### 1nc

Prolif solves conflict escalation over time – nuclear states leverage more effectively

**Horowitz 9** – associate professor of political science at the University of Pennsylvania and 2000 NDT Champion (Michael, “The Spread of Nuclear Weapons and International Conflict: Does Experience Matter?” Journal of Conflict Resolution, Volume 53, Number 2, April, 234-257)

**The “nuclear experience” logic also suggests that** more experienced nuclear states should gain knowledge over time from nuclearized interactions **that helps leaders effectively identify the situations in which their nuclear arsenals are likely to make a difference.** Experienced nuclear states learn to select into cases in which their comparative advantage, nuclear weapons, is more likely to be effective, increasing the probability that an adversary will not reciprocate. **Coming from a slightly different perspective, uncertainty about the consequences of proliferation on the balance of power and the behavior of new nuclear states on the part of their potential adversaries could also shape behavior in similar ways (Schelling 1966; Blainey 1988). While a stable and credible nuclear arsenal communicates clear information about the likely costs of conflict, in the short term, nuclear proliferation is likely to increase uncertainty about the trajectory of a war, the balance of power, and the preferences of the adopter.** Through interactions over time, opponents learn what the new nuclear state is likely to do with its arsenal, and the new nuclear state learns how to most efficiently leverage its capabilities**.** Interactions provide information that reduces uncertainty. **Therefore, when states first acquire nuclear weapons, adversaries may reciprocate their challenges more often since there is still uncertainty about the implications. The results of dispute reciprocation provide important information. This logic also explains some of the selection problems that new nuclear states may face.** Declining uncertainty about the likely behavior of a nuclear state over time may also help more experienced nuclear states credibly signal resolve in disputes**.** Adversaries have to take seriously the possibility of nuclear escalation because the experienced nuclear state has demonstrated a responsible pattern of behavior with nuclear weapons**, meaning threats represent an accurate barometer of intentions. Moreover,** nonnuclear states, **initially on edge when dealing with new nuclear powers,** may become less concerned with raw power grabs by experienced nuclear states**, since they trust that the more experienced nuclear states will not shift the coercive goalposts.** This makes reciprocation less likely.

Solves war – deters challengers and enables concessions

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**Both of these arguments, however, are mostly about nuclear-armed challengers. What about the flip side,** when a state initiates a militarized dispute against a nuclear-armed actor**?** The reduction over time in uncertainty **about the behavior of nuclear states** should also affect nuclear-armed defenders**. In defending situations, the inexperience of new nuclear states means it is possible that they will conceptualize their interests differently than more experienced nuclear states in ways that make reciprocation more likely. New nuclear states might place the highest emphasis on the importance of nuclear weapons, meaning they will reciprocate more than experienced nuclear states with a better idea of how nuclear bargaining works.5 Basic deterrence logic would suggest** nuclear states in general should experience fewer challenges since their new capabilities will deter many potential challengers from even initiating dispute**. However, as Fearon argues, nonnuclear states that initiate against nuclear states are likely to be highly resolute, since they select into the conflict with knowledge of the nuclear capabilities of the defender, meaning those disputes should be more likely to escalate (Fearon 1994). Learning could cut both ways, especially for defenders.** Experience over time **with nuclear weapons, combined with a more stable arsenal,** could also cause a shift in how older nuclear states defend themselves. Older nuclear states might not reciprocate low-level military actions because of faith that their nuclear arsenal will function to deter escalation **at higher levels, consistent with the findings of Rauchhaus (2009, this issue).** More experienced nuclear states learn that their nuclear arsenals represent a de facto guarantor of national survival. Nuclear states can make smallscale concessions with confidence, **knowing their nuclear arsenal will always represent a credible threat in the case of a challenge to core national interests. But this may be knowledge acquired over time, rather than something understood inherently on possession.6**

# 1nc bioshift turn

**Curbing nuclear prolif causes a shift to bioweapons**

**Zilinskas, 2000** [Raymond A., Former Clinical Microbiologist and Dir. – Chemical and Biological Weapons Nonproliferation Program – Center for Nonproliferation Studies of Monterey Institute of International Studies, in “Biological Warfare: Modern Offense and Defense,” Ed. Raymond A. Zilinskas, p. 1-2, Google Print]

