# 1NC CUNY AT

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Our interpretation is that an affirmative should defend a topical action by the USfg as the endpoint of their advocacy. This does not mandate roleplaying, immediate fiat or any particular means of impact calculus.

“USFG should” proscribes both a stable agent and mechanism

Ericson ‘03

(Jon M., Dean Emeritus of the College of Liberal Arts – California Polytechnic U., et al., The Debater’s Guide, Third Edition, p. 4)

The Proposition of Policy: Urging Future Action In policy propositions, each topic contains certain key elements, although they have slightly different functions from comparable elements of value-oriented propositions. 1. An agent doing the acting ---“The United States” in “The United States should adopt a policy of free trade.” Like the object of evaluation in a proposition of value, the agent is the subject of the sentence. 2. The verb *should*—the first part of a verb phrase that urges action. 3. An action verb to follow *should* in the *should*-verb combination. For example, *should adopt* here **means to put a** program or **policy into action though governmental means**. 4. A specification of directions or a limitation of the action desired. The phrase *free trade*, for example, gives direction and limits to the topic, which would, for example, eliminate consideration of increasing tariffs, discussing diplomatic recognition, or discussing interstate commerce. Propositions of policy deal with future action. Nothing has yet occurred. The entire debate is about whether something ought to occur. What you agree to do, then, when you accept the *affirmative side* in such a debate is to offer sufficient and compelling reasons for an audience to perform the future action that you propose.

The Aff undermines the ability to have a limited and stable number of Affirmatives to prepare against. This is a reason to vote negative.

First is topic education

Public sphere debates over engagement with the state energy apparatus prevents energy technocracy and equips us to oppose the dominance of oil, coal, and other elitist interests they criticize

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

(Carol J., “Democratizing Technology: Citizen & State in West German Energy Politics, 1974-1990” *Polity*, Vol. 25, No. 1, p. 45-70)

During this phase, the citizen initiative attempted to overcome its defensive posture and implement an alternative politics. The strategy of legal and technical challenge might delay or even prevent plant construction, but it would not by itself accomplish the broader goal on the legitimation dimension, i.e., democratization. Indeed, it worked against broad participation. The activists had to find a viable means of achieving change. Citizens had proved they could contribute to a substantive policy discussion. Now, some activists turned to the parliamentary arena as a possible forum for an energy dialogue. Until now, parliament had been conspicuously absent as a relevant policy maker, but if parliament could be reshaped and activated, citizens would have a forum in which to address the broad questions of policy-making goals and forms. They would also have an institutional lever with which to pry apart the bureaucracy and utility. None of the established political parties could offer an alternative program. Thus, local activists met to discuss forming their own voting list.

These discussions provoked internal dissent. Many citizen initiative members objected to the idea of forming a political party. If the problem lay in the role of parliament itself, another political party would not solve it. On the contrary, parliamentary participation was likely to destroy what political innovations the extraparliamentary movement had made. Others argued that a political party would give the movement an institutional platform from which to introduce some of the grassroots democratic political forms the groups had developed. Founding a party as the parliamentary arm of the citizen movement would allow these groups to play an active, critical role in institutionalized politics, participating in the policy debates while retaining their outside perspective. Despite the disagreements, the Alternative List for Democracy and Environmental Protection Berlin (AL) was formed in 1978 and first won seats in the Land parliament with 7.2 percent of the vote in 1981.43 The founders of the AL were encouraged by the success of newly formed local green parties in Lower Saxony and Hamburg,44 whose evolution had been very similar to that of the West Berlin citizen move-ment. Throughout the FRG, unpopular administrative decisions affect-ing local environments, generally in the form of state-sponsored indus-trial projects, prompted the development of the citizen initiative and ecology movements. The groups in turn focused constant attention on state planning "errors," calling into question not only the decisions themselves, but also the conventional forms of political decision making that produced them.45 Disgruntled citizens increasingly aimed their critique at the established political parties, in particular the federal SPD/ FDP coalition, which seemed unable to cope with the economic, social, and political problems of the 1970s. Fanned by publications such as the Club of Rome's report, "The Limits to Growth," the view spread among activists that the crisis phenomena were not merely a passing phase, but indicated instead "a long-term structural crisis, whose cause lies in the industrial-technocratic growth society itself."46 As they broadened their critique to include the political system as a whole, many grassroots groups found the extraparliamentary arena too restrictive. Like many in the West Berlin group, they reasoned that the necessary change would require a degree of political restructuring that could only be accomplished through their direct participation in parliamentary politics. Green/alternative parties and voting lists sprang up nationwide and began to win seats in local assemblies. The West Berlin Alternative List saw itself not as a party, but as the parliamentary arm of the citizen initiative movement. One member explains: "the starting point for alternative electoral participation was simply the notion of achieving a greater audience for [our] own ideas and thus to work in support of the extraparliamentary movements and initia-tives,"47 including non-environmentally oriented groups. The AL wanted to avoid developing structures and functions autonomous from the citizen initiative movement. Members adhered to a list of principles, such as rotation and the imperative mandate, designed to keep parliamentarians attached to the grassroots. Although their insistence on grassroots democracy often resulted in interminable heated discussions, the participants recognized the importance of experimenting with new forms of decision making, of not succumbing to the same hierarchical forms they were challenging. Some argued that the proper role of citizen initiative groups was not to represent the public in government, but to mobilize other citizens to participate directly in politics themselves; self-determination was the aim of their activity.48

Once in parliament, the AL proposed establishment of a temporary parliamentary commission to study energy policy, which for the first time would draw all concerned participants together in a discussion of both short-term choices and long-term goals of energy policy. With help from the SPD faction, which had been forced into the opposition by its defeat in the 1981 elections, two such commissions were created, one in 1982-83 and the other in 1984-85.49 These commissions gave the citizen activists the forum they sought to push for modernization and technical innovation in energy policy.

Although it had scaled down the proposed new plant, the utility had produced no plan to upgrade its older, more polluting facilities or to install desulfurization devices. With prodding from the energy commission, Land and utility experts began to formulate such a plan, as did the citizen initiative. By exposing administrative failings in a public setting, and by producing a modernization plan itself, the combined citizen initiative and AL forced bureaucratic authorities to push the utility for improvements. They also forced the authorities to consider different technological solutions to West Berlin's energy and environmental problems. In this way, the activists served as technological innovators. In 1983, the first energy commission submitted a list of recommendations to the Land parliament which reflected the influence of the citizen protest movement. It emphasized goals of demand reduction and efficiency, noted the value of expanded citizen participation and urged authorities to "investigate more closely the positive role citizen participation can play in achieving policy goals."50 The second energy commission was created in 1984 to discuss the possibilities for modernization and shutdown of old plants and use of new, environmentally friendlier and cheaper technologies for electricity and heat generation. Its recommendations strengthened those of the first commission.51 Despite the non-binding nature of the commissions' recommendations, the public discussion of energy policy motivated policy makers to take stronger positions in favor of environmental protection.

III. Conclusion

The West Berlin energy project eventually cleared all planning hurdles, and construction began in the early 1980s. The new plant now conforms to the increasingly stringent environmental protection requirements of the law. The project was delayed, scaled down from 1200 to 600 MW, moved to a neutral location and, unlike other BEWAG plants, equipped with modern desulfurization devices. That the new plant, which opened in winter 1988-89, is the technologically most advanced and environmen-tally sound of BEWAG's plants is due entirely to the long legal battle with the citizen initiative group, during which nearly every aspect of the original plans was changed. In addition, through the efforts of the Alter-native List (AL) in parliament, the Land government and BEWAG formulated a long sought modernization and environmental protection plan for all of the city's plants. The AL prompted the other parliamentary parties to take pollution control seriously. Throughout the FRG, energy politics evolved in a similar fashion. As Habermas claimed, underlying the objections against particular projects was a reaction against the administrative-economic system in general.

One author, for example, describes the emergence of two-dimensional protest against nuclear energy: The resistance against a concrete project became understood simul-taneously as resistance against the entire atomic program. Questions of energy planning, of economic growth, of understanding of democracy entered the picture. . . . Besides concern for human health, for security of conditions for human existence and protec-tion of nature arose critique of what was perceived as undemocratic planning, the "shock" of the delayed public announcement of pro-ject plans and the fear of political decision errors that would aggra-vate the problem.52 This passage supports a West Berliner's statement that the citizen initiative began with a project critique and arrived at *Systemkritik*.53 I have labeled these two aspects of the problem the public policy and legitima-tion dimensions. In the course of these conflicts, the legitimation dimen-sion emergd as the more important and in many ways the more prob-lematic.

