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#### 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.

#### Funding cuts in USAIDS now—plan funding key to solve

Miotke 8 – subcommittee on research and science education, committee on science and technology, House of Representatives, 110 Congress, Foreign Service Officer, Deputy Assistant Secretary of State for Science, Space, and Health (Jeff, “International Science and Technology Cooperation,” Government Printing Office, 4/2/2008, <http://www.gpo.gov/fdsys/pkg/CHRG-110hhrg41470/html/CHRG-110hhrg41470.htm)//RH>

USAID USAID plays a significant role in integrating the products of S&T to meet the challenges of economic, environmental, and social development. USAID supports research primarily in the areas of agriculture and health and is directed towards applied problems. The technologies and results from research and development supported by other federal agencies and the private sector is, however, integrated across the Agency's work in areas such as information technology, infrastructure, climate change, energy, clean water, environmental management, social safety nets and education. Among federal agencies, USAID has the unique mandate for applied work on the ground in more than seventy developing countries. USAID leverages the expertise of U.S. universities, private companies, and other federal agencies in partnerships with governments, research institutions, and the private sector in developing countries. In recent years, USAID funding cuts have greatly scaled back the Agency's support for training in science and technology compared to the 1980s. The Agency still supports modest programs of capacity building as integral to its agricultural research and higher education development programs. USAID is seen as an international leader in areas such as agricultural biotechnology, contraceptives research, nutrition, vaccines, and the application of geospatial information to climate analysis and response. USAID is one of the only donors to support the development of improved crops using modern biotechnology, providing broader access to this technology by scientists, and eventually small farmers in Africa and Asia. USAID is also a major donor to the Consultative Group on International Agricultural Research (CGIAR), a network of research centers in developing countries which formed the basis of the Green Revolution. Rising international food prices due to rising food demands threatens the welfare of the world's poor. USAID's leadership in the CGIAR will be a critical component of an international effort to raise productivity and meet this growing food demand. USAID's program to apply geospatial information technology to improve disaster response, weather forecasting, and monitoring of fires, ocean tides, and air quality in Central America was highlighted as an early accomplishment under GEOSS and is now expanding with USAID support to Africa. USAID invests in bilateral scientific cooperation between the U.S. and Pakistani research and engineering communities. A series of some 40 cooperative R&D efforts, involving several hundred researchers and students on both sides, focus on areas that contribute to broader USAID development objectives in public health, agriculture, water and the environment, education and other sectors. The program, implemented by the National Academy of Sciences, is a true bilateral partnership, with USAID funding U.S. research partners and the Government of Pakistan funding the Pakistani scientists and engineers. All of this activity is implemented under the auspices of an S&T cooperation agreement negotiated by OES.

#### 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.

#### Unregulated development risks an arms race

Gubrud 97 (Mark Avrum Gubrud, a research associate, Center for Superconductivity Research (University of Maryland, College Park), is ''a physicist, writer and social activist, November 1997, <http://www.foresight.org/Conferences/MNT05/Papers/Gubrud/>, “Nanotechnology and International Security”)

The greatest danger coincides with the emergence of these powerful technologies: A quickening succession of "revolutions" may spark a new arms race involving a number of potential competitors. Older systems, including nuclear weapons, would become vulnerable to novel forms of attack or neutralization. Rapidly evolving, untested, secret, and even "virtual" arsenals would undermine confidence in the ability to retaliate or resist aggression. Warning and decision times would shrink. Covert infiltration of intelligence and sabotage devices would blur the distinction between confrontation and war. Overt deployment of ultramodern weapons, perhaps on a massive scale, would alarm technological laggards. Actual and perceived power balances would shift dramatically and abruptly. Accompanied by economic upheaval, general uncertainty and disputes over the future of major resources and of humanity itself, such a runaway crisis would likely erupt into large-scale rearmament and warfare well before another technological plateau was reached. International regimes combining arms control, verification and transparency, collective security and limited military capabilities, can be proposed in order to maintain stability. However, these would require unprecedented levels of cooperation and restraint, and would be prone to collapse if nations persist in challenging each other with threats of force. If we believe that assemblers are feasible, perhaps the most important implication is this: Ultimately, we will need an integrated international security system. For the present, failure to consider alternatives to unilateral "peace through strength" puts us on a course toward the next world war.

#### 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. In 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.

#### And, the plan is a long-term engagement strategy that provides a platform for S&T leadership and U.S. Science Diplomacy

Dolan 12(Bridget M. Dolan, “Science and Technology Agreements as Tools for Science Diplomacy: A U.S. Case Study,” Science & Diplomacy, Vol. 1, No. 4 (December 2012), pg online @ http://www.sciencediplomacy.org/files/science\_and\_technology\_agreements\_as\_tools\_for\_science\_diplomacy\_science\_\_diplomacy.pdf //um-ef)

As this paper has elaborated, U.S. decisions to enter into S&T agreements are often motivated by the desire to transform a diplomatic relationship, promote public diplomacy, enhance a diplomatic visit, and/or advance U.S. national security. An S&T agreement can be a limited one-time deliverable or it can be a launching pad for extensive engagement. While the discussions above have focused on drivers for S&T agreements from the U.S. perspective, for these agreements to be effective tools of science diplomacy, implementation matters. In the last decade, the number of S&T agreements involving the United States has doubled. At the same time allocation of U.S. federal resources to designated international programs that support engagement in science and technology has not kept pace.11 Some science diplomacy practitioners and academics in the United States and abroad are concerned that an S&T agreement with the United States, while once considered an important tool, is no longer taken seriously.12 As these types of formal intergovernmental agreements continue to expand, however, the long-term benefit to official and nongovernmental relations between countries depends upon the ability to foster substantial scientific cooperation. It is essential that these agreements and science diplomacy more generally—while cognizant of the realities of limited resources—are ambitious enough to foster meaningful international partnerships.

