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### Contention 1: SQ

#### Contention One: The Status Quo

#### First, nano development in Mexico is on the rise – it’s unregulated and risks spinning out of control

Inter Press Service 12 (Tierramérica, “MEXICO: Scientists Call For Regulation of Nanotechnology,” 03/12/2012, http://www.tierramerica.info/nota.php?lang=eng&idnews=3920&olt=568, AC)

MEXICO CITY, Mar 12 (Tierramérica).- Nanotechnology, which is currently unregulated in Mexico, could pose serious threats to human health and the environment, cautions a new study. "Far from a policy of precaution vis-à-vis these new technologies, products are entering the market without regulation to guarantee their safety or labels to inform of their use," researcher Guillermo Foladori of the public Autonomous University of Zacatecas told Tierramérica. Foladori and his colleague Noela Invernizzi are the co-authors of a new report, "Implicaciones sociales y ambientales del desarrollo de las nanotecnologías en América Latina y el Caribe" (Social and Environmental Implications of Nanotechnology Development in Latin America and the Caribbean), presented on Mar. 7 in Mexico City. Nanotechnology involves the manipulation of matter on an atomic and molecular scale to change its physical and chemical properties, and is used in electronic components, cosmetics and packaging, among other products.

#### And, haphazard development risks spilling over

Foladori and Lau 7

(ReLANS coordinators, Doctoral Program in Development Studies Universidad Autónoma de Zacatecas Zacatecas, México, “Nanotechnologies in Latin America,” pg online @ <http://www.rosalux.de/fileadmin/rls_uploads/pdfs/Manuskripte_81.pdf> //um-ef)

At the beginning of 2002, all nanotechnology-related research became an area of strategic importance, with some funding directed to support its development. The Programa Especial de Ciencia y Tecnología 2001-2006 (Special Program for Science and Technology 2001-2006), which is embedded inside the National Development Plan 2001-2006, views nanotechnology as a strategic area within the science of advanced materials. In the same document, the core areas to be developed are depicted in detail and include nanostructures, semiconductors, metallurgy, biomaterials, optical components, advance ceramics and modulation of materials and processes. Additionally, the Development Plan reviews the available resources in research centers with a special focus on human resources, equipment and the connections they have with industry. The Programa Especial points out the pressing need for creating a national plan on nanotechnology development and the necessity to encourage the formation of networks for scientific exchange in the area (CONACYT, 2002). Moreover, the National Development Plan 2001-2006 identifies nanotechnology research as an important subfield inside the energy sector, above all others within the framework of the Instituto Mexicano del Petróleo (“IMP”) (Mexican Institute of Petroleum). The conditions and provisions to create and implement a National Initiative for Nanotechnology Development were present, but the lack of funding and the absence of an executive plan created barriers to fully develop a national initiative for nanotechnology. In this regard, the budget for Science and Technology (“S&T”) has dramatically decreased in the last five years. In the National Development Plan, it was expected that the disbursement for Research and Development (“R&D”) would reach 1% of Gross National Product (“GDP”) by 2006. By 2004 this estimate was reduced to 0.5% of GDP and by 2005 it barely reached 0.4%. This could change at any time. One indicator of change is the report issued by the Committee for Science and Technology of the Senate of the Republic in 2005. In this document, the Committee pronounced itself in favor of preparation for a National Emergency Program for investment in research and teaching of nanotechnology (Comisión de Ciencia y Tecnología, Senado de la República, 2005). Several researchers and specialists in the nanoscience field worked in a partnership to create the Programa Especial de Ciencia y Tecnología 2001-2006, reviewing a large number of national programs for nanotechnology research in other countries, particularly the National Nanotechnology Initiative of the U.S. After a review of nanotechnology initiatives, it is surprising that the Programa Especial does not make any reference to the possible risks to health and the environment related to the use of nanotechnology—neither its ethical and legal implications, nor the public participation in what many scientists see as the most important technological revolution of the 21st century. The absence of concern associated with the use of nanotechnology in México becomes worrying because of the increasing number of laboratories in the area. Furthermore, many of them are already using clean rooms and very sophisticated equipment with the main objective of encouraging the production of nanocomponents for the industrial sector. In the same vein, Argentina and Brazil do not have a program to discuss the implications and risks of nanotechnology, or a plan to supervise the activities related to nanotechnology research and development. In this regard, it is clear that the distance between Latin America and its European and North American counterparts is expanding. Due to the absence of a National Nanotechnology Initiative, México has turned its attention to different research centers in search for bilateral or multilateral agreements to foster the creation of scientific networks in the area. A report, written by Malsch Technovaluation relating to micro- and nanotechnology in México, points out that there are eleven research groups located in three universities and two research institutes, with ninety researchers in the area of nanotechnology (Lieffering, 2004; Malsch, & Lieffering, 2004). Other sources estimate the number of researchers working on nanotechnology in México at between 300 and 500. It is beyond the aim of this article to provide a complete picture of the status of nanotechnology in México, but it is worth mentioning some of the efforts made in this regard.

#### This causes toxic poisoning of the environment

Vandermolen 6

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Environmental Damage. MNT was originally perceived as a potential cure-all for a variety of environmental problems: nanobots in the atmosphere, for example, could physically repair the ozone layer or remove greenhouse gases. Recently, however, NT is increasingly seen as a potential environmental problem in its own right. Both NT and MNT are expected to produce large quantities of nanoparticles and other disposable nanoproducts, the environmental effects of which are currently unknown. This “nanolitter,” small enough to penetrate living cells, raises the possibility of toxic poisoning of organs, either from the nanolitter itself or from toxic elements attached to those nanoparticles.26

#### Extinction

CRN 4

(Center for Responsible Nanotechnology, 4/19/04, “Disaster Scenarios”, <http://crnano.typepad.com/crnblog/2004/07/disaster_scenar.html> //nz)

Subquestion F: Environmental devastation by overproduction? Preliminary answer: It would be easy to build enough nano-litter to cause serious pollution problems. Small nano-built devices in particular will be difficult to collect after use. It will also be easy to consume enough energy to change microclimate and even global climate. Overpopulation is probably not a concern, even in the event of extreme life/health extension. The more people use high technology, the fewer children they seem to have. Provisional conclusion: Several plausible disaster scenarios appear to pose existential threats to the human race.

#### The United States federal government should substantially increase its nanotechnology assistance toward Mexico.

### Contention 2: Mexico

#### Contention Two: Mexico

#### Current nanotech policies avoid places like Latin America

Wilson Center 07

(Woodrow Wilson Internatonal Center for scholars “The promise of Nanotechnology” may 2007 pg online @ <http://www.wilsoncenter.org/article/the-promise-nanotechnology> //um-ef)

The market opportunity is substantial. Nanotechnology has been incorporated into billions of dollars worth of manufactured goods. An online inventory maintained by the Project since March 2006 contains nearly 400 manufacturer-identified, nanotechnology-based consumer products already on the market. The inventory includes a range of fitness, food, electronic, automotive, and home and garden products, and the rapid pace of commercialization will likely continue for the foreseeable future. Many business and government leaders describe nanotechnology as "the next Industrial Revolution," yet the environmental and health impacts remain unknown, and there is great need to assess and study the implications and how institutions can adapt to this new technology. By publishing reports, hosting seminars, conducting surveys, and testifying at congressional and agency hearings, the Project seeks to inform industry, government, and the public about nanotechnology's potential hazards as well as the vast benefits and future opportunities. Health Opportunities Nanomedicine is a rapidly growing field that holds the promise of new vaccines, medical treatments, and cures. By manipulating molecules, scientists will be able to create drugs that treat cancer, engineer materials to replace diseased organs, repair nerve damage, and improve prosthetic limbs, among many other medical breakthroughs. A new report, Nanofrontiers: Visions for the Future of Nanotechnology, released by the Project in conjunction with the National Science Foundation (NSF) and the National Institutes of Health (NIH), summarizes discussions that took place at the Wilson Center among dozens of scientists, engineers, ethicists, policymakers, and other experts on the long-term potential of nanotechnology. One section of the report focuses on the groundbreaking work of biologists and chemists in revolutionizing medicine. One such scientist, Dr. Samuel I. Stupp, director of the Institute of BioNanotechnology in Medicine at Northwestern University, suggests that nanotechnology can be used to mobilize the body's own healing abilities to repair or regenerate damaged cells, and his early clinical studies have yielded incredible results. His work has implications for Parkinson's and Alzheimer's, both diseases in which key brain cells stop working properly. Similarly, Dr. Elias A. Zerhouni, director of the National Institutes of Health, envisions nanotechnology leading to a radical transformation in health care, making it more predictive, preemptive, and personalized. Dr. Stupp said about his work with laboratory animals, "By injecting molecules that were designed to self-assemble into nanostructures in the spinal tissue, we have been able to rescue and re-grow rapidly damaged neurons. The nanofibers—thousands of times thinner than a human hair—are the key to not only preventing the formation of harmful scar tissue which inhibits spinal cord healing, but to stimulating the body into regenerating lost or damaged cells." Advances in nanotechnology have the potential to improve health benefits for the more than five billion people in the developing world. At a Wilson Center seminar in March, Dr. Peter A. Singer, senior scientist at the McLaughlin-Rotman Centre for Global Health and professor of medicine at the University of Toronto, said, "Nanotechnology might provide less-industrialized countries with powerful new tools for diagnosing and treating disease, and might increase the availability of clean water." But there are numerous obstacles. "Business has little incentive to invest as shown by the lack of new drugs for… diseases that disproportionately affect people in developing countries," Singer said. Meanwhile, he added, government foreign assistance agencies and nongovernmental organizations (NGOs) do not focus, or focus adequately, on how nanotechnology could improve health in developing countries. "Countries like Brazil, India, China and South Africa have significant nanotechnology research initiatives that could be directed toward the particular needs of the poor," noted Dr. Andrew Maynard, chief science advisor for the Project. "But there is still a danger—if market forces are the only dynamic—that small minorities of people in wealthy nations will benefit from nanotechnology breakthroughs in the health sector, while large majorities, mainly in the developing world, will not. Responsible development of nanotechnology must include benefits for people in both rich and poor nations and at relatively low cost."

#### Nanotech has the potential to help millions in Latin America

Foladori and Lau 07

(ReLANS coordinators, Doctoral Program in Development Studies Universidad Autónoma de Zacatecas Zacatecas, México, “Nanotechnologies in Latin America,” pg online @ <http://www.rosalux.de/fileadmin/rls_uploads/pdfs/Manuskripte_81.pdf> //um-ef)

There has been little coverage in the international media about the development of nanotechnologies in Latin America; even though some countries in the region have allocated large amounts of resources to get on board the nanotechnological wave. Brazil, in 2001, launched a national program to endorse the formation of research networks on nanotechnnology development. This came about shortly after the United States (US) presented its National Nanotechnology Initiative in 2001 with a budget of USD 500-million. In Mexico, dozens of public research centers entered the new century by signing several research agreements with foreign institutions; these institutions also opened graduate courses centered on nanotechnology- related research. In Argentina, since 2005, the Comisión Nacional de Energía Atómica (National Commission of Atomic Energy) was strengthened by directing most of its scarce resources to promote the development of nanotechnology in the nation. COLCIENCIAS, the Colombian institution in charge of S&T, included, in 2004, the area of “advanced materials and nanotechnology” in its research plan. There are other countries with a smaller presence in the area but that have officially allocated some resources to this purpose or have created centers focused on the R&D of nanotechnologies. Brazil, Argentina and México are the leading countries in nanotechnology R&D in Latin America. In Brazil, there are currently ten scientific research networks working on nanotechnology, all divided according to their areas of interest. Argentina has currently four active networks. In Mexico, the organization is much more decentralized, with the largest university, the Universidad Nacional Autónoma de México (UNAM), concentrating the most the human resources working in the area, with more than 300 researchers. In Colombia there are about 34 research groups undertaking research in nanotechnology. The role of the private sector in nanotechnology development in these countries and in most of Latin America is still ambiguous. History has shown that the Latin American private sector has not been closely engaged with the R&D of new technologies. The general trend is that companies wait for either the government or public research centers to innovate so they can later make free use of the discoveries. Most scientists see this as the most significant disadvantage, particularly, because in this context, there are very limited possibilities to organize innovation around the development of new merchandise. However, the division between the private and the public sector in Latin America can open a window of opportunity to create large public companies with an interest in applying nanotechnology for the well-being of society. This, of course, would have to include most of the nonprofitable areas of nanotechnology development such as: potable water, public health, massive education, popular housing and many others. It is worth mentioning that the main, if not the only, incentive behind nanotechnology development in Latin America is to encourage an increase in competitiveness. This subject is a matter of concern because the region has clear examples of the consequences of the constant search for an increase in international competitiveness while ignoring social indicators. The case of Mexico is, in this regard, very illustrative. There is neither a mechanical nor a linear correlation between good macroeconomic performance and the improvement of the living conditions of the population. The income concentration and inequality are features of the Latin-American social structure that will not be solved, at least mechanically, by just having a better position in the world market. Internationally, there is an ongoing debate about the potential health and environmental risks of the use of nanotechnology. In Latin America, the debate is still at its dawn. In 2007, some institutions in Argentina and Brazil have discreetly raised the importance of discussing those issues. It is clear that the subjects should be opened to the scrutiny of the public in a transparent manner as soon as possible. Further, the discussion about the social and ethical implications of the use of this technology is absent in the institutional and academic arena, even though it has been raised by some trade unions. In the region, where inequality is already an important challenge, the changes in the industrial apparatus that nanotechnology will bring are a matter of concern for the working sector and some other social groups. In this context, it is not a surprise to discover the lack of linkage between R&D and the social needs that are widespread throughout Latin America. This link, of course, is absent inside the nanotechnology programs and is completely ignored in the policy rationale behind their implementation.

#### Collaboration is key – only way to ensure pro-poor research

Lodwick et al 7 (T. Lodwick\*, R. Rodrigues\*\*, R. Sandler\*\*\*, W.D. Kay\*\*\*\* \* Nanotechnology and Society Research Group (NSRG), Northeastern University \*\*Santa Clara University, School of Law, \*\*\*NSRG, Department of Philosophy and Religion, Northeastern University, \*\*\*\*NSRG, Deapartment of Political Science, Northeastern University, “nanotechnology and the global poor: the united states policy and international collaborations” pg online @ <http://www.nsti.org/procs/Nanotech2007v1/8/T81.501>, AC)

Perhaps the most basic barrier to conducting nanotechnology research is equipment costs. One way for a researcher in a developing nation to reduce these costs is by collaborating with a researcher from another developing nation (South-South collaboration), or with a researcher from a developed nation (North-South collaboration). Each type of partnership has benefits and limitations. While South-South research is more likely to focus on developing world problems, resources may still be constrained; and while North-South collaboration enables access to high-tech facilities, little incentive exists for developed world researchers to partake in such collaborations. The lack of incentives for researchers in the developed world to aid the developing world is a critical barrier to diffusing nanotechnology. There is little or no financial incentive for developed world researchers to make the required effort to work with developing world researchers. Similarly, there are very few funding sources that exist to provide incentives for developed world researchers to independently address the social problems facing the developing world (pro-poor research).

