the Islamic Republic of Iran. In order to discover the causes of the adverse side effects or vaccine failures of the capripox 13 vaccine, a full genome sequencing of several field and vaccine strains has been undertaken to identify the presence or absence of the genes that might be responsible. Greater understanding of disease resistance and the role of the different genes involved in the immune response to livestock diseases will be provided by studies on the genomes of sheep and goat using DNA microarray technologies by applying phosphorus-32 and sulphur-35 labelling. This is an important step towards understanding the phenotypic and genotypic variation of farm animals.

#### Zoonotic disease causes extinction – diagnosis is key, and their impact defense doesn’t apply

Quammen, award-winning science writer, long-time columnist for *Outside* magazine for fifteen years, with work in National Geographic, Harper's, Rolling Stone, the New York Times Book Review and other periodicals, 9/29/2012

(David, “Could the next big animal-to-human disease wipe us out?,” The Guardian, pg. 29, Lexis)

Infectious disease is all around us. It's one of the basic processes that ecologists study, along with predation and competition. Predators are big beasts that eat their prey from outside. Pathogens (disease-causing agents, such as viruses) are small beasts that eat their prey from within. Although infectious disease can seem grisly and dreadful, under ordinary conditions, it's every bit as natural as what lions do to wildebeests and zebras. **But** conditions aren't always ordinary.

Just as predators have their accustomed prey, so do pathogens. And just as a lion might occasionally depart from its normal behaviour - to kill a cow instead of a wildebeest, or a human instead of a zebra - so a pathogen can shift to a new target. **Aberrations occur**. When a pathogen leaps from an animal into a person, and succeeds in establishing itself as an infectious presence, sometimes causing illness or death, the result is a zoonosis.

It's a mildly technical term, zoonosis, unfamiliar to most people, but it helps clarify the biological complexities behind the ominous headlines about swine flu, bird flu, Sars, emerging diseases in general, and the threat of a global pandemic. It's a word of the future, destined for heavy use in the 21st century.

Ebola and Marburg are zoonoses. So is bubonic plague. So was the so-called Spanish influenza of 1918-1919, which had its source in a wild aquatic bird and emerged to kill as many as 50 million people. All of the human influenzas are zoonoses. As are monkeypox, bovine tuberculosis, Lyme disease, West Nile fever, rabies and a strange new affliction called Nipah encephalitis, which has killed pigs and pig farmers in Malaysia. Each of these zoonoses reflects the action of a pathogen that can "spillover", crossing into people from other animals.

Aids is a disease of zoonotic origin caused by a virus that, having reached humans through a few accidental events in western and central Africa, now passes human-to-human. This form of interspecies leap is not rare; about 60% of all human infectious diseases currently known either cross routinely or have recently crossed between other animals and us. Some of those - notably rabies - are familiar, widespread and still horrendously lethal, killing humans by the thousands despite centuries of efforts at coping with their effects. Others are new and inexplicably sporadic, claiming a few victims or a few hundred, and then disappearing for years.

**Zoonotic pathogens can hide**. The least conspicuous strategy is to lurk within what's called a reservoir host: a living organism that carries the pathogen while suffering little or no illness. When a disease seems to disappear between outbreaks, it's often still lingering nearby, within some reservoir host. A rodent? A bird? A butterfly? A bat? To reside undetected is probably easiest wherever biological diversity is high and the ecosystem is relatively undisturbed. The converse is also true: ecological disturbance causes diseases to emerge. Shake a tree and things fall out.

Michelle Barnes is an energetic, late 40s-ish woman, an avid rock climber and cyclist. Her auburn hair, she told me cheerily, came from a bottle. It approximates the original colour, but the original is gone. In 2008, her hair started falling out; the rest went grey "pretty much overnight". This was among the lesser effects of a mystery illness that had nearly killed her during January that year, just after she'd returned from Uganda.

Her story paralleled the one Jaap Taal had told me about Astrid, with several key differences - the main one being that Michelle Barnes was still alive. Michelle and her husband, Rick Taylor, had wanted to see mountain gorillas, too. Their guide had taken them through Maramagambo Forest and into Python Cave. They, too, had to clamber across those slippery boulders. As a rock climber, Barnes said, she tends to be very conscious of where she places her hands. No, she didn't touch any guano. No, she was not bumped by a bat. By late afternoon they were back, watching the sunset. It was Christmas evening 2007.

They arrived home on New Year's Day. On 4 January, Barnes woke up feeling as if someone had driven a needle into her skull. She was achy all over, feverish. "And then, as the day went on, I started developing a rash across my stomach." The rash spread. "Over the next 48 hours, I just went down really fast."

By the time Barnes turned up at a hospital in suburban Denver, she was dehydrated; her white blood count was imperceptible; her kidneys and liver had begun shutting down. An infectious disease specialist, Dr Norman K Fujita, arranged for her to be tested for a range of infections that might be contracted in Africa. All came back negative, including the test for Marburg.

Gradually her body regained strength and her organs began to recover. After 12 days, she left hospital, still weak and anaemic, still undiagnosed. In March she saw Fujita on a follow-up visit and he had her serum tested again for Marburg. Again, negative. Three more months passed, and Barnes, now grey-haired, lacking her old energy, suffering abdominal pain, unable to focus, got an email from a journalist she and Taylor had met on the Uganda trip, who had just seen a news article. In the Netherlands, a woman had died of Marburg after a Ugandan holiday during which she had visited a cave full of bats.

Barnes spent the next 24 hours Googling every article on the case she could find. Early the following Monday morning, she was back at Dr Fujita's door. He agreed to test her a third time for Marburg. This time a lab technician crosschecked the third sample, and then the first sample.

The new results went to Fujita, who called Barnes: "You're now an honorary infectious disease doctor. You've self-diagnosed, and the Marburg test came back positive."

The Marburg virus had reappeared in Uganda in 2007. It was a small outbreak, affecting four miners, one of whom died, working at a site called Kitaka Cave. But Joosten's death, and Barnes's diagnosis, implied a change in the potential scope of the situation. That local Ugandans were dying of Marburg was a severe concern - sufficient to bring a response team of scientists in haste. But if tourists, too, were involved, tripping in and out of some python-infested Marburg repository, unprotected, and then boarding their return flights to other continents, the place was not just a peril for Ugandan miners and their families. It was also an international threat.

The first team of scientists had collected about 800 bats from Kitaka Cave for dissecting and sampling, and marked and released more than 1,000, using beaded collars coded with a number. That team, including scientist Brian Amman, had found live Marburg virus in five bats.

Entering Python Cave after Joosten's death, another team of scientists, again including Amman, came across one of the beaded collars they had placed on captured bats three months earlier and 30 miles away.

"It confirmed my suspicions that these bats are moving," Amman said - and moving not only through the forest but from one roosting site to another. Travel of individual bats between far-flung roosts implied circumstances whereby Marburg virus might ultimately be transmitted all across Africa, from one bat encampment to another. It voided the comforting assumption that this virus is strictly localised. And it highlighted the complementary question: why don't outbreaks of Marburg virus disease happen more often? Marburg is only one instance to which that question applies. Why not more Ebola? Why not more Sars?

In the case of Sars, the scenario could have been very much worse. Apart from the 2003 outbreak and the aftershock cases in early 2004, it hasn't recurred. . . so far. Eight thousand cases are relatively few for such an explosive infection; 774 people died, not 7 million. Several factors contributed to limiting the scope and impact of the outbreak, of which humanity's good luck was only one. Another was the speed and excellence of the laboratory diagnostics - finding the virus and identifying it. Still another was the brisk efficiency with which cases were isolated, contacts were traced and quarantine measures were instituted, first in southern China, then in Hong Kong, Singapore, Hanoi and Toronto. If the virus had arrived in a different sort of big city - more loosely governed, full of poor people, lacking first-rate medical institutions - **it might have burned through a much larger segment of humanity**.

One further factor, possibly the most crucial, was inherent in the way Sars affects the human body: symptoms tend to appear in a person before, rather than after, that person becomes highly infectious. That allowed many Sars cases to be recognised, hospitalised and placed in isolation before they hit their peak of infectivity. With influenza and many other diseases, the order is reversed. That probably helped account for the scale of worldwide misery and death during the 1918-1919 influenza. And that infamous global pandemic occurred in the era before globalisation. Everything nowadays moves around the planet faster, including viruses. **When the Next Big One comes**, **it will** likely **conform to the** same perverse pattern as the **1918 influenza**: high infectivity preceding notable symptoms. That will help it move through cities and airports like an angel of death.

The Next Big One is a subject that disease scientists around the world often address. The most recent big one is Aids, of which the eventual total bigness cannot even be predicted - about 30 million deaths, 34 million living people infected, and with no end in sight. Fortunately, not every virus goes **airborne** from one host to another. If HIV-1 could, you and I might already be dead. If the **rabies** virus could, it **would be the most horrific pathogen on the planet**. The influenzas are well adapted for airborne transmission, which is why a new strain can circle the world within days. The Sars virus travels this route, too, or anyway by the respiratory droplets of sneezes and coughs - hanging in the air of a hotel corridor, moving through the cabin of an aeroplane - and that capacity, combined with its case fatality rate of almost 10%, is what made it so scary in 2003 to the people who understood it best.

Human-to-human transmission is the crux. That capacity is what separates a bizarre, awful, localised, intermittent and mysterious disease (such as Ebola) from a global pandemic. Have you noticed the persistent, low-level buzz about avian influenza, the strain known as H5N1, among disease experts over the past 15 years? That's because avian flu worries them deeply, though it hasn't caused many human fatalities. Swine flu comes and goes periodically in the human population (as it came and went during 2009), sometimes causing a bad pandemic and sometimes (as in 2009) not so bad as expected; but avian flu resides in a different category of menacing possibility. It worries the flu scientists because they know that H5N1 influenza is extremely virulent in people, with a high lethality. As yet, there have been a relatively low number of cases, and it is poorly transmissible, so far, from human to human. It'll kill you if you catch it, very likely, but you're unlikely to catch it except by butchering an infected chicken. But if H5N1 mutates or reassembles itself in just the right way, if it adapts for human-to-human transmission, it could become the biggest and fastest killer disease since 1918.

It got to Egypt in 2006 and has been especially problematic for that country. As of August 2011, there were 151 confirmed cases, of which 52 were fatal. That represents more than a quarter of all the world's known human cases of bird flu since H5N1 emerged in 1997. But here's a critical fact: those unfortunate Egyptian patients all seem to have acquired the virus directly from birds. This indicates that the virus hasn't yet found an efficient way to pass from one person to another.

Two aspects of the situation are dangerous, according to biologist Robert Webster. The first is that Egypt, given its recent political upheavals, may be unable to staunch an outbreak of transmissible avian flu, if one occurs. His second concern is shared by influenza researchers and public health officials around the globe: with all that mutating, with all that contact between people and their infected birds, the virus could hit upon a genetic configuration making it highly transmissible among people.

"As long as H5N1 is out there in the world," Webster told me, "**there is the possibility of disaster**. . . There is the theoretical possibility that it can acquire the ability to transmit human-to-human." He paused. "And then God help us."

We're unique in the history of mammals. No other primate has ever weighed upon the planet to anything like the degree we do. In ecological terms, we are almost paradoxical: large-bodied and long-lived but grotesquely abundant. **We are an outbreak**.

**And here's the thing about outbreaks**: **they end**. In some cases they end after many years, in others they end rather soon. In some cases they end gradually, in others they end with a crash. In certain cases, they end and recur and end again. Populations of tent caterpillars, for example, seem to rise steeply and fall sharply on a cycle of anywhere from five to 11 years. The crash endings are dramatic, and for a long while they seemed mysterious. What could account for such sudden and recurrent collapses? One possible factor is infectious disease, and viruses in particular.

#### Role of the ballot’s to simulate enactment of the plan – key to decisionmaking and fairness

Hager, professor of political science – Bryn Mawr College, ‘92

(Carol J., “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

# 2AC

## 2ac mueller

#### He has no data and only addresses attacks in the US

Jessica Stern 6, Lecturer in Public Policy at Harvard's John F. Kennedy School of Government, “Are We Safe Yet”, September 7, <http://www.foreignaffairs.com/discussions/roundtables/are-we-safe-yet>

I have four main problems with his argument, however. First, in evaluating the terrorist threat, we need to be concerned about not just the strikes that terrorists have managed to carry out, but also those they might be preparing or plotting. As Mueller suggests, we should indeed be skeptical consumers of the government's claims regarding sleeper cells and thwarted plots. But his claim that there are no or almost no terrorists within the United States is based on no sounder informational basis that the opposite claims of government officials.

Second, we need to be concerned about terrorist strikes around the globe, not just in the United States -- and the picture there is not reassuring. The most accurate and up-to-date figures for international terrorist incidents make it clear that such attacks have risen every year since 2001, and have increased sharply in the three years since the United States invaded Iraq. The most recent State Department report on the subject includes attacks in Iraq, which previous reports had largely excluded and which inflates the numbers somewhat. But even leaving Iraq out of the picture, it would be hard to defend the view that terrorism has been vanquished. And data collected by the private organization MIPT show a similar upward trend.

## 2ac y-12 terror

#### Y-12 key to HEU terror

Civiak, 9

(Ph.D. in physics from the University of Pittsburgh & Former visiting scientist at Lawrence Livermore National Laboratory, “Transforming the U.S. Strategic Posture and Weapons Complex for Transition to a Nuclear Weapons-Free World,” April, http://docs.nrdc.org/nuclear/files/nuc\_09040701a.pdf)

We recommend that DOE more rapidly reduce the amount of SNM in the complex and around the world, with special attention paid to HEU. NNSA’s plan for Complex Transformation does not declare any additional HEU as excess or set any downblending goals. **HEU is more valuable to terrorists than any other nuclear materia**l, because it is relatively easy to assemble into a crude nuclear weapon. However, at great cost and risk, NNSA continues to store 400 MT of HEU in a wooden storage building and four other World War II era buildings at Y-12. We would significantly speed up the downblending of excess HEU by using existing facilities at Y-12, by adding downblending capability to the HEUMF, and by making greater use of private sector downblending capabilities at Babcock and Wilcox (B&W) Company’s Nuclear Fuel Services plant in Tennessee and its Nuclear Products Division in Lynchburg, VA.