## 2AC XO CP

**2. Solvency deficits**

**a) Courts will rollback**

**Cooper 2** [Phillip, Professor of Public Administration @ Portland State University, *By Order of the President: The Use and Abuse of Executive Direct Action”* pg..77]

Despite the apparent deference by the judiciary to the president's orders, this chapter has plainly demonstrated any number of instances in which the White House has lost in court. Executive orders, both legal and illegal, can expose officials to liability. It is an old argument, developed long before the battle over the so-called Nuremberg defense, that illegal orders do not insulate a public official from liability for his or her actions. The classic example harks back to Little v. Barreme 13 1 during the Washington administration. Even legal orders can expose the government to liability. Though the federal courts have often upheld dramatic actions taken by the president during difficult periods, they have not been hesitant to support claims against the government later. The many cases that were brought involving the U.S. Shipping Board Emergency Fleet Corporation after World War I provide examples of just how long such postorder legal cleanup can take and how much it can Cost. 112 Later, in a 1951 case, the Supreme Court subjected government to claims by business for the damages done to their interests during the government's operation of the coal mines during World War II after FDR seized the mines in 1943.133 Thus, the legal issues that may arise are concerned with both the validity of orders and with addressing the consequences of admittedly legitimate decrees.

**b) Future presidents dispose of**

**Cooper 97** [Phillip, Professor of Poli Sci @ University of Vermont, Administration and Society, Lexis]

Even if they serve temporary goals**, executive orders can produce a significant amount of** complexity and **conflict and not yield a long-term benefit because the next president may dispose of predecessors’ orders at a whim. It may be easier than moving a statute through Congress** and faster than waiting for agencies to use their rule-making processes to accomplish policy ends**, but executive orders may ultimately be a much weaker foundation on which to build a policy** than the alternatives**.**

#### USAID Key

Committee on Science and Technology 8 – subcommittee on research and science education, committee on science and technology, House of Representatives, 110 Congress (“International Science and Technology Cooperation,” Government Printing Office, 4/2/2008, <http://www.gpo.gov/fdsys/pkg/CHRG-110hhrg41470/html/CHRG-110hhrg41470.htm>)//RH

The U.S. Agency for International Development (USAID) is the primary agency supporting science for development. Many USAID initiatives on S&T related issues, such as infectious diseases, energy, natural resources management, and agriculture, draw on or build up local and regional S&T capacity in addition to contributing American know-how and resources. USAID used to have a separate Bureau for Science and Technology, but several years ago that Bureau was dismantled and the science and technology activities spread among the appropriate functional and regional bureaus. However, when Dr. Fedoroff was appointed Science and Technology Adviser to the Secretary of State, she convinced Secretary Rice to assign to her the additional role of S&T Adviser to USAID Administrator Henrietta Ford. Aside from NSF, the National Institutes of Health (NIH) and the USDA are the only research agencies with explicit international programs. In fact, NIH has a separate Fogarty International Center for Advanced Study in the Health Sciences, which addresses global health challenges through collaborative research and training programs and international partnerships. USDA has many international programs, including international offices and overseas laboratories, in addition to the Foreign Agriculture Service. The remainder of the mission agencies also engage in international science cooperation, but wrap those projects into their domestic programs rather than having separate programs or offices. NASA in particular has international partners for most of its big projects due to the tremendous costs of building and launching into orbit the kinds of telescopes and other research and exploration equipment required for their mission. All of these domestic mission agencies are careful to state that they only engage in science cooperation for the sake of science and do not have or want a role in diplomacy or development.

**USAID Forward leads to innovation and growth**

IGD 3-20

[Initiative for Global Development, “USAID Forward: Delivering Development Reform”, March 20, 2013, http://www.igdleaders.org/usaid-forward-delivering-development-reform/]

USAID Administrator Rajiv Shah today released the first USAID Forward progress report. Launched in 2010, USAID Forward is a reform initiative that seeks to transform USAID into the world’s premier development agency by focusing on three key areas: building local capacity through partnerships, driving innovation, and strengthening results. These three focus areas hold enormous potential to fundamentally change the business of development assistance. As we argued in our 2012 report “The Business Case for Development,” donors like USAID can increase their efficiency and effectiveness by leveraging corporate investment strategies that are aligned with development priorities. USAID Forward’s emphasis on building capacity, fostering innovation, and achieving results demonstrates a concerted effort to strengthen partner countries, help them attract increased private capital, and create an environment in which trade and investment increasingly replace aid. • Capacity building: Strengthening local organizations, both public and private, helps attract investment and spur growth. Across Africa, USAID missions now contribute on average 10 percent of their funding to local institutions. In our work to facilitate investment in key African agriculture value chains, for example, we have successfully connected a number of our member companies, whose business strategies align with Feed the Future priorities, with USAID to develop comprehensive approaches that leverage public and private resources for agricultural development. By focusing on building local capacity—in terms of access to credit, farmer training, or hiring more extension workers, for example—USAID Forward is helping create an environment where private capital can increasingly fill the investment gaps faced by African governments. • Innovation: Many of the challenges facing Africa will require collaborative solutions, bringing together innovations from businesses and universities with donor programs to reduce costs and broaden access. This is a win-win for innovators and development practitioners, but is of greatest benefit to the poor, many of whose lives have been radically improved by technological advancements and creative lower-cost solutions. A number of IGD companies have pioneered approaches that help reach the poorest of the poor with innovative products and services, often in collaboration with donors, like USAID, or donor-supported NGOs. • Results: Strengthening USAID’s capacity to deliver results is central to USAID Forward. In order to demonstrate progress in building local capacity, partnering for development, and catalyzing innovation, the agency has committed to enhancing its financial and technical expertise and hiring people with business experience to drive engagement with the private sector. USAID recruited its first Field Investment Officers in 2012, for example, a number of whom are deployed in Africa and have been tasked with engaging the local private sector in USAID planning. We believe USAID Forward marks real reform. USAID is now positioned at the forefront of a powerful trend around the world—the rapid emergence of private capital and investment flows as the dominant source of funding in developing countries. Multi-stakeholder partnerships are key to delivering the innovation and resources that will secure strong development outcomes.