Parliamentary Politics

In the 1970s, energy politics began to develop in the direction Offe de-scribed, with bureaucrats and protesters avoiding the parliamentary channels through which they should interact. The citizen groups them-selves, however, have to a degree reversed the slide into irrelevance of parliamentary politics. Grassroots groups overcame their defensive posture enough to begin to formulate an alternative politics, based upon concepts such as decision making through mutual understanding rather than technical criteria or bargaining. This new politics required new modes of interaction which the old corporatist or pluralist forms could not provide. Through the formation of green/alternative parties and voting lists and through new parliamentary commissions such as the two described in the case study, some members of grassroots groups attempted to both operate within the political system and fundamentally change it, to restore the link between bureaucracy and citizenry.

Parliamentary politics was partially revived in the eyes of West German grassroots groups as a legitimate realm of citizen participation, an outcome the theory would not predict. It is not clear, however, that strengthening the parliamentary system would be a desirable outcome for everyone. Many remain skeptical that institutions that operate as part of the "system" can offer the kind of substantive participation that grass-roots groups want. The constant tension between institutionalized politics and grassroots action emerged clearly in the recent internal debate between "fundamentalist" and "realist" wings of the Greens. Fundis wanted to keep a firm footing outside the realm of institutionalized politics. They refused to bargain with the more established parties or to join coalition governments. Realos favored participating in institutionalized politics while pressing their grassroots agenda. Only this way, they claimed, would they have a chance to implement at least some parts of their program.

This internal debate, which has never been resolved, can be interpreted in different ways. On one hand, the tension limits the appeal of green and alternative parties to the broader public, as the Greens' poor showing in the December 1990 all-German elections attests. The failure to come to agreement on basic issues can be viewed as a hazard of grass-roots democracy. The Greens, like the West Berlin citizen initiative, are opposed in principle to forcing one faction to give way to another. Disunity thus persists within the group. On the other hand, the tension can be understood not as a failure, but as a kind of success: grassroots politics has not been absorbed into the bureaucratized system; it retains its critical dimension, both in relation to the political system and within the groups themselves. The lively debate stimulated by grassroots groups and parties keeps questions of democracy on the public agenda.

Technical Debate

In West Berlin, the two-dimensionality of the energy issue forced citizen activists to become both participants in and critics of the policy process. In order to defeat the plant, activists engaged in technical debate. They won several decisions in favor of environmental protection, often proving to be more informed than bureaucratic experts themselves. The case study demonstrates that grassroots groups, far from impeding techno-logical advancement, can actually serve as technological innovators.

The activists' role as technical experts, while it helped them achieve some success on the policy dimension, had mixed results on the legitimation dimension. On one hand, it helped them to challenge the legitimacy of technocratic policy making. They turned back the Land government's attempts to displace political problems by formulating them in technical terms.54 By demonstrating the fallibility of the technical arguments, activists forced authorities to acknowledge that energy demand was a political variable, whose value at any one point was as much influenced by the choices of policy makers as by independent technical criteria.

Submission to the form and language of technical debate, however, weakened activists' attempts to introduce an alternative, goal-oriented form of decision making into the political system. Those wishing to par-ticipate in energy politics on a long-term basis have had to accede to the language of bureaucratic discussion, if not the legitimacy of bureaucratic authorities. They have helped break down bureaucratic authority but have not yet offered a viable long-term alternative to bureaucracy. In the tension between form and language, goals and procedure, the legitima-tion issue persists. At the very least, however, grassroots action challenges critical theory's notion that technical discussion is inimical to democratic politics.55 Citizen groups have raised the possibility of a dialogue that is both technically sophisticated and democratic.

In sum, although the legitimation problems which gave rise to grass-roots protest have not been resolved, citizen action has worked to counter the marginalization of parliamentary politics and the technocratic character of policy debate that Offe and Habermas identify. The West Berlin case suggests that the solutions to current legitimation problems may not require total repudiation of those things previously associated with technocracy.56

In Berlin, the citizen initiative and AL continue to search for new, more legitimate forms of organization consistent with their principles. No permanent Land parliamentary body exists to coordinate and con-solidate energy policy making.57 In the 1989 Land elections, the CDU/ FDP coalition was defeated, and the AL formed a governing coalition with the SPD. In late 1990, however, the AL withdrew from the coali-tion. It remains to be seen whether the AL will remain an effective vehi-cle for grassroots concerns, and whether the citizenry itself, now includ-ing the former East Berliners, will remain active enough to give the AL direction as united Berlin faces the formidable challenges of the 1990s. On the policy dimension, grassroots groups achieved some success. On the legitimation dimension, it is difficult to judge the results of grass-roots activism by normal standards of efficacy or success. Activists have certainly not radically restructured politics. They agree that democracy is desirable, but troublesome questions persist about the degree to which those processes that are now bureaucratically organized can and should be restructured, where grassroots democracy is possible and where bureaucracy is necessary in order to get things done. In other words, grassroots groups have tried to remedy the Weberian problem of the marginalization of politics, but it is not yet clear what the boundaries of the political realm should be. It is, however, the act of calling existing boundaries into question that keeps democracy vital. In raising alternative possibilities and encouraging citizens to take an active, critical role in their own governance, the contribution of grassroots environmental groups has been significant. As Melucci states for new social movements in general, these groups mount a "symbolic" challenge by proposing "a different way of perceiving and naming the world."58 Rochon concurs for the case of the West German peace movement, noting that its effect on the public discussion of secur-ity issues has been tremendous.59 The effects of the legitimation issue in the FRG are evident in increased citizen interest in areas formerly left to technical experts. Citizens have formed nationwide associations of environmental and other grassroots groups as well as alternative and green parties at all levels of government. The level of information within the groups is generally quite high, and their participation, especially in local politics, has raised the awareness and engagement of the general populace noticeably.60 Policy concessions and new legal provisions for citizen participation have not quelled grassroots action. The attempts of the established political parties to coopt "green" issues have also met with limited success. Even green parties themselves have not tapped the full potential of public support for these issues. The persistence of legitima-tion concerns, along with the growth of a culture of informed political activism, will ensure that the search continues for a space for a delibera-tive politics in modern technological society.61

Topical version of their Aff – Their call to place structural violence first is entirely compatible with a topical advocacy. Resolutional action is crucial to halting environmental injustice

Bullard 8

(Robert D. Bullard, Ph.D, Environmental Justice Resource Center,\_Clark Atlanta University, 7/2/08, “POVERTY, POLLUTION AND ENVIRONMENTAL RACISM: STRATEGIES FOR BUILDING HEALTHY AND SUSTAINABLE COMMUNITIES” <http://www.ejrc.cau.edu/PovpolEj.html>)

The environmental justice movement emerged in response to environmental inequities, threats to public health, unequal protection, differential enforcement, and disparate treatment received by the poor and people of color. Poverty and environmental degradation are intricately linked and take a heavy toll on billions of people in developing and industrialized countries alike. Thus, any search for sustainable development must address the root causes of both poverty and pollution and seek solutions to this double threat.

Redefinition of Environmental Protection. The environmental justice movement redefined environmental protection as a basic right. It also emphasized pollution prevention, waste minimization, and cleaner production techniques as strategies to achieve environmental justice for all without regard to race, color, national origin, or income. Many countries have environmental and human laws to protect the health and welfare of its citizens-including racial and ethnic groups and indigenous peoples. However, all communities have not received the same benefits from their application, implementation, and enforcement.

Design a Holistic Approach to Environmental Protection. The environmental justice movement has set out clear goals of eliminating unequal enforcement of environmental, civil rights, and public health laws, differential exposure of some populations to harmful chemicals, pesticides, and other toxins in the home, school, neighborhood, and workplace, faulty assumptions in calculating, assessing, and managing risks, discriminatory zoning and land-use practices, and exclusionary policies and practices that limit some individuals and groups from participation in decision making. Many of these problems could be eliminated if existing environmental, health, housing, and civil rights laws were vigorously enforced in a nondiscriminatory way.

Clean and Affordable Energy. Governments should initiate an action program to make available finances and infrastructure to bring clean and affordable and sustainable energy sources to the 2 billion people who lack these energy service by 2012. Governments should adopt a target increasing the global share of new renewable energy sources to 15% by 2010.

Decrease Pesticide Use. Institute protocols and plan to decrease pesticide use, including prohibiting the export of banned or never registered pesticides, implement integrated pest management (IPM), evaluate the hazards posed by pesticide exports, and improve the quality and quantity of information pesticide production, trade and use and publish information in the public record.