## 2ac kola

#### Kola HEU explosion inevitable and risks extinction

Shields, 7

(6/10, Columnist-The Independent(UK), “Worse than Chernobyl,” http://www.independent.co.uk/news/world/europe/worse-than-chernobyl-dirty-timebomb-ticking-in-a-rusting-russian-nuclear-dump-threatens-europe-452528.html)

Worse than Chernobyl: 'dirty timebomb' ticking in a rusting Russian nuclear dump threatens Europe 20,000 discarded uranium fuel rods stored in the Arctic Circle are corroding. The possible result? **Detonation of a massive radioactive bomb** experts say could rival the 1986 disaster. By Rachel Shields A decaying Russian nuclear dump inside the Arctic Circle is threatening to catch fire or explode, **turning it into a "dirty bomb"** that could impact the whole of northern Europe, including the British Isles. Experts are warning that sea water and intense cold are corroding a storage facility at Andreeva Bay, on the Kola Peninsula near Murmansk. It contains more than 20,000 discarded fuel rods from nuclear submarines and some nuclear-powered icebreakers. A Norwegian environmental group, Bellona, says it has obtained a copy of a secret report by the Russian nuclear agency, Rosatom, which **speaks of an "uncontrolled nuclear reaction".** John Large, an independent British nuclear consultant who has visited the site, told The Independent on Sunday: "The nuclear rods are fixed to the roof and encased in metal to keep them apart and prevent any reactions from occurring. However, sea water has eroded them at their base, and they are falling to the floor of the tanks, where inches of saltwater have collected. "This water will begin to corrode the rods, a reaction that releases hydrogen, a gas that is highly explosive and could be ignited by any spark. When another rod falls to the floor and generates such a spark, **an enormous explosion could occur,** scattering radioactive material for hundreds of kilometres." Mr Large, who was decorated by Russia's President Vladimir Putin for his role in the salvage operation that retrieved nuclear material from the Kursk submarine in 2000, added: "This wouldn't be a thermonuclear or atomic explosion, as in a bomb, **but the outcome is just as bad**. Remember Chernobyl? If you had the right weather conditions and wind pattern, **this would mean a radioactive cloud drifting over the UK."** The three storage tanks contain more than 32 tons of radioactive material. But the Kola Peninsula is littered with relics of Soviet nuclear facilities, housing more than 100 tons of nuclear waste - **the largest concentration in the world.** Experts predict that a major explosion at Andreeva Bay could destroy all life in a 32-mile radius, including Murmansk and a sliver of Norway, whose border is only 28 miles away. But a much wider area of Norway, north-west Russia and Finland would be rendered uninhabitable for at least 20 years, and huge quantities of radioactive material would be dumped into the Barents Sea. "In the best case a small, limited explosion in just one of the stored rods could lead to radioactive contamination in a 5km radius," Aleksandr Nikitin, a Russian former submarine officer and nuclear safety inspector turned environmental activist, told the Norwegian newspaper Aftenposten. "In the worst case, such a single explosion could cause the entire tank facility to explode. **We have no calculations for what that could lead to."** Mr Nikitin, whose work for Bellona led to continuing treason charges in Russia, added: "We are **sitting on a powder keg with a burning fuse**, and we can only guess about the length of the fuse." Nils Bohmer, nuclear physicist and head of Bellona's Russian division, told the newspaper: "It will at least, at a careful estimate, hit northern Europe. There are enormous amounts of radioactivity stored in these tanks." Other activists have voiced concern about the security of stored nuclear waste in the Kola Peninsula, amid reports that some is left outside in barrels, protected by only a link fence and a couple of guards. Washington-based GlobalSecurity.org reported that in 1993 about 1.8kg of enriched uranium was stolen from the Andreeva Guba fuel storage area. Although the material was quickly recovered, the fact that some of the uranium is enriched to between 30 and 40 per cent, much higher than the 2 to 3 per cent used in civil nuclear reactors, could make it tempting to terrorists seeking to make a "dirty bomb". Apart from the decay at the Andreeva Bay facility, said Ben Ayliffe, senior climate and energy campaigner at Greenpeace UK, "security is so lax that almost anyone who wants to can just walk in. It's like Homer Simpson meets Dad's Army." As the 1986 Chernobyl disaster showed, drifting atmospheric radiation can contaminate crops and water supplies more than 1,000 miles from the site of the explosion. In the world's worst civilian nuclear incident, the four explosions that ripped through the power plant in what is now eastern Ukraine resulted in the dispersal of a radioactive cloud containing at least 100 times as much radiation as was released by the combined effect of the atomic bombs dropped on Hiroshima and Nagasaki. Although only three people were killed by the Chernobyl blast, it has been estimated that around 100,000 people have since died from cancers caused by exposure to radiation, with thyroid cancers increasing by 88.5 per cent. A further 300,000 people have developed non-fatal tumours even though half a million people were evacuated immediately after the accident. The economic and social effects remain devastating, despite large-scale international assistance. Many industries have collapsed, and 1.4 million acres of prime agricultural land and forest destroyed by the explosion are still unusable. Residents are banned from entering a zone some 20 miles around the site, yet hundreds of elderly people have ignored government restrictions and gone back to their homes in surrounding villages, where they raise animals and eat fruits and berries from the radiation-soaked land. But experts using the Chernobyl "radioactive release" to predict the likely effects of a disaster on the Kola Peninsula point out that Britain and the rest of Europe escaped remarkably lightly. The 1986 explosion occurred on a still summer night sending radioactive particles straight upwards for the most part, until they encountered winds in the upper atmosphere. Although the radiation was widely dispersed, there was little rainfall in the immediate area, or across Europe, in the following week. The only area of Britain where rain brought the radiation to earth is relatively lightly populated: north Wales, parts of Cumbria and south-western Scotland. Care still has to be taken with meat from the affected area, but there are no reliable statistics that show any impact on human health in Britain. Another Chernobyl-type meltdown, this time in the Arctic, could have much more far-reaching effects. The worst case would be widespread fallout caused by rain in a densely populated area, causing untold social and economic disruption beyond the threat to life.

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#### Downblending is for electricity production

Smith, 6

(Communications Director-DOE NNSA, “U.S. Nuclear Weapons-Grade Material Converted into Electricity,” http://www.usec.com/news/us-nuclear-weapons-grade-material-converted-electricity)

WASHINGTON – The U.S. Department of Energy’s National Nuclear Security Administration (NNSA), USEC Inc. and BWX Technologies, Inc. (BWXT) recently completed a nonproliferation initiative that **converted weapons-grade highly enriched uranium into low-enriched uranium fuel used by commercial nuclear power plants to produce electricity.** The U.S. HEU Downblending Program is a major component of the NNSA’s nuclear nonproliferation mission to reduce quantities of surplus weapons-grade materials. Converting highly enriched uranium (HEU) to low-enriched uranium (LEU) fuel makes the material proliferation-proof; reduces costs associated with storing, inventorying and safeguarding it; and recovers its inherent economic value. The Department of Energy (DOE) transferred the HEU to USEC for disposition in the commercial fuel market as part of USEC’s privatization from the U.S. government. USEC contracted with BWXT to downblend the surplus HEU with natural uranium at BWXT’s facility in Lynchburg, Va. The conversion process began in 1999 with HEU shipments from DOE’s Portsmouth Gaseous Diffusion Plant and NNSA’s Y-12 National Security Complex managed by BWXT, where the material was securely stored. USEC sold the resulting commercial reactor-grade LEU fuel to its nuclear utility customers. **Approximately 50 metric tons of weapons-grade HEU have been converted into nearly 660 metric tons of LEU fuel. The U.S. HEU Downblending Program eliminated HEU equivalent to 800 nuclear warheads. It also produced enough LEU fuel to power a typical commercial nuclear reactor for approximately 34 years, generate enough electricity for every household in the U**nited **S**tates for 81 days or meet 22 percent of U.S. annual household electricity needs. “**We have successfully turned weapons material into something people can use to turn the lights on in their house**,” said NNSA Administrator Linton F. Brooks. “Reducing stockpiles of surplus weapons-usable material in the U.S. and around the world is critical to global security and a key part of NNSA’s mission.” “USEC is proud to partner with NNSA and BWXT,” said John K. Welch, USEC president and chief executive officer. “Our customer relationships and LEU supply contracts with America’s leading nuclear utilities make this historic nonproliferation program a commercial success as well. The U.S. HEU Downblending Program is similar to the U.S.-Russian Megatons to Megawatts program, which recycles uranium from Russian nuclear warheads into fuel that USEC’s nuclear utility customers use to generate 10 percent of America’s electricity.”

#### Funding it is an incentive

Stockton and Drake 10, Peter Stockton is a senior investigator at the Project on Government Oversight. He served as special assistant to Energy Secretary Bill Richardson from 1999 to 2001, working as Richardson's personal troubleshooter on physical and cyber security in the nuclear weapons complex. As a senior congressional investigator in the 1970s and 1980s, he explored the diversion of weapon-grade uranium to Israel, the death of Karen Silkwood, and the security and effectiveness of the nuclear weapons production program, Ingrid Drake joined the Project on Government Oversight in 2007 as a fellow. Previously, she worked as a Capitol Hill and Washington correspondent for Free Speech Radio News and Pacifica Radio’s daily news show, “From danger to dollars: What the US should do with its highly enriched uranium”, Bulletin of the Atomic Scientists November/December 2010 vol. 66 no. 6 43-55

Another possible reason for the low priority the Energy Department places on downblending is that there is no mechanism for the department to receive its share of the billions of dollars generated by the sale of LEU from downblended HEU. Instead, the revenue is returned to the Treasury Department. Currently, downblending has to compete for funding with a number of other projects at the Energy Department, and has fallen to the bottom of the list of funding priorities. Without a financial incentive to downblend, the NNSA will continue to store HEU and will continue to move at a snail’s pace toward downblending. Congress could offset funds allocated to the DOE for downblending US HEU with revenue generated by the Department of Energy’s sale of LEU from downblended HEU.

#### Removing HEU from storage removes a restriction

Holt, 12

(Specialist in Energy Policy, 5/15, “Potential sources of nuclear fuel for tritium production,” http://markey.house.gov/sites/markey.house.gov/files/documents/2012\_0515\_CRS\_TritiumFuelOptions.pdf

USEC currently down-blends Russian weapons-origin HEU to LEU for fuel for nuclear reactors. It is possible that in the future, surplus DOE highly enriched uranium (HEU) could be similarly blended down to LEU. Since the mid-1990s, the U.S. government has declared 209 metric tons of HEU to be surplus to U.S. defense needs and available for downblending into commercial reactor fuel. If the HEU is assumed to consist of 90% U-235, such downblending could result in about 6,000 metric tons of LEU. But NNSA says most of that HEU was declared surplus in 1994 under a policy that it not be used for weapons purposes, and is therefore unavailable to the tritium program. A later batch of surplus HEU may be available, however: Some additional HEU that was removed from weapons use in 2005 explicitly does not have those **restrictions against use for** tritium **production**, but most of the latter is reserved for use by Naval Reactors. To the extent feasible, we are making LEU derived from the 2005 declaration HEU available for obligation exchanges to increase the supply of unencumbered LEU available to the tritium program. Some U.S. officials have argued that a domestic enrichment capability is also necessary for production of naval reactor fuel. However, **a 2009 DOE memo says that the United States has set aside sufficient fuel for naval reactors and has additional reserves of HEU that could be used to supplement this naval reserve if necessary**.

#### Counter-interpretation – incentives are cash expenditures to induce production

Webb, sessional lecture – Faculty of Law @ University of Ottawa, ‘93

(Kernaghan, 31 Alta. L. Rev. 501)

One of the obstacles to intelligent discussion of this topic is the tremendous potential for confusion about what is meant by several of the key terms involved. In the hopes of contributing to the development of a consistent and precise vocabulary applying to this important but understudied area of regulatory activity, various terms are defined below.

In this paper, "financial incentives" are taken to mean disbursements18 of public funds or contingent commitments to individuals and organizations, intended to encourage, support or induce certain behaviours in accordance with express public policy objectives. They take the form of grants, contributions, repayable contributions, loans, loan guarantees and insurance, subsidies, procurement contracts and tax expenditures.19 Needless to say, the ability of government to achieve desired behaviour may vary with the type of incentive in use: up-front disbursements of funds (such as with contributions and procurement contracts) may put government in a better position to dictate the terms upon which assistance is provided than contingent disbursements such as loan guarantees and insurance. In some cases, the incentive aspects of the funding come from the conditions attached to use of the monies.20 In others, the mere existence of a program providing financial assistance for a particular activity (eg. low interest loans for a nuclear power plant, or a pulp mill) may be taken as government approval of that activity, and in that sense, an incentive to encourage that type of activity has been created.21 Given the wide variety of incentive types, it will not be possible in a paper of this length to provide anything more than a cursory discussion of some of the main incentives used.22 And, needless to say, the comments made herein concerning accountability apply to differing degrees depending upon the type of incentive under consideration.

By limiting the definition of financial incentives to initiatives where public funds are either disbursed or contingently committed, a large number of regulatory programs with incentive effects which exist, but in which no money is forthcoming,23 are excluded from direct examination in this paper. Such programs might be referred to as indirect incentives. Through elimination of indirect incentives from the scope of discussion, the definition of the incentive instrument becomes both more manageable and more particular. Nevertheless, it is possible that much of the approach taken here may be usefully applied to these types of indirect incentives as well.24 Also excluded from discussion here are social assistance programs such as welfare and ad hoc industry bailout initiatives because such programs are not designed primarily to encourage behaviours in furtherance of specific public policy objectives. In effect, these programs are assistance, but they are not incentives.