**Innovation makes war impossible**

Paone, 9 (Chuck, 66th Air Base Wing Public Affairs for the US Air Force, 8-10-09, “Technology convergence could prevent war, futurist says,” http://www.af.mil/news/story.asp?id=123162500)

The convergence of "exponentially advancing technologies" will form a "super-intelligence" **so formidable that it could avert war**, according to one of the world's leading futurists. Dr. James Canton, CEO and chairman of the Institute for Global Futures, a San Francisco-based think tank, is author of the book "The Extreme Future" and an adviser to leading companies, the military and other government agencies. He is consistently listed among the world's leading speakers and has presented to diverse audiences around the globe. He will address the Air Force Command and Control Intelligence, Survelliance and Reconnaissance Symposium, which will be held Sept. 28 through 30 at the MGM Grand Hotel at Foxwoods in Ledyard, Conn., joining Air Force Chief of Staff Gen. Norton Schwartz and a bevy of other government and industry speakers. He offered a sneak preview of his symposium presentation and answered various questions about the future of technology and warfare in early August. "**The superiority of convergent tech**nologies **will prevent war,"** Doctor Canton said, claiming **their power would present an overwhelming deterrent to potential adversaries**. While saying that the U.S. will build these super systems faster and better than other nations, he acknowledged that a new arms race is already under way. "It will be a new MAD for the 21st century," he said, referring to the Cold War-era acronym for Mutually Assured Destruction, the idea that a nuclear first strike would trigger an equally deadly response. It's commonly held that this knowledge has essentially prevented any rational state from launching a nuclear attack. Likewise, Doctor Canton said he believes rational nation states, considering this imminent technology explosion, will see the futility of nation-on-nation warfare in the near future. Plus there's the "socio-economic linking of the global market system." "The fundamental macroeconomics on the planet favor peace, security, capitalism and prosperity," he said. Doctor Canton projects that nations, including those not currently allied, will work together in using these smart technologies to prevent non-state actors from engaging in disruptive and deadly acts. As a futurist, Doctor Canton and his team study and predict many things, but their main area of expertise -- and the one in which he's personally most interested -- is advanced and emerging technology. "I see that as the key catalyst of strategic change on the planet, and it will be for the next 100 years," he said. He focuses on six specific technology areas: "nano, bio, IT, neuro, quantum and robotics;" those he expects to converge in so powerful a way. Within the information technology arena, Doctor Canton said systems must create "meaningful data," which can be validated and acted upon. "Knowledge engineering for the analyst and the warfighter is a critical competency that we need to get our arms around," he said. "Having an avalanche of data is not going to be helpful." Having the right data is. "There's no way for the human operator to look at an infinite number of data streams and extract meaning," he said. "The question then is: How do we augment the human user with advanced artificial intelligence, better software presentation and better visual frameworks, to create a system that is situationally aware and can provide decision options for the human operator, faster than the human being can?" He said he believes the answers can often be found already in what he calls 'edge cultures.' "I would look outside of the military. What are they doing in video games? What are they doing in healthcare? What about the financial industry?" Doctor Canton said he believes that more sophisticated artificial intelligence applications will transform business, warfare and life in general. Many of these are already embedded in systems or products, he says, even if people don't know it.

**XOs are perceived and unpopular with Republicans – links to politics**

**Cohen 11** (Tom, CNN, “Obama uses executive orders as a political tool,” http://articles.cnn.com/2011-11-01/politics/politics\_obama-executive-orders\_1\_executive-orders-press-secretary-jay-carney-inaction?\_s=PM:POLITICS, accessed 11/4)

Republicans reject the premise of the White House position, arguing that Obama chooses to blame Congress for inaction instead of working with legislators from both parties on bills that can pass. House Speaker John Boehner, speaking on the Laura Ingraham show last week, described as laughable the prospect that Obama would use executive orders to bypass Congress on substantive issues. At the same time, though, the Ohio Republican said he would keep close watch to make sure nothing unconstitutional happens. To Adam Warber, a Clemson University political science professor who wrote a book on executive orders, Obama is carrying on a consistent tradition of his predecessors in trying to expand the power of the presidency as much as possible. "It's incremental," Warber said. "Each president kind of adds to the power that the presidency has." In Obama's case, "we pretty much are seeing that behind the scenes he's centralizing power," Warber continued. "He's not really different than anyone else." For Obama, the strategy of executive orders serves a dual purpose by moving forward on parts of his agenda despite Republican opposition while projecting an image of decisive action in the face of political inaction.

**The is merely used to refer to a proper noun**

**Merriam-Webster's Online Collegiate Dictionary,No Date,**

H: Used as a function word before a proper name

**“Resolved” doesn’t determine agency—it’s just to form a resolution**

**Merriam Webster ‘9** (http://www.merriam-webster.com/dictionary/resolved)

# Main Entry: 1re•solve # Pronunciation: \ri-ˈzälv, -ˈzȯlv also -ˈzäv or -ˈzȯv\ # Function: verb # Inflected Form(s): resolved; re•solv•ing 1 : to become separated into component parts; also : to become reduced by dissolving or analysis 2 : to form a resolution : determine 3 : consult, deliberate

**8. Their terminology is vague – there are at least 24 types of presidential directives**

Gaziano 1 (Todd F., The Heritage Foundation, *The Use and Abuse of Executive Orders and Other Presidential Directives*, 2/21/1, http://www.heritage.org/research/reports/2001/02/the-use-and-abuse-of-executive-orders-and-other-presidential-directives)//LA

Many Forms of Directives. One scholar has identified 24 different types of presidential directives,39 although even his list is incomplete. A partial list includes administrative orders; certificates; designations of officials; executive orders; general licenses; interpretations; letters on tariffs and international trade; military orders; various types of national security instruments (such as national security action memoranda, national security decision directives, national security directives, national security reviews, national security study memoranda, presidential review directives, and presidential decision directives); presidential announcements; presidential findings; presidential reorganization plans; presidential signing statements; and proclamations.