Reduce Children's Exposure to Neurotoxicants. Abate lead in older housing; complete phase-out leaded gasoline; target high-risk children, screening, early detection, treatment; increase allocation of medications that help reduce or remove lead; use new, safe lead removal techniques; and dietary improvements.

Strengthen Legislation and Regulations. A legislative approach may be needed where environmental, health, and worker safety laws and regulations are weak or nonexistent. However, laws and regulations are only as good as their enforcement. Unequal political power arrangements also have allowed poisons of the rich to be offered as short term economic remedies for poverty.

Second is Decision-making

Increasing the abstraction of debates and undermining stasis hampers the decision-making benefits of debate

Steinberg, lecturer of communication studies – University of Miami, and Freeley, Boston based attorney who focuses on criminal, personal injury and civil rights law, ‘8

(David L. and Austin J., Argumentation and Debate: Critical Thinking for Reasoned Decision Making p. 45)

Debate is a means of settling differences, so there must be a difference of opinion or a conflict of interest before there can be a debate. If everyone is in agreement on a tact or value or policy, there is no need for debate: the matter can be settled by unanimous consent. Thus, for example, it would be pointless to attempt to debate "Resolved: That two plus two equals four," because there is simply no controversy about this statement. (Controversy is an essential prerequisite of debate. Where there is no clash of ideas, proposals, interests, or expressed positions on issues, there is no debate. In addition, debate cannot produce effective decisions without clear identification of a question or questions to be answered. For example, general argument may occur about the broad topic of illegal immigration. How many illegal immigrants are in the United States? What is the impact of illegal immigration and immigrants on our economy? What is their impact on our communities? Do they commit crimes? Do they take jobs from American workers? Do they pay taxes? Do they require social services? Is it a problem that some do not speak English? Is it the responsibility of employers to discourage illegal immigration by not hiring undocumented workers? Should they have the opportunity- to gain citizenship? Docs illegal immigration pose a security threat to our country? Do illegal immigrants do work that American workers are unwilling to do? Are their rights as workers and as human beings at risk due to their status? Are they abused by employers, law enforcement, housing, and businesses? I low are their families impacted by their status? What is the moral and philosophical obligation of a nation state to maintain its borders? Should we build a wall on the Mexican border, establish a national identification can!, or enforce existing laws against employers? Should we invite immigrants to become U.S. citizens? Surely you can think of many more concerns to be addressed by a conversation about the topic area of illegal immigration. Participation in this "debate" is likely to be emotional and intense. However, it is not likely to be productive or useful without focus on a particular question and identification of a line demarcating sides in the controversy. To be discussed and resolved effectively, controversies must be stated clearly. Vague understanding results in unfocused deliberation and poor decisions, frustration, and emotional distress, as evidenced by the failure of the United States Congress to make progress on the immigration debate during the summer of 2007.

Someone disturbed by the problem of the growing underclass of poorly educated, socially disenfranchised youths might observe, "Public schools are doing a terrible job! They are overcrowded, and many teachers are poorly qualified in their subject areas. Even the best teachers can do little more than struggle to maintain order in their classrooms." That same concerned citizen, facing a complex range of issues, might arrive at an unhelpful decision, such as "We ought to do something about this" or. worse. "It's too complicated a problem to deal with." Groups of concerned citizens worried about the state of public education could join together to express their frustrations, anger, disillusionment, and emotions regarding the schools, but without a focus for their discussions, they could easily agree about the sorry state of education without finding points of clarity or potential solutions. A gripe session would follow. But if a precise question is posed—such as "What can be done to improve public education?"—then a more profitable area of discussion is opened up simply by placing a focus on the search for a concrete solution step. One or more judgments can be phrased in the form of debate propositions, motions for parliamentary debate, or bills for legislative assemblies. The statements "Resolved: That the federal government should implement a program of charter schools in at-risk communities" and "Resolved: That the state of Florida should adopt a school voucher program" more clearly identify specific ways of dealing with educational problems in a manageable form, suitable for debate. They provide specific policies to be investigated and aid discussants in identifying points of difference.

To have a productive debate, which facilitates effective decision making by directing and placing limits on the decision to be made, the basis for argument should be clearly defined. If we merely talk about "homelessness" or "abortion" or "crime'\* or "global warming" we are likely to have an interesting discussion but not to establish profitable basis for argument. For example, the statement "Resolved: That the pen is mightier than the sword" is debatable, yet fails to provide much basis for clear argumentation. If we take this statement to mean that the written word is more effective than physical force for some purposes, we can identify a problem area: the comparative effectiveness of writing or physical force for a specific purpose.

Although we now have a general subject, we have not yet stated a problem. It is still too broad, too loosely worded to promote well-organized argument. What sort of writing are we concerned with—poems, novels, government documents, website development, advertising, or what? What does "effectiveness" mean in this context? What kind of physical force is being compared—fists, dueling swords, bazookas, nuclear weapons, or what? A more specific question might be. "Would a mutual defense treaty or a visit by our fleet be more effective in assuring Liurania of our support in a certain crisis?" The basis for argument could be phrased in a debate proposition such as "Resolved: That the United States should enter into a mutual defense treatv with Laurania." Negative advocates might oppose this proposition by arguing that fleet maneuvers would be a better solution. This is not to say that debates should completely avoid creative interpretation of the controversy by advocates, or that good debates cannot occur over competing interpretations of the controversy; in fact, these sorts of debates may be very engaging. The point is that debate is best facilitated by the guidance provided by focus on a particular point of difference, which will be outlined in the following discussion.

Decision-making is the most important facet of education we could take away from debate – key to success in any future role

Steinberg, lecturer of communication studies – University of Miami, and Freeley, Boston based attorney who focuses on criminal, personal injury and civil rights law, ‘8

(David L. and Austin J., Argumentation and Debate: Critical Thinking for Reasoned Decision Making p. 9-10)

After several days of intense debate, first the United States House of Representatives and then the U.S. Senate voted to authorize President George W. Bush to attack Iraq if Saddam Hussein refused to give up weapons of mass destruction as required by United Nations's resolutions. Debate about a possible military\* action against Iraq continued in various governmental bodies and in the public for six months, until President Bush ordered an attack on Baghdad, beginning Operation Iraqi Freedom, the military campaign against the Iraqi regime of Saddam Hussein. He did so despite the unwillingness of the U.N. Security Council to support the military action, and in the face of significant international opposition.

Meanwhile, and perhaps equally difficult for the parties involved, a young couple deliberated over whether they should purchase a large home to accommodate their growing family or should sacrifice living space to reside in an area with better public schools; elsewhere a college sophomore reconsidered his major and a senior her choice of law school, graduate school, or a job. Each of these\* situations called for decisions to be made. Each decision maker worked hard to make well-reasoned decisions.

Decision making is a thoughtful process of choosing among a variety of options for acting or thinking. It requires that the decider make a choice. Life demands decision making. We make countless individual decisions every day. To make some of those decisions, we work hard to employ care and consideration; others seem to just happen. Couples, families, groups of friends, and coworkers come together to make choices, and decision-making homes from committees to juries to the U.S. Congress and the United Nations make decisions that impact us all. Every profession requires effective and ethical decision making, as do our school, community, and social organizations.

We all make many decisions even- day. To refinance or sell one's home, to buy a high-performance SUV or an economical hybrid car. what major to select, what to have for dinner, what candidate CO vote for. paper or plastic, all present lis with choices. Should the president deal with an international crisis through military invasion or diplomacy? How should the U.S. Congress act to address illegal immigration?

Is the defendant guilty as accused? Tlie Daily Show or the ball game? And upon what information should I rely to make my decision? Certainly some of these decisions are more consequential than others. Which amendment to vote for, what television program to watch, what course to take, which phone plan to purchase, and which diet to pursue all present unique challenges. At our best, we seek out research and data to inform our decisions. Yet even the choice of which information to attend to requires decision making. In 2006, TIMI: magazine named YOU its "Person of the Year." Congratulations! Its selection was based on the participation not of ''great men" in the creation of history, but rather on the contributions of a community of anonymous participants in the evolution of information. Through blogs. online networking. You Tube. Facebook, MySpace, Wikipedia, and many other "wikis," knowledge and "truth" are created from the bottom up, bypassing the authoritarian control of newspeople. academics, and publishers. We have access to infinite quantities of information, but how do we sort through it and select the best information for our needs?

The ability of every decision maker to make good, reasoned, and ethical decisions relies heavily upon their ability to think critically. Critical thinking enables one to break argumentation down to its component parts in order to evaluate its relative validity and strength. Critical thinkers are better users of information, as well as better advocates.