#### We’re a qpq with lab which are outside the usfg

#### Their distinction was eliminated in the 70’s

McGowan 79

606 F.2d 986 196 U.S.App.D.C. 79, 1979-1 Trade Cases 62,526 FT. PIERCE UTILITIES AUTHORITY OF the CITY OF FT. PIERCE, et al., Petitioners, v. UNITED STATES of America, and the Nuclear Regulatory Commission, Respondents, Florida Power & Light Co., City of Mount Dora, Florida, City of Lake Helen, Florida, Intervenors. FT. PIERCE UTILITIES AUTHORITY OF the CITY OF FT. PIERCE, et al., Petitioners, v. NUCLEAR REGULATORY COMMISSION and United States of America, Respondents, City of Mount Dora, Florida, Florida Power and Light Co., City of Lake Helen, Florida, Intervenors. Nos. 77-1925, 77-2101. United States Court of Appeals, District of Columbia Circuit. Argued Nov. 16, 1978. Decided March 23, 1979. As Amended March 23, 1979. Certiorari Denied Oct. 1, 1979. See 100 S.Ct. 83.

The Atomic Energy Act provides for two types of construction permits and operating licenses for nuclear facilities: (1) those issued under section 104(b), known as "research and development" licenses, which are subject only to "the minimum amount of such regulations and terms of license as will permit the Commission to fulfill its (licensing) obligations," and (2) those issued under section 103, known as "commercial" licenses, which are subject to full-scale Commission regulation.2 Atomic Energy Act §§ 102-104, 42 U.S.C. §§ 2132-2134 (1976). This licensing scheme, enacted in an era when the practical value of nuclear energy was in doubt, was designed to promote the development of nuclear energy by minimizing the extent of government regulation until such time as its practical value was established. Accordingly, the Act, prior to 1970 when it was amended, authorized the Commission to issue "commercial" licenses under section 103 only upon a finding that "any type of utilization or production facility ha(d) been sufficiently developed to be of practical value for industrial or commercial purposes." Atomic Energy Act, ch. 1073, § 102, 68 Stat. 936 (1954) (amended 1970). Section 104(b), by contrast, authorized the Commission, absent a finding of "practical value," to issue "research and development" licenses, subject to minimum regulation, for "utilization and production facilities involved in the conduct of research and development activities leading to the demonstration of the practical value of such facilities for industrial or commercial purposes." It was pursuant to section 104(b) prior to the 1970 amendments that FP&L received its construction permits for Turkey Point Nos. 3 and 4 on April 29, 1967, and for St. Lucie No. 1 on July 1, 1970.

In late 1970, Congress amended the Act, abolishing the requirement that the Commission make a finding of "practical value" before issuing "commercial" licenses. Atomic Energy Act § 102(a), 42 U.S.C. § 2132(a) (1976). Thereafter, the Commission, when licensing "utilization or production facilit(ies) for industrial or commercial purposes," was required to issue "commercial" licenses under section 103, rather than "research and development" licenses under section 104(b). The Act as amended, however, contained a provision authorizing the Commission to issue operating licenses under section 104(b) for nuclear plants that previously had been licensed for construction as "research and development" facilities. Id. § 102(b), 42 U.S.C. § 2132(b). Acting pursuant to this grandfather clause, the Commission, on July 19, 1972, April 10, 1973, and March 1, 1976, issued operating licenses under section 104(b) to FP&L for Turkey Point Nos. 3 and 4 and St. Lucie No. 1, respectively.

#### Prefer clear brightlines – all incentives effect market conditions – whether an incentive causes adequate production is arbitrary and mixes burdens

#### They overlimit – conversion of uranium is a necessary step for all nuclear affs

USEC, 12

(“The American Centrifuge”, 2012, <http://www.usec.com/american-centrifuge>)

Since 2002, USEC has been developing and demonstrating a highly efficient uranium enrichment gas centrifuge technology called the American Centrifuge. USEC is working to deploy this technology in its American Centrifuge Plant. The American Centrifuge Plant is an advanced uranium enrichment facility in Piketon, Ohio, which will produce low enriched uranium, **a key component for the fabrication of commercial nuclear fuel**. The American Centrifuge Plant’s capacity will be equal to about one-third of the fuel requirements for the commercial power reactors in the United States, which provide approximately 20% of the U.S. electricity supply today.

## states

#### Perm do both

#### Only Obama can declare surplus HEU

Stockton, 12

(Consultant-Project on Government Overight & Former Special Assistant to DOE Secretary Bill Richardson, U.S. Nuclear Weapons Complex: How the Country Can Profit and Become More Secure by Getting Rid of Its Surplus Weapons-Grade Uranium, http://pogoarchives.org/m/nss/downblending/report-20100914.pdf)

DECLARE MORE U.S. HEU SURPLUS TO NATIONAL DEFENSE NEEDS Another step the U.S. could take to **genuinely modernize our nuclear weapons comple**x is to declare as surplus the HEU that is no longer needed for defense needs and to downblend it. This is an area **where the President must take the lead: only the President has the authority to designate an amount of HEU surplus to defense needs**, thus making it available for downblending. As with downblending, however, there has not been enough progress—or even interest—in declaring additional HEU surplus. This lack of priority is evident in the language of the Administration’s FY 2011 budget request: “The funding profile for the U.S. Uranium Disposition program is declining in the future because the large quantities of surplus HEU have already been disposed of or are in the pipeline.” 91 This statement suggests that the Administration doesn’t believe there is additional HEU that can be declared surplus. This belief is false, as there are hundreds of metric tons of HEU that could be declared surplus.

#### Top level diplomatic engagement’s key to modeling

Bleek, 9

(Fellow-Center for a New American Security & PhD Candidate in IR-Georgetown, Future of the Nuclear Security Environment in 2015: Proceedings of a Russian-U.S. Workshop, http://www.nap.edu/openbook.php?record\_id=12590&page=100)

One lesson of past operations is that most cases have required genuinely unique sets of incentives. U.S. program officials consistently claim they have all the legislative authorities and senior official backing necessary, but current difficulties in bringing many sites on board suggest that more will be required. Additional flexibility and resources for designing incentive packages should be assigned to the global cleanout mission. More high-level political engagement may also be required to deal with the most difficult bureaucratic and political impediments. If there is a relevant lesson from Cold War arms control negotiations, it is that without engagement and pressure from the top, negotiations almost invariably languish. In this regard, the joint U.S.-Russian approach to Belarus in the context of removing the HEU located at the Sosny reactor is an excellent and overdue example; there may be other instances where a joint high-level approach would be fruitful. Balance is vital: implementing officials need to feel both support and pressure from senior policymakers, but micromanagement should be avoided.

#### NNSA has spare capacity now but isn’t downblending – that proves the counterplan doesn’t result in them taking the initiative

Stockton and Drake 10, Peter Stockton is a senior investigator at the Project on Government Oversight. He served as special assistant to Energy Secretary Bill Richardson from 1999 to 2001, working as Richardson's personal troubleshooter on physical and cyber security in the nuclear weapons complex. As a senior congressional investigator in the 1970s and 1980s, he explored the diversion of weapon-grade uranium to Israel, the death of Karen Silkwood, and the security and effectiveness of the nuclear weapons production program, Ingrid Drake joined the Project on Government Oversight in 2007 as a fellow. Previously, she worked as a Capitol Hill and Washington correspondent for Free Speech Radio News and Pacifica Radio’s daily news show, “From danger to dollars: What the US should do with its highly enriched uranium”, Bulletin of the Atomic Scientists November/December 2010 vol. 66 no. 6 43-55

The most important step to modernize the nuclear weapons complex is to accelerate the downblending rate of surplus HEU. This job falls to the National Nuclear Security Administration (NNSA), an independent body within the Energy Department. NNSA is responsible for the US nuclear arsenal and for nuclear materials both at home and abroad, including management of the Life Extension Program (LEP) to ensure the safety and reliability of nuclear warheads without explosive testing.

In its fiscal year 2011 request to Congress, the NNSA stated its goal to downblend 217 metric tons of its surplus HEU (DOE, 2010a).9 While 127 metric tons of this amount has been downblended, progress for the remaining HEU has unfortunately slowed tremendously: budget allocations for downblending decreased from $39.2 million in 2009 to $34.7 million in 2010, and have shrunk again to $26 million in NNSA’s budget request for FY 2011 (DOE, 2010a); further, due to the low priority assigned to downblending by the NNSA, the administration’s schedule for transforming the approximately 90 metric tons of remaining surplus HEU is being dragged out until 2050.10 This rate—approximately 2 metric tons of HEU per year11—is unnecessarily slow; NNSA downblended 20 metric tons in FY 2004, 14 in FY 2008, and 10 in FY 2009, clearly indicating that a higher rate is possible (DOE, 2005, 2010b). In fact, NNSA has the capacity to downblend significantly more than even 20 metric tons per year.

#### States can’t solve modeling---local foreign policy just leads to inconsistent signal

DeLisle, 2K

(Law @ Penn, Foreign Affairs, Federalism, and Well-Meaning Mischief, http://www.fpri.org/enotes/20000715.law.delisle.massburmalaw.html)

What’s Really Wrong with Local Foreign Policy: Incoherence

The risk, in short, is one of **increased incoherence** in the conduct of U.S. foreign policy, which could be costly in many all-too-familiar ways, several of them so evident that they made it into the Court’s narrow legal analysis in *Crosby*. The executive may have to expend political or material resources to overcome the impediments that state and local laws create for the pursuit of presidential or presidential-congressional agendas. At best, the U.S. collectively may incur considerable costs in efforts that cancel one another out. Worse, the U.S. will appear to **be an uncertain and unreliable partner** to other states, sending forth conflicting signals and **proving unable to make or to deliver on negotiated promises**. The U.S. also may be seen as **an often-lawless player**, given the especially strong penchant of state and local lawmakers, even more than their federal counterparts, to disregard such niceties as treaty obligations under the WTO or other agreements. By having fifty or even tens of thousands (once local governments are included) of active foreign policymaking organs, in addition to the often-fragmented federal government, U.S. foreign policy could become substantially more vulnerable to partial interests at the expense of national interests.

As this litany of problems suggests, the kind of incoherence that the progeny of the Massachusetts Burma Law would introduce into U.S. foreign policy is not only a matter of inconsistency and waste; it is a matter also of courting substantively worse policy, by making even harder the already-difficult objective of achieving careful and reasoned trade-offs among national ideals and interests, and by vesting foreign policymaking power in entities that see only **small and unrepresentative slices of foreign relations issues**, have **limited relevant expertise and experience**, and face particularly problematic incentives in addressing issues that greatly affect U.S. relations with foreign states. Simply put, states and localities may be invaluable laboratories of domestic democracy, but they **can be a Frankenstein’s laboratory for foreign relations.**Such practical-political factors are among several possible and partially overlapping reasons (almost of all of them at least touched upon in the courts’ opinions overturning the Massachusetts Burma Law) to find the specter of fragmented and disparate, state and local-level foreign policy troubling. Other underlying grounds for opposition include the legal-metaphysical: the capacity to conduct foreign relations vested directly in the United States as a whole and presumptively in the federal government upon the U.S.’s entering the community of nations; it is not, as some would have it, like the other federal powers which reside in the states subject only to the limited delegation to the national government effected by constitutional compact. They also encompass the constitutional-originalist: whatever the current wisdom of the arrangement, the framers gave the national government exclusive power in the field of foreign affairs so that the nation could speak with one voice and act with clear purpose and maximum efficacy in a dangerous world.

## immigration

We've hit global peak farmland and the US isn’t key to yields

Tucker 12

William Tucker, veteran journalist. Educated at Amherst College, his work has appeared in Harper’s, the Atlantic Monthly, the American Spectator, the Weekly Standard, National Review, Reason, the New Republic, Reader’s Digest, the Wall Street Journal, and many other publications. His articles have won the John Hancock Award, the Gerald Loeb Award, the Amos Tuck Award, and he was a finalist for the National Magazine Award, Real Clear Energy, December 26, 2012, "The Farmland Required to Feed Humanity Has Peaked", http://www.realclearenergy.org/articles/2012/12/26/the\_farmland\_required\_to\_feed\_humanity\_has\_peaked.html