#### Nanotech is critical –provides the best development of disease prevention techniques

VOA News 09(“Nanotechnology Could Improve Health Care in Developing Countries,” pg online @ [http://www.voanews.com/articleprintview/347615.html //um-ef)\](http://www.voanews.com/articleprintview/347615.html%20//um-ef)\)

Scientists say nanotechnology, which involves some of the smallest things on earth, could have a big impact in developing countries. And some of the biggest benefits could come in improving health. Nanotechnology refers to the ability to manipulate materials on the nanometer scale. How small is that? A nanometer is one-billionth of a meter - something like the length of a line,10 atoms long. That's hard to grasp, so nanotech scientist Andrew Maynard explains it with an analogy. If you can imagine a child the size of the Moon, "a tennis ball will be something like 50 nanometers in diameter. Or the head of a pin will be one nanometer in diameter. So the difference in scale, going from human scale to the nanoscale, is the equivalent of taking the moon and putting the head of a pin on the moon." Maynard is chief scientist at the Project on Emerging Nanotechnologies, part of the Woodrow Wilson Center in Washington. At a recent symposium, he said researchers have been using nanotechnology to create products like cosmetics and stain resistant clothing. But some of the most promising uses of nanotechnology are in the health field. In sub-Saharan Africa each year, malaria kills a million children under the age of five. A big part of the malaria challenge is correctly diagnosing patients. Often, anti-malaria drugs are given without a proper diagnosis, to people who may not have malaria. That's not only wasteful, it contributes to drug resistance. Peter Singer of the University of Toronto says a nanotechnology called quantum dots could make it much easier to correctly diagnose malaria, instead of using the traditional method of examining a patient's blood under a microscope. "The bottom line," says Singer, "is that changing the infrastructure from moderate infrastructure like microscopes, to minimal infrastructure, like the quantum dots I was showing you, saves hundreds of thousands of lives for malaria. So this is a serious public health issue at stake, just from a diagnostic." In addition to better diagnostics, nanotechnology could also help in treating disease. For example, as Piotr Grodzinski of the U.S. National Cancer Institute points out, it could help make existing medicines more effective. "You can develop techniques which allow [doctors] to deliver the therapeutic drug or therapeutic treatment locally to the tumor site, and in many cases use much lower dose of the drug, and by that means cause lower side effects." Advances in nanotechnology are coming out of labs in the usual advanced countries. But scientists in developing and emerging countries - China, India and Brazil, for example - are also involved. However, as program moderator Jeff Spieler of the U.S. Agency for International Development cautioned, it's still a big step getting those innovations to some of the world's poorest people. "This to some extent will depend on how many of the new innovations will actually be coming from the laboratories of less developed countries," said Spieler, "and then what is the likelihood of that these advances, even in those laboratories, will find their way into the indigenous populations of those countries and not be picked up by somebody else?" Although nanotech experts stress the potential benefits from the new technology, they also concede that there are risks involved in working with these new nano materials. Andrew Maynard of the Woodrow Wilson Center acknowledged the uncertainties. "If you look at the very simplest case of nanometer-size particles, we know they behave differently in the body and in the environment [compared] to larger, more conventional particles," Maynard explained. "So yes, there are going to be a whole new set of risk issues we need to address, and that's going to require quite a substantial investment in new science to understand what those risks are, but also how to translate and transform that information into effective and safe ways of using the technologies." Among those at risk could be workers involved in manufacturing new nano-scale materials, as well as consumers, such as those taking nano-based medicines.

Disease causes extinction

Naish 12 (John Naish, writer for Daily Mail, citing John Oxford, professor of virology at Queen Mary’s School of Medicine and Dentistry, Scientific Director of Retroscreen Virology Ltd, considered to be the leading expert on disease and viral outbreaks, 10-14-12, “The Armageddon virus: Why experts fear a disease that leaps from animals to humans could devastate mankind in the next five years,” <http://www.dailymail.co.uk/sciencetech/article-2217774/The-Armageddon-virus-Why-experts-fear-disease-leaps-animals-humans-devastate-mankind-years.html>) gz

When the Health Protection Agency warned the world of this newly- emerging virus last month, it ignited a stark fear among medical experts.¶ Could this be the next bird flu, or even the next ‘Spanish flu’ — the world’s biggest pandemic, which claimed between 50 million and 100 million lives across the globe from 1918 to 1919?¶ In all these outbreaks, the virus responsible came from an animal. Analysts now believe that the Spanish flu pandemic originated from a wild aquatic bird.¶ The terrifying fact is that viruses that manage to jump to us from animals — called zoonoses — can wreak havoc because of their astonishing ability to catch us on the hop and spread rapidly through the population when we least expect it. ¶ One leading British virologist, Professor John Oxford at Queen Mary Hospital, University of London, and a world authority on epidemics, warns that we must expect an animal-originated pandemic to hit the world within the next five years, with potentially cataclysmic effects on the human race.¶ Such a contagion, he believes, will be a new strain of super-flu, a highly infectious virus that may originate in some far-flung backwater of Asia or Africa, and be contracted by one person from a wild animal or domestic beast, such as a chicken or pig. ¶ By the time the first victim has succumbed to this unknown, unsuspected new illness, they will have spread it by coughs and sneezes to family, friends, and all those gathered anxiously around them.¶ Thanks to our crowded, hyper-connected world, this doomsday virus will already have begun crossing the globe by air, rail, road and sea before even the best brains in medicine have begun to chisel at its genetic secrets. Before it even has a name, it will have started to cut its lethal swathe through the world’s population.¶ If this new virus follows the pattern of the pandemic of 1918-1919, it will cruelly reap mass harvests of young and fit people. ¶ They die because of something called a ‘cytokine storm’ — a vast overreaction of their strong and efficient immune systems that is prompted by the virus.¶ This uncontrolled response burns them with a fever and wracks their bodies with nausea and massive fatigue. The hyper-activated immune system actually kills the person, rather than killing the super-virus.¶ Professor Oxford bases his prediction on historical patterns. ¶ The past century has certainly provided us with many disturbing precedents. For example, the 2003 global outbreak of Sars, the severe acute respiratory syndrome that killed nearly 1,000 people, was transmitted to humans from Asian civet cats in China.¶ In November 2002, it first spread among people working at a live animal market in the southern Guangdong province, where civets were being sold. ¶ Nowadays, the threat from such zoonoses is far greater than ever, thanks to modern technology and human population growth. Mass transport such as airliners can quickly fan outbreaks of newly- emerging zoonoses into deadly global wildfires. ¶ The Sars virus was spread when a Chinese professor of respiratory medicine treating people with the syndrome fell ill when he travelled to Hong Kong, carrying the virus with him. ¶ By February 2003, it had covered the world by hitching easy lifts with airline passengers. Between March and July 2003, some 8,400 probable cases of Sars had been reported in 32 countries.¶ It is a similar story with H1N1 swine flu, the 2009 influenza pandemic that infected hundreds of millions throughout the world. It is now believed to have originated in herds of pigs in Mexico before infecting humans who boarded flights to myriad destinations. ¶ Once these stowaway viruses get off the plane, they don’t have to learn a new language or new local customs. ¶ Genetically, we humans are not very diverse; an epidemic that can kill people in one part of the world can kill them in any other just as easily. ¶ On top of this, our risk of catching such deadly contagions from wild animals is growing massively, thanks to humankind’s relentless encroachment into the world’s jungles and rainforests, where we increasingly come into contact for the first time with unknown viral killers that have been evolving and incubating in wild creatures for millennia.¶ This month, an international research team announced it had identified an entirely new African virus that killed two teenagers in the Democratic Republic of the Congo in 2009. ¶ The virus induced acute hemorrhagic fever, which causes catastrophic widespread bleeding from the eyes, ears, nose and mouth, and can kill in days.¶ A 15-year-old boy and a 13-year-old girl who attended the same school both fell ill suddenly and succumbed rapidly. A week after the girl’s death, a nurse who cared for her developed similar symptoms. He only narrowly survived.¶ The new microbe is named Bas-Congo virus (BASV), after the province where its three victims lived. It belongs to a family of viruses known as rhabdoviruses, which includes rabies. ¶ A report in the journal PLoS Pathogens says the virus probably originated in local wildlife and was passed to humans through insect bites or some other as-yet unidentified means. ¶ There are plenty of other new viral candidates waiting in the wings, guts, breath and blood of animals around us. You can, for example, catch leprosy from armadillos, which carry the virus in their shells and are responsible for a third of leprosy cases in the U.S. ¶ Horses can transmit the Hendra virus, which can cause lethal respiratory and neurological disease in people. ¶ In a new book that should give us all pause for thought, award-winning U.S. natural history writer David Quammen points to a host of animal-derived infections that now claim lives with unprecedented regularity. The trend can only get worse, he warns.¶ Quammen highlights the Ebola fever virus, which first struck in Zaire in 1976. The virus’s power is terrifying, with fatality rates as high as 90 per cent. The latest mass outbreak of the virus, in the Congo last month, is reported to have killed 36 people out of 81 suspected cases.¶ According to Quammen, Ebola probably originated in bats. The bats then infected African apes, quite probably through the apes coming into contact with bat droppings. The virus then infected local hunters who had eaten the apes as bushmeat. ¶ Quammen believes a similar pattern occurred with the HIV virus, which probably originated in a single chimpanzee in Cameroon. ¶ Studies of the virus’s genes suggest it may have first evolved as early as 1908. It was not until the Sixties that it appeared in humans, in big African cities. By the Eighties, it was spreading by airlines to America. Since then, Aids has killed around 30 million people and infected another 33 million.¶ There is one mercy with Ebola and HIV. They cannot be transmitted by coughs and sneezes. ‘Ebola is transmissible from human to human through direct contact with bodily fluids. It can be stopped by preventing such contact,’ Quammen explains. ¶ ‘If HIV could be transmitted by air, you and I might already be dead. If the rabies virus — another zoonosis — could be transmitted by air, it would be the most horrific pathogen on the planet.’¶ Viruses such as Ebola have another limitation, on top of their method of transmission. They kill and incapacitate people too quickly. In order to spread into pandemics, zoonoses need their human hosts to be both infectious and alive for as long as possible, so that the virus can keep casting its deadly tentacles across the world’s population.¶ But there is one zoonosis that can do all the right (or wrong) things. It is our old adversary, flu. It is easily transmitted through the air, via sneezes and coughs. ¶ Sars can do this, too. But flu has a further advantage. As Quammen points out: ‘With Sars, 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. But with influenza and many other diseases, the order is reversed.’¶ Someone who has an infectious case of a new and potentially lethal strain of flu can be walking about innocently spluttering it over everyone around them for days before they become incapacitated.¶ Such reasons lead Professor Oxford, a world authority on epidemics, to warn that a new global pandemic of animal-derived flu is inevitable. And, he says, the clock is ticking fast.¶ Professor Oxford’s warning is as stark as it is certain: ‘I think it is inevitable that we will have another big global outbreak of flu,’ he says. ‘We should plan for one emerging in 2017-2018.’¶ But are we adequately prepared to cope? ¶ Professor Oxford warns that vigilant surveillance is the only real answer that we have. ¶ ‘New flu strains are a day-to-day problem and we have to be very careful to keep on top of them,’ he says. ¶ ‘We now have scientific processes enabling us to quickly identify the genome of the virus behind a new illness, so that we know what we are dealing with. The best we can do after that is to develop and stockpile vaccines and antiviral drugs that can fight new strains that we see emerging.’¶ But the Professor is worried our politicians are not taking this certainty of mass death seriously enough. ¶ Such laxity could come at a human cost so unprecedentedly high that it would amount to criminal negligence. The race against newly-emerging animal-derived diseases is one that we have to win every time. A pandemic virus needs to win only once and it could be the end of humankind.

#### Nanotech solves disease—reject generic defense—quantum dots sidestep conventional disease prevention

Court et al 04(E. Court\*, A. Daar\*\*, E. Martin\*\*\*, T. Acharya\*\*\*\*, P. Singer\*\*\*\*\* \*University of Toronto Joint Center for Bioethics, Canada \*\*McLaughlin Centre for Molecular Medicine and Departments of Public Health Sciences and Surgery, University of Toronto; University of Toronto Joint Center for Bioethics, Canada \*\*\*University of Toronto Joint Center for Bioethics, Canada \*\*\*\*University of Toronto Joint Center for Bioethics, Canada \*\*\*\*\* University of Toronto Joint Center for Bioethics, Canada; Department of Medicine, University of Toronto, Canada, “Will Prince Charles et al diminish the opportunities of developing countries in nanotechnology?”, 01/28/2004, <http://nanotechweb.org/cws/article/indepth/18909//VS>)

Nanotechnology offers a range of potential benefits for developing countries. Nanometre-sized quantum dots can be used to tag biological molecules for the identification of proteins that indicate disease status7 without many of the drawbacks associated with conventional organic dyes used to mark cells8. Quantum dots could eventually be used in clinical diagnostic tests to quickly detect molecules associated with cancer cells and HIV/AIDS. This has great relevance to developing countries, where over 95% of new HIV infections occurred in 20029. Quantum dot optical biosensors can be used for the detection of TB10, which along with HIV and Malaria is responsible for half of infectious disease mortality in developing countries11. In India, the Central Scientific Instruments Organization has recently announced plans for the development of a prototype nanotechnology-based TB diagnostic kit which would reduce the cost and time required for TB tests and also use a smaller amount of blood for testing12. Further, quantum dots and other nanomaterials could be integrated with microtechnology to develop inexpensive miniaturized devices for medical diagnostics. The size of these devices would allow them to be easily used in remote regions. Vaccinations that have greatly reduced child mortality in developing countries13 could be administered in a more controlled and targeted manner using nanoparticle delivery systems14, 15. Two US-patented nanoparticle drug delivery systems16, 17 developed by researchers at the University of Delhi have already been transferred to Indian industry for commercialization. Nanotechnology-based bone scaffolds have the ability to repair damaged skeletal tissue caused by injury resulting from road traffic accidents, the so-called “unseen epidemic” 18 of developing countries. In China, a recently developed nanotechnology bone scaffold has been tested in 26 hospital patients19. Enzyme biosensors can be used to monitor soil and crop toxicity levels to improve agricultural quality control in developing countries20. Water purification technologies have been recognized as one of several key nanotechnology applications for developing countries21. The University of Brazil is currently conducting research on nanomagnets that would be attracted to oil to aid the clean-up of large oil spills. Many of these activities, of course, also hold promise for economic development.