## 2ac Debt Ceiling/CR

#### No debt deal- republicans will bundle

Herman 9/27 (Malia Rulon Herman is a writer for USA Today. “Debt-ceiling measure puts Keystone supporters at odds” <http://www.usatoday.com/story/news/politics/2013/09/27/pipeline-supporters-split-on-strategy/2886071/> September 27, 2013)

WASHINGTON – Some proponents of the Keystone XL pipeline are eyeing a mid-October deadline for raising the nation's debt ceiling as a tool to win approval for the long-delayed project.¶ House Republicans plan to make a debt-ceiling hike contingent on a list of party priorities that include delayed implementation of the 2010 health care law, an overhaul of the tax code and a broad rollback of environmental regulations. One item on the list is language requiring the administration to approve the 1,700-mile pipeline.¶ "We feel like this is our only option," Republican Rep. Lee Terry of Nebraska told the New York Times this week.¶ Republican Rep. Steve Daines of Montana also was considering the plan.¶ "We will be taking time in the coming days to review the House proposal and are open to including provisions to approve the construction of the Keystone XL pipeline in this package," said his spokeswoman, Alee Lockman. "Steve is committed to doing what he can to get this job-creating project approved."¶ House Republicans remained uncertain Friday about when they would vote on legislation to raise the nation's borrowing authority. A vote could come Saturday, Sunday or next week.¶ President Barack Obama has said he won't negotiate on the debt ceiling. He and most Democrats, including Montana Sens. Max Baucus and Jon Tester, are calling for a "clean" debt-ceiling bill free of other provisions.¶ "No one is a bigger supporter of the Keystone Pipeline than Max, and Max will be the first one to support effective legislation that actually gets the pipeline built," Baucus spokeswoman Jennifer Donohue said. "But playing politics with America's ability to pay our bills by bringing outside issues into the debt ceiling debate will hurt Montana jobs without getting us any closer to building the Keystone pipeline."¶ Tester, through a spokeswoman, agreed.¶ "Jon continues to support the Keystone Pipeline but believes a vote to raise the debt ceiling should be a clean vote focused on protecting our credit rating," spokeswoman Andrea Helling said. "He would not support efforts to add any additional measures to the bill."¶ The pipeline, in the works for more than five years, is a flashpoint for environmentalists. They say transporting such large amounts of oil across the country puts many areas at risk.¶ Supporters counter that the $5.3 billion project would create 42,000 jobs across the country and generate much-needed tax revenue in several states.¶ The pipeline would move thousands of barrels of crude each day from Canada to the Gulf Coast for refining. Oil also would be transported from the Bakken region in Montana and North Dakota.¶ Oil produced in these regions now is transported across the U.S. by trucks and rail.

#### Nanotech is invincible in Congress

Sargent 08 **-** Specialist in Science and Technology Policy: Resources, Science, and Industry Division (John, “Nanotechnology and U.S. Competitiveness: Issues and Options”, CRS Report for Congress, 3/15/2008, http://www.fas.org/sgp/crs/misc/RL34493.pdf)//BD

The federal government has played a central role in catalyzing U.S. R&D efforts. In 2000, President Clinton launched **the U.S. National Nanotechnology Initiative (NNI)**, the world’s first integrated national effort focused on nanotechnology. The NNI **has enjoyed strong, bipartisan support from the executive branch, the House of Representatives, and the Senate. Each year, the President has proposed increased funding for federal nanotechnology R&D, and each year Congress has provided additional funding.** Since the inception of the NNI, **Congress has appropriated a total of $8.4 billion for**

**nanotechnology R&D intended to foster continued U.S. technological leadership and to support the technology’s development, with the long-term goals of: creating high-wage jobs, economic growth, and wealth creation; addressing critical national needs; renewing U.S. manufacturing leadership; and improving health, the environment, and the overall quality of life.**

## 2ac Psychoanalysis

#### Perm do both – psychoanalysis can be correct for individuals on the psychologists’ couch but it doesn’t explain INSTITUTIONAL interactions like decisions by states.

Levinson 7, Department of Comparative Literature, State University of New York at Binghamton, (Brett, “ In Theory, Politics Does not Exist,” Postmodern Culture Volume 18, Number 1, September, Project Muse)