It is an odd characteristic of biological weapons that military generals tend to view them with distaste, but civilian bioscientists often have lobbied for their development and deployment. There are, of course, understandable reasons for this oddity; generals find that these weapons do not fit neatly into tactical or strategic military doctrines of attack or defense, whereas researchers have observed that transforming microbes into weapons presents interesting scientific challenges whose solution governments have been willing to pay well for. Another oddity is that whenever biological weapons have been employed in battle, they have proven militarily ineffectual, yet bellicose national leaders persevere in seeking to acquire them. There is also a facile explanation for this anomaly, namely, that although pathogens are all too willing to invade prospective hosts, human ingenuity so far has failed to devise reliable methods for effectively conveying a large number of pathogens to the population targeted for annihilation by disease. This repeated failure has not deterred leaders; again and again they become allured by the potential destructive power of biological weapons. Perhaps trusting science too much, they direct government scientists to develop them, believing that this time a usable weapon of mass destruction will be achieved. Their belief so far has been thwarted, but is it possible that within the foreseeable future the potential of biological weapons will be realized and that the effect of a biological bomb, missile, or aerosolized cloud can be as readily predetermined as that of a bomb or missile carrying a conventional or nuclear warhead? There are many who believe that today's bioscientists and chemical engineers working in unison and wielding the techniques of molecule biology developed since the early 1970s could, if so commanded, develop militarily effective biological weapons within a fairly short time. If this supposition is correct, our perception of biological weapons as being undependable, uncontrollable, and unreliable must change. The reason is simple: if these weapons are demonstrated to possess properties that make it possible for commanders to effect controlled, confined mass destruction on command, all governments would be forced to construct defenses against them and some undoubtedly would be tempted to arm their military with these weapons that would be both powerful and relatively inexpensive to acquire. Ironically, **as tougher international controls are put into place to deter nations from seeking to acquire chemical and nuclear weapons, leaders may be even more drawn to biological arms as the most accessible form of weapon of mass destruction.** Before beginning a consideration of the implications of molecular biology for biological warfare (BW) and defense, it is worthwhile to briefly review the history of microbiology. It has passed through two eras, and we presently are in its third era. The first was the “pre-Pasteur” era; when the underlying science of fermentation was unknown, so microbiology was applied strictly on an empirical basis. Although undoubtedly any fine beers and wines, as well as breads and other fermented foods, were produced through the use of empirically developed fermentation techniques, no finely controlled production of chemicals was possible. During this era, BW was also empirically based. Common tactics included contaminating water sources with bloated animal carcasses and catapulting infected cadavers into citadels (Poupard and Miller, 1992).

**Extinction**

**Ochs, 2002** [Richard, Naturalist – Grand Teton National park with Masters in Natural Resource Management – Rutgers, “Biological Weapons must be abolished immediately” 6-9, <http://www.freefromterror.net/other_articles/abolish.html>]

Of all the weapons of mass destruction, the genetically engineered biological weapons, many without a known cure or vaccine, are an extreme danger to the continued survival of life on earth. Any perceived military value or deterrence pales in comparison to the great risk these weapons pose just sitting in vials in laboratories. While a "nuclear winter," resulting from a massive exchange of nuclear weapons, could also kill off most of life on earth and severely compromise the health of future generations, they are easier to control. Biological weapons, on the other hand, can get out of control very easily, as the recent anthrax attacks has demonstrated. There is no way to guarantee the security of these doomsday weapons because very tiny amounts can be stolen or accidentally released and then grow or be grown to horrendous proportions. The Black Death of the Middle Ages would be small in comparison to the potential damage bioweapons could cause. Abolition of chemical weapons is less of a priority because, while they can also kill millions of people outright, their persistence in the environment would be less than nuclear or biological agents or more localized. Hence, chemical weapons would have a lesser effect on future generations of innocent people and the natural environment. Like the Holocaust, once a localized chemical extermination is over, it is over. With nuclear and biological weapons, the killing will probably never end. Radioactive elements last tens of thousands of years and will keep causing cancers virtually forever. Potentially worse than that, bio-engineered agents by the hundreds with no known cure could wreck even greater calamity on the human race than could persistent radiation. AIDS and ebola viruses are just a small example of recently emerging plagues with no known cure or vaccine. Can we imagine hundreds of such plagues? HUMAN EXTINCTION IS NOW POSSIBLE.