Colleges and universities expect their students to develop their critical thinking skills and may require students to take designated courses to that end. The importance and value of such study is widely recognized.

Much of the most significant communication of our lives is conducted in the form of debates. These may take place in intrapersonal communications, in which we weigh the pros and cons of an important decision in our own minds, or they may take place in interpersonal communications, in which we listen to arguments intended to influence our decision or participate in exchanges to influence the decisions of others.

Our success or failure in life is largely determined by our ability to make wise decisions for ourselves and to influence the decisions of others in ways that are beneficial to us. Much of our significant, purposeful activity is concerned with making decisions. Whether to join a campus organization, go to graduate school, accept a job oiler, buy a car or house, move to another city, invest in a certain stock, or vote for Garcia—these are just a few of the thousands of decisions we may have to make. Often, intelligent self-interest or a sense of responsibility will require us to win the support of others. We may want a scholarship or a particular job for ourselves, a customer for out product, or a vote for our favored political candidate.

Next is substantive side bias

Surely the Aff will say the Neg can still debate them on the substance of their advocacy but not defending the clear actor and mechanism of the resolutional produces a substantive side bias.

Affirmatives that don’t defend the resolution make deploying other strategies against them inordinately Aff tilted. They have the ability to radically recontextualize link arguments, empathize different proscriptive claims of the 1AC while using traditional competition standards like perms to make being impossible inordinately difficult.

And we have an external impact to this net benefit

Sufficient research-based preparation and debates focused on detailed points of disagreement are crucial to transforming political culture

Gutting (professor of philosophy at the University of Notre Dame) 13

(Gary, Feb 19, A Great Debate, http://opinionator.blogs.nytimes.com/2013/02/19/a-great-debate/?emc=eta1)

This is the year of what should be a decisive debate on our country’s spending and debt. But our political “debates” seldom deserve the name. For the most part representatives of the rival parties exchange one-liners: “The rich can afford to pay more” is met by “Tax increases kill jobs.” Slightly more sophisticated discussions may cite historical precedents: “There were higher tax rates during the post-war boom” versus “Reagan’s tax cuts increased revenues.”

Such volleys still don’t even amount to arguments: they don’t put forward generally accepted premises that support a conclusion. Full-scale speeches by politicians are seldom much more than collections of such slogans and factoids, hung on a string of platitudes. Despite the name, candidates’ pre-election debates are exercises in looking authoritative, imposing their talking points on the questions, avoiding gaffes, and embarrassing their opponents with “zingers” (the historic paradigm: “There you go again.”).

There is a high level of political discussion in the editorials and op-eds of national newspapers and magazines as well as on a number of blogs, with positions often carefully formulated and supported with argument and evidence. But even here we seldom see a direct and sustained confrontation of rival positions through the dialectic of assertion, critique, response and counter-critique.
Such exchanges occur frequently in our law courts (for example, oral arguments before the Supreme Court) and in discussions of scientific papers. But they are not a significant part of our deliberations about public policy. As a result, partisans typically remain safe in their ideological worlds, convincing themselves that they hold to obvious truths, while their opponents must be either knaves or fools — with no need to think through the strengths of their rivals’ positions or the weaknesses of their own.

Is there any way to make genuine debates — sustained back-and-forth exchanges, meeting high intellectual standards but still widely accessible — part of our political culture? (I leave to historians the question of whether there are historical precedents— like the Webster-Hayne or Lincoln-Douglas debates.) Can we put our politicians in a situation where they cannot ignore challenges, where they must genuinely engage with one another in responsible discussion and not just repeat talking points?

A first condition is that the debates be **focused on specific points of major disagreement**. Not, “How can we improve our economy?” but “Will tax cuts for the wealthy or stimulus spending on infrastructure do more to improve our economy?” This will prevent vague statements of principle that don’t address the real issues at stake.

Another issue is the medium of the debate. Written discussions, in print or online could be easily arranged, but personal encounters are more vivid and will better engage public attention. They should not, however, be merely extemporaneous events, where too much will depend on quick-thinking and an engaging manner. We want **remarks to be carefully prepared and open to considered responses**.

And effective deliberative discourse is the lynchpin to solving all existential problems

Christian O. Lundberg 10 Professor of Communications @ University of North Carolina, Chapel Hill, “Tradition of Debate in North Carolina” in Navigating Opportunity: Policy Debate in the 21st Century By Allan D. Louden, p311

The second major problem with the critique that identifies a naivety in articulating debate and democracy is that it presumes that the primary pedagogical outcome of debate is speech capacities. But the democratic capacities built by debate are not limited to speech—as indicated earlier, debate builds capacity for critical thinking, analysis of public claims, informed decision making, and better public judgment. If the picture of modem political life that underwrites this critique of debate is a pessimistic view of increasingly labyrinthine and bureaucratic administrative politics, rapid scientific and technological change outpacing the capacities of the citizenry to comprehend them, and ever-expanding insular special-interest- and money-driven politics, it is a puzzling solution, at best, to argue that these conditions warrant giving up on debate. If democracy is open to rearticulation, it is open to rearticulation precisely because as the challenges of modern political life proliferate, the citizenry's capacities can change, which is one of the primary reasons that theorists of democracy such as Ocwey in The Public awl Its Problems place such a high premium on education (Dewey 1988,63, 154). Debate provides an indispensible form of education in the modem articulation of democracy because it builds precisely the skills that allow the citizenry to research and be informed about policy decisions that impact them, to son rhroueh and evaluate the evidence for and relative merits of arguments for and against a policy in an increasingly infonnation-rich environment, and to prioritize their time and political energies toward policies that matter the most to them.

The merits of debate as a tool for building democratic capacity-building take on a special significance in the context of information literacy. John Larkin (2005, HO) argues that one of the primary failings of modern colleges and universities is that they have not changed curriculum to match with the challenges of a new information environment. This is a problem for the course of academic study in our current context, but perhaps more important, argues Larkin, for the future of a citizenry that will need to make evaluative choices against an increasingly complex and multimediatcd information environment (ibid-). Larkin's study tested the benefits of debate participation on information-literacy skills and concluded that in-class debate participants reported significantly higher self-efficacy ratings of their ability to navigate academic search databases and to effectively search and use other Web resources:

To analyze the self-report ratings of the instructional and control group students, we first conducted a multivariate analysis of variance on all of the ratings, looking jointly at the effect of instmction/no instruction and debate topic . . . that it did not matter which topic students had been assigned . . . students in the Instnictional [debate) group were significantly more confident in their ability to access information and less likely to feel that they needed help to do so----These findings clearly indicate greater self-efficacy for online searching among students who participated in (debate).... These results constitute strong support for the effectiveness of the project on students' self-efficacy for online searching in the academic databases. There was an unintended effect, however: After doing ... the project, instructional group students also felt more confident than the other students in their ability to get good information from Yahoo and Google. It may be that the library research experience increased self-efficacy for any searching, not just in academic databases. (Larkin 2005, 144)

Larkin's study substantiates Thomas Worthcn and Gaylcn Pack's (1992, 3) claim that debate in the college classroom plays a critical role in fostering the kind of problem-solving skills demanded by the increasingly rich media and information environment of modernity. Though their essay was written in 1992 on the cusp of the eventual explosion of the Internet as a medium, Worthcn and Pack's framing of the issue was prescient: the primary question facing today's student has changed from how to best research a topic to the crucial question of learning how to best evaluate which arguments to cite and rely upon from an easily accessible and veritable cornucopia of materials.

There are, without a doubt, a number of important criticisms of employing debate as a model for democratic deliberation. But cumulatively, the evidence presented here warrants strong support for expanding debate practice in the classroom as a technology for enhancing democratic deliberative capacities. The unique combination of critical thinking skills, research and information processing skills, oral communication skills, and capacities for listening and thoughtful, open engagement with hotly contested issues argues for debate as a crucial component of a rich and vital democratic life. In-class debate practice both aids students in achieving the best goals of college and university education, and serves as an unmatched practice for creating thoughtful, engaged, open-minded and self-critical students who are open to the possibilities of meaningful political engagement and new articulations of democratic life.