#### And, Mexico is key – Provides a Nano Model for Developing Countries –

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As one of the handful of countries pursuing nanotechnology development in Latin America, ¶ and the one with perhaps the closest relationship with U.S.-based nanotechnology partners, ¶ México assumes a leading position in the appropriate development and implementation of the ¶ industry. Over the long-term, if México achieves some measure of success in ensuring that the ¶ nanotechnology industry development is carried out in a reflexive and responsive manner, ¶ while compensating for the potential social / economic / legal / environmental pitfalls, it will ¶ become the model to be emulated as nanotechnology endeavors are pursued by others in the ¶ region. These issues are at the core of the project conducted during the research visit in ¶ Twente. ¶ A further benefit accrues from integrating partnerships with European partners, in the ¶ strengthening of the network of researchers and the transfer of knowledge in both directions. ¶ Given the situation in México, with an entirely science- and business-driven conceptualization ¶ of nanotechnological development, there is a need to undertake an assessment of these new ¶ technologies, and augment existing analytical capacity to implement appropriate reflexive and ¶ above all social assessments.

### Contention 3: U.S.

#### Contention Three: The United States

#### First, U.S. Tech Leadership is collapsing and that’s an existential risk

Dr. Hummell et al 12(Robert Hummel, PhD1,\*, Policy Research Division, Potomac Institute for Policy Studies,, Patrick Cheetham1, Justin Rossi1, Synesis: A Journal of Science, Technology, Ethics, and Policy 2012 “US Science and Technology Leadership, and Technology Grand Challenges,” pg online @ <http://www.synesisjournal.com/vol3_g/Hummel_2012_G14-39.pdf> //um-ef)

Taken together, there is no direct evidence that the US has been overtaken in quality of S&T output, and most indications support the notion that the US leads the world in **s**cience **and** **t**echnology in all fields. **However, the trends are not favorable** to maintenance of this position, and it seems likely that in some fields, **US leadership could falter**. When such cross-over might occur, or in what fields, and whether it is inevitable, is uncertain. DoD policy implications While **a gradual decline in US S&T leadership** does not provide a “Sputnik moment” (65),ix it **poses** no less of **an existential threat**. When technical innovations occur in potentially adversarial countries or domains, a strategy that relies on technological superiority for defense capabilities will no longer suffice. **If a potential adversary can introduce a disruptive technological capability, they can then use deterrence or influence to control behaviors, compete economically, secure scarce resources, and control diplomatic agendas** **The US strategy continues to depend on technological superiority**. Thus from a DoD perspective, it is imperative that the US maintain its position of technological leadership. A Senate Armed Services Committee (subcommittee on Emerging Threats and Capabilities) hearing on the “Health and Status of the Defense Industrial Base and its S&T-related elements” (66)xi took place in May 2011, and highlighted some of the issues and potential solution paths. Those testifying called for a comprehensive strategy for the US to maintain technological leadership well into the 21st century. Many other specific suggestions were made during that hearing as to ways to support the industrial base and to assist the partnership of DoD and the defense industrial base to utilize technology advances efficiently. Future prospects Many remedies have been proposed to ensure continued US technology leadership, in the face of challenges and stresses within the US S&T enterprise. Some of the typical concerns are overall funding levels, DoD funding for S&T, the efficiency of the application of funds to S&T, and the emphasis of disciplines within S&T. Other concerns include regulations and impediments to research in S&T, and the production rate of scientists and the career opportunities. We have noted many of these issues in our survey of elements of the S&T enterprise. The larger concern is over the respect in which science and technology is held within our society. Since research is an intermediate product, often accomplished years before product and societal benefits, there is often little appreciation of the role of the researcher and inventor. After World War II, there was great respect afforded scientists, particularly physicists. Post-Sputnik, there was a deliberate effort to elevate the stature of science and technology, and the manned space program certainly contributed to societal respect. Some argue that it is because there has been a precipitous off-shoring of manufacturing that the generation of new ideas has moved overseas (67). Andy Grove of Intel makes a complementary argument: That as manufacturing moves overseas, American companies lose the knowledge of how to scale up new ideas to full-scale production (68). Both arguments suggest there are reduced incentives for domestic research as manufacturing moves elsewhere, and lead to the conclusion that research is best performed by those with familiarity of product production. Thus, they argue that we need to reinvigorate manufacturing and production for economic vitality so that technology development and leadership will follow. And, indeed, the nation has an Advanced Manufacturing Initiative, and many cite a resurgence of domestic manufacturing as incentives normalize to less favor off-shoring. Summing up the landscape The US has the best universities, the most winners of the Nobel Prize, the best young scientists, and the largest investment in research and development of any nation on earth. So how can it be that the US is apparently losing its lead in science and technology? The answer isn’t that the US has slowed down, although according to some the rate of technical progress has, indeed, slowed. The fact is that the competition has discovered the importance of innovation, and has begun to reap rewards from speeding up. We have seen that China especially is mustering its considerable resources to develop what they call an “innovation economy,” but that other nations, as well as Europe, highly value science and engineering, and implicitly or tacitly have begun to challenge US technology leadership. At the same time, the globalization of research and ease with which international science collaborations take place mean that continued US leadership requires full engagement with the international scientific community. Thus, impediments to exchange of information and bureaucracy in the conduct of US research are counter-productive. According to Bill Gates, you always have to renew your lead.xii The US has the resources and infrastructure necessary to maintain and renew a lead in technology. But momentum is not sufficient. In light of concerted efforts in other nations, coasting in science and technology will jeopardize national security, and also jeopardize the economic and societal benefits of being first to market with technological innovations. No single agency or entity within the United States can enact a strategy to renew the technology lead. Instead, continued US technical leadership will require a dedicated and coordinated effort throughout the society.

#### And, Locking-in Tech leadership reduces conflict

Goldstein 07Avery Goldstein, David M. Knott Professor of Global Politics and International Relations at the University of Pennsylvania, Associate Director of the Christopher H. Browne Center for International Politics, Senior Fellow at the Foreign Policy Research Institute, holds a Ph.D. from the University of California-Berkeley, 2007 (“Power transitions, institutions, and China's rise in East Asia: Theoretical expectations and evidence,” Journal of Strategic Studies, Volume 30, Number 4-5, August-October, Available Online to Subscribing Institutions via Taylor & Francis Online, p. 647-648)

Two closely related, though distinct, theoretical arguments focus explicitly on the consequences for international politics of a shift in power between a dominant state and a rising power. In War and Change in World Politics, Robert Gilpin suggested that peace prevails when a dominant state’s capabilities enable it to ‘govern’ an international order that it has shaped. Over time, however, as economic and technological diffusion proceeds during eras of peace and development, other states are empowered. Moreover, the burdens of international governance drain and distract the reigning hegemon, and challengers eventually emerge who seek to rewrite the rules of governance. As the power advantage of the erstwhile hegemon ebbs, it may become desperate enough to resort to the ultima ratio of international politics, force, to forestall the increasingly urgent demands of a rising challenger. Or as the power of the challenger rises, it may be tempted to press its case with threats to use force. It is the rise and fall of the great powers that creates the circumstances under which major wars, what Gilpin labels ‘hegemonic wars’, break out.13 Gilpin’s argument logically encourages pessimism about the implications of a rising China. It leads to the expectation that international trade, investment, and technology transfer will result in a steady diffusion of American economic power, benefiting the rapidly developing states of the world, including China. As the US simultaneously scurries to put out the many brushfires that threaten its far-flung global interests (i.e., the classic problem of overextension), it will be unable to devote sufficient resources to maintain or restore its former advantage over emerging competitors like China. While the erosion of the once clear American advantage plays itself out, the US will find it ever more difficult to preserve the order in Asia that it created during its era of preponderance. The expectation is an increase in the likelihood for the use of force – either by a Chinese challenger able to field a stronger military in support of its demands for greater influence over international arrangements in Asia, or by a besieged American hegemon desperate to head off further decline. Among the trends that alarm [end page 647] those who would look at Asia through the lens of Gilpin’s theory are China’s expanding share of world trade and wealth (much of it resulting from the gains made possible by the international economic order a dominant US established); its acquisition of technology in key sectors that have both civilian and military applications (e.g., information, communications, and electronics linked with the ‘revolution in military affairs’); and an expanding military burden for the US (as it copes with the challenges of its global war on terrorism and especially its struggle in Iraq) that limits the resources it can devote to preserving its interests in East Asia.14 Although similar to Gilpin’s work insofar as it emphasizes the importance of shifts in the capabilities of a dominant state and a rising challenger, the power-transition theory A. F. K. Organski and Jacek Kugler present in The War Ledger focuses more closely on the allegedly dangerous phenomenon of ‘crossover’– the point at which a dissatisfied challenger is about to overtake the established leading state.15 In such cases, when the power gap narrows, the dominant state becomes increasingly desperate to forestall, and the challenger becomes increasingly determined to realize the transition to a new international order whose contours it will define.

#### And it’s key to stability deterrence and leadership

Fedoroff 8 – subcommittee on research and science education, committee on science and technology, House of Representatives, 110 Congress, administrator of USAID, science and technology advisor to the Secretary of State and US Department of State (Nina, “International Science and Technology Cooperation,” Government Printing Office, 4/2/2008, <http://www.gpo.gov/fdsys/pkg/CHRG-110hhrg41470/html/CHRG-110hhrg41470.htm>)//RH

Chairman Baird, Ranking Member Ehlers, and distinguished members of the Subcommittee, thank you for this opportunity to discuss science diplomacy at the U.S. Department of State. The U.S. is recognized globally for its leadership in science and technology. Our scientific strength is both a tool of “soft power” – part of our strategic diplomatic arsenal – and a basis for creating partnerships with countries as they move beyond basic economic and social development. Science diplomacy is a central element of the Secretary’s transformational diplomacy initiative, because science and technology are essential to achieving stability and strengthening failed and fragile states. S&T advances have immediate and enormous influence on national and global economies, and thus on the international relations between societies. Nation states, nongovernmental organizations, and multinational corporations are largely shaped by their expertise in and access to intellectual and physical capital in science, technology, and engineering. Even as S&T advances of our modern era provide opportunities for economic prosperity, some also challenge the relative position of countries in the world order, and influence our social institutions and principles. America must remain at the forefront of this new world by maintaining its technological edge, and leading the way internationally through science diplomacy and engagement. Science by its nature facilitates diplomacy because it strengthens political relationships, embodies powerful ideals, and creates opportunities for all. The global scientific community embraces principles Americans cherish: transparency, meritocracy, accountability, the objective evaluation of evidence, and broad and frequently democratic participation. Science is inherently democratic, respecting evidence and truth above all. Science is also a common global language, able to bridge deep political and religious divides. Scientists share a common language. Scientific interactions serve to keep open lines of communication and cultural understanding. As scientists everywhere have a common evidentiary external reference system, members of ideologically divergent societies can use the common language of science to cooperatively address both domestic and the increasingly transnational and global problems confronting humanity in the 21st century. There is a growing recognition that science and technology will increasingly drive the successful economies of the 21st century. Science and technology provide an immeasurable benefit to the U.S. by bringing scientists and students here, especially from developing countries, where they see democracy in action, make friends in the international scientific community, become familiar with American technology, and contribute to the U.S. and global economy. For example, in 2005, over 50% of physical science and engineering graduate students and postdoctoral researchers trained in the U.S. have been foreign nationals. Moreover, many foreign-born scientists who were educated and have worked in the U.S. eventually progress in their careers to hold influential positions in ministries and institutions both in this country and in their home countries. They also contribute to U.S. scientific and technologic development: According to the National Science Board’s 2008 Science and Engineering Indicators, 47% of full-time doctoral science and engineering faculty in U.S. research institutions were foreign-born. Finally, some types of science – particularly those that address the grand challenges in science and technology – are inherently international in scope and collaborative by necessity. The ITER Project, an international fusion research and development collaboration, is a product of the thaw in superpower relations between Soviet President Mikhail Gorbachev and U.S. President Ronald Reagan. This reactor will harness the power of nuclear fusion as a possible new and viable energy source by bringing a star to earth. ITER serves as a symbol of international scientific cooperation among key scientific leaders in the developed and developing world – Japan, Korea, China, E.U., India, Russia, and United States – representing 70% of the world’s current population.. The recent elimination of funding for FY08 U.S. contributions to the ITER project comes at an inopportune time as the Agreement on the Establishment of the ITER International Fusion Energy Organization for the Joint Implementation of the ITER Project had entered into force only on October 2007. The elimination of the promised U.S. contribution drew our allies to question our commitment and credibility in international cooperative ventures. More problematically, it jeopardizes a platform for reaffirming U.S. relations with key states. It should be noted that even at the height of the cold war, the United States used science diplomacy as a means to maintain communications and avoid misunderstanding between the world’s two nuclear powers – the Soviet Union and the United States. In a complex multi-polar world, relations are more challenging, the threats perhaps greater, and the need for engagement more paramount. Using Science Diplomacy to Achieve National Security Objectives The welfare and stability of countries and regions in many parts of the globe require a concerted effort by the developed world to address the causal factors that render countries fragile and cause states to fail. Countries that are unable to defend their people against starvation, or fail to provide economic opportunity, are susceptible to extremist ideologies, autocratic rule, and abuses of human rights. As well, the world faces common threats, among them climate change, energy and water shortages, public health emergencies, environmental degradation, poverty, food insecurity, and religious extremism. These threats can undermine the national security of the United States, both directly and indirectly. Many are blind to political boundaries, becoming regional or global threats. The United States has no monopoly on knowledge in a globalizing world and the scientific challenges facing humankind are enormous. Addressing these common challenges demands common solutions and necessitates scientific cooperation, common standards, and common goals. We must increasingly harness the power of American ingenuity in science and technology through strong partnerships with the science community in both academia and the private sector, in the U.S. and abroad among our allies, to advance U.S. interests in foreign policy. There are also important challenges to the ability of states to supply their populations with sufficient food. The still-growing human population, rising affluence in emerging economies, and other factors have combined to create unprecedented pressures on global prices of staples such as edible oils and grains. Encouraging and promoting the use of contemporary molecular techniques in crop improvement is an essential goal for US science diplomacy. An essential part of the war on terrorism is a war of ideas. The creation of economic opportunity can do much more to combat the rise of fanaticism than can any weapon. The war of ideas is a war about rationalism as opposed to irrationalism. Science and technology put us firmly on the side of rationalism by providing ideas and opportunities that improve people’s lives. We may use the recognition and the goodwill that science still generates for the United States to achieve our diplomatic and developmental goals. Additionally, the Department continues to use science as a means to reduce the proliferation of the weapons’ of mass destruction and prevent what has been dubbed ‘brain drain’. Through cooperative threat reduction activities, former weapons scientists redirect their skills to participate in peaceful, collaborative international research in a large variety of scientific fields. In addition, new global efforts focus on improving biological, chemical, and nuclear security by promoting and implementing best scientific practices as a means to enhance security, increase global partnerships, and create sustainability.