This signifier that would head popular democratic movements has only one problem: it does not exist. As Laclau argues, there is no signifier without a signified (On Populist Reason 105). In fact, desire can only generate an object petit a, as object cause and signifier, that is not sufficiently strong, not enough of a signifier, to attract subjects in the manner outlined by Lacan. This partial object or sign represents the empty wholeness; yet, precisely as mere representative, it fails to offer the promise of fulfillment that would lure the popular subjects. Subjects of desire move metonymically from object cause to object cause, in search of the wholeness they do not receive via the partial object. They are not held or captivated by the signifier, which thus fails to gather the manifold. For Laclau's politics, the demand that emits from desire is literally unsatisfactory. Laclau, then, needs a signifier that does not represent that whole but that is the whole, i.e., a part that is the whole. His ideal signifier, while necessarily a partial object, must be a full performance of democracy. A proper name, as indicated above, could perhaps accomplish this feat--if only it existed. The object of the drive, Laclau decides, is the next best option (On Populist Reason 119-20). After all, the drive attaches to a circumscribed object that, for the "aroused" subject, is as good as any whole. The bottle is as good as the breast, which is as good as the complete mother, which in turn is as good as completeness itself. All are equally partial over against their aim, which is knowledge (or death). The object of the drive, then, is not partial relative to a whole. A missing or completed wholeness has nothing to do with the drive's direction or aim--the aim that splits the drive, which in turn splits off, endlessly driving past its aim, while never falling short of it. On the one hand, Laclau's theory of populism requires an object petit a qua signifier that fills the empty fullness of our modern democracies-to-come. In Lacan, this signifier is the desired signifier, the signifier of desire that marks the dialectic between part and whole. The people--for Laclau, both a part within and the full body of the democratic state--thus names this name for Laclau. On the other hand, Laclau's theory calls for an object petit a qua signifier that is the thing as such, not its mere cause or representation; it calls thus for the object of the drive, sufficient unto itself. In other words, for Laclau popular politics demands a signifier derived from a smooth blend of desire and drive. It hinges on neither the object cause of desire nor on the object of the drive, but on the object petit a as object of desire. There is only one problem with such a thing: it does not and cannot exist. It is telling that Laclau derives his notion of the drive from a secondary source, not from Lacan's actual writings (On Populist Reason 119). At the key moment when he must make Lacan work for a theory of popular democracy, Laclau has to remove Lacan's texts from the picture. The aim of the drive is knowledge. Laclau evades that aim, evades that knowledge--which is the knowledge of Lacan--in order to cast his political net in the name of that very knowledge. It is not that Laclau's practice abandons theory so that it can operate, potentially, "in the real world." In bypassing theory, the practice skirts practice too. In fact, within Lacanian theory an object of desire that acts as the thing itself, as the whole, cannot be imagined, not even if that thought is utopian. It can exist neither in theory nor in practice, neither in the mind nor materially. Laclau, by offering not only a theory that is missing its theory, calls for--because it is missing its theory--a practice that cannot be practiced. Lacan holds that the division of knowledge and practice precludes both, since psychoanalysis is a practice of knowledge. Conversely, Laclau marshals this very division by throwing the Lacanian principles (the fundamental difference between drive and desire) upon which his (Laclau's) theory of politics counts outside of that very theory. The theory of politics is a performance of the resistance to theory. For Lacan, psychoanalysis is psychoanalytic, just as theory is theoretical. A psychoanalyst is a psychoanalyst; a theorist is a theorist. In their debate Laclau and Zizek, in fact, are theorists. That is their post, task, and work. Yet it is a task that they cannot cast or imagine as political. That is why they step out of theory "in the final analysis" to get to their politics. However, they end up in neither politics nor theory but dogmatism. Lacan has let us know that the analyst and theorist are obliged to and responsible for their aim, which is knowledge. That analysis or theory could one day turn into politics is certain. Yet theory cannot "be" political. That is, it cannot make itself political. For at the instant it performs this gesture, theory ceases to be theory. Precisely such a cessation is the main event of the Laclau/Zizek boxing match, a bout that exemplifies the fact that politics, for theory, is now the absence of theory. If we cannot lay this fact at the doorstep of Laclau or Zizek, it is a fact nonetheless. When it gets down and dirty, to the real, politics must do without theory, making do instead with subject positions. For better or worse, Lacanian psychoanalysis may be too formalized to continue fighting against these postures. Either theory will be done, will respond to itself, to its duty as theory, in which case a politics in theory, a theoretical act, can be anticipated; or else theory will become the absolute property of Masters, hysterics, and University dogma. In the latter case, theory's aim cannot but be capitalist reproduction, in theory as well as in practice. Theory capitalizes on itself in an effort to rid the master of his plus-de-jouir (surplus jouissance) so that we, theory's analysts and analysands, inherit but a stifling plus-de-jouir! (no more jouissance!) as our working conditions.

#### Falsifiability 1st

Lett 91 Professor of Anthropology, Department of Social Sciences, 1991 “A field Guide to Critical Thinking” p.32

It may sound paradoxical, but in order for any claim to be true, it must be falsifiable. The rule of falsifiability is a guarantee thai if the claim is false, the evidence will prove it false; and if the claim is true, the evidence will not disprove it (in which case the claim can be tentatively accepted as true until such time as evidence is brought forth that does disprove it). The rule of falsifiability, in short, says that the evidence must matter, and as such it is the first and most important and most fundamental rule of evidential reasoning.The rule of falsifiability is essential for this reason: If nothing conceivable could ever disprove the claim, thenthe evidence that does exist would not matter, it would be pointless to even examine the evidence, because the conclusion is already known—the claim is invulnerable to any possible evidence. This would not mean**,** however, that the claim is true; instead it would mean that the claim is meaningless. This is so because it is impossible—logically impossible—for any claim to be true no matter what. For every true claim, you can always conceive of evidence that would make the claim untrue— in other words, again, every true claim is falsifiable. […] For example, the true claim that the life span of human beings is less than 200 years is falsifiable; it would be falsified if a single human being were to live to be 200 years old. Similarly, the true claim that water freezes at 32° F is falsifiable; it would be falsified if water were to freeze at, say, 34° F. Each of these claims is firmly established as scientific "fact," and we do not expect either claim ever to be falsified; however, the point is that either could be. Any claim that could not be falsified would be devoid of any propositional content; that is, it would not be making a factual assertion— it would instead be making an emotive statement, a declaration of the way the claimant feels about the world. Nonfalsifiable claims do communicate information, but what they describe is the claimant's value orientation. They communicate nothing whatsoever of a factual nature, and hence are neither true nor false. Nonfalsifiable statements are propositionally vacuous.