Expanding this practice is crucial, if only because the more we produce citizens that can actively and effectively engage the political process, the more likely we are to produce revisions of democratic life that are necessary if democracy is not only to survive, but to thrive. Democracy faces a myriad of challenges, including: domestic and international issues of class, gender, and racial justice; wholesale environmental destruction and the potential for rapid climate change; emerging threats to international stability in the form of terrorism, intervention and new possibilities for great power conflict; and increasing challenges of rapid globalization including an increasingly volatile global economic structure. More than any specific policy or proposal, an informed and active citizenry that deliberates with greater skill and sensitivity provides one of the best hopes for responsive and effective democratic governance, and by extension, one of the last best hopes for dealing with the existential challenges to democracy [in an] increasingly complex world.

Forth is Mechanism Education

The Aff’s failure to ID a clear mechanism of change has the most devastating effects on the quality of debates. It makes link comparisons vacuous and means that detailed and well prepared PICs about substance, everyone’s favorite and most education part of debate are all but impossible.

We do not need to win that the state is good, rather just that the value of the state is something that should be debated about. This creates another standard for reading the Aff’s evidence – it can’t just indicate that the state or the resolution is bad or ineffective but that they should not even be discussed. Any of the aff’s ev on this account is simply proof that it can be done on the neg – no unique educational benefit to doing it on the aff, only provides an unfair tactical advantage to their arguments.

And this turns the Aff – debates over mechanisms for change are crucial to the success of leftist politics

Schostak (Professor of Education at Manchester Metropolitan University) 11

(John, Wikileaks, Tahrir Square – their significance for re-thinking democracy, Manchester social movements conference, April, http://www.enquirylearning.net/ELU/politics/tahrirwikileaks.html)

In his study of the conditions of work imposed by neo-liberal practices in France, Christophe Dejours (1998) has argued that political strategies, particularly those on the left, have not employed appropriate strategies of analysis. Without a good analysis of contemporary circumstances, he argues, **political strategies aiming at social justice will be deficient or wrong**. And **a good analysis for the production of appropriate strategies can only be accomplished through a multiplicity of collective reflections, debates and decision making in public spaces for public action(s).** The protests that have spread since the food riots in Algeria on the 6th January, the revolution in Tunisia and then the revolution in Egypt and then riots spreading to Bahrain, Yemen, Libya, Jordan and others have drawn lessons from each other providing experience for the development of local strategies. Any protest will give insights into the conditions underlying the protests and the community and state structures, discourses, practices, and processes that tacitly if not explicitly underlie the social, political and economic order at local, national, transnational and global levels. This is why, it seems to me, that critically exploring from an educational and research perspective what has happened in response to Wikileaks and has been happening in the Middle East is so important today.

### **2**

**Thus we advocate the world of the resolution through a techno-nativist futurism:**

####  ****Resolved: The United States Federal Government should substantially reduce restrictions on and/or substantially increase financial incentives for energy production in the United States of one or more of the following: coal, crude oil, nuclear power.****

#### Increased production of so-called clean energy technologies requires mining rare earth minerals. The costs of Western demands for more and more energy are displaced onto populations of marginalized Chinese citizens.

Shimatsu 12 [Yoichi Shimatsu, former associate editor of Pacific News Service, is an environmental writer and consultant based in Hong Kong. The New Opium War: China's Rare Earth Minerals New America Media, News Analysis, Yoichi Shimatsu, Posted: Mar 15, 2012 http://newamericamedia.org/2012/03/the-new-opium-war-chinas-rare-earth.php]

The very same “humanitarian” countries that complain so vociferously about workers’ rights and environmental degradation in China have **silently tolerated the cancer risk to expendable Chinese miners**. The Western message is clear: Hurry up and do the dirty work **but not in our backyard.** In a further cynical twist, the European Union trade commissioner Karel De Gucht said that China’s restrictions on rare earths harm “green business applications.” (CITE SOURCE) In fact, most of the world’s photovoltaic cells are produced inside China, often in partnership with Western companies. Likewise is the case of neodymium magnets, abundantly available at low cost through web marketing sites. Foreign companies can thereby profit while **washing their hands** of the high costs for pollution clean up and health care.

#### Outweighs the aff – you have a moral responsibility to protect victims of mining.

Parry 11 [Simon and Ed Douglas, Daily Mail, 1/26/11, In China, the true cost of Britain's clean, green wind power experiment: Pollution on a disastrous scale http://www.dailymail.co.uk/home/moslive/article-1350811/In-China-true-cost-Britains-clean-green-wind-power-experiment-Pollution-disastrous-scale.html]

Finally they are dumped into tailing lakes that are often very poorly constructed and maintained. And throughout this process, large amounts of highly toxic acids, heavy metals and other chemicals are emitted into the air that people breathe, and leak into surface and ground water. Villagers rely on this for irrigation of their crops and for drinking water. Whenever we purchase products that contain rare earth metals, we are unknowingly taking part in massive environmental degradation and the destruction of communities.’ The fact that the wind-turbine industry relies on neodymium, which even in legal factories has a catastrophic environmental impact, is an irony Ms Choi acknowledges. ‘It is a real dilemma for environmentalists who want to see the growth of the industry,’ she says. ‘But we have the responsibility to recognise the environmental destruction that is being caused while making these wind turbines.’

### Case

#### TERA requirements have minimal impact on self determination

Miles 5 Andrea S. Miles, law student Tribal Energy Resource Agreements: Tools for Achieving Energy Development and Tribal Self-Sufficiency or an Abdication of Federal Environmental and Trust Responsibilities? Vol. 30, No. 2 (2005/2006), pp. 461-476 American Indian Law Review

In sum, the criticism ITEDSA has received has been exaggerated at the very least. The statute represents a substantial step toward practical and effective tribal control over reservation resources. Some scholars and others have pointed to parts of the statute that they claim will prevent many tribes from taking advantage of the resource agreement sys tem. But the criticisms are flawed, and thus tribes should not be discouraged from seeking approval of their own resource agreements. ITEDSA and the resource agreement system will be accessible and advantageous to many tribes in the future, presenting the most significant opportunity yet for tribes to gain real, practical control of their reserva- tion resources.

#### Reducing governmental involvement opens native land to corporate exploitation

Land Letter, 5 (New federal law encourages tapping of Indian resources, 12/1, Lexis)

April Reese, Land Letter Southwest reporter A set of provisions in the new federal energy law aimed at making it easier to tap Indian Country's vast resources has received mixed reviews from native interests, with supporters convinced the measure will boost tribal economies and strengthen sovereignty and **critics warning it will open tribes to exploitation by outside companies**. The Indian Tribal Energy Development and Self-Determination Act, tucked into the 1,700-page Energy Policy Act of 2005 that was signed into law by President Bush in August, allows tribes to develop and regulate their energy resources under reduced supervision from the federal government. The first tribally owned, large-scale wind turbine in Indian Country was erected in 2003. Tribes can choose to forego the National Environmental Policy Act if the Interior Department approves a "tribal energy resource agreement," which would govern leases, rights-of-way and business arrangements. The new law also authorizes tribes to receive Energy Department grants formerly offered only to states for the development of energy projects and creates an Office of Indian Energy Policy within DOE. Supporters of the measure, which was proposed by members of the Council of Energy Resource Tribes (CERT), say it will help tribes meet growing demand for energy both on and off the reservation. "Indian lands represent tremendous potential for economic advancement for the tribes that want to use those resources and develop them, and they represent an important energy supply to the rest of the country," said David Lester, executive director of CERT, adding that tribes can provide "far more" energy than the Arctic National Wildlife Refuge holds. Tribal populations are growing twice as fast as the general U.S. population and tribal economies are growing three times as fast as the national economy, Lester said. With almost all of the 562 federally recognized Indian tribes harboring some kind of energy resource, from wind, solar and biomass to coal and natural gas, tribes that choose to take advantage of the incentives in the new law can provide electricity and heat to their members, with plenty left over to sell to their non-tribal neighbors, he said. While only about 2 percent of the lands within the United States are tribally owned, lands on or adjacent to reservations contain more than 30 percent of its fossil energy sources, Lester said. Supporters, which include the National Congress of American Indians, say giving Indian tribes more control over their resources is a good idea, especially since the federal government has not been a good steward of tribal lands in the past. Several tribes have wrangled in court with the Interior Department and energy companies over what they contend are paltry royalty payments for resources extracted from their lands. A major case involving the federal government's alleged mishandling of tribal energy revenues is still pending in federal court. The new law, Lester and others say, will help avoid such problems by giving tribes greater say over energy development on their lands. 'Culture at stake' But critics of the new law say not all tribes are ready for that kind of responsibility. They fear **it will allow energy companies to take advantage of tribes that are energy-rich but lack the governing capacity to ensure they are getting a fair deal**. Clayton Thomas-Muller, native energy organizer at the Indigenous Environmental Network, said some tribes ­ do not have the institutional and enforcement mechanisms needed to guarantee that their resources will be developed responsibly. The law essentially allows the federal government to abandon its trust responsibility to the tribes, which is intended to prevent unfair treatment of tribes by outside entities such as energy companies, he said. "Yes, there are tribes that have those resources -- the lawyers, the scientists, the capacity to do what they need to do -- but there are hundreds that don't and are being set up to fail," Thomas-Muller said. "This energy bill basically takes **us back 100 years, allowing corporations to exploit tribes that are still reeling from the impacts of colonization** and dealing with different socioeconomic situations."