#### Assistance in nanotech enhances US technology leadership

Mendis 04

[Dr. Patrick Mendis adjunct associate professor of economics and management at the UMUC Graduate School of Management and Technology at the University of Maryland “Science, Technology, And Intellectual Property Rights In American Foreign Policy”. Journal of Technology Law & Policy.Vol 9 June 2004 Issue 1.<http://grove.ufl.edu/~techlaw/vol9/issue1/mendis.html>]

In coming years, global S&T cooperation will open a wide range of opportunities to advance America's foreign policy and international trade promotion goals including: 1. By reaching out to scientists, scholars, and technology-minded young entrepreneurs in other countries, the United States would promote American idealism and democratic governance because international S&T activities are a neutral and apolitical instrument for peaceful change. 2. International S&T collaboration facilitates democratic changes and promotes open trade with other countries. This would lighten the American military's mission to protect national security and maintain global peace. 3. Within the framework of global institutions, American S&T collaborative agreements help create a better environmental, scientific, and technological infrastructure in other countries promoting American business and economic interests and to protecting IPRs and equitable access lo their markets. This is an extension of the U.S. Constitution and its enshrined democratic values which can be shared broadly with other nations. 4. By implementing the Agenda 21 of the Rio Earth Summit of 1992 in Brazil and subsequently the World Summit on Sustainable Development of 2002 in Johannesburg in South Africa, the United States helped efforts to create a series of MEAs that will demand transnational solutions in science and technology fields. The American leadership in new geospatial technology, biotechnology, and nanotechnology will not only promote economic growth domestically but also enhance the stewardship of the global environment and sustainable development strategies. 5. By promoting the current status of cooperative S&T agreements, the United States enhances its ability to deal with global dangers like terrorism, narcotics, and other criminal activities that threaten our national security and domestic peace and prosperity.

#### Nanotech development ensures regulation

Lodwick et al 07 (T. Lodwick\*, R. Rodrigues\*\*, R. Sandler\*\*\*, W.D. Kay\*\*\*\* \* Nanotechnology and Society Research Group (NSRG), Northeastern University \*\*Santa Clara University, School of Law, \*\*\*NSRG, Department of Philosophy and Religion, Northeastern University, \*\*\*\*NSRG, Deapartment of Political Science, Northeastern University, “nanotechnology and the global poor: the united states policy and international collaborations” pg online @ http://www.nsti.org/procs/Nanotech2007v1/8/T81.501 //um-ef)

However, the greatest potential for a broad initiative rests with the main foreign aid organizations, the U.S. Agency for International Development (USAID) and the Millennium Challenge Corporation (MCC), which have experience funding development related research. Although USAID currently lacks any programs linking nanotechnology and development, its Collaborative Agricultural Biotechnology Initiative (CABIO), designed to bring biotechnology to developing nations, serves as a promising framework for nanotechnology. CABIO funds partnerships between U.S. research organizations and developing world scientists to tackle specific issues. For example, with USAID funding, researchers at Purdue University have worked closely with African scientists to develop a strain of sorghum resistant to the parasitic weed striga. After many years, a successful strain was developed which has helped prevent famine ensure food security through responsible science [6]. In addition to establishing and supporting partnerships, USAID’s biotechnology efforts including sponsoring developing world students for U.S. graduate degrees and supporting agricultural education in participating countries. USAID also helped develop India’s Department of Biotechnology. And CABIO works to build regulatory capacity to ensure safe biotechnology practices. Each of these types of efforts--building partnerships and collaborations, supporting education in the US and in country, building institutional capacity, and researcher exchanges--could be extended to nanotechnology. Overall, USAID’s biotechnology experience provides a sound model for infusing nanotechnology into development.

#### US nanotech leadership ensures controlled military nanotech

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MOLECULAR NANOTECHNOLOGY (MNT), when fully developed, will provide the basis for the next technological revolution, possibly the most beneficial and yet most disruptive in human history. By allowing inexpensive mass production with atomic-level precision, this infant technology has the potential to create whole new classes of weapons and economic, political, and social disruptions serious enough to threaten international security. To minimize the threats while maximizing the benefits of MNT’s impending development, the United States should take the lead in creating a cooperative strategy of international regulation and do so as soon as possible. MNT’s arrival will cause an avalanche of problems and threats, many of which the human race has not yet encountered; the control strategy must therefore be ready before that day arrives.

#### US action and model is key to cooperation and transparency

Altmann 2k4

(Jurgen, Phd. physics doctoral dissertation on laser radar (University of Hamburg, Germany, since 1985 he has studied scientific-technical problems of disarmament, first concerning high-energy laser weapons, founded the Bochum Verification Project (Ruhr-University Bochum, Germany) that does research into the potential of automatic sensor systems for co-operative verification of disarmament and peace agreements. In recent years, he has studied military uses of, first, microsystems technologies and then nanotechnology, with a view towards preventive arms control (both at University of Dortmund, Germany). University of Dortmund). cofounder of the German Research Association Science, Disarmament and International Security FONAS, and currently is a deputy speaker of the Committee Physics and Disarmament of the German Physical Society, military uses of nanotechnology: perspectives and concerns, security dialogue, vol 35, pg online @ <http://scx.sagepub.com/content/34/1/115.full.pdf+html> )

It is predicted that nanotechnology (NT) will bring revolutionary changes in many areas, with the potential for both great benefits and great risks. Developments in the military could entail specific dangers, containment of which will need special analysis and effort. Military research and development in NT is expanding rapidly. Potential future applications span all areas of warfare. Special dangers to arms control and stability may arise from new biological weapons and microrobots. For humans and society, non-medical body implants – possibly made more acceptable via the military – raise a number of problems concerning human nature. Further research is needed to find the best way to avoid possible dangers. For the near and medium term, several guidelines for limits and restrictions are suggested. As a first step, transparency and international cooperation should be improved\*\*. NANOTECHNOLOGY (NT) WILL BE THE BACKBONE of the next fundamental technology wave.1 Science and technology have advanced to a point where structuring matter at the nanometre scale (1nm = 10-9m, a billionth of a metre) is becoming routine. Scanning-probe microscopes now allow us to image and move single atoms on a surface. In the life sciences, molecular processes within cells are being elucidated, microelectronics are being reduced to below 100nm, and the first cosmetics containing nanoparticles are already on the market. Increasingly powerful computers allow ever better modelling of matter at the atomic and molecular scale. Expecting huge markets in the future, both governments and large and small enterprises have greatly increased their NT research and development (R&D). In 2003, government spending alone represents $650–800 million in each of Western Europe, Japan, the USA and the rest of the industrialized countries (Roco, 2003). NT is predicted to produce revolutionary changes, bringing far-reaching consequences in many areas. Expected benefits include stronger, lighter and smart materials, computers that are smaller, consume less power and are far more powerful, diagnostics and therapy at the singlecell level, reduction of resource use and pollution, and miniaturized, highly automated space systems (see, for example, Roco & Bainbridge, 2001: 3–12). Some visions of NT reach farther: to artificial intelligence of human capability and beyond; robotics from nano to macro scale; nanodevices within the human body that eradicate illness and ageing or interface with the brain; and universal molecular assemblers capable of self-replication, leading to superautomated production.2 Whether such visions can be realized has been disputed, particularly with regard to the assembler concept.3 However, following the precautionary principle, one should take these possibilities seriously as long as they have not been demonstrated to be impossible for fundamental or technical reasons. Some were discussed at a recent workshop sponsored by the US government on improving human performance through the convergence of nano, bio, information and cognitive science and technology (NBIC) – for example, nano-implant devices, slowing down or reversing ageing, direct brain–machine interfaces and ‘artificial people’.4 Yet, while opening up fundamentally new possibilities, NT also poses grave risks, among them environmental pollution, increased inequality, invasion of privacy, displacement of human workers and physical harm. Molecular NT would increase the risks even further – as consequences of automatic production, or through accidents or malevolent use of self-replicating systems, for example.5 Debate on the general risks posed by NT has already begun. The US National Nanotechnology Initiative/National Science Foundation and the European Commission have explicitly recognized the need to investigate the societal implications of NT (Roco & Bainbridge, 2001; Roco & Tomellini, 2002). However, there is a paucity of ethical, legal and social research (Mnyusiwalla, Daar & Singer, 2003). This is even more the case regarding risks from military uses of NT. The aim of this article is to raise awareness of the dangers connected with military NT activities and to offer some preliminary recommendations.6 After a brief overview of the literature, the article presents a summary of current military R&D on NT in the USA. It then discusses potential military uses of NT before turning, in the subsequent section, to the question of preventive arms control, which leads to a concluding discussion and recommendations. Aspects of molecular NT are discussed in separate paragraphs. Previous Writing on Military NT Up until now, there has been practically no scholarly research on military NT. The topic has been discussed mainly in government papers, conferences, military journals and popular media. Seen from a narrow national-security standpoint, NT provides grand new options for the military. For the year 2030 or after, the UK Ministry of Defence foresees nano-solar cells and nanorobots designed for a range of purposes – including medical robots used internally in humans and microplatforms for reconnaissance (UK Ministry of Defence, 2001). The US National Nanotechnology Initiative (NNI) has referred to the possibility of information dominance through nanoelectronics; virtual reality systems for training; automation and robotics to offset reductions in manpower, reduce risks to troops and improve vehicle performance; higher-performance platforms with diminished failure rates and lower costs; improvements in chemical/biological/nuclear sensing and casualty care; improvements in systems for non-proliferation monitoring; and nano-/micromechanical devices for control of nuclear weapons (Roco & Bainbridge, 2001: 10–11). The national-security panel of the US NBIC workshop stated that in ‘deterrence, intelligence gathering, and lethal combat . . . it is essential to be technologically as far ahead of potential opponents as possible’ (Asher et al., 2002). Others have looked with a wider angle and have hinted at potential harmful uses of nanoweapons or the potential for controlled distribution of biological and nerve agents (ESANT, 1999; Meyer, 2001; Smith, 2001). Questions have been posed as to killing by robots (Metz, 2000; Crow & Sarewitz, 2001).7 Some authors acknowledge that national security will have to be sought in a context of global security (Yonas & Picraux, 2001; Petersen & Egan, 2002). Aside from such hints, discussions of strategy and security have not yet taken up NT in a systematic fashion. Dangers from military uses of molecular NT were already under discussion when the vision was first described to the general public (Drexler, 1986: 171–202). Destabilizing effects and arms races arising in particular from exponentially growing autonomous production were considered by Gubrud (1997). Joy’s (2000) warnings about genetics, NT and robotics have become widely known, and have evoked much critical comment. However, this has been mainly directed at general aspects rather than the dangers posed by military/terrorist uses (e.g. Brown & Duguid, 2001; Tolles, 2001; Smith, 2001). Moreover, the little arms-control discussion that exists has mostly addressed molecular NT. Drexler (1986: 171–202) argued in general terms for international agreements, but finally recommended ‘active shields’: nanomachines that, like the white blood cells of the human immune system, would ‘fight dangerous replicators of all sorts’. However, the feasibility of such shields seems even more unclear than that of self-replicating systems themselves. Gubrud (1997) stated that not producing weaponry en masse would be verifiable, calling for a space weapons ban and recommending a single global security regime. The Foresight Guidelines (Foresight Institute, 2000), suggesting rules to prevent runaway replication, mention the risk of military abuse, but explicitly reject limitations by treaty because ‘a 99.99% effective ban would result in development and deployment by the 0.01% that evaded and ignored the ban’. Truly 100% verifiability can of course never be achieved, but a strong verification regime could restrain the technological development of leading states that might otherwise be caught in an accelerating arms race. I

n order to prevent NT-enabled mass destruction, Howard (2002) has presented two alternative approaches: reserving ‘inner (atomic and molecular) space’ for peaceful exploitation, or preserving it as a ‘sanctuary’, forbidding nanotechnological exploration and engineering completely.8 While other countries are certainly active in military R&D of NT, there can be little doubt that the USA is spending far more than any other country, and maybe more than the rest of the world combined.9 Military R&D in the USA is much more transparent – not only in comparison to, for example, Russia or China, but also relative to countries such as the UK, France or Germany. Because US military NT activities provide an important precedent, they will be briefly described here.

#### Prefer empirics

Rodwell 5—PhD candidate, Manchester Met. (Jonathan, Trendy But Empty: A Response to Richard Jackson, http://www.49thparallel.bham.ac.uk/back/issue15/rodwell1.htm, AMiles)

The larger problem is that without clear causal links between materially identifiable events and factors any assessment within the argument actually becomes **nonsensical**. Mirroring the early inability to criticise, if we have no traditional causational discussion how can we know what is happening? For example, Jackson details how the rhetoric of anti-terrorism and fear is obfuscating the real problems. It is proposed that the real world killers are not terrorism, but disease or illegal drugs or environmental issues. The problem is how do we know this? It seems we know this because there is evidence that illustrates as much – Jackson himself quoting to Dr David King who argued global warming is a greater that than terrorism. The only problem of course is that discourse analysis has established (as argued by Jackson) that King’s argument would just be self-contained discourse designed to naturalise another arguments for his own reasons. Ultimately it would be no more valid than the argument that excessive consumption of Sugar Puffs is the real global threat. It is worth repeating that I don’t personally believe global terrorism is the world’s primary threat, nor do I believe that Sugar Puffs are a global killer. But without the ability to identify real facts about the world we can simply say anything, or we can say nothing. This is clearly ridiculous and many post-structuralists can see this. Their argument is that there “are empirically more persuasive explanations.”[xi] The phrase ‘empirically persuasive’ is however the final undermining of post-structural discourse analysis. It is a seemingly fairly obvious reintroduction of traditional methodology and causal links. It implies things that can be seen to be right regardless of perspective or discourse. It again goes without saying that logically in this case if such an assessment is possible then undeniable material factors about the word are real and are knowable outside of any cultural definition. Language or culture then does not wholy constitute reality. How do we know in the end that the world not threatened by the onslaught of an oppressive and dangerous breakfast cereal? Because empirically persuasive evidence tells us this is the case. The question must then be asked, is our understanding of the world born of evidential assessment, or born of discourse analysis? Or perhaps it’s actually born of utilisation of many different possible explanations.