#### Threats aren’t psychological projections and the alt fails

Hoffman, 86 [Stanley, Center for European Studies at Harvard,  “On the Political Psychology of Peace and War: A Critique and an Agenda,” Political Psychology 7.1 JSTOR]

The traditionalists, even when, in their own work, they try scrupulous-ly to transcend national prejudices and to seek scientific truth, believe that it is unrealistic to expect statesmen to stand above the fray: By definition, the statesmen are there to worry not only about planetary survival, but — first of all—about national survival and safety. To be sure, they ought to be able to see how certain policies, aimed at enhancing security, actually increase in-security all around. But there are sharp limits to how far they can go in their mutual empathy or in their acts (unlike intellectuals in their advice), as long as the states' antagonisms persist, as long as uncertainty about each other's intentions prevails, and as long as there is reason to fear that one side's wise restraint, or unilateral moves toward "sanity," will be met, not by the rival's similar restraint or moves, but either by swift or skillful political or military exploitation of the opportunity created for unilateral gain, or by a for-midable domestic backlash if national self-restraint appears to result in ex-ternal losses, humiliations or perceptions of weakness. There is little point in saying that the state of affairs which imposes such limits is "anachronistic" or "unrational." To traditionalists, the radicals' stance — condemnation from the top of Mount Olympus — can only impede understanding of the limits and possibilities of reform. To be sure, the fragmentation of mankind is a formidable obstacle to the solution of many problems that cannot be handled well in a national framework, and a deadly peril insofar as the use of force, the very distinctive feature of world politics, now entails the risk of nuclear war. But one can hardly call anachronistic a phenomenon—the assertion of national identity — that, to the bulk of [HU]mankind, appears not only as a necessity but also as a positive good, since humanity's fragmentation results from the very aspiration to self-determination. Many people have only recently emerged from foreign mastery, and have reason to fear that the alternative to national self-mastery is not a world government of assured fairness and efficiency, but alien domination. As for "unrationality," the drama lies in the contrast between the ra-tionality of the whole, which scholars are concerned about—the greatest good of the greatest number, in utilitarian terms — and the rationality or greatest good of the part, which is what statesmen worry about and are responsible for. What the radicals denounce as irrational and irresponsible from the viewpoint of mankind is what Weber called the statesman's ethic of responsibility. What keeps ordinary "competitive conflict processes" (Deutsch, 1983)— the very stuff of society — from becoming "unrational" or destructive, isprecisely what the nature of world politics excludes: the restraint of the partners either because of the ties of affection or responsibility that mitigate the conflict, or because of the existence of an outsider — marriage counselor, arbitrator, judge, policeman or legislator— capable of inducing or imposing restraints. Here we come to a third point of difference. The very absence of such safeguards of rationality, the obvious discrepancy between what each part intends, and what it (and the whole world) ends with, the crudeness of some of the psychological mechanisms at work in international affairs—as one can see from the statements of leaders, or from the media, or from inflamed publics—have led many radicals, especially among those whose training or profession is in psychoanalysis or mental health, to treat the age-old contests of states in terms, not of the psychology of politics, but of individual psychology and pathology. There are two manifestations of this. One is the tendency to look at nations or states as individuals writ large, stuck at an early stage of development (similarly, John Mack (1985) in a recent paper talks of political ideologies as carrying "forward the dichotomized structures of childhood"). One of my predecessors writes about "the correspondence between development of the individual self and that of the group or nation," and concludes "that intergroup or international conflict contains the basic elements of the conflict each individual experiences psychologically" (Volkan, 1985). Robert Holt, from the viewpoint of cognitive psychology, finds "the largest part of the American public" immature, in a "phase of development below the Conscientious" (Holt, 1984). The second related aspect is the tendency to look at the notions statesmen or publics have of "the enemy," not only as residues of childhood or adolescent phases of development, but as images that express "disavowed aspects of the self" (Stein, 1985), reveal truths about our own fears and hatreds, and amount to masks we put on the "enemy," because of our own psychological needs. Here is where the clash between traditionalists and radicals is strongest. Traditionalists do not accept a view of group life derived from the study of individual development or family relations, or a view of modern society derived from the simplistic Freudian model of regressed followers identifying with a leader. They don't see in ideologies just irra-tional constructs, but often rationally selected maps allowing individuals to cope with reality. They don't see national identification as pathological, as an appeal to the people's baser instincts, more aggressive impulses or un-sophisticated mental defenses; it is, as Jean-Jacques Rousseau so well understood, the competition of sovereign states that frequently pushes people from "sane" patriotism to "insane" nationalism (Rousseau's way of preventing the former from veering into the latter was, to say the least, im-practical: to remain poor in isolation). Nor do they see anything "primitive" in the nation's concern for survival: It is a moral and structural requirement. Traditionalists also believe that the "intra-psychic" approach distorts reality. Enemies are not mere projections of negative identities; they are often quite real. To be sure, the Nazis' view of the Jews fits the metaphor of the mask put on the enemy for one's own needs. But were, in return, those Jews who understood what enemies they had in the Nazis, doing the same? Is the Soviet domination of Eastern Europe, is the Soviet regime's treatment of dissidents, was the Gulag merely a convenient projection of our intrapsychic battles? Clichés such as the one about how our enemy "understands only force" may tell us a great deal about ourselves; but sometimes they contain half-truths about him, and not just revelations about us. Our fears flow not only from our private fantasies but also from concrete realities and from the fantasies which the international state of nature generates. In other words, the psychology of politics which traditionalists deem adequate is not derived from theories of