Usually the environmental news is bad. We're running out of fossil fuels or room to put their exhausts or water or space to put our garbage or what have you. This time, however, the news from the Rockefeller University's Program for the Human Environment is good. Due to improved yields, slowing population growth, growing affluence and changing consumer habits, the world appears to have hit "peak farmland," meaning that the land required to feed humanity has hit a maximum. The result is that much land now used for agricultural may eventually be returned to its natural state. The only wild card in the deck is biofuels, which accounts for almost all the additional land put under cultivation over the last two decades. The authors of the study - Jesse Ausubel (Ausubel), Iddo Wernick and Paul Waggoner - are not enthusiastic about biofuels and believe that if supporters take a second look, they may tone down their support. Then the world would be on a downward slope in the agricultural consumption of land. The report, entitled "Peak Farmland and the Prospect of Land Sparing," appears in the current issue of Population and Development Review. It chronicles the extraordinary progress made by India and China in the last several decades in feeding their populations while at the same time actually returning some land to forestation. "[Since 1960,] India's population rose over two and a half times, while national income rose 15 times. By 2010 the average Indian ate a sixth more calories than in 1960." Nonetheless, "[t]he 5MHa [million hectares] added to forests from the 1960s to 2000 exceeds the size of the state of Iowa in the US. The reversal of deforestation hints at an associated peak in farmed land." So too, in China, "[w]hile the area of harvested Chinese corn doubled during the half- century, each harvested hectare became more than four and a half times more productive. The 120MHa of land spared is the equivalent of 2 Frances or 8 Iowas." As a result, "the extent of Chinese forests reportedly expanded 30 percent from 1990 to 2010." Their conclusion - which runs against the grain of much environmental thought - is that the Green Revolution and its introduction of advanced agricultural techniques into the developing world was a success. "Unlike some other revolutions of that era, this one has proven enduring and provides the continuing benefit of reducing cropland expansion to feed ever more mouths." Ausubel, Wernick and Waggoner separate out five qualities they say account for the impact of agricultural activity on the available land. They are: 1) Population 2) Affluence, as measured in GDP per capita 3) Consumption 1, which tracks how people change their diet in response to affluence 4) Consumption 2, which tracks the proportion of land used for non-food crops 5) Technological improvements, measured by the amount of land farmers use versus the value of their crop. The authors find that while the rate of world population growth started falling in 1970, the biggest impact has come from technological improvements, plus people's response to growing affluence. Surprisingly, the demand for food turns out to be fairly inelastic. Above a certain level of affluence, people do not increase their caloric intake. Ausubel, Wernick and Waggoner call this "dematerialization" and say it plays a significant role in reducing the demand for farmland. Also encouraging is that China and particularly India are NOT increasing their meat consumption to the same level as Western nations. "As the Chinese grew more affluent after about 1970, their meat consumption grew rapidly with little dematerialization. By the 1990s, however, the FAO reported Chinese meat consumption rising less than half as fast as affluence and dematerializing 6 percent per year from 1995 to 2007. As Indian consumers grew more affluent, they behaved differently. They scarcely increased their meat consumption during the half-century to 2010, causing rapid dematerialization and even exhibiting income elasticities below zero. Globally, average meat consumption dematerialized little from 1980 to 1995, but then as in China, it rose only half as fast as affluence from 1995 to 2007." The result is that "the battle to feed humanity" does not appear destined to outrun the world's land resources. Granted, much of this has been achieved through the application of fossil fuel resources to agriculture, both through intensive use of fertilizers and the mechanization of processes. But even here the inputs seem to be leveling off to a sustainable level. During the first years of the Green Revolution, for instance, consumption of nitrogen fertilizers sometimes outraced crop production by as much as 10 percent. But this trend slowed to between 0.5 and 2.5 percent in the 1980s so that over the last 40 years fertilizer use per unit has risen at an annual rate of only 0.72 percent. Instead, most improvements in crop production now come through a cluster of advances known as "precision agriculture." Water consumption has also leveled off. In the United States, the withdrawal of water for irrigation actually peaked in 1980 and has since declined relative to crop production at an average rate of 2.0 percent per year. All those small improvements in drip irrigation and drought-resistant varieties eventually add up. The only surprise has been a reversal of an improving trend in the C2 factor, which measures agricultural output per calory in the food supply. With the decline in demand for cotton and tobacco, this tend had been improving. But a reversal has come with the growth of crops-for-fuel. Ironically, in trying to stretch oil resources, environmentalists have ended up stressing an even more important resource, fertile land. The authors write: "As the shortcomings of biofuels become evident to governments and champions of the environment alike, we conservatively project C2 as slowing to 0.4 percent annually, slightly less than half the 1995-2010 level. . . . A biofuels bust would lead to a negative value." The overall result is that, even if the dubious effort to turn corn into ethanol continues to consume almost half the American corn crop, world trends are moving in the right direction. As Ausubel, Wernick and Waggoner conclude: "Another 50 years from now, the Green Revolution may be recalled not only for the global diffusion of high-yield cultivation practices for many crops, but as the herald of peak farmland and the restoration of vast acreage to Nature."

Cyber war is massively exaggerated [- trades off focus with more important threats]

Valeriano 13

BRANDON VALERIANO is Lecturer in Social and Political Sciences at the University of Glasgow, RYAN MANESS is a Ph.D. candidate at the University of Illinois at Chicago, The Ducks of Minerva, January 29, 2013, " Perceptions and Opinions of the Cyber Threat", http://www.whiteoliphaunt.com/duckofminerva/2013/01/perceptions-and-opinions-of-the-cyber-threat.html

Cyberwar is a pressing international security problem. The news media breathlessly covers any potential attack before the facts are in. Policy briefs and reports are produced on all levels of government and private industry. It would then behoove us to take a step back and examine opinions about the cyber security threat according to perceptions among policymakers, academics, and cyber security experts in order to understand how the threat emanating from the cyber security realm is constructed in the public discourse. Each constituency has its own view on the issue and how these views manifest is critical to perceptions about the wider societal threat coming from cyberspace.

According to Allison’s bureaucratic model of politics, where you sit in government determines where you stand or what opinions you have. Through surveys we can see that process play out. It is in the interest of cyber security experts to inflate the cyber threat. It is also in the interests of the news media to breathlessly hype up cyber fears to gain more page views. The threat of cyberwar is a real and pressing threat, but constrained by institutions and systems that limit the damage the tactic can do. Just how serious this threat is perceived can be predicted by one’s institutional setting and standard operating procedures.

On January 30, 2012, technological experts from around the globe were surveyed by McAfee and the Security and Defense Agenda (SDA) about the issue of cyberwar. Fifty-seven percent of these practitioners believe that states are currently engaged in a cyber “arms race.” It is unclear what a cyber arms race really is in this context (the raw data from the survey is not online) but the general idea is that capabilities and the threat from this issue area are increasing at all levels. Other findings in the survey are just as troubling and mystifying. Forty-three percent believe the worst case scenario, damage and disruption to a state’s critical infrastructure is also the most likely. A further forty five percent believe that cyber-security is just as pressing an issue as border security. Apparently, the great powers such as the US, UK, and Germany are lacking in their “cyber-readiness” when compared to smaller states such as Israel and Sweden mainly because they fail to share information internally rather than having any specific deterrent capabilities, at least according to the McAfee report.

With these opinions in mind, the SDA asked respondents which actions should be taken to curb this newest threat to international security. Opinions on the next course of action are just as troubling as the survey results. Apparently, a “global information sharing network should be established by states.” This is an odd perspective in that cyber threats are not uniform across states and centralizing the network could put states in a more vulnerable position. The next idea is to provide “financial incentives for improvements in security in both the private and public sectors.” An interesting proposal advocating bribery to improve networks much in the same way a parent bribes a child to do their homework. Finally, “diplomats need to start addressing this issue with more urgency,” with the help of cyber security experts (the subjects of the survey) of course. I would guess the next step is for a color coded cyber terror warning indicator (I suggest the highest threat be the color of Mountain Dew in order to honor the true cyber warriors – teenage hackers and computer programmers).

Why would the majority of cyber security practitioners argue for such expensive, expansive, and urgent measures when the biggest attack, arguably Stuxnet, required a physical injection of software to take effect? Clearly there is an interest to promote this threat in the cyber security community.

In contrast, the TRIP survey asked a sample of academics from U.S. universities “What are the top foreign policy problems facing the United States?” They were pitted against practitioners within the U.S. government who work within the national security apparatus (PDF). Academics deemed cybersecurity the least pressing foreign policy problem with only eight percent suggesting it is a top problem. This falls right behind the fear of oil reliance (12%) and global poverty (12%). Policymakers rank cybersecurity nearly as low as academics with 17 percent finding this a top foreign policy problem right above the issue of climate change (eight percent), global poverty (three percent), and oil reliance (four percent).

Academics find cybersecurity one of the least pressing threats in the system and policymakers tend to agree generally. So why is cybersecurity such a pressing issue according to the news media and cyber security practitioners? One might argue that cyber security practitioners know the reality better than academics and policymakers; suggesting their warnings about the coming cyber threat is just a harbinger to the future. Using the bureaucratic politics model, others might conclude that the cyber security industry is a biased party whose interests lie in promoting the cyber threat. The news media just parrots these perspectives because the quotes come easy and the news stories prey on the fear the average citizen holds towards technology. The danger in declaring cyberwar a ‘top threat’ comes from distracting our attention from more pressing problems like collapsing states, human rights abuses, the proliferation of terrorism and WMDs, and internal violence in the form of civil war. Cyberwar is a dangerous issue in contemporary security politics, but it is nowhere near the top threat facing the United States.

#### Downblending overwhelmingly popular---broad consensus

Korb, 11

(Senior Fellow at American Progress, 8/11, Defense Cuts After the Debt Deal, http://www.americanprogress.org/issues/security/news/2011/08/11/10081/defense-cuts-after-the-debt-deal/)

Nuclear weapons: $33.72 billion While New START has set the United States on a path toward responsible reductions in our nuclear stockpile, CAP, POGO/TCS, and Sen. Coburn have all identified further areas of our nuclear program that can be cut responsibly. The plan released by POGO/TCS emphasizes canceling several nuclear weapon construction programs and calls for downblending highly enriched uranium and selling it as low-enriched uranium in order to bring in revenue. Our plan as well as Sen. Coburn’s recommend significantly reducing the nuclear weapons force structure. Ours calls for a reduction of the nuclear arsenal to 311 deployed warheads—at a savings of $33.27 billion by 2015. Sen. Coburn’s plan advises a reduction to 300 deployed ICBMs, at a savings of $79 billion through 2021. The six cuts to DOD spending proposed in this memo **represent areas of agreement among groups that span the political spectrum**. While CAP and the other organizations mentioned all have identified further cuts that can be made responsibly, these six areas alone represent significantly more than $350 billion in savings over the next 10 years. Congress will soon begin debating the implementation of the first stage of deficit reduction, and the 12 legislators who will comprise the Joint Super Committee will soon come together to identify $1.5 trillion in future savings. These responsible defense cuts, promoted by groups left, right, and center, should be at the top of their lists.

#### That outweighs their spending link

Costello, 11

(“Bipartisan Bill Strengthens Defenses against Nuclear Terror,” 12/20, http://www.fmwg.org/news.cfm?action=article&id=e1c3f76d-4a26-455f-8b90-750aad473e2b)

WASHINGTON, D.C. – The Fissile Materials Working Group, a coalition of US and international nuclear security experts formed to support and help implement the goal of securing all vulnerable fissile materials as quickly as possible, praised Congress for nearly fully funding the Fiscal Year (FY) 2012 budget request for vital programs to prevent nuclear and radiological terrorism, **demonstrating yet again the strong bipartisan support for these programs**. On December 16 the House approved the final FY 2012 Energy and Water appropriations bill as part of a larger Omnibus Appropriations Bill. The Senate followed suit on December 17. The bill provides all but $8 million of the FY 2012 request of $508 million for the Global Threat Reduction Initiative (GTRI), the key program in the effort to secure and eliminate dangerous nuclear material worldwide at an accelerated rate and protect and remove unwanted radiological sources. This level of funding represents an increase of $64 million over the FY 2011 enacted level. “The final appropriation for the Global Threat Reduction Initiative **demonstrates the broad-based bipartisan support that currently exists for combatting nuclear terrorism** and ensures that the U.S.-led effort to secure vulnerable nuclear materials will remain on track,” said Dr. Paul F. Walker, FMWG Steering Committee Member and Director of the Security and Sustainability Program at Global Green USA.

#### Controversy now

Douglas P Guarino 3-13, reporter for Global Security Newswire, House Panel Reaffirms Support for Oversight of Nuclear Weapons Complex, <http://www.nti.org/gsn/article/house-panel-reaffirms-support-oversight-nuke-complex/>

Members of the House Energy and Commerce Committee on Tuesday reaffirmed their position that greater Energy Department oversight of the U.S. nuclear weapons complex is needed in the wake of last year’s break-in at the Y-12 National Security Complex in Tennessee.

“The assessments made after the Y-12 incident show that the problem is not too much DOE oversight; it is too little,” Representative Henry Waxman (D-Calif.) said during a hearing of an Energy and Commerce subcommittee.

Panel members from both parties have taken an opposing view from Republicans on the House Armed Services Committee on the lesson delivered by the intrusion of an 82-year-old nun and two other peace activists into a secured area that holds weapon-grade uranium.

While GOP lawmakers on the Armed Services Committee have asserted the incident underscored the need to legislatively restrict DOE oversight of the semiautonomous National Nuclear Security Administration, Energy and Commerce lawmakers argued the opposite.

#### Labor fight kills the bill

Anna Palmer, 3/22/13, Immigration deal in limbo as business, labor clash, dyn.politico.com/printstory.cfm?uuid=1B5B052A-9CA3-4105-8BBE-B24B22287C3E

The Senate’s “Gang of Eight” is preparing to leave town with a deal on immigration reform in limbo, stalled by a fight between Big Labor and Big Business.

On Thursday morning, it had appeared that a deal was in hand over the major remaining sticking point: the outlines of a broad new visa program aimed at balancing the need for foreign workers in low-skilled jobs with the desires of American workers competing for those same jobs.

So much for optimism.

In a closed-door session that stretched late into Thursday night, **things got heated**. Sources said negotiations grew extremely tense after business groups balked. There were more talks on Friday — but no more progress, even though negotiations continued in a rare Friday night session of the Senate.

Now, the Gang of Eight faces a quandary. If senators can’t win the endorsement of labor and business, they must soon decide whether to go their own way — absent the support of the U.S. Chamber of Commerce and AFL-CIO — and hope the powerful interest groups stay neutral when a bill eventually emerges.

The senators said they would continue to negotiate with the interest groups during their two-week recess, with the goal of narrowing their differences, winning their backing and rolling out a proposal in the second week of April. That would set up a Senate Judiciary Committee vote before the end of the month, with floor votes by early summer.

“People have a lot at stake here,” said Sen. John McCain (R-Ariz.). “This is a huge deal. Talking about the lives of 11 million people just to start with, so I understand why passions are high, and sentiments are high."

Late Friday night, tensions were still at a boil. Labor officials accused Republicans and business groups of proposing “congressionally sanctioned poverty” for low-skilled workers. And Chamber officials attacked labor groups for preventing a deal from taking shape.

“The unions have jeopardized the entire immigration reform effort, which would provide a pathway to legalization and citizenship for the 10-11 million undocumented workers, because of their refusal to take a responsible stance on a small temporary worker program,” Randy Johnson, the Chamber’s senior vice president of Labor, Immigration, and Employee Benefits, said in a late Friday night statement. “These types of programs have always been considered a key part of comprehensive immigration reform.”