#### Consequences and extinction first – it’s inevitable and ethical

Greene ‘10

[Josh. Assc Prof Social Science (Psychology) at Harvard. “The Secret Joke of Kant’s Soul” published in Moral Psychology: Historical and Contemporary Readings, 2010]

What turn-of-the-millennium science is telling us is that human moral judgment is not a pristine rational enterprise, that our moral judgments are driven by a hodgepodge of emotional dispositions, which themselves were shaped by a hodgepodge of evolutionary forces, both biological and cuItural. Because of this, it is exceedingly unlikely that there is any rationally coherent normative moral theory that can accommodate our moral intuitions. Moreover, anyone who claims to have such a theory, or even part of one, almost certainly doesn't. Instead, what that person probably has is a moral rationalization. It seems then, that we have somehow crossed the infamous "is"-"ought" divide. How did this happen? Didn't Hume (Hume, 1978) and Moore (Moore, 1966) warn us against trying to derive an "ought" from and "is?" How did we go from descriptive scientific theories concerning moral psychology to skepticism about a whole class of normative moral theories? The answer is that we did not, as Hume and Moore anticipated, attempt to derive an "ought" from and "is." That is, our method has been inductive rather than deductive. We have inferred on the basis of the available evidence that the phenomenon of rationalist deontological philosophy is best explained as a rationalization of evolved emotional intuition (Harman, 1977). Missing the Deontological Point I suspect that rationalist deontologists will remain unmoved by the arguments presented here. Instead, I suspect, they will insist that I have simply misunderstood what Kant and like-minded deontologists are all about. Deontology, they will say, isn't about this intuition or that intuition. It's not defined by its normative differences with consequentialism. Rather, deontology is about taking humanity seriously. Above all else, it's about respect for persons. It's about treating others as fellow rational creatures rather than as mere objects, about acting for reasons rational beings can share. And so on (Korsgaard, 1996a; Korsgaard, 1996b). This is, no doubt, how many deontologists see deontology. But this insider's view, as I've suggested, may be misleading. The problem, more specifically, is that it defines deontology in terms of values that are not distinctively deontological, though they may appear to be from the inside. Consider the following analogy with religion. When one asks a religious person to explain the essence of his religion, one often gets an answer like this: "It's about love, really. It's about looking out for other people, looking beyond oneself. It's about community, being part of something larger than oneself." This sort of answer accurately captures the phenomenology of many people's religion, but it's nevertheless inadequate for distinguishing religion from other things. This is because many, if not most, non-religious people aspire to love deeply, look out for other people, avoid self-absorption, have a sense of a community, and be connected to things larger than themselves. In other words, secular humanists and atheists can assent to most of what many religious people think religion is all about. From a secular humanist's point of view, in contrast, what's distinctive about religion is its commitment to the existence of supernatural entities as well as formal religious institutions and doctrines. And they're right. These things really do distinguish religious from non-religious practices, though they may appear to be secondary to many people operating from within a religious point of view. In the same way, I believe that most of the standard deontological/Kantian self-characterizatons fail to distinguish deontology from other approaches to ethics. (See also Kagan (Kagan, 1997, pp. 70-78.) on the difficuIty of defining deontology.) It seems to me that consequentialists, as much as anyone else, have respect for persons, are against treating people as mere objects, wish to act for reasons that rational creatures can share, etc. A consequentialist respects other persons, and refrains from treating them as mere objects, by counting every person's well-being in the decision-making process. Likewise, a consequentialist attempts to act according to reasons that rational creatures can share by acting according to principles that give equal weight to everyone's interests, i.e. that are impartial. This is not to say that consequentialists and deontologists don't differ. They do. It's just that the real differences may not be what deontologists often take them to be. What, then, distinguishes deontology from other kinds of moral thought? A good strategy for answering this question is to start with concrete disagreements between deontologists and others (such as consequentialists) and then work backward in search of deeper principles. This is what I've attempted to do with the trolley and footbridge cases, and other instances in which deontologists and consequentialists disagree. If you ask a deontologically-minded person why it's wrong to push someone in front of speeding trolley in order to save five others, you will get characteristically deontological answers. Some will be tautological: "Because it's murder!" Others will be more sophisticated: "The ends don't justify the means." "You have to respect people's rights." But, as we know, these answers don't really explain anything, because if you give the same people (on different occasions) the trolley case or the loop case (See above), they'll make the opposite judgment, even though their initial explanation concerning the footbridge case applies equally well to one or both of these cases. Talk about rights, respect for persons, and reasons we can share are natural attempts to explain, in "cognitive" terms, what we feel when we find ourselves having emotionally driven intuitions that are odds with the cold calculus of consequentialism. AIthough these explanations are inevitably incomplete, there seems to be "something deeply right" about them because they give voice to powerful moral emotions. But, as with many religious people's accounts of what's essential to religion, they don't really explain what's distinctive about the philosophy in question.

#### The state is good

Grunwald, 13

Michael Grunwald, B.A. from Harvard, TIME's senior national correspondent, former congressional correspondent for the Washington Post, and recipient of the George Polk Award, Worth Bingham Prize, and Society of Environmental Journalists; “Tread on Me: The Case for Freedom From Terrorist Bombings, School Shootings and Exploding Factories,” 4/23/2013, http://swampland.time.com/2013/04/23/tread-on-me-the-case-for-freedom-from-terrorist-bombings-school-shootings-and-exploding-factories //bghs-ms

We’re often told that our liberties are under assault. The right warns that our Big Government nanny state is plotting to seize our guns and our Big Gulps, while strangling our economic freedom with taxes and regulations. The left rails against our Big Government security state — the drone warfare, indefinite detention and electronic surveillance that make the war on terrorism sound like an Orwellian nightmare. The National Rifle Association had just finished bellowing about background checks violating our Second Amendment rights when the American Civil Liberties Union (ACLU) started shrieking about the FBI violating the Boston bombing suspect’s Miranda rights. America was born from resistance to tyranny, and our skepticism of authority is a healthy tradition. But we’re pretty free. And the “don’t tread on me” slippery-slopers on both ends of the political spectrum tend to forget that Big Government helps protect other important rights. Like the right of a child to watch a marathon or attend first grade without getting killed — or, for that matter, the right to live near a fertilizer factory without it blowing up your house. Our government needs to balance these rights, which is tough sometimes. But not always. Requiring gun owners to pass background checks and restricting access to high-capacity magazines would be a minuscule price to pay to help avoid future Newtowns and Auroras. If the FBI waits a few days to read Dzhokhar Tsarnaev the Miranda boilerplate he’s already heard a million times on Law and Order, the Republic will survive, and the authorities might learn something that will help prevent another tragedy. (In fact, if America’s ubiquitous surveillance network hadn’t captured Tsarnaev on video, he might still be at large.) Even in a free-enterprise system — especially in a free-enterprise system — a factory owner’s right to run his business without government interference is trumped by the public-safety rights of the local community. In the Obama era, Tea Party Republicans like Senator Rand Paul have portrayed the U.S. government as a threat to individual liberty, an oppressive force in American life. They just want government to leave us alone. But while the “stand with Rand” worldview is quite consistent — against gun restrictions, traffic-light cameras, drone strikes, antidiscrimination laws, antipollution laws and other Big Brother intrusions into our private lives — it’s wrong. And most of us know it’s wrong, which is why we celebrate our first responders, our soldiers, our law enforcers. They’re from the government, and they’re here to help. We know our government is fallible, because it’s made up of people, but we still count on it to protect us from terrorists, from psychos with guns, from exploding factories. We also need it to protect us from floods and wildfires, from financial meltdowns and climate change. We can’t do that kind of thing ourselves. I don’t want to imply that we live in a Game of Thrones episode — our nights are dark but only occasionally full of terrors — but last week, an Elvis impersonator trying to poison the President didn’t even make the front page. There’s dangerous stuff out there, and while it’s probably fun to stand with Rand, I’m more inclined to stand with the public servants keeping us safe, even when the al-Qaeda operative they ice in Yemen is an American citizen, even when they shut down an entire city to hunt for a single teenager, and yes, even when they try to regulate coal plants and oil rigs and Wall Street casinos that would greatly prefer to be left alone. That’s why I pay my taxes, and that’s why I don’t feel like I’m being tyrannized when I pay them. I guess you could call me a statist. I’m not sure we need public financing for our symphonies or our farmers or our mortgages — history will also recall my stand with Rand on the great laser-pointing controversy of 2011 — but we do need Big Government to attack the big collective-action problems of the modern world. Our rights are not inviolate. Just as the First Amendment doesn’t let us shout “Fire!” in a crowded theater, the Second Amendment shouldn’t let us have assault weapons designed for mass slaughter. And if the authorities decided it was vital to ask Tsarnaev about his alleged murder of innocents before reminding him of his Fifth Amendment rights to lawyer up, I won’t second-guess their call. The civil-liberties purists of the ACLU are just as extreme as the gun purists of the NRA, or the antiregulatory purists in business groups like the Club for Growth. Those of us who support aggressive government action to protect the public ought to acknowledge that it does, at the margins, limit individual rights — the rights of gun owners, the rights of business owners, the rights of the accused. Go ahead, quote the Ben Franklin line about those who would sacrifice some liberty for security deserving neither. But what about the rights of 8-year-old Martin Richard, blown away after watching his dad finish the marathon? Who safeguarded the liberty of 6-year-old Charlotte Bacon, gunned down in her classroom in her new pink dress? What about Perry Calvin and Morris Bridges and the other victims of the West Texas explosion? Nobody read them their rights. I’ve been told that invoking the death of innocents is an emotional appeal rather than a logical argument. And I do admit these tragedies make me angry. But I think it would be logical for our government to try to limit these tragedies in the future. We already sacrifice liberty all the time — our right to automatic weapons, our right to walk through airport security with our shoes on, our right to run our businesses however we please. The rights of the next Martin Richard and the next Charlotte Bacon matter too.

# 2AC

#### *Policymakers* have an obligation to engage in utilitarian decisionmaking

Brock ‘87

[Daniel. Prof of Philosophy and Ethics at Brown. “Truth or Consequences: The Role of Philosophers in Policy-Making” Ethics, Vol 97. N2. July 1987. Ebsco]

When philosophers become more or less direct participants in the policy-making process and so are no longer academics just hoping that an occasional policymaker might read their scholarly journal articles, this scholarly virtue of the unconstrained search for the truth--all assumptions open to question and follow the arguments wherever they lead--comes under a variety of related pressures. What arises is an intellectual variant of the political problem of "dirty hands" that those who hold political power often face. I emphasize that I do not conceive of the problem as one of pure, untainted philosophers being corrupted by the dirty business of politics. My point is rather that the different goals of academic scholarship and public policy call in turn for different virtues and behavior in their practitioners. Philosophers who steadfastly maintain their academic ways in the public policy setting are not to be admired as islands of integrity in a sea of messy political compromise and corruption. Instead, I believe that if philosophers maintain the academic virtues there they will not only find themselves often ineffective but will as well often fail in their responsibilities and act wrongly. Why is this so?¶ The central point of conflict is that the first concern of those responsible for public policy is, and ought to be, the consequences of their actions for public policy and the persons that those policies affect. This is not to say that they should not be concerned with the moral evaluation of those consequences—they should; nor that they must be moral consequentialists in the evaluation of the policy, and in turn human, consequences of their actions—whether some form of consequentialism is an adequate moral theory is another matter. But it is to say that persons who directly participate in the formation of public policy would be irresponsible if they did not focus their concern on how their actions will affect policy and how that policy will in turn affect people.¶ The virtues of academic research and scholarship that consist in an unconstrained search for truth, whatever the consequences, reflect not only the different goals of scholarly work but also the fact that the effects of the scholarly endeavor on the public are less direct, and are mediated more by other institutions and events, than are those of the public policy process. It is in part the very impotence in terms of major, direct effects on people's lives of most academic scholarship that makes it morally acceptable not to worry much about the social consequences of that scholarship. When philosophers move into the policy domain, they must shift their primary commitment from knowledge and truth to the policy consequences of what they do. And if they are not prepared to do this, why did they enter the public domain? What are they doing there?

#### War turns the impact—causes more suffering

Tickner 2

Tickner, USC School of International Relations professor, November 2002, “Feminist Perspectives of 9/11,” International Studies Perspectives

So, if the story is not a simple one where gender and other ideological lines are firmly drawn, what can a feminist analysis add to our understanding of 9/11 and its aftermath? The statements with which I begin this article offer support for the claim that war both reinforce gender stereotypes and shakes up gender expectations (Goldstein, 2002). The conduct of war is a largely male activity on both sides but Meena, the founder of RAWA, exhorts women to fight too. Nevertheless, gender is a powerful legitimator of war and national security; our acceptance of a “remasculinized” society during times of war and uncertainty rises considerably. And the power of gendered expectations and identifications have real consequences for women and for men, consequences that are frequently ignored by conventional accounts of war and civlizational clashes.