# 1nc social spending turn

#### Proliferation reduces military expenditure freeing up resources for social spending

**Goldstein 00**

(Avery, Prof. Pol. Sci. @ U Penn, “Deterrence and Security in the 21st Century”, p. 289)

The presence of nuclear weapons may, however, do more than just reduce the likelihood of war. The availability of nuclear weapons may, as the more demanding definition of peace suggests, help limit the diversion of human resources to huge military establishments even while states continue to believe their security requires them to maintain arms. Because the retaliatory requirements of a deterrent strategy do not entail close comparison with the adversary's forces, nuclear states need not maintain large weapons inventories or engage in intense arms racing to ensure their security." Nor do states emphasizing nuclear deterrence need to field massive (and comparatively expensive) conventional forces designed to fight a protracted war, since their main purpose is to preclude quick and easy gains for the adversary and oblige him to confront the unacceptable risk of unpredictable escalation.°

#### Reduced military spending solves millions of systemic deaths from poverty and conflict

**Desai and Dhanapala 00**

(Nitin, Undersecretary General for Economic and Social Affairs, and Jayantha, Undersecretary General for Disarmament Affairs @ UN, IHT, “A Peace Divident for Developing Countries Would Pay Off”, 12-22, L/N)

At the United Nations' Millennium Summit in September, world leaders pledged to ''free our peoples from the scourge of war, whether within or between States,'' and to halve global poverty by the year 2015. That these should be global imperatives is apparent from two broad statistics. Wars claimed more than 5 million lives in the 1990s, and nearly 3 billion people, almost half the world's population, live on a daily income of less than $2 a day Poverty and conflict are not unrelated; they often reinforce each other. Poverty is a potent catalyst for conflict and violence within and among states, particularly at a time when poor countries and peoples are increasingly aware of the relative affluence of others. Conflicts plunge many individuals into poverty and deal a severe blow to a country's longer-term development efforts. Even where there is no active conflict, military spending absorbs resources that could be used to attack poverty. During the Cold War, world defense spending peaked at around $1.2 trillion in 1987. The first half of the 1990s saw some sharp reductions in military expenditures in economically advanced countries. Partially as a result, Western countries reaped a substantial peace dividend in the form of an extended period of economic prosperity. However, by 1997 global military expenditures were rising again. According to the Stockholm International Peace Research Institute, world military expenditures rose by more than 2 percent in 1999, and a further increase is expected for this year. World military spending is now around $800 billion, a level equal to more than 2.5 percent of the world's output of goods and services. The share of the developed world in global defense spending continues to exceed 70 percent, with five economically advanced countries accounting for the great bulk of this spending. The share of the developing world, however, has grown during the past decade. During the 1990s, spending on arms and the maintenance of military forces increased by one-fifth in East Asia, by one- quarter in South Asia and by more than one-third in South America. High military spending has been both a cause and a result of the large number of conflicts in the developing world. On average, defense spending absorbs more than 10 percent of government budgets around the world. In some developing countries the burden is considerably higher than this average. These increasing military expenditures in developing countries are reflected in international arms sales. Global arms transfer agreements with developing nations increased from $16.8 billion in 1998 to $20.6 billion in 1999. The U.S. Congressional Research Service estimates that worldwide arms deliveries from 1992 to 1999 totaled more than $296 billion, of which nearly 70 percent went to developing countries. The economically advanced countries accounted for more than 90 percent of these sales. High levels of military spending in some countries impair development by crowding out private and public investment. Moreover, since developing countries import most of their military equipment, spending on foreign armaments reduces the scope for imports of capital goods that would allow the economy to expand and diversify. Most importantly, high levels of military spending aggravate tensions and engender suspicion, encouraging higher spending in other countries and creating conditions ripe for conflict.