#### Fault lines are forming – Obama is stepping away and allowing it to crack

Nakamura 3-28. [David, Washington Post reporter, "Guest-worker dispute may delay immigration bill" Arizona Central -- www.azcentral.com/news/politics/free/20130328immigration-reform-guest-worker-program-dispute-may-delay-bill.html]

A **bipart**isan **deal on** **immigration is at risk of stalling** because of a **worsening dispute over a** new **guest-worker program**, **exposing fault lines** **between crucial interest groups and threatening to delay the** unveiling of a Senate **bill** early next month. The impasse has prompted a bitter round of name-calling between labor and business groups, both of whom accuse the other of **imperiling** comprehensive immigration **reform**. As the standoff has deteriorated, the Obama administration has remained on the sidelines and **declined to intervene** — a calculated decision that the president’s influence would risk alienating Republican senators crucial to the process. The dispute over a program for foreign workers has **emerged as** perhaps **the most serious obstacle** to a final deal from a bipartisan group of eight senators, who are attempting to fashion model legislation for broad immigration reform. The **same issue** **helped derail** the last serious attempt at **reform in** 2007 with help from Obama, then a U.S. senator from Illinois. The current talks center on rules governing the “future flow” of migrants who come to the United States for low-paying, menial jobs. Republicans, citing business interests, want to give temporary work visas to up to 400,000 foreign workers a year, mostly at minimum wages. But unions and many Democrats, fearing the impact on American workers, want fewer workers and higher pay under the program. Senators involved in the immigration talks insist they remain on schedule to complete a bill, including a path to citizenship for 11 million illegal immigrants, in early April. Obama also expressed confidence this week that the guest-workers disagreement could be solved. “I don’t agree that it’s threatening to doom the legislation,” Obama said in an interview Wednesday with Telemundo, the Spanish-language TV network. “Labor and businesses may not always agree exactly on how to do this, but this is a resolvable issue.” **But behind the scenes, negotiations over the** guest-worker **program — and the White House’s refusal to take a position — have soured relations** between the AFL-CIO and U.S. Chamber of Commerce, which only a month ago joined hands to publicly proclaim agreement on an overall plan. “Unions say they want a guest-worker program, but their behavior is to the contrary,” said Geoff Burr, vice president for federal affairs for the Associated Builders and Contractors. “They are insisting on a program that no employer would consider using.” Union officials believe they have leverage because they have publicly committed to supporting Obama’s push for a path to citizenship, a key issue for Latino voters who overwhelmingly supported the president’s reelection last year. “This is not what Barack Obama campaigned on,” AFL-CIO spokesman Jeff Hauser said. “I don’t understand why people believe business has a seat at the main table after fighting for anti-citizenship candidates in 2012.” As a senator eyeing union support for a White House bid, Obama voted in favor of an amendment to an immigration bill in 2007 that would have eliminated a new guest-worker program after five years. The amendment, which passed by one vote, has since been cited as a key reason that immigration legislation failed to advance that year. Obama **made no mention** of a guest-worker program in the immigration **principles he laid out** in a speech in Las Vegas two months ago. The **omission was notable** considering the bipartisan Senate group had included the idea in its own principles that same week.

#### Obama is pushing the controversial infrastructure bank with immigration and gun control – disproves the link

Dominic Rushe, staff writer, 3/29 [“Obama unveils plans to pump billions into US infrastructure in Miami speech,” The Guardian, 2013, http://www.guardian.co.uk/business/2013/mar/29/obama-us-infrastructure-spending-miami-speech]

Among his proposals were renewed calls for a $10bn "infrastructure bank." He also mentioned new plans for $4bn in loans and grants for infrastructure projects and tax breaks for foreign pension funds to encourage investment.¶ The president addressed America's "ageing infrastructure badly in need of repair" during his state of the union speech in February. The "fix it first" policy called for investing $50bn in transportation infrastructure, subject to Congressional approval.¶ Those proposals drew immediate fire from Republican rivals. House speaker John Boehner said: "It's easy to go out there and be Santa Claus and talk about all these things you want to give away, but at some point, somebody's got to pay the bill."¶ Obama's new emphasis on private funding appears to be driven in part by Republican opposition to increased government spending. It comes as he used the Easter recess to **put pressure** on lawmakers to take action on immigration reform and to enact gun-control measures.¶ A White House official said the president would press for infrastructure spending even as he continues his calls for other reforms. "As president you need to be able to do a lot of things at once," he said.

#### Energy fights inevitable

Nick Juliano, E&E Reporter, 3/21/13, Senate opens debate; vote-a-rama with controversial amendments looms, www.eenews.net/EEDaily/2013/03/21/2

The Senate yesterday began debating its budget resolution, and it faces a **marathon series of amendments aimed at forcing lawmakers to take positions on** a variety of **controversial issues**. The votes are slated to start as soon as today and potentially stretch into the weekend.

The coming flood of amendments -- known on Capitol Hill as a vote-a-rama because budget rules allow an unlimited number of amendments to be offered -- is expected to cover a number of policy areas, with several senators said to be mulling measures to force votes on the Keystone XL oil pipeline, EPA climate rules, expanded oil drilling and Endangered Species Act enforcement, among other issues.

Meanwhile, the House today is expected to pass Rep. Paul Ryan's (R-Wis.) budget resolution. Rules in the lower chamber kept extraneous policy amendments out of its budget debate, but the House yesterday did vote down several alternative budget resolutions -- from the conservative Republican Study Committee, the Congressional Progressive Caucus, the Congressional Black Caucus, House Democrats and a version of the Senate budget resolution.

Even if amendments pass in the Senate, they would have no immediate policy impact because the budget itself is nonbinding. Nonetheless, the votes would **force senators to take tough positions**, and they come at a time when **controversial votes** have been relatively rare in the upper chamber. Senate Republicans already are looking at the budget fight as an opportunity to generate political fodder to use against vulnerable Democrats in next year's election.

"We want to emphasize the difference between our budget and the Democratic budget," Sen. Lamar Alexander (R-Tenn.) said yesterday. "We believe in growing the economy, not growing the government."

Energy, EPA amendments

While the budget debate -- like almost everything else in Washington these days -- will focus primarily on the overarching issues of taxes, spending and debt, narrower policy fights also will receive some time in the spotlight.

"You'll see some energy stuff there," Sen. Lisa Murkowski (R-Alaska), the ranking member on the Energy and Natural Resources Committee, told E&E Daily last night.

Murkowski may offer an amendment that would open new federal lands or waters to oil and natural gas exploration in order to fund an "energy security trust fund" to research alternative transportation fuels. President Obama has called on Congress to create such a trust fund but does not want to allow new drilling to fund it, dimming the proposal's chance of gaining traction on Capitol Hill (E&E Daily, March 20).

"We're mulling over what we might want to do with that, and certainly have some opportunities with the budget," Murkowski said yesterday. "The president has put his ... energy trust security trust out there, but it's tough to get something like that going if you don't have the money to put into it. So I think that our proposal is one that should get the attention of some folks."

Sen. James Inhofe (R-Okla.) promised "lots" of amendments to the budget, which an aide said would include efforts to block EPA greenhouse gas regulation and target some Endangered Species Act activities. Inhofe is perhaps the Senate's most prominent skeptic of the prevailing scientific evidence that human activity is causing climate change, and he has been critical of endangered species decisions that interfere with energy development.

The Keystone XL pipeline, which for years has been waiting for a presidential permit to transport crude from Alberta's oil sands to Texas refineries, also is expected to be addressed via a Republican amendment, sources said this week.

Sen. John Hoeven (R-N.D.) is among the pipeline's leading champions and earlier this month introduced a stand-alone bill that would force its approval, but he has not explicitly committed to pressing the issue on the budget. Asked about the possibility of an amendment yesterday, Hoeven would say only "we're working on it" before disappearing onto the Senate floor.

The budget also is likely to reopen the debate over the production tax credit, which aids development of wind, geothermal, biomass and other renewable sources. Observers say a Republican likely will offer an amendment that would eliminate the credit, but it remains unclear who that will be. Alexander, a leading PTC critic, said he has not decided whether to offer an amendment.

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#### Exclusive method focus is circular

**Jackson**, associate professor of IR – School of International Service @ American University, **‘11**

(Patrick Thadeus, The Conduct of Inquiry in International Relations, p. 57-59)

Perhaps the greatest irony of this instrumental, decontextualized importation of “falsification” and its critics into IR is the way that an entire line of thought that privileged disconfirmation and refutation—no matter how complicated that disconfirmation and refutation was in practice—has been transformed into a license to **worry endlessly about foundational assumptions.** At the very beginning of the effort to bring terms such as “paradigm” to bear on the study of politics, Albert O. **Hirschman** (1970b, 338) **noted this very danger**, suggesting that without “a little more ‘reverence for life’ and a little less straightjacketing of the future,” the **focus on** producing internally **consistent** packages of **assumptions instead of** actually examining **complex empirical situations would result in scholarly paralysis.** Here as elsewhere, Hirschman appears to have been quite prescient, inasmuch as the major effect of paradigm and research programme language in IR seems to have been a series of debates and discussions about whether the fundamentals of a given school of thought were sufficiently “scientific” in their construction. Thus **we have debates about how to evaluate scientific progress**, and attempts to propose one or another set of research design principles **as uniquely scientific**, and inventive, “reconstructions” of IR schools, such as Patrick James’ “elaborated structural realism,” supposedly for the purpose of placing them on a **firmer scientific footing** by making sure that they have all of the required elements of a basically Lakatosian19 model of science (James 2002, 67, 98–103).

The bet with all of this scholarly activity seems to be that if we can just get the fundamentals right, then scientific progress will inevitably ensue . . . even though this is the precise opposite of what Popper and Kuhn and Lakatos argued! In fact, all of this obsessive interest in foundations and starting-points is, in form if not in content, a lot closer to logical positivism than it is to the concerns of the falsificationist philosophers, despite the prominence of language about “hypothesis testing” and the concern to formulate testable hypotheses among IR scholars engaged in these endeavors. That, above all, is why I have labeled this methodology of scholarship neopositivist. While it takes much of its self justification as a science from criticisms of logical positivism, in overall sensibility it still operates in a visibly positivist way, attempting to construct knowledge from the ground up by getting its foundations in logical order before concentrating on how claims encounter the world in terms of their theoretical implications. This is by no means to say that neopositivism is not interested in hypothesis testing; on the contrary, neopositivists are extremely concerned with testing hypotheses, but **only after the fundamentals have been** soundly **established.** Certainty, not conjectural provisionality, seems to be the goal—a goal that, ironically, Popper and Kuhn and Lakatos would all reject.

#### No impact – threat construction isn’t sufficient to cause wars

**Kaufman**, Prof Poli Sci and IR – U Delaware, **‘9**

(Stuart J, “Narratives and Symbols in Violent Mobilization: The Palestinian-Israeli Case,” *Security Studies* 18:3, 400 – 434)

Even when hostile narratives, group fears, and opportunity are strongly present, war occurs **only if these factors are harnessed.** Ethnic narratives and fears must combine to create significant ethnic hostility among mass publics. Politicians must also seize the opportunity to manipulate that hostility, evoking hostile narratives and symbols to gain or hold power by riding a wave of chauvinist mobilization. Such mobilization is often spurred by prominent events (for example, episodes of violence) that increase feelings of hostility and make chauvinist appeals seem timely. If the other group also mobilizes and if each side's felt security needs threaten the security of the other side, the result is a security dilemma spiral of rising fear, hostility, and mutual threat that results in violence. **A virtue of** this **symbolist theory is that symbolist logic explains why** ethnic **peace is more common than ethnonationalist war.** Even if hostile narratives, fears, and opportunity exist, severe violence usually can still be avoided if ethnic elites skillfully define group needs in moderate ways and collaborate across group lines to prevent violence: this is consociationalism.17 War is likely only if hostile narratives, fears, and opportunity spur hostile attitudes, chauvinist mobilization, and a security dilemma.

#### Patriarchy’s not the root cause

Bell, senior lecturer – Department of Politics and International Studies @ Cambridge University, ‘6

(Duncan, “Beware of false prophets: biology, human nature and the future of International Relations theory,” *International Affairs* 82, 3 p. 493–510)

Writing in *Foreign Aff airs* in 1998, Francis Fukuyama, tireless promulgator of the ‘end of history’ and now a member of the President’s Council on Bioethics, employed EP reasoning to argue for the central role in world politics of ‘masculine values’, which are ‘rooted in biology’. His argument starts with the claim that male and female chimps display asymmetric behaviour, with the males far more prone to violence and domination. ‘Female chimps have relationships; male chimps practice realpolitik.’ Moreover, the ‘line from chimp to modern man is continuous’ and this has signifi cant consequences for international politics.46 He argues that the world can be divided into two spheres, an increasingly peaceful and cooperative ‘feminized’ zone, centred on the advanced democracies, and the brutal world outside this insulated space, where the stark realities of power politics remain largely masculine. This bifurcation heralds dangers, as ‘masculine policies’ are essential in dealing with a masculine world: ‘In anything but a totally feminized world, feminized policies could be a liability.’ Fukuyama concludes the essay with the assertion that the form of politics best suited to human nature is—surprise, surprise—free-market capitalist democracy, and that other political forms, especially those promoted by feminists and socialists, do not correspond with our biological inheritance.47 Once again the authority of science is invoked in order to naturalize a particular political objective. This is a pattern that has been repeated across the history of modern biology and remains potent to this day.48 It is worth noting in brief that Fukuyama’s argument is badly flawed even in its own terms. As anthropologist R. Brian Ferguson states, Fukuyama’s claims about the animal world display ‘a breathtaking leap over a mountain of contrary evidence’.49 Furthermore, Joshua Goldstein concludes in the most detailed analysis of the data on war and gender that although biological differences do play a minor role, focusing so heavily on them is profoundly misleading.50 The simplistic claims, crude stereotyping and casual use of evidence that characterize Fukuyama’s essay unfortunately recur throughout the growing literature on the biology of international politics.