#### No impact to K

Dickinson, associate professor of history – UC Davis, ‘4

(Edward, Central European History, 37.1)

In short, the continuities between early twentieth-century biopolitical discourse and the practices of the welfare state in our own time are unmistakable. Both are instances of the “disciplinary society” and of biopolitical, regulatory, social-engineering modernity, and they share that genealogy with more authoritarian states, including the National Socialist state, but also fascist Italy, for example. And it is certainly fruitful to view them from this very broad perspective. But that analysis can easily become superficial and misleading, because it obfuscates the profoundly different strategic and local dynamics of power in the two kinds of regimes. Clearly the democratic welfare state is not only formally but also substantively quite different from totalitarianism. Above all, again, it has nowhere developed the fateful, radicalizing dynamic that characterized National Socialism (or for that matter Stalinism), the psychotic logic that leads from economistic population management to mass murder. Again, there is always the potential for such a discursive regime to generate coercive policies. In those cases in which the regime of rights does not successfully produce “health,” such a system can —and historically does— create compulsory programs to enforce it. But again, there are political and policy potentials and constraints in such a structuring of biopolitics that are very different from those of National Socialist Germany. Democratic biopolitical regimes require, enable, and incite a degree of self-direction and participation that is functionally incompatible with authoritarian or totalitarian structures. And this pursuit of biopolitical ends through a regime of democratic citizenship does appear, historically, to have imposed increasingly narrow limits on coercive policies, and to have generated a “logic” or imperative of increasing liberalization. Despite limitations imposed by political context and the slow pace of discursive change, I think this is the unmistakable message of the really very impressive waves of legislative and welfare reforms in the 1920s or the 1970s in Germany.90 Of course it is not yet clear whether this is an irreversible dynamic of such systems. Nevertheless, such regimes are characterized by sufficient degrees of autonomy (and of the potential for its expansion) for sufé cient numbers of people that I think it becomes useful to conceive of them as productive of a strategic coné guration of power relations that might fruitfully be analyzed as a condition of “liberty,” just as much as they are productive of constraint, oppression, or manipulation. At the very least, totalitarianism cannot be the sole orientation point for our understanding of biopolitics, the only end point of the logic of social engineering.This notion is not at all at odds with the core of Foucauldian (and Peukertian) theory. Democratic welfare states are regimes of power/knowledge no less than early twentieth-century totalitarian states; these systems are not “opposites,” in the sense that they are two alternative ways of organizing the same thing. But they are two very different ways of organizing it. The concept “power” should not be read as a universal stiè ing night of oppression, manipulation, and entrapment, in which all political and social orders are grey, are essentially or effectively “the same.” Power is a set of social relations, in which individuals and groups have varying degrees of autonomy and effective subjectivity. And discourse is, as Foucault argued, “tactically polyvalent.” Discursive elements (like the various elements of biopolitics) can be combined in different ways to form parts of quite different strategies (like totalitarianism or the democratic welfare state); they cannot be assigned to one place in a structure, but rather circulate. The varying possible constellations of power in modern societies create “multiple modernities,” modern societies with quite radically differing potentials.91

#### Imperialism good

Goklany 7(Indur, scholar who has 25 years of experience working and writing on global and national environmental issues. He has published several peer-reviewed papers and book chapters on an array of issues Author of The Improving State of the World: Why We're Living Longer, Healthier, More Comfortable Lives on a Cleaner Planet, Mar. 23, http://www.reason.com/news/show/119252.html, twm)

Environmentalists and globalization foes are united in their fear that greater population and consumption of energy, materials, and chemicals accompanying economic growth, technological change and free trade—the mainstays of globalization—degrade human and environmental well-being. Indeed, the 20th century saw the United States’ population multiply by four, income by seven, carbon dioxide emissions by nine, use of materials by 27, and use of chemicals by more than 100. Yet life expectancy increased from 47 years to 77 years. Onset of major disease such as cancer, heart, and respiratory disease has been postponed between eight and eleven years in the past century. Heart disease and cancer rates have been in rapid decline over the last two decades, and total cancer deaths have actually declined the last two years, despite increases in population. Among the very young, infant mortality has declined from 100 deaths per 1,000 births in 1913 to just seven per 1,000 today. These improvements haven’t been restricted to the United States. **It’s a global phenomenon**. Worldwide, life expectancy has more than doubled, from 31 years in 1900 to 67 years today. India’s and China’s infant mortalities exceeded 190 per 1,000 births in the early 1950s; today they are 62 and 26, respectively. In the developing world, the proportion of the population suffering from chronic hunger declined from 37 percent to 17 percent between 1970 and 2001 despite a 83 percent increase in population. Globally average annual incomes in real dollars have tripled since 1950. Consequently, the proportion of the planet's developing-world population living in absolute poverty has halved since 1981, from 40 percent to 20 percent. Child labor in low income countries declined from 30 percent to 18 percent between 1960 and 2003. Equally important, the world is more literate and better educated than ever. People are freer politically, economically, and socially to pursue their well-being as they see fit. More people choose their own rulers, and have freedom of expression. They are more likely to live under rule of law, and less likely to be arbitrarily deprived of life, limb, and property. Social and professional mobility have also never been greater. It’s easier than ever for people across the world to transcend the bonds of caste, place, gender, and other accidents of birth. People today work fewer hours and have more money and better health to enjoy their leisure time than their ancestors. Man’s environmental record is more complex. The early stages of development can indeed cause some environmental deterioration as societies pursue first-order problems affecting human well-being. These include hunger, malnutrition, illiteracy, and lack of education, basic public health services, safe water, sanitation, mobility, and ready sources of energy. Because greater wealth alleviates these problems while providing basic creature comforts, individuals and societies initially focus on economic development, often neglecting other aspects of environmental quality. In time, however, **they recognize that environmental deterioration reduces their quality of life.** Accordingly, they put more of their recently acquired wealth and human capital into developing and implementing cleaner technologies. This brings about an environmental transition via the twin forces of economic development and technological progress, which begin to provide solutions to environmental problems instead of creating those problems. All of which is why we today find that the richest countries are also the cleanest. And while many developing countries have yet to get past the “green ceiling,” they are nevertheless ahead of where today’s developed countries used to be when they were equally wealthy. The point of transition from "industrial period" to "environmental conscious" continues to fall. For example, the US introduced unleaded gasoline only after its GDP per capita exceeded $16,000. India and China did the same before they reached $3,000 per capita. This progress is a **testament to the power of globalization** and the transfer of ideas and knowledge (that lead is harmful, for example). It's also testament to the importance of trade in transferring technology from developed to developing countries—in this case, the technology needed to remove lead from gasoline. This hints at the answer to the question of why some parts of the world have been left behind while the rest of the world has thrived. Why have improvements in well-being stalled in areas such as Sub-Saharan Africa and the Arab world? The proximate cause of improvements in well-being is a “cycle of progress” composed of the mutually reinforcing forces of economic development and technological progress. But that cycle itself is propelled by a web of essential institutions, particularly property rights, free markets, and rule of law. Other important institutions would include science- and technology-based problem-solving founded on skepticism and experimentation; receptiveness to new technologies and ideas; and freer trade in goods, services—most importantly in knowledge and ideas. In short, free and open societies prosper. Isolation, intolerance, and hostility to the free exchange of knowledge, technology, people, and goods breed stagnation or regression. Despite all of this progress and good news, then, there is still much unfinished business. Millions of people die from hunger, malnutrition, and preventable disease such as malaria, tuberculosis, and diarrhea. Over a billion people still live in absolute poverty, defined as less than a dollar per day. A third of the world’s eligible population is still not enrolled in secondary school. Barriers to globalization, economic development, and technological change—such as the use of DDT to eradicate malaria, genetic engineering, and biotechnology—are a big source of the problem. Moreover, the global population will grow 50 percent to 100 percent this century, and per capita consumption of energy and materials will likely increase with wealth. Merely preserving the status quo is not enough. We need to protect the important sustaining institutions responsible for all of this progress in the developed world, and we need to foster and nurture them in countries that are still developing. Man’s remarkable progress over the last 100 years is unprecedented in human history. It’s also one of the more neglected big-picture stories. **Ensuring that our incredible progress continues will require not only recognizing and appreciating the progress itself, but also recognizing and preserving the important ideas and institutions that caused it, and ensuring that they endure.**

#### Imperialism is inevitable and good – the K cherrypicks the bad aspects of US power – however even if they win that the empire has caused some problems, *taken as a whole* it’s still a force for good

Boot, 3

Max Boot, Jeane J. Kirkpatrick Senior Fellow for National Security Studies, American author, consultant, editorialist, lecturer, and military historian; “U.S. Imperialism: A Force for Good,” 5/13/2003, http://www.cfr.org/iraq/us-imperialism-force-good/p5959 //bghs-ms

Mind you, this is not meant as a condemnation. The history of American imperialism is hardly one of unadorned good doing; there have been plenty of shameful episodes, such as the mistreatment of the Indians. But, **on the whole**, U.S. imperialism has been the greatest force for good **in the world** during the past century. It has defeated the monstrous evils of communism and Nazism and lesser evils such as the Taliban and Serbian ethnic cleansing. Along the way, it has helped spread liberal institutions to countries as diverse as South Korea and Panama. Yet, while generally successful as imperialists, Americans have been loath to confirm that's what they were doing. That's OK. Given the historical baggage that "imperialism" carries, there's no need for the U.S. government to embrace the term. But **it should definitely embrace the practice**. That doesn't mean looting Iraq of its natural resources; nothing could be more destructive of the goal of building a stable government in Baghdad. It means imposing the rule of law, property rights, free speech and other guarantees, **at gunpoint if need be**. This will require selecting a new ruler who is committed to pluralism and then backing him or her to the hilt. Iran and other neighbouring states won't hesitate to impose their despotic views on Iraq; we shouldn't hesitate to impose our democratic views. The indications are mixed as to whether the United States is prepared to embrace its imperial role unapologetically. Rumsfeld has said that an Iranian-style theocracy "isn't going to happen," and U.S. President George Bush has pledged to keep U.S. troops in Iraq as long as necessary to "build a peaceful and representative government." After allowing a temporary power vacuum to develop, U.S. troops now are moving aggressively to put down challenges to their authority by, for example, arresting the self-declared "mayor" of Baghdad. That's all for the good. But there are also some worrisome signs. Bush asked for only US$2.5-billion from Congress for rebuilding Iraq, even though a study from the Council on Foreign Relations and the James A. Baker III Institute for Public Policy estimates that US $25-billion to US$100-billion will be needed. Iraq's oil revenues and contributions from allies won't cover the entire shortfall. Bush should be doing more to prepare the U.S. public and Congress for a costly commitment. Otherwise, Iraqis quickly could become disillusioned about the benefits of liberation. The cost of U.S. commitment will be measured not only in money, but also in troops. While Bush and Rumsfeld have wisely eschewed any talk of an early "exit strategy," they still seem to think U.S. forces won't need to stay more than two years. Rumsfeld even denied a report that the U.S. armed forces are planning to open permanent bases in Iraq. If they're not, they should be. That's the only way to ensure the security of a nascent democracy in such a rough neighbourhood. Does the U.S. administration really imagine that Iraq will have turned into Switzerland in two years' time? Allied rule lasted four years in Germany and seven years in Japan. American troops remain stationed in both places more than 50 years later. That's why these two countries have become paragons of liberal democracy. It is crazy to think that Iraq -- which has less of a democratic tradition than either Germany or Japan had in 1945 -- could make the leap overnight. The record of nation-building during the past decade is clear: The United States failed in Somalia and Haiti, where it pulled out troops prematurely. Bosnia, Kosovo and Afghanistan show more promise because U.S. troops remain stationed there. Afghanistan would be making even more progress if the United States and its allies had made a bigger commitment to secure the countryside, not just Kabul. If we want Iraq to avoid becoming a Somalia on steroids, we'd better **get used to U.S. troops being deployed** there for years, possibly decades, to come. If that raises hackles about American imperialism, so be it. The United States **is going to be called an empire whatever it does. It might as well be a successful empire**.

#### Imperialist hegemony solves nuclear war

Barnett 11 (Thomas PM Barnett, PhD in political science from Harvard, AM in Soviet Union Program from Harvard, BA in International Relations from the University of Wisconsin, BA in Russian Literature from the University of Wisconsin, Chief Analyst at Wikistrat, Partner at Barnett Consulting LLC, Columnist for the World Politics Review, public speaker for the Merit Agency, New York Times best-selling author, former writer for Esquire, Wired, National Review, and the Washington Post, contributing editor for Esquire Magazine, former Senior Managing Director of Enterra Solutions LLC, former senior Strategic Researcher, professor, and advisor in the Warfare Analysis & Research Department for the Center for Naval Warfare at the US Naval War College, former Assistant for Strategic Futures at the Office of Force Transformation for the Department of Defense, former director of the NewRuleSet.Project, former project director for the Center for Naval Analysis and the Institute for Public Research which are the two major divisions of the CNA Corporation, former member of the Naval Force Capabilities Planning Effort working on a Navy White Paper, 3-7-11, “The New Rules: Leadership Fatigue Puts U.S., and Globalization, at Crossroads,” published by the World Politics Review, http://www.worldpoliticsreview.com/articles/8099/the-new-rules-leadership-fatigue-puts-u-s-and-globalization-at-crossroads)

Events in Libya are a further reminder for Americans that we stand at a crossroads in our continuing evolution as the world's sole full-service superpower. Unfortunately, we are increasingly seeking change without cost, and shirking from risk because we are tired of the responsibility. We don't know who we are anymore, and our president is a big part of that problem. Instead of leading us, he explains to us. Barack Obama would have us believe that he is practicing strategic patience. But many experts and ordinary citizens alike have concluded that he is actually beset by strategic incoherence -- in effect, a man overmatched by the job. It is worth first examining the larger picture: We live in a time of arguably the greatest structural change in the global order yet endured, with this historical moment's most amazing feature being its relative and absolute lack of mass violence. That is something to consider when Americans contemplate military intervention in Libya, because if we do take the step to prevent larger-scale killing by engaging in some killing of our own, we will not be adding to some fantastically imagined global death count stemming from the ongoing "megalomania" and "evil" of American "empire." We'll be engaging in the same sort of system-administering activity that has marked our stunningly successful stewardship of global order since World War II. Let me be more blunt: As the guardian of globalization, the U.S. military has been the greatest force for peace the world has ever known. Had America been removed from the global dynamics that governed the 20th century, the mass murder never would have ended. Indeed, it's entirely conceivable there would now be no identifiable human civilization left, once nuclear weapons entered the killing equation. But the world did not keep sliding down that path of perpetual war. Instead, America stepped up and changed everything by ushering in our now-perpetual great-power peace. We introduced the international liberal trade order known as globalization and played loyal Leviathan over its spread. What resulted was the collapse of empires, an explosion of democracy, the persistent spread of human rights, the liberation of women, the doubling of life expectancy, a roughly 10-fold increase in adjusted global GDP and a profound and persistent reduction in battle deaths from state-based conflicts. That is what American "hubris" actually delivered. Please remember that the next time some TV pundit sells you the image of "unbridled" American military power as the cause of global disorder instead of its cure. With self-deprecation bordering on self-loathing, we now imagine a post-American world that is anything but. Just watch who scatters and who steps up as [the Facebook revolutions](http://www.worldpoliticsreview.com/articles/8089/the-realist-prism-politics-vs-social-media-in-the-arab-uprising" \t "_blank) erupt across the Arab world. While we might imagine ourselves the status quo power, we remain the world's most vigorously revisionist force. As for the sheer "evil" that is our military-industrial complex, again, let's examine what the world looked like before that establishment reared its ugly head. The last great period of global structural change was the first half of the 20th century, a period that saw a death toll of about 100 million across two world wars. That comes to an average of 2 million deaths a year in a world of approximately 2 billion souls. Today, with far more comprehensive worldwide reporting, researchers report an average of less than 100,000 battle deaths annually in a world fast approaching 7 billion people. Though admittedly crude, these calculations suggest a 90 percent absolute drop and a 99 percent relative drop in deaths due to war. We are clearly headed for a world order characterized by multipolarity, something the American-birthed system was designed to both encourage and accommodate. But given how things turned out the last time we collectively faced such a fluid structure, we would do well to keep U.S. power, in all of its forms, deeply embedded in the geometry to come. To continue the historical survey, after salvaging Western Europe from its half-century of civil war, the U.S. emerged as the progenitor of a new, far more just form of globalization -- one based on actual free trade rather than colonialism. America then successfully replicated globalization further in East Asia over the second half of the 20th century, setting the stage for the Pacific Century now unfolding.