psychic development and health; it is derived from the logic of the international milieu, which breeds the kind of vocabulary found in the historians and theorists of the state of nature: fear and power, pride and honor, survival and security, self-interest and reputation, distrust and misunderstanding, commitment and credibility. It is also derived from the social psychology of small or large groups, which resorts to the standard psychological vocabulary that describes mental mechanisms or maneuvers and cognitive processes: denial, projection, guilt, repression, closure, rigidity, etc.... But using this vocabulary does not imply that a group whose style of politics is paranoid is therefore composed of people who, as private individuals, are paranoid. Nor does it relieve us of the duty to look at the objective reasons and functions of these mental moves, and of the duty to make explicit our assumptions about what constitutes a "healthy," wise, or proper social process. Altogether, traditionalists find the mental health approach to world affairs unhelpful. Decisions about war and peace are usually taken by small groups of people; the temptation of analyzing their behavior either, literal-ly, in terms of their personalities, or, metaphysically, in terms borrowed from the study of human development, rather than in those of group dynamics or principles of international politics is understandable. But it is misleading. What is pathological in couples, or in a well-ordered community, is, alas, frequent, indeed normal, among states, or in a troubled state. What is malignant or crazy is usually not the actors or the social process in which they are engaged: it is the possible results. The grammar of motives which the mental health approach brands as primitive or immature is actually rational for the actors. to the substitution of labels for explanations, to bad analysis and fanciful prescriptions. Bad analysis: the tendency to see in group coherence a regressive response to a threat, whereas it often is a rational response to the "existential" threats entailed by the very nature of the international milieu. Or the tendency to see in the effacement or minimization of individual differences in a group a release of unconscious instincts, rather than a phenomenon that can be perfectly adaptive—in response to stress or threats—or result from governmental manipulation or originate in the code of conduct inculcated by the educational system, etc.. . The habit of comparing the state, or modern society, with the Church or the army, and to analyze human relations in these institutions in ways that stress the libidinal more than the cognitive and superego factors, or equate libidinal bonds and the desire for a leader. The view that enemies are above all products of mental drives, rather than inevitable concomitants of social strife at every level. Or the view that the contest with the rival fulfills inter-nal needs, which may be true, but requires careful examination of the nature of these needs (psychological? bureaucratic? economic?), obscures the objective reasons of the contest, and risks confusing cause and function. Indeed, such analysis is particularly misleading in dealing with the pre-sent scene. The radicals are so (justifiably) concerned with the nuclear peril that the traditional ways in which statesmen and publics behave seem to vindicate the pathological approach. But this, in turn, incites radicals to overlook the fundamental ambiguity of contemporary world politics. On the one hand, there is a nuclear revolution—the capacity for total destruction. On the other hand, many states, without nuclear weapons, find that the use of force remains rational (in terms of a rationality of means) and beneficial at home or abroad—ask the Vietnamese, or the Egyptians after October 1973, or Mrs. Thatcher after the Falklands, or Ronald Reagan after Grenada. The superpowers themselves, whose contest has not been abolished by the nuclear revolution (it is the stakes, the costs of failure that have, of course, been transformed), find that much of their rivalry can be conducted in traditional ways — including limited uses of force —below the level of nuclear alarm. They also find that nuclear weapons, while—perhapsunusable rationally, can usefully strengthen the very process that has been so faulty in the prenuclear ages: deterrence (this is one of the reasons for nuclear proliferation). The pathological approach interprets deterrence as expressing the deterrer's belief that his country is good, the enemy's is bad. This is often the case, but it need not be; it can also reflect the conviction that one's country has interests that are not mere figments of the imagination, and need to be protected both because of the material costs of losing them, and because of the values embedded in them. As for war planning, it is not a case of "psychological denial of unwelcome reality" (Montville, 1985). but a — perhaps futile, perhaps dangerous—necessity in a world where deterrence may once more fail. The prescriptions that result from the radicals' psychological approach also run into traditionalist objections. Even if one accepts the metaphors of collective disease or pathology, one must understand that the "cure" can only be provided by politics. All too often, the radicals' cures consist of perfectly sensible recommendations for lowering tensions, but fail to tell us how to get them carried out —they only tell us how much better the world would be, if only "such rules could be established" (Deutsch, 1983). Sometimes, they express generous aspirations — for common or mutual security—without much awareness of the obstacles which conflict-ing interests, fears about allies or clients, and the nature of the weapons themselves, continue to erect. Sometimes, they too neglect the ambiguity of life in a nuclear world: The much lamented redundancy of weapons, a calamity if nuclear deterrence fails, can also be a cushion against failure. Finally, many of the remedies offered are based on an admirable liberal model of personality and politics: the ideal of the mature, well-adjusted, open-minded person (produced by liberal education and healthy family relations) transposed on the political level, and thus accompanied by the triumph of democracy in the community, by the elimination of militarism and the spread of functional cooperation abroad. But three obstacles remain unconquered: first, a major part of the world rejects this ideal and keeps itself closed to it (many of the radicals seem to deny it, or to ignore it, or to believe it doesn't matter). Second, the record shows that real democracies, in their behavior toward non-democratic or less "advanced" societies, do not conform to the happy model (think of the US in Central America). Third, the task of reform, both of the publics and of the statesmen, through consciousness raising and education is hopelessly huge, incapable of being pursued equally in all the important states, and — indeed — too slow if one accepts the idea of a mortal nuclear peril. These, then, are the dimensions of a split that should not be minimized or denied