#### The alt fails – taking an ethical stance against patriarchal exploitation does nothing to alter material realities

Bina Agarwal 98, Professor of Economics, Institute of Economic Growth, University of Delhi, “Environmental management, equity and ecofeminism: Debating India's experience”, Journal of Peasant Studies, 25:4, 55-95

How does the ecofeminist formulation hold up in the light of women's experiences in the emergent community institutions? To begin with, these experiences call to question the claim that the women's movement and the environment movement both stand for egalitarian, non-hierarchical systems. As this experience shows, an agenda for 'greening' need not include one for transforming gender relations; indeed efforts at greening by male-biased institutions might sharpen gender inequalities and (as noted) even bring threats of violence upon women. Second, in relation to the ecofeminist claim that women have a special stake in environmental protection and regeneration, it is clear that women alone do not have such a stake. Both women and men whose livelihoods are threatened by the degradation of forests and commons are found to be interested in conservation and regeneration, but from different (and at times conflicting) concerns, stemming from differences in their respective responsibilities and the nature of their dependence on these resources. Men's interests can be traced mainly to the threat to their livelihood systems, their dependence on the local forests for supplementary income, and/or their need for small timber for house repairs and agricultural tools, which are their responsibility. Women's interests are linked more to the availability of fuel, fodder, and non-timber products, for which they are more directly responsible, and the depletion of which has meant everlengthening journeys. In other words, there is clearly a link between the gender division of labour and the gendered nature of the stakes. The women I interviewed from some Gujarat villages were unambiguous about this: Q: On what issues do men and women differ in forest protection committee meetings? A: Men can afford to wait for a while because their main concern is timber. But women need fuelwood daily. Third, women's concerns, even if pressing, do not necessarily translate into effective environmental action by the community or by women themselves. Case studies of several autonomous forest-management initiatives in Orissa (east India) highlight both the gendered motivation for forest protection and the unequal distribution of power which has enabled men's interests to supersede women's: In most of the cases protection efforts started only when the forest had degraded and communities faced shortage of small timber for construction of houses and agricultural implements. Although there was a scarcity of fuelwood, it hardly served as an initiating factor [ISO/Swedforest, 1993: 46]. Although firewood is a household necessity and not just a women-specific one, since it is women's unpaid labour that goes into providing it, any additional cost in terms of women's time and energy remains invisible or of insufficient importance to generate a community response. Women's own responses too are far from automatic. The experience of an NGO in Rajasthan, working on the regeneration of village commons, as described by Sarin and Sharma [1993: 122], illustrates this well: [TJhere is nothing 'automatic' in the extent of women's active participation in the development of village common lands, no matter how acute their hardship of searching for fuel and fodder. Even in the villages where women took the initiative and played a leadership role, this was preceded by enabling them to interact with other women's groups ... Continuous interaction with [the NGO's] women staff has been another crucial input for facilitating women's genuine participation. It is notable that even in the Chipko movement, the specific incident which served as catalyst was the conflict between a sports goods manufacturer who was granted government permission to cut a tract of oak forest and the village co-operative which was refused permission to cut even a few trees for agricultural implements. The growing firewood and fodder shortage that was causing women enormous hardship, did not elicit the same kind of response from the community or from the women.37 These experiences are in keeping with the alternative theoretical perspective to ecofeminism which I had spelt out elsewhere under the formulation, feminist environmentalism [Agarwal, 1992]. As I had argued then, and as the above discussion also indicates, people's relationship with nature, their interest in protecting it, and their ability to do so effectively, are significantly shaped by their material reality, their everyday dependence on nature for survival, and the social, economic and political tools at their command for furthering their concerns. Ideological constructions of gender, of nature, and of the relationship between the two, would impinge on how people respond to the environmental crisis, but cannot be seen as the central determinants of their response, as emphasised in ecofeminist discourse.38

#### War turns structural violence

Bulloch 8

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But the idea that poverty and peace are directly related presupposes that wealth inequalities are – in and of themselves – unjust, and that the solution to the problem of war is to alleviate the injustice that inspires conflict, namely poverty. However, it also suggests that poverty is a legitimate inspiration for violence, otherwise there would be no reason to alleviate it in the interests of peace. It has become such a commonplace to suggest that poverty and conflict are linked that it rarely suffers any examination. To suggest that war causes poverty is to utter an obvious truth, but to suggest the opposite is – on reflection – quite hard to believe. War is an expensive business in the twenty-first century, even asymmetrically. And just to examine Bangladesh for a moment is enough at least to raise the question concerning the actual connection between peace and poverty. The government of Bangladesh is a threat only to itself, and despite 30 years of the Grameen Bank, Bangladesh remains in a state of incipient civil strife. So although Muhammad Yunus should be applauded for his work in demonstrating the efficacy of micro-credit strategies in a context of development, it is not at all clear that this has anything to do with resolving the social and political crisis in Bangladesh, nor is it clear that this has anything to do with resolving the problem of peace and war in our times. It does speak to the Western liberal mindset – as Geir Lundestad acknowledges – but then perhaps this exposes the extent to which the Peace Prize itself has simply become an award that reflects a degree of Western liberal wish-fulfilment. It is perhaps comforting to believe that poverty causes violence, as it serves to endorse a particular kind of concern for the developing world that in turn regards all problems as fundamentally economic rather than deeply – and potentially radically – political.

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## 1ar – production

#### Energy production is extraction or conversion

COAG 9

(Department of Climate Change on behalf of the Council of Australian Governments (COAG) Expert Group on Streamlining Greenhouse and Energy Reporting, "national Greenhouse and Energy Reporting Streamlining Protocol," http://www.climatechange.gov.au/~/media/publications/greenhouse-report/nger-streamlining-protocol.pdf)

**‘Energy production’ is defined** in NGER Regulation 2.23: Production of energy, in relation to a facility, means any one of the following: (a) the extraction or capture of energy from natural sources for final consumption by or from the operation of the facility or for use other than in operation of the facility; (b) the manufacture of energy by the conversion of energy from one form **to another form for** **final consumption** by or from the operation of the facility or for use other than in the operation of the facility.

#### For nuclear power, that means fuel conversion

NASA, No Date [pg. http://www.sti.nasa.gov/sscg/44.html]

Definition

Energy Production – The production of electricity, combustible fuels, nuclear and thermonuclear fuels, and heating and cooling by renewable resources.

#### Takes out their reactor type distinction:

#### HEU can’t be used for production without downblending

Bunn, 12

(Prof-JFK School-Harvard, Consolidation: Thwarting Nuclear Theft, March, http://www.nuclearsummit.org/files/Consolidation\_Thwarting\_Nuclear\_Theft.pdf)

Removing Civil HEU

Once reactors have been converted to LEU or shut down and no longer need their HEU, **the HEU can be removed and consolidated at secure locations or blended down to LEU fuel that can be used in civilian power plants**. (In addition, there are some locations where there is unneeded HEU not associated with a research reactor, or HEU that is beyond what a reactor needs even though it is still operating with HEU.) Here, too, GTRI and other efforts have made significant progress – but there are gaps that should be addressed.

#### Empirically, downblending leads to fuel for power reactors

NFS, 12

(Nuclear Fuel Services, “HEU TO LEU CONVERSION (DOWNBLENDING),” http://www.nuclearfuelservices.com/downblending.php)

A significant tool in America's non-proliferation effort, NFS' patented HEU-to-LEU conversion technology is now considered the best available technology for eliminating HEU as a potential target of terrorists when compared to long-term storage in a government-owned facility or burial. The process was envisioned at the end of the Cold War by NFS and was brought to life through an historic project for the Tennessee Valley Authority (TVA) in the late 1990s. Termed the Blended Low Enriched Uranium (BLEU) Project, its successful completion saves $500 million to American taxpayers when compared to disposal of the HEU alone. The U.S. government deeded the HEU to TVA **for conversion into LEU fuel material for its commercial reactors,** also saving TVA rate payers significant dollars when compared to purchasing conventional reactor fuel. The value added in the uranium enrichment process originally used to manufacture the surplus HEU is enormous. Rather than bury this investment, the project has converted 33 metric tons of the material into 1.2 million pounds of useful LEU to **produce electrical power**. TVA saved millions of dollars on the purchase of LEU fuel by "reusing" existing stockpiles of HEU rather than purchasing new LEU fuel material that has been enriched from natural uranium by conventional methods for its commercial reactors. The project helped TVA to maintain some of the lowest electrical power rates in the nation for its ratepayers. The project has provided an amount of electrical power for U.S. households and businesses as 800,000 rail car loads of coal that would be burned in coal-fired power generation facilities. The environmental and natural resource "savings" are enormous. For the region, the BLEU Project represents a $150 million investment. The two facilities required for the project maintains a workforce of about 130. Most of the jobs have annual salaries in excess of $35,000. The "downblending" process is also utilized for other client projects **to provide LEU material for use in commercial reactors** or as a strategic reserve of fuel for America.

#### It’s for power reactors

Podvig, 12

(Center for International Security and Cooperation at Stanford University, PhD-University of Moscow, February, Disposition of Excess Military Nuclear Material, http://www.unidir.org/pdf/ouvrages/pdf-1-92-9045-012-C-en.pdf)

However, only about 100 tonnes of this HEU will be available before 2050. This leaves 210 tonnes of HEU that the United States designated for elimination as excess to its military needs. Elimination of the excess HEU in the United States is done by down-blending it with natural or low-enriched uranium (**LEU) to produce LEU that is then used to fuel power, research or special-purpose reactors**.

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## enviro

Environment is improving - more growth is key

Lomborg 11

Bjorn Lomborg, directs the Copenhagen Consensus Center and is the author of The Skeptical Environmentalist and Cool It, Newsweek, June 12, 2011, "A Roadmap for the Planet", http://www.thedailybeast.com/newsweek/2011/06/12/bjorn-lomborg-explains-how-to-save-the-planet.html#

Climate alarmists and campaigning environmentalists argue that the industrialized countries of the world have made sizable withdrawals on nature’s fixed allowance, and unless we change our ways, and soon, we are doomed to an abrupt end. Take the recent proclamation from the United Nations Environment Program, which argued that governments should dramatically cut back on the use of resources. The mantra has become commonplace: our current way of living is selfish and unsustainable. We are wrecking the world. We are gobbling up the last resources. We are cutting down the rainforest. We are polluting the water. We are polluting the air. We are killing plants and animals, destroying the ozone layer, burning the world through our addiction to fossil fuels, and leaving a devastated planet for future generations. In other words, humanity is doomed. It is a compelling story, no doubt. It is also fundamentally wrong, and the consequences are severe. Tragically, exaggerated environmental worries—and the willingness of so many to believe them—could ultimately prevent us from finding smarter ways to actually help our planet and ensure the health of the environment for future generations. Because, our fears notwithstanding, we actually get smarter. Although Westerners were once reliant on whale oil for lighting, we never actually ran out of whales. Why? High demand and rising prices for whale oil spurred a search for and investment in the 19th-century version of alternative energy. First, kerosene from petroleum replaced whale oil. We didn’t run out of kerosene, either: electricity supplanted it because it was a superior way to light our planet. For generations, we have consistently underestimated our capacity for innovation. There was a time when we worried that all of London would be covered with horse manure because of the increasing use of horse-drawn carriages. Thanks to the invention of the car, London has 7 million inhabitants today. Dung disaster averted. In fact, would-be catastrophes have regularly been pushed aside throughout human history, and so often because of innovation and technological development. We never just continue to do the same old thing. We innovate and avoid the anticipated problems. Think of the whales, and then think of the debate over cutting emissions today. Instead of singlemindedly trying to force people to do without carbon-emitting fuels, we must recognize that we won’t make any real progress in cutting CO2 emissions until we can create affordable, efficient alternatives. We are far from that point today: much-hyped technologies such as wind and solar energy remain very expensive and inefficient compared with cheap fossil fuels. Globally, wind provides just 0.3 percent of our energy, and solar a minuscule 0.1 percent. Current technology is so inefficient that, to take just one example, if we were serious about wind power, we would have to blanket most countries with wind turbines to generate enough energy for everybody, and we would still have the massive problem of storage. We don’t know what to do when the wind doesn’t blow. Making the necessary breakthroughs will require mass improvements across many technologies. The sustainable response to global warming, then, is one that sees us get much more serious about investment into alternative-energy research and development. This has a much greater likelihood of leaving future generations at least the same opportunities as we have today. Because what, exactly, is sustainability? Fourteen years ago, the United Nations World Commission on Environment and Development report “Our Common Future,” chaired by Gro Harlem Brundtland, provided the most-quoted definition. Sustainable development “meets the needs of the present without compromising the ability of future generations to meet their own needs.” The measure of success, then, is whether or not we give future generations the same opportunities that we have had. This prompts the question: have we lived unsustainably in the past? In fact, by almost any measure, humans have left a legacy of increased opportunity for their descendants. And this is true not just for the rich world but also for developing countries. In the last couple of hundred years we have become much richer than in all previous history. Available production per capita—the amount that an average individual can consume—increased eightfold between 1800 and 2000. In the past six decades, poverty has fallen more than in the previous 500 years. This decade alone, China will by itself lift 200 million individuals out of poverty. While one in every two people in the developing world was poor just 25 years ago, today it is one in four. Although much remains to be done, developing countries have become much more affluent, with a fivefold increase in real per capita income between 1950 and today. But it’s not just about money. The world has generally become a much better educated place, too. Illiteracy in the developing world has fallen from about 75 percent for the people born in the early part of the 1900s to about 12 percent among the young of today. More and more people have gained access to clean water and sanitation, improving health and income. And according to the U.N. Food and Agriculture Organization, the percentage of undernourished people in the developing world has dropped from more than 50 percent in 1950 to 16 percent today. As humans have become richer and more educated, we have been able to enjoy more leisure time. In most developed countries, where there are available data, yearly working hours have fallen drastically since the end of the 19th century: today we work only about half as much as we did then. Over the last 30 years or so, total free time for men and women has increased, thanks to reductions in workload and housework. Globally, life expectancy today is 69. Compare this with an average life span of 52 in 1960, or of about 30 in 1900. Advances in public health and technological innovation have dramatically lengthened our lives. We have consistently achieved these remarkable developments by focusing on technological innovation and investment designed to create a richer future. And while major challenges remain, the future appears to hold great promise, too. The U.N. estimates that over this century, the planet’s human inhabitants will become 14 times richer and the average person in the developing world a whopping 24 times richer. By the end of the century, the U.N. estimates we will live to be 85 on average, and virtually everyone will read, write, and have access to food, water, and sanitation. That’s not too shabby. Rather than celebrating this amazing progress, many find it distasteful. Instead of acknowledging and learning from it, we bathe ourselves in guilt, fretting about our supposed unsustainable lives. Certainly many argue that while the past may have improved, surely it doesn’t matter for the future, because we are destroying the environment! But not so fast. In recent decades, air quality in wealthy countries has vastly improved. In virtually every developed country, the air is more breathable and the water is more drinkable

than they were in 1970. London, renowned for centuries for its infamous smog and severe pollution, today has the cleanest air that it has had since the Middle Ages. Today, some of the most polluted places in the world are the megacities of the developing world, such as Beijing, New Delhi, and Mexico City. But remember what happened in developed countries. Over a period of several hundred years, increasing incomes were matched by increasing pollution. In the 1930s and 1940s, London was more polluted than Beijing, New Delhi, or Mexico City are today. Eventually, with increased affluence, developed countries gradually were better able to afford a cleaner environment. That is happening already today in some of the richest developing countries: air-pollution levels in Mexico City have been dropping precisely because of better technology and more wealth. Though air pollution is by far the most menacing for humans, water quality has similarly been getting better. Forests, too, are regrowing in rich countries, though still being lost in poor places where slash-and-burn is preferable to starvation.