#### Turns the K - Criticizing Western “imperialism” obscures more insidious practices by regional powers

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

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

**The critique locks in the war system—deterrence is critical to preventing war**

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The "cause" of the "democratic peace" is likely not any single factor. Rather it is a combination of factors inherent in differences between the culture of democracy and the culture of Hegelian "statism." These factors probably include: differential incentive structures for regime elites, and particularly the greater ability of such elites in statist systems to externalize costs on others while internalizing the benefits of their actions; differences in leaders assuming power through public appeal versus violence; differences between ideologies of human freedom versus statist ideologies, including pervasive differences concerning the rule of law, modalities for resolution of disputes, and deification of those in power; individual empowerment versus the collective, and many other important differences in subjectivities; higher levels of external trade and international interaction between democracies; greater internal checks and balances on the decision for war; resulting greater democratic nation wealth, which may predispose to greater caution in efforts at risky expansion of values; and many other pervasive differences in culture. Of these, "incentive theory" would suggest that one particularly important factor is likely to be the first on the list; that is, the differential effect on incentives for decision elites from all of these factors together; • Contrary to entrenched conventional wisdom within the social science community, democracies are considerably less likely to initiate aggressive war than nondemocracies. Further, the differences in total casualties between democratic and nondemocratic initiated aggression is overwhelming—on the order of one to a hundred; • Nondemocracies are frequently getting into major war through aggression. A principal path to war for democracies, and an additional path to war for nondemocracies, is an absence of effective deterrence; • An absence of effective deterrence, that is, of effective incentives from the international system, is a crucial factor in major war; • For this latter reason, deterrence, rather than simply levels of power, is a more important variable than power in the origin of major war. A common absence of effective deterrence results from a failure to communicate an intent to deter, whatever the specific reason for this failure; • The democracy/deterrence syndrome is an important recurrent feature in major war; • Because of the importance of deterrence in war avoidance, theory will benefit from a more objective scoring system for measuring levels of deterrence, as we now enjoy with several systems for the scoring of democracy. This book uses an initial effort at such a scoring system developed within the author's War & Peace Seminar; • The practice of deterrence should incorporate behavioral insights from cognitive psychology, particularly including "prospect theory." Other such behavioral insights should be incorporated into broader theory as relevance is demonstrated; • Incentive theory suggests a focus of deterrence on regime decision makers (that is, reducing their incentives for war), and this feature of incentive theory is already making its way into practice; • Original studies are referenced showing correlations between form of government and terrorism, state involvement in the drug trade, refugee flows, and corruption. These supplement important studies by others showing the correlation between democracy and war, democide, economic development, famine, infant mortality, and environmental protection; • Incentive theory likely is useful in analyzing civil war, terrorism, and minor coercion, as well as major war. Specific key variables and resulting incentives, however, may be different in these settings. For example, civil war does not lend itself readily to an analysis as to which party is an aggressor under international law; • Incentive theory suggests that a crucial role in strengthening collective security is to begin to think about enhancing the role of the United Nations and other collective security mechanisms in deterrence terms; that is, thinking about mechanisms to provide advance deterrence against aggression and democide rather than leaving such action to possible collective action after the event; • Stable trade not only serves to enhance economic development, it also serves to create incentives militating against major war. The effort to remove trade barriers should continue while retaining our sensitivity to labor and the environment; • Effective foreign policy should seek both a long-run strategy of democracy enlargement and a strategy of providing effective deterrence against rogue regimes as needed to deter war, democide, and terrorism; • Democratic nations should work together to strengthen pro- democracy initiatives, such as the "Community of Democracies"; • The United States might want to create a new position of Special Representative of the President for Democracy Assistance; and • The United States might want to add a more focused "warning-response" mechanism to the National Security Council charged with the specific responsibility of formulating and presenting to the President proposals for war avoidance in war crisis settings when alerted to such crises from the intelligence community. It should be clearly understood that the demonstration of correlation does not necessarily prove causation. As such, while this book seeks to integrate the best of the empirical work with the best of the theoretical work, it presents, and can only present, an hypothesis. We should, however, certainly discard theories that are not consistent with the available empirical evidence about war. Similarly, even if "incentive theory" proves a more useful focus in seeking to predict and control war, it does not offer a slot-machine for simple answers. The decision for war is affected by a complex aggregate of incentives. Even rejecting poorer modes of focus will not provide instant answers in specific cases any more than understanding that night air does not cause plague will by itself lead to a discovery of penicillin. Until we set aside pervasive myths about war and focus our attention on the critical variables, we will have little chance to control this age-old scourge of mankind. It is hoped that this book may make an at least modest contribution to its goal.

#### Stop complaining – imperialism is awesome – it’s a moral obligation and it solves extinction

Boot, 3

Max Boot, Jeane J. Kirkpatrick Senior Fellow for National Security Studies, American author, consultant, editorialist, lecturer, and military historian; "Neither New nor Nefarious: The Liberal Empire Strikes Back," November 2003, https://www.mtholyoke.edu/acad/intrel/bush/boot.htm //bghs-ms