#### Corporate exploitation is worse

Reese, reporter – High Country News (Colorado) and Energy & Environment, ‘3

(April, “Plains tribe harnesses the wind,” <http://www.hcn.org/issues/255/14139>)

The legislation would also waive Interior’s trust responsibility to the tribes in energy dealings. This trust relationship means the federal government must ensure that tribes get a fair shake when their land is leased for mining, grazing, logging or drilling. In recent years, Indians have sued the Interior Department, accusing the agency of mismanaging billions of dollars it collected from those leases (HCN, 5/12/03: Missing Indian money: Piles or pennies?).

But some tribal leaders and environmental groups say there aren’t enough financial and human resources in Indian Country to ensure that tribal energy resources are developed in an environmentally responsible way. They fear that the legislation, dubbed the “Native American Energy Development and Self-Determination Act” before being rolled into a larger, catchall Senate energy bill, would leave tribes vulnerable to exploitation by energy companies.

Historically, when tribes have tried to assert their authority over corporations, “they’re challenged at every turn,” says David Getches, a professor of natural resource law at the University of Colorado and one of the founders of the Native American Rights Fund. “When you’re talking about things like power plants, where there are millions of dollars involved, you will see some of the most vigorous challenges ever to tribal sovereignty.”

“I think a better name for this legislation would be the ‘Native American Self-Termination Act’,” says Robert Shimek, special projects director for the Indigenous Environmental Network and a member of the Chippewa Tribe. “The way it’s proposed, it reopens the door for dirty projects — projects that nobody else wants.”

Shimek is wary of a return to the days when the federal government endorsed projects like the Black Mesa coal mine on the Navajo reservation in northeastern Arizona. In the 1960s, the Peabody Coal Company strip-mined 17,000 acres of tribal lands, and the still-active operation has been blamed for depleting the aquifer and drying up the Hopi Tribe’s sacred springs.

“(Tribal lands) were essentially energy colonies for the rest of the country,” says Lester.

When the Senate resumes debate on the energy bill this summer, Campbell is expected to offer an amendment addressing some of critics’ concerns, including retaining Interior’s trust responsibility and laying out requirements that tribes would have to follow when conducting environmental reviews.

#### Eliminating federal involvement leave indigenous vulnerable to state governments – the worst enemy of sovereignty

Rosser 10 Ezra Rosser, Associate Professor, American University Washington College of Law; Research Affiliate, National Poverty Center, University of Michigan Environmental Law Spring, 2010 40 Envtl. L. 437 lexis

As the Supreme Court observed in 1886, historically states have been the "deadliest enemies" of Indians, and the federal government has consequently had to play a protective role. 473 Substituting state or local authority for federal oversight undermines the government-to-government relationship that has defined United States-Indian relations since the Trade and Intercourse Act of 1790. 474 The Supreme Court enshrined a uniquely federal-tribal relationship into the common law in Worcester v. Georgia, 475 a case dealing with an attempt by Georgia to impose state law upon the Cherokees in the 1830s. 476 Chief Justice John Marshall wrote, "The treaties and laws of the United States contemplate the Indian territory as completely separated from that of the states; and provide that all intercourse with them shall be carried on exclusively by the government of the union." 477 The idea, Judge William Canby, Jr. explains, was that "when tribal interests, broadly viewed, were affected, the state was excluded." 478 Professor Robert Clinton's [\*508] work on the Indian Commerce Clause of the Constitution shows that the framers' original understanding was that states would have no powers over tribes and that federal "power is broad vis-a-vis the states." 479 Not contemplated by the framers, according to Professor Clinton, was the Supreme Court's transformation, beginning at the end of the nineteenth century, of the exclusive federal-tribal relationship of international sovereigns into plenary power over tribes. 480 Though there is no "true constitutional benchmark to orient the federal-tribal discourse on sovereignty," tribes seem to be stuck, at least for now, with the plenary power doctrine. 481

The heavy hand of the federal government extends to environmental matters and arguably should serve as a check on the role of states. While environmental laws that affirm tribal sovereignty are a factor in preempting state authority, plenary power also plays a role. 482 State assertions of jurisdiction over reservation land and resources arguably undercut tribal sovereignty even when states act seemingly with the best of intentions. The state of New York in 2001 decided to sue General Motors (GM) because of the chemical pollution being discharged by a GM plant located near the St. Regis Mohawk reservation. 483 After noting the history of an exclusive federal-tribal relationship, a law review article on New York's proposal argues that the offer to help "should be viewed with skepticism." 484 The problem with this seemingly supportive stance of the state, according to [\*509] the article, is that it "extends the reach of states, generally chipping-away at the seemingly ever-dwindling sovereignty of tribal peoples in the United States." 485 According to this perspective, the federal government acts as "a shield against the states' gentleman's sword, such as New York's encroachment upon the federal-tribal relationship," preventing the erosion of tribal sovereignty and authority over the environment. 486 The same perspective can be seen in the decision of the Alaska Inter-Tribal Council and the Yukon River Inter-Tribal Council to oppose transfer of National Pollution Discharge Elimination System primacy, which would transfer permitting authority from EPA to the State of Alaska, because such a transfer would "subvert Tribes legally recognized right to government-to-government consultation." 487 Such a strong enforcement of a state-tribal line may seem out-of-place when states and tribes are in agreement, but it protects tribes when states and tribes disagree and tribes face the insistence that they yield to conflicting state interests. 488

#### Claims of exploitation are history, not current policy. Tribes now have greater control over leasing

Unger 10 Kathleen R. Unger, J.D. Candidate, May 2010, Loyola Law School Los Angeles; M.A., Linguistic Anthropology, University of Texas at Austin; A.B., Anthropology, University of Michigan Wind Power Through Tribal Energy Resource Agreements, 43 LOY. L.A. L. REV. 329, 355–56

To meet these goals, however, tribal resource development must also promote self-determination through tribal control over development projects. Economic development on tribal lands succeeds best where control over the development activity is in tribal hands rather than in the hands of the federal government or another outsider.43 Past federal policies tended to place control in the hands of the federal government or non-Indian developers.44 For example, in the past, the federal government was entirely in charge of deciding the course of natural resource development on tribal lands.45 The government often accomplished this development through lease agreements with outsiders, initially for grazing and mining, and later for other mineral development processes as well.46 The royalty payments to tribes under these leases were low, and tribes were unable to negotiate for better lease terms, leaving them at a disadvantage.47 More generally, the federal government retained the ability to direct the course of development under these policies.48 More recently, a shift in federal policy has lessened the extreme federal control over tribal resource development. The doctrine of self-determination, which has guided much of federal policy toward American Indians over the past decades, acknowledges that giving tribes control over how their resources are developed is the best way to improve economic self-sufficiency and to strengthen tribal governmental and economic structures.49 Thus, promoting self- determination should be a central consideration in the development of tribal energy resources.

Without the state authority warlords will take control -- they use violence, exploit the people, and replicate the worst aspects of the state structure

Jackson 3 Paul Jackson, International Development Department of the University of Birmingham, UK (2003):

Warlords as alternative forms of Governance, Small Wars & Insurgencies, 14:2, 131-150 Tandfonline

Use of Violence to Reassert Local Power

With the complete breakdown of moral authority and the law, let alone any means of enforcement, the only recourse is to establish rule through force.

The violence associated with warlords is the most publicised aspect of their activity, and its seeming randomness is undoubtedly one of the most horrific characteristics of warlords. The casual nature of violence within areas held by warlords is symptomatic of the gang culture outlined by Lary in China, but equally resonant of earlier cultures of violence.

Replacement of Formal Structures with Gang Mentality

The collapse of formal structures and norms, including formal military structures, lead warlords to develop their own internal structures. In particular, the replacement of hierarchical structures with gang cultures, with the warlord and close associates at the core of the gang. This gang culture manifests itself in particular ways, not least of which is the fact that gangs act as a spur to further violence by subgroups. In other words, the replacement of formal structures by ad hoc, primitive and personalised control leads to a behavioural logic based on the licensing of gratuitous violence.