## 1ar epistemology

Paralysis – constant critique of epistemology **can’t create alternatives** – that’s Jackson

#### Causes endless paradigm wars

**Wendt**, professor of international security – Ohio State University, **‘98**

(Alexander, “On Constitution and Causation in International Relations,” British International Studies Association)

As a community, we in the academic study of international politics spend too much time worrying about the kind of issues addressed in this essay. The **central point** of IR scholarship is to increase our knowledge of how the world works, not to worry about how (or whether) we can know how the world works. What matters for IR is ontology, not epistemology. This doesn’t mean that there are no interesting epistemological questions in IR, and even less does it mean that there are no important political or sociological aspects to those questions. Indeed there are, as I have suggested above, and as a discipline IR should have more awareness of these aspects. At the same time, however, these are questions best addressed by philosophers and sociologists of knowledge, not political scientists. Let’s face it: most IR scholars, including this one, have little or no proper training in epistemology, and as such the attempt to solve epistemological problems anyway will **inevitably lead to confusion** (after all, **after 2000 years, even** the **specialists are still having a hard time**). Moreover, as long as we let our research be driven in an open-minded fashion by substantive questions and problems rather than by epistemologies and methods, there is little need to answer epistemological questions either. It is simply not the case that we have to undertake an epistemological analysis of how we can know something before we can know it, a fact amply attested to by the success of the natural sciences, whose practitioners are only rarely forced by the results of their inquiries to consider epistemological questions. In important respects we do know how international politics works, and it doesn’t much matter how we came to that knowledge. In that light, going into the epistemology business will distract us from the real business of IR, which is international politics. **Our great debates should be about first-order issues of substance**, like the ‘first debate’ between Realists and Idealists, **not second-order issues of method.**

Unfortunately, it is no longer a simple matter for IR scholars to ‘just say no’ to epistemological discourse. The problem is that this discourse has already contaminated our thinking about international politics, helping to polarize the discipline into ‘**paradigm wars’**. Although the resurgence of these wars in the 1980s and 90s is due in large part to the rise of post-positivism, its roots lie in the epistemological anxiety of positivists, who since the 1950s have been very concerned to establish the authority of their work as Science. This is an important goal, one that I share, but its implementation has been marred by an overly narrow conception of science as being concerned only with causal questions that can be answered using the methods of natural science. The effect has been to marginalize historical and interpretive work that does not fit this mould, and to encourage scholars interested in that kind of work to see themselves as somehow not engaged in science. One has to wonder whether the two sides should be happy with the result. Do positivists really mean to suggest that it is not part of science to ask questions about how things are constituted, questions which if those things happen to be made of ideas might only be answerable by interpretive methods? If so, then they seem to be saying that the double-helix model of DNA, and perhaps much of rational choice theory, is not science. And do post-positivists really mean to suggest that students of social life should not ask causal questions or attempt to test their claims against empirical evidence? If so, then it is **not clear by what criteria their work should be judged**, **or how it differs from art or revelation**. On both sides, in other words, the result of the Third Debate’s **sparring over epistemology is often one-sided, intolerant caricatures** of science.

#### Reality outweighs representations

**Wendt, 1999**

Alexander Wendt, Professor of International Security at Ohio State University, 1999, “Social theory of international politics,” gbooks

The effects of holding a relational theory of meaning on theorizing about world politics are apparent in **David Campbell's** provocative study of US foreign policy, which **shows** how the **threats** posed by the Soviets, immigration, drugs, and so on, **were constructed** out of US national security discourse.29 The book clearly shows that material things in the world did not force US decision-makers to have particular representations of them - the picture theory of reference does not hold. In so doing it highlights the discursive aspects of truth and reference, the sense in which objects are relationally "constructed."30 On the other hand, while emphasizing several times that he is not denying the reality of, for example, Soviet actions, he specifically eschews (p. 4) any attempt to assess the extent to which they caused US representations. Thus **he cannot address the extent to which US representations of the Soviet threat were accurate or true** (questions of correspondence). **He can only focus on the nature and consequences of the representations**.31 Of course, there is nothing in the social science rule book which requires an interest in causal questions, and the nature and consequences of representations are important questions. In the terms discussed below he is engaging in a constitutive rather than causal inquiry. However, I suspect **Campbell thinks that any attempt to assess the correspondence of discourse to reality is inherently pointless.** According to the relational theory of reference **we simply have no access to what the Soviet threat "really" was, and as such its truth is established entirely within discourse**, not by the latter's correspondence to an extra-discursive reality 32 **The main problem** with the relational theory of reference **is that it cannot account for the resistance of the world to certain representations, and thus for representational failures or m/'sinterpretations**. Worldly resistance is most obvious in nature: whether our discourse says so or not, pigs can't fly. But examples abound in society too. **In 1519 Montezuma faced the same kind of epistemological problem facing social scientists today: how to refer to people who, in his case, called themselves Spaniards. Many representations were conceivable**, and no doubt the one he chose - that they were **gods - drew on the discursive materials available to him. So why was he killed and his empire destroyed by an army hundreds of times smaller than his own**? The realist answer is that **Montezuma was simply wrong: the Spaniards were not gods, and had come instead to conquer his empire. Had Montezuma adopted this alternative representation of what the Spanish were, he might have prevented this outcome because that representation would have corresponded more to reality. The reality of the conquistadores did not force him to have a true representation**, as the picture theory of reference would claim, **but it did have certain effects - whether his discourse allowed them or not.** The external world to which we ostensibly lack access, in other words. often frustrates or penalizes representations. **Postmodernism gives us no insight into why this is so, and indeed, rejects the question altogether.33** The description theory of reference favored by empiricists focuses on sense-data in the mind while the relational theory of the postmoderns emphasizes relations among words, but they are similar in at least one crucial respect: neither grounds meaning and truth in an external world that regulates their content.34 Both privilege epistemology over ontology. What is needed is a theory of reference that takes account of the contribution of mind and language yet is anchored to external reality. The realist answer is the causal theory of reference. According to the causal theory the meaning of terms is determined by a two-stage process.35 First there is a "baptism/' in which some new referent in the environment (say, a previously unknown animal) is given a name; then this connection of thing-to-term is handed down a chain of speakers to contemporary speakers. Both stages are causal, the first because the referent impressed itself upon someone's senses in such a way that they were induced to give it a name, the second because the handing down of meanings is a causal process of imitation and social learning. Both stages allow discourse to affect meaning, and as such do not preclude a role for "difference" as posited by the relational theory. Theory is underdetermined by reality, and as such the causal theory is not a picture theory of reference. However, conceding these points does not mean that meaning is entirely socially or mentally constructed. In the realist view beliefs are determined by discourse and nature.36 This solves the key problems of the description and relational theories: our ability to refer to the same object even if our descriptions are different or change, and the resistance of the world to certain representations. **Mind and language help determine meaning, but meaning is also regulated by a mind-independent, extra-linguistic world**.

## util

#### Util’s the only moral framework

**Murray 97** (Alastair, Professor of Politics at U. Of Wales-Swansea, *Reconstructing Realism*, p. 110)

Weber emphasised that, while the 'absolute ethic of the gospel' must be taken seriously, it is inadequate to the tasks of evaluation presented by politics. Against this 'ethic of ultimate ends' — Gesinnung — he therefore proposed the 'ethic of responsibility' — Verantwortung. First, whilst the former dictates only the purity of intentions and pays no attention to consequences, the ethic of responsibility commands acknowledgement of the divergence between intention and result. Its adherent 'does not feel in a position to burden others with the results of his [OR HER] own actions so far as he was able to foresee them; he [OR SHE] will say: these results are ascribed to my action'. Second, the 'ethic of ultimate ends' is incapable of dealing adequately with the moral dilemma presented by the necessity of using evil means to achieve moral ends: Everything that is striven for through political action operating with violent means and following an ethic of responsibility endangers the 'salvation of the soul.' If, however, one chases after the ultimate good in a war of beliefs, following a pure ethic of absolute ends, then the goals may be changed and discredited for generations, because responsibility for consequences is lacking. The 'ethic of responsibility', on the other hand, can accommodate this paradox and limit the employment of such means, because it accepts responsibility for the consequences which they imply. Thus, Weber maintains that only the ethic of responsibility can cope with the 'inner tension' between the 'demon of politics' and 'the god of love'. 9 The realists followed this conception closely in their formulation of a political ethic.10 This influence is particularly clear in Morgenthau.11 In terms of the first element of this conception, the rejection of a purely deontological ethic, Morgenthau echoed Weber's formulation, arguing tha/t:the political actor has, beyond the general moral duties, a special moral responsibility to act wisely ... The individual, acting on his own behalf, may act unwisely without moral reproach as long as the consequences of his inexpedient action concern only [HER OR] himself. What is done in the political sphere by its very nature concerns others who must suffer from unwise action. What is here done with good intentions but unwisely and hence with disastrous results is morally defective; for it violates the ethics of responsibility to which all action affecting others, and hence political action par excellence, is subject.12 This led Morgenthau to argue, in terms of the concern to reject doctrines which advocate that the end justifies the means, that the impossibility of the logic underlying this doctrine 'leads to the negation of absolute ethical judgements altogether'.13

## navy/deter

#### Pursuit of hegemony’s locked-in

Zach Dorfman 12, assistant editor of Ethics and International Affairs, the journal of the Carnegie Council, and co-editor of the Montreal Review, “What We Talk About When We Talk About Isolationism”, May 18, <http://dissentmagazine.org/online.php?id=605>

The rise of China notwithstanding, the United States remains the world’s sole superpower. Its military (and, to a considerable extent, political) hegemony extends not just over North America or even the Western hemisphere, but also Europe, large swaths of Asia, and Africa. Its interests are global; nothing is outside its potential sphere of influence. There are an estimated 660 to 900 American military bases in roughly forty countries worldwide, although figures on the matter are notoriously difficult to ascertain, largely because of subterfuge on the part of the military. According to official data there are active-duty U.S. military personnel in 148 countries, or over 75 percent of the world’s states. The United States checks Russian power in Europe and Chinese power in South Korea and Japan and Iranian power in Iraq, Afghanistan, and Turkey. In order to maintain a frigid peace between Israel and Egypt, the American government hands the former $2.7 billion in military aid every year, and the latter $1.3 billion. It also gives Pakistan more than $400 million dollars in military aid annually (not including counterinsurgency operations, which would drive the total far higher), Jordan roughly $200 million, and Colombia over $55 million.

U.S. long-term military commitments are also manifold. It is one of the five permanent members of the UN Security Council, the only institution legally permitted to sanction the use of force to combat “threats to international peace and security.” In 1949 the United States helped found NATO, the first peacetime military alliance extending beyond North and South America in U.S. history, which now has twenty-eight member states. The United States also has a trilateral defense treaty with Australia and New Zealand, and bilateral mutual defense treaties with Japan, Taiwan, the Philippines, and South Korea. It is this sort of reach that led Madeleine Albright to call the United States the sole “indispensible power” on the world stage.

The idea that global military dominance and political hegemony is in the U.S. national interest—and the world’s interest—is generally taken for granted domestically. Opposition to it is limited to the libertarian Right and anti-imperialist Left, both groups on the margins of mainstream political discourse. Today, American supremacy is assumed rather than argued for: in an age of tremendous political division, it is a bipartisan first principle

of foreign policy, a presupposition. In this area at least, one wishes for a little less agreement.

In Promise and Peril: America at the Dawn of a Global Age, Christopher McKnight Nichols provides an erudite account of a period before such a consensus existed, when ideas about America’s role on the world stage were fundamentally contested. As this year’s presidential election approaches, each side will portray the difference between the candidates’ positions on foreign policy as immense. Revisiting Promise and Peril shows us just how narrow the American worldview has become, and how our public discourse has become narrower still.

Nichols focuses on the years between 1890 and 1940, during America’s initial ascent as a global power. He gives special attention to the formative debates surrounding the Spanish-American War, U.S. entry into the First World War, and potential U.S. membership in the League of Nations—debates that were constitutive of larger battles over the nature of American society and its fragile political institutions and freedoms. During this period, foreign and domestic policy were often linked as part of a cohesive political vision for the country. Nichols illustrates this through intellectual profiles of some of the period’s most influential figures, including senators Henry Cabot Lodge and William Borah, socialist leader Eugene Debs, philosopher and psychologist William James, journalist Randolph Bourne, and the peace activist Emily Balch. Each of them interpreted isolationism and internationalism in distinct ways, sometimes deploying the concepts more for rhetorical purposes than as cornerstones of a particular worldview.