The historical record provides some perspective on the challenges facing the United States in its latest bout of what might be called "liberal imperialism." For obvious reasons, government officials shy away from the term. When asked on April 28, 2003, on the Arabic satellite television network al-Jazeera whether the United States was "empire building," Secretary of Defense Donald Rumsfeld reacted as if he had been asked whether he wears women's underwear. "We don't seek empires," he replied huffily. "We're not imperialistic. We never have been." That is a fine answer for public consumption. The problem is that it is not true. The United States has been an empire since at least 1803, when Thomas Jefferson purchased the Louisiana Territory. Throughout the nineteenth century, what Jefferson called the "empire of liberty" expanded across the continent When US power stretched from "sea to shining sea," the American empire moved abroad, acquiring colonies ranging from Puerto Rico and the Philippines to Hawaii and Alaska. While the formal empire mostly disappeared after World War II, the United States set out on another bout of imperialism in Germany and Japan. It was called "occupation" rather than imperialism, but when Americans are running foreign governments, this is a distinction without a difference. Likewise, recent "nation~building" experiments in Somalia, Haiti, Bosnia, Kosovo, Afghanistan, and Iraq amount to imperialism under another name. Not the old-fashioned imperialism bent on looting nations of their natural resources--if that were the motivation it is hard to see why America would intervene in some of the poorest countries on the planet, such as Afghabistan and Haiti. Iraq, of course, does have vast oil reserves, but the cost of the military occupation (which has already soared over $100 billion) will far exceed any possible economic benefits the United States will derive from guaranteeing uninterrupted access to the country's oil supply. BACK TO NATION BUILDING Compared with the grasping old imperialism of the past, America's "liberal imperialism" pursues far different, and more ambitious, goals. It aims to instill democracy in lands that have known tyranny, in the hope that doing so will short-circuit terrorism, military aggression, and weapons proliferation. This is an ambitious undertaking, the most successful examples of which are post-World War II Germany, ltaly and Japan. In those cases, the US Army helped transform militaristic dictatorships into pillars of liberal democracy--one of the most signficant developments of the twentieth century. Critics of nation building question the relevance of these examples to today's world. Germany, Italu and Japan were advanced industrialized nations that had some experience with the rule of law and democratic institutions. And besides, the United States made a very large, very long-term commitment to those countries, a commitment justified by their importance to the world, but one that America has not so far made in any of the places where it has intervened in the past decade. Under the Marshall Plan, the United States poured $79 billion in current dollars into Europe between 1948 and 1952. By contrast, the United States has committed far smaller amounts in economic assistance to Afghanistan and Iraq. Fair enough. Let us leave Germany, Italy, and Japan aside, and look at the US peacekeeping record in what is now known as the third world. Between the Spanish-American War and the Great Depression, the United States embarked on an ambitious attempt at "progressive" imperialism in the Caribbean, Central America, and the Pacific. Successive administrations, from McKinley's to Wilson's, were emboldened to act by a variety of concerns. These included strategic reasons (keeping foreign powers out of areas deemed vital to US interests, such as the Panama Canal Zone) and economic reasons (expanding opportunities for American businesses in promising markets, such as China). Above all, there was the weight of "The White Man's Burden," the title of a famous poem written in 1899 by Rudyard Kipling in an attempt to persuade Washington to annex the Philippine Islands. The United States did annex the Philippines. It also occupied a number of territories that, under various legal guises, remain part of the United States to this day: Samoa, Guam, Hawaii, Puerto Rico, and the Virgin Islands. America occupied a number of other places temporarily in addition to the Philippines: the Panama Canal Zone, Haiti, the Dominican Republic, Nicaragua, and the Mexican city of Veracruz. The duration of occupation ranged from seven months (in Veracruz) to almost a century (in the Canal Zone). In the process, the United States produced a set of colonial administrators and soldiers who would not have been out of place on a veranda in New Delhi or Nairobi. Men like Leonard Wood, the dashing former Army surgeon and Rough Rider, who went on to administer Cuba and the Philippines; Charles Magoon, a stolid Nebraska lawyer who ran the Panama Canal Zone and then Cuba during the second us occupation (1906-1909); and Smedley Butler, the "Fighting Quaker," a marine who won two Congressional Medals of Honor in a career that took him from Nicaragua to China. These were tough, colorful, resourceful operators who used methods not found in any training manual. The story of the Haitian-US Treaty of 1915, which gave a legal gloss to an American occupation that would last 19 years, captures the period. For years marines told one another that when Major Butler was sent to the presidential palace to obtain the signature of President Philippe Sudre Dartiguenave, the president, not wanting to sign, hid in his bathroom. Butler simply commandeered a ladder and climbed up through the bathroom window to present the treaty and a pen to the startled Dartiguenave. "Sign here," the major commanded, and the president did. Whether or not this "gorgeous legend" (as one marine called it) is actually true, it gives an accurate flavor of how us rule was consolidated. PATTERNS OF OCCUPATION Most of these occupations followed a pattern. The United States was usually drawn in by political unrest and a threat to its foreign financial interests; Washington often feared that if it did not act, some other power would. The United States would then occupy the capital, and its armed forces, usually a handful of marines, would fan out over the countryside to establish order. Often some guerrilla resistance materialized, but it was usually put down quickly by a small number of American troops, who had more sophisticated weaponry and (even more important) better training. In Haiti in 1915, 2,000 marines pacified a country of 2 million people, at a cost of only 3 dead Americans. America waged its longest and most arduous colonial campaign in the Philippines. It took 70,000 soldiers four years, suffering more than 4,000 casualties, to consolidate US control over the islands. Once its rule was firmly established, the United States would set up a constabulary, a quasi-military police force led by Americans and made up of local enlisted men. Then the Americans would work with local officials to administer a variety of public services, from vaccinations and schools to tax collection. American officials, though often resented, usually proved more efficient and less venal than their native predecessors. A priority was improving public health, partly out of altruism and partly to keep US troops themselves healthy in a tropical clime. Cuba set the pattern. There Walter Reed, an Army doctor, proved that yellow fever was spread by a particular variety of mosquito. A mosquito-eradication campaign undertaken at gunpoint drastically reduced the incidence of malaria and yellow fever, which had been ravaging the island for centuries. In Veracruz in 1914, Army General Frederick Funston cleaned up the water supply, improved sewage, and even imported 2,500 garbage cans from the United States. The death rate among city residents plummeted. us forces are undertaking similar public health campaigns in Iraq today. American imperialists usually moved much more quickly than their European counterparts to transfer power to democratically elected local rulers--as they are attempting to do in Iraq initially by setting up a governing council of Iraqis. In 1907, under US rule, the Philippines became the first Asian state to establish a national legislature. In 1935 the archipelago became a domestically autonomous commonwealth headed by President Manuel Quezon, a former insurrectionist who once complained of the difficulty of fostering nationalism under this particular colonial regime: "Damn the Americans! Why don't they tyrannize us more?" (Total independence came in 1946, after Filipinos had fought side by side with GIs against the Japanese.) In many of the countries that the United States occupied, holding fair elections became a top priority because once a democratically elected government was installed, the Americans felt they could withdraw. In 1925 the Coolidge administration refused to recognize the results of a stolen election in Nicaragua and the following year sent in the marines, even though the strongman who had stuffed the ballot boxes, General Emiliano Chamorro Vargas, was ardently pro-American. The United States went on to administer two elections in Nicaragua, in 1928 and 1932, that even the losers acknowledged were the fairest in the country's history. "The interventions by us Marines in Haiti, Nicaragua, the Dominican Republic and elsewhere in those years," writes the Harvard political scientist Samuel Huntington, "often bore striking resemblances to the interventions by Federal marshals in the conduct of elections in the American South in the 1960s: registering voters, protecting against electoral violence, ensuring a free vote and an honest count." That is certainly not the popular impression. The interventions in Central America and the Caribbean have become infamous as "gunboat diplomacy" and "banana wars" undertaken at the behest of powerful Wall Street interests. Smedley Butler helped solidify this myth when, after his retirement from the Marine Corps, he became an ardent isolationist and anti-imperialist. He spent the 1930s denouncing his own career, claiming he had been "a racketeer for capitalism" and a "high-class muscle man for Big Business." In fact, in the early years of the twentieth century, the United States was least likely to intervene in those nations (such as Argentina and costa Rica) where American investors held the biggest stakes. The longest occupations were undertaken in precisely those countries--Nicaragua, Haiti, the Dominican Republic--where the United States had the smallest economic stakes. Moreover, two of the most interventionist presidents in American history Theodore Roosevelt and Woodrow Wilson, were united in their contempt for what TR called "malefactors of great wealth." Wilson was probably the most imperialist president of all, and his interventions had a decidedly idealistic tinge. His goal, as he proclaimed at the start of his administration, was "to teach the South American republics to elect good men." LEGACIES OF EMPIRE How well did the United States achieve this aim? The record is mixed. Its greatest success (outside those territories that remain under the Stars and Stripes to this day) was in the Philippines--which, uncoincidentally, was also the site of one of its longest occupations. Among the institutions that Americans bequeathed to the Filipinos were public schools, a free press, an independent judiciary, a modern bureaucracy, democratic government, and separation of church and state. Unlike the Dutch in the East Indies, the British in Malaya, or the French in Indochina, the Americans left virtually no legacy of economic exploitation; Congress was so concerned about protecting the Filipinos that it barred large landholdings by American individuals or corporations. The us legacy was also lasting: the Philippines have been for the most part free and democratic save for the pIriod from 1972 to 1986, when Ferdinand Marcos ruled by flat, which is more than most other Asian countries can say. The US legacy in the Caribbean and Central America was more fleeting. It is not true, as some critics later charged, that the United States deliberately installed dictators such as Duvalier, Batista, and Somoza. The governments left in power by American troops were usually democratic and decent. But they were also too weak to survive on their own. At one time the United States might have intervened to support democratically elected regimes. In the 1930s, however, President Franklin D. Roosevelt renounced the interventionist policies of his predecessors, including his cousin Theodore. Henceforth, FDR said, US relations with Latin America would be governed by the "Good Neighbor" policy, which meant in essence that Washington would work with whoever came to power, no matter how. The US ambassador to Managua, Arthur Bill Lane, was shocked and upset when Anastasio Somoza, the commander of the Nicaraguan National Guard, murdered the former rebel leader Augusto Sandino and deposed the democratically elected president (who was also his uncle), Dr. Juan Bautista Sacasa. Lane wanted to intervene, as the United States might have in the past; but Roosevelt refused: Of Sonioza, FDR famously (if perhaps apocryphally) said, "He may be a son of a bitch, but he's our son of a bitch." But make no mistake: Somoza did not attain power because of America's support; he attained power because of its indifference. The same might be said of François ("Papa Doc") Duvalier in Haiti, Rafael Trujillo in the Dominican Republic, and other dictators who took over after US withdrawal. Although its effects often wore off, US rule looks pretty good by comparison with what came before and after in most countries. Haiti offers a particularly dramatic example. Before the US occupation in 1915, seven presidents had been overthrown in seven years. After the last US marines left in 1934, the country lapsed back into instability until, in 1957, the black nationalist Duvalier assumed power. He and "Baby Doc" (his son Jean Claude) ruled continuously until 1986, presiding over a reign of terror undertaken by their savage secret police, the Tontons Macoutes. After Baby Doc's overthrow it was back to chaos, leavened only by despotism. In 1994 the United States was driven to intervene once again to oust a military junta and restore to power President Jean Bertrand Aristide. But no matter who is in charge, the Haitian people continue to suffer horrifying levels of poverty, crime, disease, and violence; their country is the poorest an the Western Hemisphere, and one of the poorest on earth. By contrast, the almost two decades of American occupation stand out as an oasis of prosperity and stability. While not exactly democratic (the United States ruled for a time through an appointed president), the American occupation was undertaken with minimal force. Haiti hosted fewer than 800 US marines, and life was freer than at just about any time before or since. The Americans made no attempt to exploit Haiti economically; US authorities actively discouraged large American companies from setting up shop for fear that they would take advantage of the people. The US administrators ran the government fairly and efficiently, and by the time they left they could tick off a long list of achievements: 1,000 miles of roads and 210 bridges built, 9 major airfields, 1,250 miles of telephone lines, 82 miles of irrigation canals, 11 modern hospitals, 147 rural clinics, and on and on. Unfortunately, most of the physical manifestations of the American empire--roads, hospitals, telephone systems--began to crumble not long after the marines pulled out. This should be no surprise; it has been the case whenever more technologically advanced imperialists have left a less sophisticated area, whether they were the Romans pulling out of Britain or the British out of India. The two most lasting legacies of American interventions in the Caribbean may be a resentment of flie Yanquis, now perhaps fading, and a love of baseball, still passionately felt. This does not mean, however, that occupation is entirely futile. **US troops can stop the killing, end the chaos, create a breathing space, and establish the rule of law**. What the inhabitants do then is up to them. If America's aim is to recreate Ohio in Kosovo or Haiti, the occupiers are doomed to disappointment. But if the goals are more modest, US rule can serve the interests of occupiers and occupied alike. Put another way, nation building is generally too ambitious a task, but state building is not, the apparatus of a functioning state can be developed much more quickly than a national consciousness. HOW TO BUILD A STATE Most successful examples of state building begin by imposing the rule of law--as the United States did in the Philippines, and Britain in India--which is a prerequisite for economic development and the eventual emergence of democracy. Merely holding an election and leaving will likely achieve little, as the United States learned in Haiti in 1994. For occupation to have a meaningful impact, it should be fairly lengthy; if Americans are intent on a quick "exit strategy;" they might as well stay home. History teaches another important lesson: that occupation duty sometimes leads troops to commit what are today called human rights abuses. It is easy to exaggerate the extent of these excesses. Brian Linn's recent history, The Philippine War 1899-1902, suggests that the conduct of American soldiers from 1899 to 1902 was not nearly as reprehensible as everyone from Mark Twain to New Left historians of the 1960s would have us believe. But whenever a small number of occupation troops are placed in the midst of millions of potentially hostile foreigners, some unpleasant episodes are likely to occur. During the us occupation of the Dominican Republic from 1916 to 1924, a marine captain named Charles F Merkel became notorious as the Tiger of Seibo; he personally tortured one prisoner by slashing him with a knife, pouring salt and orange juice into the wounds, and then cutting off the man's ears. Merkel killed himself in jail after, rumor had it, a visit from two marine officers who left him a gun with a single bullet in it. When word of such abuses reached the United States, it caused a public uproar. In the 1920 election the Republican presidential candidate, Warren G. Harding, sought black votes by denouncing the "rape" of Hispaniola perpetrated by a Democratic administration. This kind of criticism is not so different from the questions raised today about us treatment of Taliban or Iraqi prisoners. American troops must take great care to avoid heinous conduct, not only for moral but also for practical reasons. If imperialists are provoked into too many grisly reprisals--as the French were in Algeria, or the Americans in Vietnam--support for their enterprise back home is likely to evaporate. And it is also much harder to win the "hearts and minds" of uncommitted civilians if you are routinely torturing or killing their relatives. Some mistaken shootings notwithstanding, **this is a danger that US troops have largely avoided in Afghanistan and Iraq**. It is inevitable that any nation bent on imperialism will encounter setbacks. The British army suffered major defeats with thousands of casualties in the first Anglo-Afghan War (1838-1842) and the Anglo-Zulu War (1879). This did not appreciably dampen Britain's determination to defend and extend its empire. If Americans cannot adopt a similarly tough-minded attitude, they have no business undertaking nation building. This is not to suggest that America should sacrifice thousands of young men for ephemeral goals, but that policymakers need to recognize that all military operations run certain risks, and the United States should not flee at the first casualty. More important, Washington should not design these operations (as it did with the occupation of Haiti in 1994) with the primary goal of producing no casualties. That is a recipe for ineffectuality THE IMPERIAL IMPERATIVE Given the costs, moral and material, what is the case for undertaking imperialism at all? It is not so different today from 100 years ago. There is the economic argument: the United States can add areas such as Central Asia and the Balkans to the world free-trade system, within which America prospers. (These regions might seem like economic basket cases today, but so, a few decades ago, did Taiwan and South Korea. Both have prospered under us military protection.) There is also the idealistic argument: the United States has a duty to save people from starvation, ethnic cleansing, and tyranny. This is a direct descendant of the "white man's burden," except today it is not limited to whites or to men but extends to everyone in the West. If these were the only reasons for America to undertake nation building, then it would be a hard sell, as indeed it was for large segments of the public in the 1990s. But since 9-11, another argument for imperialism has come to the fore: national security. We can only wonder what might have happened if, after the Soviet Union was driven out in the early 1990s, the United States had helped build Afghanistan into a viable state. It might not have become the home of the Taliban and Al Qaeda, and the World Trade Center might still be standing. This is only speculation, of course. But in the Balkans we can already see a payoff from nation building undertaken by the United States and its allies. The violence that claimed some 300,000 lives during the breakup of Yugoslavia is over. Kosovo, Macedonia, Croatia, Serbia, Slovenia, and Bosnia live in a state of uneasy peace under the eyes of Western troops. Aside from saving lives, there is another reason for the United States to take satisfaction in this outcome: Islamic extremists, who migrated to the Balkans in the early 1990s to help their fellow Muslims in Kosovo and Bosnia resist Serb oppression, have been denied a toehold in the region. NATO troops have been able to arrest and deport a number of terrorist suspects in Albania and Bosnia before they could blow up American installations. If US troops had never intervened in the first place, it is likely that the Balkans would have turned into another Afghanistan, a refuge for terrorists, and this one located near the heart of Europe. Similar action may be necessary to drain other potential swamps that breed crime and violence. In Iraq, in particular, the United States has an opportunity to begin transforming an entire region--the Middle East--that has emerged as the greatest threat to American security since the demise of the Soviet Union. Any call for a renewed campaign of nation building by Western states is likely to run into an obvious objection: Did imperialism not go out of style decades ago, when European administrators were chased out of one colony after another? True enough. Europeans found that the cost of ruling third world countries whose young men were fired up by nationalist doctrines was too high to pay. Then, too, in the wake of the Holocaust, the racist assumptions that had justified a small number of whites ruling over millions of non-white people lost their intellectual respectability. The British withdrew more or less gracefully from most of their empire, while the French fought to keep Vietnam and Algeria and suffered humiliating defeats. If the Europeans, with their long tradition of colonialism, have found the price of empire too high, what chance is there that Americans, whose country was born in a revolt against empire, will replace the colonial administrators of old? Not much. The kind of imperial missions that the United States is likely to undertake today are very different. The Europeans fought to subjugate "natives"; Americans will fight to bring them democracy and the rule of law. (No one wants to put Iraq or Afghanistan permanently under the Stars and Stripes.) European rule was justified by racial prejudices; American interventions are justified by self-defense and human rights doctrines accepted (at least in principle) by all signatories to the Universal Declaration of Human Rights. European expeditions were unilateral; American missions are usually blessed with international approval; whether from the United Nations, NATO, or simply an ad hoc coalition. Even the US intervention in Iraq this year, widely held to be "unilateral," enjoys far more international support (and hence legitimacy) than, say, the French role in Algeria in the 1950s.

#### The affirmative’s critical engagement with material inequality is a pre-requisite – criticisms of our method must be accountable for their lack of real world change

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Jan Pieterse, sociology professor @ University of Illinois, p. Informaworld, “After Post-Development” Third World Quarterly 21:2

The quasi-revolutionary posturing in post-developmentreflects both a hunger for a new era and a nostalgia politics of romanticism, glorification of the local, the grassroots and the community with conservative overtones. Different adherents of post-development advocate different politics. Escobar opts for a ‘romance of resistance’. The politics of Gilbert Rist are those of a conventionally compartmentalised world. Rahnema opts for a Confucian version of Taoist politics (discussed in Nederveen Pieterse, 1999). Ray Kiely adds another note: ‘When Rahnema (1997: 391) argues that the end of development “represents a call to the ‘good people’ everywhere to think and work together”, we are left with the vacuous politics of USA for Africa’s “We are the World”. Instead of a politics which critically engages with material inequalities, we have a post-development era where “people should be nicer to each other”’. (1999: 24) In the introduction to the Power of Development, Jonathan Crush offers this de␣ nition: ‘This is the power of development: the power to transform old worlds, the power to imagine new ones’. The context is a comment on a colonial text: ‘Africans become objects for the application of power rather than subjects experiencing and responding to the exercise of that power’ (1996: 2). Crush comes back once more to the power of development: ‘The power of development is the power to generalize, homogenize, objectify’ (p. 22). There is a disjuncture between these statements. While the first is, or seems to be, affirmative, the other two are negative. Clearly something is lost in the process. It is what Marx, and Schumpeter after him, called the process of ‘creative destruction’. What happens in post-development is that, of ‘creative destruction’, only destruction remains. What remains of the power of development is only the destructive power of social engineering. Gone is the recognition of the creativity of developmental change (cf. Goulet, 1992). Instead, what post-development offers, besides critique, is another series of fashionable interpretations. Above all it is a cultural critique of development and a cultural politics (Fagan, 1999). This reflects on more than just development: **‘**development’ here is a stand-in for modernity and the real issue is the question of modernity. It may be argued that the power of development is the power of ‘Thesis Eleven’. According to Marx’s Eleventh Thesis on Feuerbach, ‘Philosophers have only interpreted the world in various ways. The time has come to change it.’ Nowadays the ambition to ‘change the world’ meets with cynicism—because of the questionable record of several development decades, doubts over social engineering and rationalist planning as exercises in authoritarianism, and over modernism and the utopian belief in the perfectability of society. Yet all this does not alter the necessity to ‘change the world’, nor does it alter the fact that development is about changing the world, with all the pitfalls that involves, including the legacy of social engineering and Enlightenment confidence tricks.

**Perm is best, specifically in a Latin American context**

**Escobar 10** (Arturo, Ph.D. in Development Policy and Philosophy from UC Berkeley and Professor of Anthropology at UNC Chapel Hill, "Latin America at a Crossroads," Cultural Studies, 24: 1, pp. 1-65, 12 January 2010, slim\_)

This specificity also has to do with the multiplicity of long-term histories and trajectories that underlie the cultural and political projects at play. It can plausibly be argued that the region could be moving at the very least beyond the idea of a single, universal modernity and towards a more plural set of modernities. Whether it is also moving beyond the dominance of one set of modernities (Euro-modernities), or not, remains to be seen. Although moving to a post-liberal society does not seem to be the project of the progressive governments, some social movements could be seen as pointing in this direction. A third layer to which attention needs to be paid is, of course, the reactions by, and projects from, the right. State, social movements, and the right appear as three inter-related but distinct spheres of cultural-political intervention. Said differently, this paper seeks to understand the current conjuncture, in the sense of ‘a description of a social formation as fractured and conflictual, along multiple axes, planes and scales, constantly in search of temporary balances or structural stabilities through a variety of practices and processes of struggle and negotiation’(Grossberg 2006, p. 4). Latin America can be fruitfully seen as a crossroads: a regional formation where critical theories arising from many trajectories (from Marxist political economy and post-structuralism to ‘decolonial thought’), a multiplicity of histories and futures, and very diverse cultural and political projects all find a convergence space. As we shall see, the current conjuncture can be said to be defined by two processes: the crisis of the neo-liberal model of the past three decades; and the crisis of the project of bringing about modernity in the continent since the Conquest.