The gang culture has a further element of interest: the development of subgroups. These subgroups may be smaller gangs, or alternatively part of the larger group aiming to progress up the pecking order. One of the features of all periods of warlord rule has been the behaviour of smaller groups of armed men on the periphery of the gang, which adds a further element of randomness into the violence. We will return to this below.

Lack of state authority means endless war among factions

Woodward 99 Dr. Susan L. Woodward, Senior Fellow at the Brookings Institution in Washington, served as Head, Analysis and Assessment Unit, Office of the Special Representative of the Secretary General, UNPROFOR, in 1994, and was associate professor of political science at Yale University prior to joining Brookings Naval War College Review, 00281484, Spring 99, Vol. 52, Issue 2 “Failed states” Academic Search Premier

The loss of a state's monopoly on authority to legislate, tax, enforce, and restrict the right to bear arms creates a situation of relative balance in resources, especially arms, and in access to finances for war. Examples are regional control over trade routes and customs posts, as can be seen in Bosnia, and over mineral resources, as in Angola today. (The Angolan case shows that where there are such resources, lucrative financial offers are likely to appear from international businesses who have no scruples about dealing with warlords and who do not condition their payments on certain behavior and reforms, as do the United States and international organizations.) Contrary to the stabilizing effects of balance-of-power interstate relations, the most likely result of this anarchic balance of resources (particularly military ones) domestically is unending war of attrition.[ § Marked 14:13 § [7](http://web.ebscohost.com/ehost/detail?vid=3&hid=13&sid=54f20012-08e1-4c38-892a-3ce935be2595%40sessionmgr13&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#bib7)] The equilibrium result--a negative equilibrium, in economists' terms--is "stable anarchy," in which "all resources would be spent in fighting rather than production." There may be temporary cessations of fighting, but only as battlefield stalemates; internal actors cannot on their own end the fight.

This relative balance also creates layer upon layer of security dilemmas. A spiraling dynamic of mutual fear continues to feed such wars once they begin.[ [8](http://web.ebscohost.com/ehost/detail?vid=3&hid=13&sid=54f20012-08e1-4c38-892a-3ce935be2595%40sessionmgr13&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#bib8)] To understand the disintegration of Yugoslavia or the Bosnian war, for example, one must recognize that once the federal state lost its authority, each group pressed for its own national fights and claimed to be at risk of exploitation and even extirpation by other groups in the same dissolving state; it became critical that each group was a numerical minority and perceived itself as acting only in defensive ways. Interventions that attempt to remain impartial, delivering food and shelter to all civilians but not intervening politically to stop the spiraling dynamic, thus are likely to perpetuate these perceptions and the stalemate; those that do intervene politically, taking one side but not going to war in support of that side (and thereby resolving the battlefield situation) also perpetuate the conflict, by demonstrating to the other sides that they are indeed endangered and that they cannot safely disarm, psychologically or physically.

# 1NC Army BS

### T

#### T – not in the US

#### Plan action has to be in the US

#### The US geographically is only the 50 states and DC

Legal Information Institute 12 <http://www.law.cornell.edu/uscode/text/26/7701>

[USC](http://www.law.cornell.edu/uscode/text) › [Title 26](http://www.law.cornell.edu/uscode/text/26/usc_sup_01_26) › [Subtitle F](http://www.law.cornell.edu/uscode/text/26/usc_sup_01_26_10_F) › [Chapter 79](http://www.law.cornell.edu/uscode/text/26/usc_sup_01_26_10_F_20_79) › § 7701

26 USC § 7701 – Definitions

(9) United States

The term “United States” when used in a geographical sense includes only the States and the District of Columbia.

#### Violation -Electricity produced in space, not in the US

Prasad 12 Modupalli Venkata Prasad "Space-based solar power" MODUPALLI "A RENEWABLE ENERGY AND ELECTRICAL BLOG" [modupalli](http://modupalli.wordpress.com/author/modupalli/) on March 17, 2012 in [RENEWABLE ENERGY](http://modupalli.wordpress.com/category/renewable-energy/) http://modupalli.wordpress.com/2012/03/17/space-based-solar-power/

SBSP also introduces several new hurdles, primarily the problem of transmitting energy from orbit to Earth’s surface for use. Since wires extending from Earth`s surface to an orbiting Satellite are neither practical nor feasible with current technology, SBSP designs generally include the use of some manner of wireless power transmission. The collecting satellite would convert solar energy into electrical energy on-board, powering a microwave transmitter or laser emitter, and focus its beam toward a collector (rectenna) on the Earth’s surface. Radiation and micro meteoroid damage could also become concerns for SBSP.

#### This is a voter because it limits are necessary for negative preparation and clash. Production outside the US explodes limits by increasing energy in any country in the world.

### Politics

#### Immigration reform will pass – Obamas pushing and theres bipartisan momentum

Schulzke 2-12

Eric Schulzke, Deseret News, Feb. 12 2013, “Immigration reform a quiet but powerful force in the room during President Obama's State of the Union” http://www.deseretnews.com/article/865573020/Immigration-reform-a-quiet-but-powerful-force-in-the-room-during-President-Obamas-State-of-the.html

Although immigration reform only garnered five paragraphs in Obama’s speech, it represents one of the few places where bipartisan agreement seems likely. And, not coincidentally, immigration reform is also the one place where the Democrats hold a decisive chokehold on Republican electoral hopes, as the GOP continues to struggle to make inroads into a hostile but rapidly growing Hispanic voter base. Obama’s agenda Even before Tuesday's address, the Las Vegas Sun had begun referring to the main event as "State of the Union II." Part 1 occurred three weeks ago in Las Vegas, where the president laid down the gauntlet on immigration reform. The overview he offered Tuesday night was a compressed summary of that speech. Tuesday night, Obama lauded the contributions of immigrants to the economy and American society, and then made an obligatory nod to better enforcement at the border. He then opened the real agenda, which centers on a pathway to “earned citizenship” for illegal immigrants, so long as they pay a penalty, learn English and go to “the back of the line behind folks trying to come here legally. “And real reform,” Obama said, “means fixing the legal immigration system to cut waiting periods, reduce bureaucracy, and attract the highly skilled entrepreneurs and engineers that will help create jobs and grow our economy.” Obama also noted that a bipartisan group is already moving the issue forward and he expects to see a comprehensive reform bill emerge.

#### Sps is a major political battle – lobbies and cost

Preble 6

Darel Preble 12/15/2006 "Introduction to the motion to the National Space Society Board of Directors," Space Solar Power Institute, www.sspi.gatech.edu/sunsatcorpfaq.pdf

Changing our nation and our world’s baseload energy generation sources to introduce SSP is a massive battle. The current oil, coal, and gas energy providers, nuclear as well, are not eager to see their baseload investments face competition from SSP, which has zero fuel costs and zero emissions and a billion years of steady supply projected. This is why SSP has been unfunded since it was invented in 1968. Carter pushed through the SSP reference study in 1979-1980, but space transportation costs were far too high, and they were forced to plan to use astronauts to bolt it together. This is too dangerous for astronauts outside the protection of the Van Allen Radiation Belts. (The Space Station is inside the Van Allen Belts) People are also too expensive to use for SSP construction. Telerobotics, the real way to assemble SSP, did not exist in 1979. Now it is used in heart surgery every day worldwide and for a thousand other uses. (The fossil fuel industry has battled environmentalists every inch during our struggle to understand climate change effects. That is their right. Perhaps half the studies are wrong. But half are right.) Most crucially, space transportation costs have stayed too high because there is no market large enough to support a Reusable Launch Vehicle fleet. SSP IS just such a massive market. Robert Zubrin mentions this battle and perspective in “Entering Space”, page 51. He quit space transportation and decided to work on Mars, which has no possibility of commercialization this century. This is detailed in the Space Transportation chapter on the SSPW website also. You can’t make an omelet without breaking a few eggs.