Today, isolationism is often portrayed as intellectually bankrupt, a redoubt for idealists, nationalists, xenophobes, and fools. Yet the term now used as a political epithet has deep roots in American political culture. Isolationist principles can be traced back to George Washington’s farewell address, during which he urged his countrymen to steer clear of “foreign entanglements” while actively seeking nonbinding commercial ties. (Whether economic commitments do in fact entail political commitments is another matter.) Thomas Jefferson echoed this sentiment when he urged for “commerce with all nations, [and] alliance with none.” Even the Monroe Doctrine, in which the United States declared itself the regional hegemon and demanded noninterference from European states in the Western hemisphere, was often viewed as a means of isolating the United States from Europe and its messy alliance system.

In Nichols’s telling, however, modern isolationism was born from the debates surrounding the Spanish-American War and the U.S. annexation of the Philippines. Here isolationism began to take on a much more explicitly anti-imperialist bent. Progressive isolationists such as William James found U.S. policy in the Philippines—which it had “liberated” from Spanish rule just to fight a bloody counterinsurgency against Philippine nationalists—anathema to American democratic traditions and ideas about national self-determination.

As Promise and Peril shows, however, “cosmopolitan isolationists” like James never called for “cultural, economic, or complete political separation from the rest of the world.” Rather, they wanted the United States to engage with other nations peacefully and without pretensions of domination. They saw the United States as a potential force for good in the world, but they also placed great value on neutrality and non-entanglement, and wanted America to focus on creating a more just domestic order. James’s anti-imperialism was directly related to his fear of the effects of “bigness.” He argued forcefully against all concentrations of power, especially those between business, political, and military interests. He knew that such vested interests would grow larger and more difficult to control if America became an overseas empire.

Others, such as “isolationist imperialist” Henry Cabot Lodge, the powerful senator from Massachusetts, argued that fighting the Spanish-American War and annexing the Philippines were isolationist actions to their core. First, banishing the Spanish from the Caribbean comported with the Monroe Doctrine; second, adding colonies such as the Philippines would lead to greater economic growth without exposing the United States to the vicissitudes of outside trade. Prior to the Spanish-American War, many feared that the American economy’s rapid growth would lead to a surplus of domestic goods and cause an economic disaster. New markets needed to be opened, and the best way to do so was to dominate a given market—that is, a country—politically. Lodge’s defense of this “large policy” was public and, by today’s standards, quite bald. Other proponents of this policy included Teddy Roosevelt (who also believed that war was good for the national character) and a significant portion of the business class. For Lodge and Roosevelt, “isolationism” meant what is commonly referred to today as “unilateralism”: the ability for the United States to do what it wants, when it wants.

Other “isolationists” espoused principles that we would today call internationalist. Randolph Bourne, a precocious journalist working for the New Republic, passionately opposed American entry into the First World War, much to the detriment of his writing career. He argued that hypernationalism would cause lasting damage to the American social fabric. He was especially repulsed by wartime campaigns to Americanize immigrants. Bourne instead envisioned a “transnational America”: a place that, because of its distinct cultural and political traditions and ethnic diversity, could become an example to the rest of the world. Its respect for plurality at home could influence other countries by example, but also by allowing it to mediate international disputes without becoming a party to them. Bourne wanted an America fully engaged with the world, but not embroiled in military conflicts or alliances.

This was also the case for William Borah, the progressive Republican senator from Idaho. Borah was an agrarian populist and something of a Jeffersonian: he believed axiomatically in local democracy and rejected many forms of federal encroachment. He was opposed to extensive immigration, but not “anti-immigrant.” Borah thought that America was strengthened by its complex ethnic makeup and that an imbalance tilted toward one group or another would have deleterious effects. But it is his famously isolationist foreign policy views for which Borah is best known. As Nichols writes:

He was consistent in an anti-imperialist stance against U.S. domination abroad; yet he was ambivalent in cases involving what he saw as involving obvious national interest….He also without fail argued that any open-ended military alliances were to be avoided at all costs, while arguing that to minimize war abroad as well as conflict at home should always be a top priority for American politicians.

Borah thus cautiously supported entry into the First World War on national interest grounds, but also led a group of senators known as “the irreconcilables” in their successful effort to prevent U.S. entry into the League of Nations. His paramount concern was the collective security agreement in the organization’s charter: he would not assent to a treaty that stipulated that the United States would be obligated to intervene in wars between distant powers where the country had no serious interest at stake.

Borah possessed an alternative vision for a more just and pacific international order. Less than a decade after he helped scuttle American accession to the League, he helped pass the Kellogg-Briand Pact (1928) in a nearly unanimous Senate vote. More than sixty states eventually became party to the pact, which outlawed war between its signatories and required them to settle their disputes through peaceful means. Today, realists sneer at the idealism of Kellogg-Briand, but the Senate was aware of the pact’s limitations and carved out clear exceptions for cases of national defense. Some supporters believed that, if nothing else, the law would help strengthen an emerging international norm against war. (Given what followed, this seems like a sad exercise in wish-fulfillment.) Unlike the League of Nations charter, the treaty faced almost no opposition from the isolationist bloc in the Senate, since it did not require the United States to enter into a collective security agreement or abrogate its sovereignty. This was a kind of internationalism Borah and his irreconcilables could proudly support.

The United States today looks very different from the country in which Borah, let alone William James, lived, both domestically (where political and civil freedoms have been extended to women, African Americans, and gays and lesbians) and internationally (with its leading role in many global institutions). But different strains of isolationism persist. Newt Gingrich has argued for a policy of total “energy independence” (in other words, domestic drilling) while fulminating against President Obama for “bowing” to the Saudi king. While recently driving through an agricultural region of rural Colorado, I saw a giant roadside billboard calling for American withdrawal from the UN.

Yet in the last decade, the Republican Party, with the partial exception of its Ron Paul/libertarian faction, has veered into such a belligerent unilateralism that its graybeards—one of whom, Senator Richard Lugar of Indiana, just lost a primary to a far-right challenger partly because of his reasonableness on foreign affairs—were barely able to ensure Senate ratification of a key nuclear arms reduction treaty with Russia. Many of these same people desire a unilateral war with Iran.

And it isn’t just Republicans. Drone attacks have intensified in Yemen, Pakistan, and elsewhere under the Obama administration. Massive troop deployments continue unabated. We spend over $600 billion dollars a year on our military budget; the next largest is China’s, at “only” around $100 billion. Administrations come and go, but the national security state appears here to stay.

## impacts

#### Their conception of violence is reductive and can’t be solved

Boulding 77

Twelve Friendly Quarrels with Johan Galtung

Author(s): Kenneth E. BouldingReviewed work(s):Source: Journal of Peace Research, Vol. 14, No. 1 (1977), pp. 75-86Published

Kenneth Ewart Boulding (January 18, 1910 – March 18, 1993) was an economist, educator, peace activist, poet, religious mystic, devoted Quaker, systems scientist, and interdisciplinary philosopher.[1][2] He was cofounder of General Systems Theory and founder of numerous ongoing intellectual projects in economics and social science.

He graduated from Oxford University, and was granted United States citizenship in 1948. During the years 1949 to 1967, he was a faculty member of the University of Michigan. In 1967, he joined the faculty of the University of Colorado at Boulder, where he remained until his retirement.

Finally, we come to the great Galtung metaphors of 'structural violence' 'and 'positive peace'. They are metaphors rather than models, and for that very reason are suspect. Metaphors always imply models and metaphors have much more persuasive power than models do, for models tend to be the preserve of the specialist. But when a metaphor implies a bad model it can be very dangerous, for it is both persuasive and wrong. The metaphor of structural violence I would argue falls right into this category. The metaphor is that poverty, deprivation, ill health, low expectations of life, a condition in which more than half the human race lives, is 'like' a thug beating up the victim and 'taking his money away from him in the street, or it is 'like' a conqueror stealing the land of the people and reducing them to slavery. The implication is that poverty and its associated ills are the fault of the thug or the conqueror and the solution is to do away with thugs and conquerors. While there is some truth in the metaphor, in the modern world at least there is not very much. Violence, whether of the streets and the home, or of the guerilla, of the police, or of the armed forces, is a very different phenomenon from poverty. The processes which create and sustain poverty are not at all like the processes which create and sustain violence, although like everything else in 'the world, everything is somewhat related to everything else. There is a very real problem of the structures which lead to violence, but unfortunately Galitung's metaphor of structural violence as he has used it has diverted attention from this problem. Violence in the behavioral sense, that is, somebody actually doing damage to somebody else and trying to make them worse off, is a 'threshold' phenomenon, rather like the boiling over of a pot. The temperature under a pot can rise for a long time without its boiling over, but at some 'threshold boiling over will take place. The study of the structures which underlie violence are a very important and much neglected part of peace research and indeed of social science in general. Threshold phenomena like violence are difficult to study because they represent 'breaks' in the systenm rather than uniformities. Violence, whether between persons or organizations, occurs when the 'strain' on a system is too great for its 'strength'. The metaphor here is that violence is like what happens when we break a piece of chalk. Strength and strain, however, especially in social systems, are so interwoven historically that it is very difficult to separate them. The diminution of violence involves two possible strategies, or a mixture of the two; one is Ithe increase in the strength of the system, 'the other is the diminution of the strain. The strength of systems involves habit, culture, taboos, and sanctions, all these 'things which enable a system to stand lincreasing strain without breaking down into violence. The strains on the system 'are largely dynamic in character, such as arms races, mutually stimulated hostility, changes in relative economic position or political power, which are often hard to identify. Conflicts of interest 'are only part 'of the strain on a system, and not always the most important part. It is very hard for people ito know their interests, and misperceptions of 'interest take place mainly through the dynamic processes, not through the structural ones. It is only perceptions of interest which affect people's behavior, not the 'real' interests, whatever these may be, and the gap between percepti'on and reality can be very large and resistant to change. However, what Galitung calls structural violence (which has been defined 'by one unkind commenltator as anything that Galitung doesn't like) was originally defined as any unnecessarily low expectation of life, on that assumption that anybody who dies before the allotted span has been killed, however unintentionally and unknowingly, by somebody else. The concept has been expanded to include all 'the problems of poverty, destitution, deprivation, and misery. These are enormously real and are a very high priority for research and action, but they belong to systems which are only peripherally related to 'the structures whi'ch produce violence. This is not rto say that the cultures of violence and the cultures of poverty are not sometimes related, though not all poverty cultures are cultures of violence, and certainly not all cultures of violence are poverty cultures. But the dynamics lof poverty and the success or failure to rise out of it are of a complexity far beyond anything which the metaphor of structural violence can offer. While the metaphor of structural violence performed a service in calling attention to a problem, it may have d'one a disservice in preventing us from finding the answer.

#### Quality of life is skyrocketing worldwide by all measures

Ridley, visiting professor at Cold Spring Harbor Laboratory, former science editor of *The Economist*, and award-winning science writer, 2010

(Matt, *The Rational Optimist*, pg. 13-15)

If my fictional family is not to your taste, perhaps you prefer statistics. Since 1800, the population of the world has multiplied six times, yet **average life expectancy has more than doubled and real income has risen more than nine times**. Taking a shorter perspective, in 2005, compared with 1955, the average human being on Planet Earth earned nearly three times as much money (corrected for inflation), ate one-third more calories of food, buried one-third as many of her children and could expect to live one-third longer. She was less likely to die as a result of war, murder, childbirth, accidents, tornadoes, flooding, famine, whooping cough, tuberculosis, malaria, diphtheria, typhus, typhoid, measles, smallpox, scurvy or polio. She was less likely, at any given age, to get cancer, heart disease or stroke. She was more likely to be literate § Marked 15:06 § and to have finished school. She was more likely to own a telephone, a flush toilet, a refrigerator and a bicycle. All this during a half-century when the world population has more than doubled, so that far from being rationed by population pressure, the goods and services available to the people of the world have expanded. It is, by any standard, an astonishing human achievement. Averages conceal a lot. **But even if you break down the world into bits**, **it is hard to find any region that was worse off in 2005 than it was in 1955**. Over that half-century, real income per head ended a little lower in only six countries (Afghanistan, Haiti, Congo, Liberia, Sierra Leone and Somalia), life expectancy in three (Russia, Swaziland and Zimbabwe), and infant survival in none. In the rest they have rocketed upward. Africa’s rate of improvement has been distressingly slow and patchy compared with the rest of the world, and many southern African countries saw life expectancy plunge in the 1990s as the AIDS epidemic took hold (before recovering in recent years). There were also moments in the half-century when you could have caught countries in episodes of dreadful deterioration of living standards or life chances – China in the 1960s, Cambodia in the 1970s, Ethiopia in the 1980s, Rwanda in the 1990s, Congo in the 2000s, North Korea throughout. Argentina had a disappointingly stagnant twentieth century. But overall, after fifty years, **the outcome for the world is** remarkably, astonishingly, **dramatically positive**. The average South Korean lives twenty-six more years and earns fifteen times as much income each year as he did in 1955 (and earns fifteen times as much as his North Korean counter part). The average Mexican lives longer now than the average Briton did in 1955. The average Botswanan earns more than the average Finn did in 1955. **Infant mortality is lower today in Nepal than it was in Italy in 1951**. The proportion of Vietnamese living on less than $2 a day has dropped from 90 per cent to 30 per cent in twenty years. The rich have got richer, but the poor have done even better. **The poor in the developing world grew their consumption twice as fast as the world as a whole between 1980 and 2000**. The Chinese are ten times as rich, one-third as fecund and twenty-eight years longer-lived than they were fifty years ago. Even Nigerians are twice as rich, 25 per cent less fecund and nine years longer-lived than they were in 1955. **Despite a doubling of the world population**, even **the raw number of people living in absolute poverty** (defined as less than a 1985 dollar a day) **has fallen since the 1950s**. The percentage living in such absolute poverty has dropped by more than half – to less than 18 per cent. That number is, of course, still all too horribly high, but the trend is hardly a cause for despair: at the current rate of decline, it would hit zero around 2035 – though it probably won’t. The United Nations estimates that poverty was reduced more in the last fifty years than in the previous 500.