#### Psychoanalysis violently assumes that entire societies work according to the logic of individual psyches – they take contingent examples as universal, perpetual truths that can never be altered

Robinson, 5

Robinson (PhD Political Theory, University of Nottingham) 05 (Theory and Event, Andrew, 8:1, The Political Theory of Constitutive Lack: A Critique).

Lacanian analysis consists mainly of an exercise in projection. As a result, Lacanian "explanations" often look more propagandistic or pedagogical than explanatory. A particular case is dealt with only in order to, and to the extent that it can, confirm the already-formulated structural theory. Judith Butler criticizes Žižek's method on the grounds that 'theory is applied to its examples', as if 'already true, prior to its exemplification'. 'The theory is articulated on its self-sufficiency, and then shifts register only for the pedagogical purpose of illustrating an already accomplished truth'. It is therefore 'a theoretical fetish that disavows the conditions of its own emergence'[52](http://muse.jhu.edu/journals/theory_and_event/v008/8.1robinson.html#_edn52). She alleges that Lacanian psychoanalysis 'becomes a theological project' and also 'a way to avoid the rather messy psychic and social entanglement' involved in studying specific cases[53](http://muse.jhu.edu/journals/theory_and_event/v008/8.1robinson.html#_edn53). Similarly, Dominick LaCapra objects to the idea of constitutive lack because specific 'losses cannot be adequately addressed when they are enveloped in an overly generalised discourse of absence... Conversely, absence at a "foundational" level cannot simply be derived from particular historical losses'[54](http://muse.jhu.edu/journals/theory_and_event/v008/8.1robinson.html#_edn54). Attacking 'the long story of conflating absence with loss that becomes constitutive instead of historical'[55](http://muse.jhu.edu/journals/theory_and_event/v008/8.1robinson.html#_edn55), he accuses several theorists of eliding the difference between absence and loss, with 'confusing and dubious results', including a 'tendency to avoid addressing historical problems, including losses, in sufficiently specific terms', and a tendency to 'enshroud, perhaps even to etherealise, them in a generalised discourse of absence'[56](http://muse.jhu.edu/journals/theory_and_event/v008/8.1robinson.html#_edn56). Daniel Bensaïd draws out the political consequences of the projection of absolutes into politics. 'The fetishism of the absolute event involves... a suppression of historical intelligibility, necessary to its depoliticization'. The space from which politics is evacuated 'becomes... a suitable place for abstractions, delusions and hypostases'. Instead of actual social forces, there are 'shadows and spectres'. The operation of the logic of projection is predictable. According to Lacanians, there is a basic structure (sometimes called a 'ground' or 'matrix') from which all social phenomena arise, and this structure, which remains unchanged in all eventualities, is the reference-point from which particular cases are viewed. The "fit" between theory and evidence is constructed monologically by the reduction of the latter to the former, or by selectivity in inclusion and reading of examples. At its simplest, the Lacanian myth functions by a short-circuit between a particular instance and statements containing words such as "all", "always", "never", "necessity" and so on. A contingent example or a generic reference to "experience" is used, misleadingly, to found a claim with supposed universal validity. For instance, Stavrakakis uses the fact that existing belief-systems are based on exclusions as a basis to claim that all belief-systems are necessarily based on exclusions[58](http://muse.jhu.edu/journals/theory_and_event/v008/8.1robinson.html#_edn58), and claims that particular traumas express an 'ultimate impossibility'[59](http://muse.jhu.edu/journals/theory_and_event/v008/8.1robinson.html#_edn59). Similarly, Laclau and Mouffe use the fact that a particular antagonism can disrupt a particular fixed identity to claim that the social as such is penetrated and constituted by antagonism as such[60](http://muse.jhu.edu/journals/theory_and_event/v008/8.1robinson.html#_edn60). Phenomena are often analysed as outgrowths of something exterior to the situation in question. For instance, Žižek's concept of the "social symptom" depends on a reduction of the acts of one particular series of people (the "socially excluded", "fundamentalists", Serbian paramilitaries, etc.) to a psychological function in the psyche of a different group (westerners). The "real" is a supposedly self-identical principle which is used to reduce any and all qualitative differences between situations to a relation of formal equivalence. This shows how mythical characteristics can be projected from the outside, although it also raises different problems: the under-conceptualization of the relationship between individual psyches and collective phenomena in Lacanian theory, and a related tendency for psychological concepts to acquire an ersatz agency similar to that of a Marxian fetish. "The Real" or "antagonism" occurs in phrases which have it doing or causing something.

#### They violate the principle of consent – we didn’t agree to this – reject them because they messed up psychoanalysis

**APA 08** (American Psychoanalytic Association, “Principles and Standards of Ethics for Psychoanalysts”, apsa.org, <http://www.apsa.org/About_APsaA/Ethics_Code.aspx>) Mike

III. Mutuality and Informed Consent. The treatment relationship between the patient and the psychoanalyst is founded upon trust and informed mutual agreement or consent. At the outset of treatment, the patient should be made aware of the nature of psychoanalysis and relevant alternative therapies. The psychoanalyst should make agreements pertaining to scheduling, fees, and other rules and obligations of treatment tactfully and humanely, with adequate regard for the realistic and therapeutic aspects of the relationship. Promises made should be honored.

When the patient is a minor these same general principles pertain but the patient's age and stage of development should guide how specific arrangements will be handled and with whom.

**They violate the principle of confidentiality too – reject them**

**APA 08** (American Psychoanalytic Association, “Principles and Standards of Ethics for Psychoanalysts”, apsa.org, http://www.apsa.org/About\_APsaA/Ethics\_Code.aspx) Mike

IV. Confidentiality. Confidentiality of the patient’s communications is a basic patient’s right and an essential condition for effective psychoanalytic treatment and research. A psychoanalyst must take all measures necessary to not reveal present or former patient confidences without permission, nor discuss the particularities observed or inferred about patients outside consultative, educational or scientific contexts. If a psychoanalyst uses case material in exchanges with colleagues for consultative, educational or scientific purposes, the identity of the patient must be sufficiently disguised to prevent identification of the individual, or the patient's authorization must be obtained after frank discussion of the purpose(s) of the presentation, other options, the probable risks and benefits to the patient, and the patient's right to refuse or withdraw consent.