# 1nc satellites turn

**Prolif spurs satellite expansion**

**Norris, 2007** [Pat, Space Strategy Manager – Logica UK, “Spies in the sky: surveillance satellites in war and peace”, p. 169-170, Google Print]

Surveillance satellites that are specifically military in nature are operated by seven countries, namely Russia, the US, France, Japan, Germany, China, and Britain (although Britain's is only a technology demonstrator satellite, not an operational system). The impetus for new countries to build these satellites has come from the fragmentation of the world's military threats since the end of the Cold War. Where before the main threat was a US-Soviet confrontation--either directly or via satellite states--military forces from the developed countries are now involved in actions around the globe. The proliferation of missile and nuclear technology has also motivated countries to have an autonomous satellite-monitoring capability. Japan's decision to build a fleet of radar and visible imaging satellites stems from concerns about the missile tests undertaken by North Korea.

**That’s key to global environmental sustainability**

Reibaldi, 1995 [Giuseppe, European Space Agency, Acta Astronautica, “Contribution of Space Activities to Peace”, 35:8, ScienceDirect]

The 1970s have seen the rise of ecological movements, originating from the view of the fragile Earth, as photographed by the Apollo astronauts on the way to the Moon. The human species already consumes or destroys 40% of all energy produced by terrestrial photosynthesis, that is, 40% of the food potentially available to living things on land. Predictions for the future indicate that tropical forests will continue to be destroyed, arable land will shrink because of the top soil pollution that cannot be repaired. The control of the environment is no longer the issue of a single state but its implication is international, so it requires close monitoring to avoid disputes in this matter, eventually generating situations of conflict. Governments realized that pollution had reached unsurpassed levels and after several years of futile discussions they agreed on several environmental treaties which limited the use of substances which proved to be dangerous to the environment (i.e. Montreal Accord which seeks to limit the global emission of CFCs to protect the ozone layer). The United Nations Conference on Environment and Development in Rio de Janeiro in 1992 was a significant step in this direction, since it was attended by Heads of State and Government. Delegates from rich and poor countries participating in the Rio Conference worked out agreements to protect bio- diversity, control carbon dioxide emission and slow deforestation. Those agreements require verification in order to be credible and binding for the countries which adhere to it. Earth observing satellites can bring awareness of any violation of environmental treaties as an independent source of information. For example, the European Space Agency’s Earth Remote Sensing 1 (ERS-1) satellite can detect, by day and by night, river pollution and identify the potential responsible, or oil leakage generated by a transport ship which is washing its tanks in international waters. Furthermore, space technology can provide easier access to “soft technology” such as education and health care as well as “hard technology” such as telecommunication and discovery of natural re- sources and this will help developing countries in achieving a policy of sustainable development.

**Extinction**

**Cairns, 2004** [John Cairns, 2004. Department of Biology, Virginia Polytechnic Institute and State University. “Future of Life on Earth,” Ethics in Science and Environmental Politics, www.int-res.com/esepbooks/EB2Pt2.pdf]

One lesson from the five great global extinctions is that species and ecosystems come and go, but the evolutionary process continues. In short, life forms have a future on Earth, but humankind’s future depends on its stewardship of ecosystems that favor Homo sapiens. By practicing sustainability ethics, humankind can protect and preserve ecosystems that have services favorable to it. Earth has reached its present state through an estimated 4550 million years and may last for 15000 million more years. The sixth mass extinction, now underway, is unique because humankind is a major contributor to the process. Excessive damage to the ecological life support system will markedly alter civilization, as it is presently known, and might even result in human extinction. However, if humankind learns to live sustainably, the likelihood of leaving a habitable planet for posterity will dramatically increase. The 21st century represents a defining moment for humankind—will present generations become good ancestors for their descendants by living sustainably or will they leave a less habitable planet for posterity by continuing to live unsustainably?

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