#### Immigrations key to the economy – failure to reform crushes growth

Mead 2-13

Walter Russell Mead, The American Interest, Feb. 13, 2013, “We Need To Make It Easier For Skilled Immigrants To Work In America” http://blogs.the-american-interest.com/wrm/2013/02/13/the-immigration-reform-america-needs/#ixzz2Koq5WoBQ

You’d be forgiven for missing the key sentence on immigration reform in President Obama’s State of the Union speech last night. After addressing border security and the pathway to citizenship that undocumented aliens might look forward to, Obama went on to say, “real reform means fixing the legal immigration system to cut waiting periods and attract the highly skilled entrepreneurs and engineers that will help create jobs and grow our economy.” It was a good applause line. And we at VM applaud as well. A number of reports have shown that despite their considerable contributions to the American economy, highly-trained immigrants holding valuable STEM degrees are finding it extremely difficult to work in America due to country-based immigration quotas. According to the FT, workers have reported waiting as long as eight years to receive permanent residency, and that annual caps on skilled immigrants are often hit only ten weeks into the year, making it nearly impossible for others to enter. This is a serious problem as skilled immigrants contribute greatly to the economy. One study found that immigrants are responsible for three-quarters of patents from top universities, while the above FT article cites a study claiming that STEM immigrants each create 2.62 American jobs. And unlike their low-skilled counterparts, these immigrants are entering fields where demand for workers is high and so they don’t have the same negative effect on wages.

#### Extinction

Merlini, Senior Fellow – Brookings, 11

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Two neatly opposed scenarios for the future of the world order illustrate the range of possibilities, albeit at the risk of oversimplification. The first scenario entails the premature crumbling of the post-Westphalian system. One or more of the acute tensions apparent today evolves into an open and traditional conflict between states, perhaps even involving the use of nuclear weapons. The crisis might be triggered by a collapse of the global economic and financial system, the vulnerability of which we have just experienced, and the prospect of a second Great Depression, with consequences for peace and democracy similar to those of the first. Whatever the trigger, the unlimited exercise of national sovereignty, exclusive self-interest and rejection of outside interference would likely be amplified, emptying, perhaps entirely, the half-full glass of multilateralism, including the UN and the European Union. Many of the more likely conflicts, such as between Israel and Iran or India and Pakistan, have potential religious dimensions. Short of war, tensions such as those related to immigration might become unbearable. Familiar issues of creed and identity could be exacerbated. One way or another, the secular rational approach would be sidestepped by a return to theocratic absolutes, competing or converging with secular absolutes such as unbridled nationalism

### CP

#### The Republic of Japan, as an anchor tenant, should adopt a domestic advance purchase agreement for space-based solar power. The Republic of Japan should establish a scientific exchange to share all nanotechnology research findings with the United States. The Republic of Japan should require that all space-based solar power built with advanced purchase agreements be accessible to United States drones.

#### Japan has the tech and infrastructure

McCue 11

(Dan McCue is a staff writer for the Business Journal.12 July 2011 “Japan continues to pursue dream of solar power harvested from space” <http://www.renewableenergymagazine.com/energias/renovables/index/pag/pv_solar/colleft/colright/pv_solar/tip/articulo/pagid/16323/botid/71/> JF)

In the wake of the Fukushima Daiichi nuclear disaster in Japan, many have speculated about how the densely populated and resource poor country will meet its future energy needs. Japan continues to pursue dream of solar power harvested from space Today, five months and a day after the cataclysmic earthquake and tsunami the brought chaos and destruction to Japan’s northern prefectures, Japanese officials have yet to send a clear signal about whether they’ll continue what had been a robust nuclear power program, or whether they’ll instead seek to put their nation on a steady diet of renewables. Against this backdrop, a dedicated band of engineers at the Japan Aerospace Exploration Agency (JAXA), along with corporate, agency and university partners, quietly continue to work on a project that if successful would not only solve Japan’s energy quandary by mid-century, but would undoubtedly revolutionize the entire solar energy sector in the process. The project is a space solar array that the engineers envision someday orbiting the Earth – staying in perpetual sunshine – and beaming electricity from space in the form of either microwaves or lasers. The space agency’s best current estimates are that the effort will take nearly 30 years to come to fruition. But when it does, the agency says, the solar array in space will send 1 GW of power back to the Earth. Based on the assumption that the power demand of a single home is 3 KW, the system – known by the acronym SSPS (for satellite solar power system), will supply power for about 300,000 homes. Hoping to learn more about the project, Renewable Energy Magazine reached out to Tatsuhito Fujita, Associate Senior Engineer with the Advanced Mission Research Group at the Japanese space agency’s Innovative Technology Research Centre, with whom we exchanged questions and answers via email. “After the accident of the nuclear power plant, interview requests from TV, newspaper and publishing companies have increased remarkably,” Fujita said from his office, which is part of Japan’s Aerospace Research and Development Directorate. Early published reports about SSPS put its price tag at about two trillion yen (roughly $21 billion) and said a total of 16 Japanese firms, including Mitsubishi Heavy Industries Ltd, were participating in the project’s development. Fujita, however, indicated that the “clear cost” of the SSPS project is not yet known. “It’s something that we continue to study,” he explained. “Two trillion yen is the target for the total cost of developing SSPS, but it must be studied to determine whether this cost is feasible or not.” Fujita went on to say that some of the original 16 companies involved in the effort are no longer participating, but also said JAXA has firm contracts with the others. Right now, engineers in Tsukuba and at the Institute for Unmanned Space Experiment Free Flyer (USEF) in Tokyo are deep into the developing the technology needed to beam the electricity produced back to Earth. Fujita said experiments of transmitting energy by microwave and laser are now the primary studies conducted in relation to the SSPS. “Eventually, a determination will be made as to which will be most effective for our purposes,” Fujita said. “However, the selection of which to use is something that must be done in the future.” To produce 1 GW of power, the solar power station will rely on a four km2 (approximately 2.5 square miles) array of photovoltaic panels to collect solar rays while orbiting some 36,000 km (22,500 miles) above the earth's surface. Power will then be beamed to a receiving site that will be constructed at an as yet undetermined site off the Japanese coast.

### Case – BMD

#### Nuclear war not inevitable—empirically disproven

#### Obama is pursuing space cooperation – US multilateral leadership is creating a framework against weaponization

Huntley, 11 - senior lecturer in the National Security Affairs department at the Naval Postgraduate School in Monterey, California (Wade, “The 2011 U.S. National Space Security Policy: Engagement as a Work in Progress”, Disarmament Times, Spring, <http://disarm.igc.org/index.php?option=com_content&view=article&id=429:the-2011-us-national-space-security-policy-engagement-as-a-work-in-progress&catid=154:disarmament-times-spring-2011&Itemid=2>)

As is well understood, the space policies of the Bush administration were decidedly oriented toward military security concerns and independent action. The 2006 National Space Policy unabashedly proclaimed the U.S. intention to maintain a dominant position in space indefinitely. This policy orientation dismissed multilateral cooperation as impinging on U.S. “freedom of action,” throwing weight instead behind a wide range of technology development initiatives founded on the assumption that deployment of weapons in space was, if not already factual, certainly inevitable.2 U.S. commercial and civil engagement was overshadowed by these security concerns, expressed through the tightening of export control restrictions inhibiting a broad range of technology sharing. Once again, U.S. space policy was subsumed by other national priorities, in this case dominated by military security concerns. This background is essential for appreciating how the space policies of the Obama administration are beginning **to genuinely break new trails**. The U.S. National Space Policy issued in June 2010 has been widely recognized for its cooperative and multilateral tone, including as explicit near-term goals the expansion of international cooperation on all activities and pursuing international as well as national measures to enhance space stability. Particularly notable are the document’s emphasis on orienting U.S. “leadership” toward fostering international cooperation, and its references, in its concluding section, to cooperation with other states and non-state actors in the pursuit of national security space objectives.3 Less broadly noticed was this policy’s clarity and coherence in articulating a vision for U.S. space activities on its own terms. The document is organized around core principles, subsidiary goals and implementing guidelines that exceed its predecessors in delineating a longer-term direction for U.S. space policy that is integrated with, rather than derivative of, broader U.S. global aims.4 The policy also was generated and issued far earlier in the tenure of the administration than either of its predecessors, indicating an increased prioritization of attention to space policy at higher levels of policy-making. To some degree, a turn toward multilateral cooperation in U.S. space policy was to be expected. China’s 2007 anti-satellite weapon (ASAT) test and the 2009 Iridium-Cosmos collision increased awareness of the challenge of space debris and the need for better global information sharing on space situational awareness (SSA).5 Also, **new budget realities** and unpromising technological developments have scaled back ambitions in some quarters for solving U.S. space security concerns with new independent capabilities. Finally, the Obama administration has pursued a more cooperative disposition across a wide range of global policy challenges, from Iranian nuclear ambitions to global climate change. But the improved clarity of vision in the 2010 Space Policy suggests that the emphasis on fostering global cooperation on space-related activities is more grounded in deliberate foresight than sailing the prevailing political winds. The 2011 National Security Space Strategy, released February 4, is best interpreted against this background of the Obama administration’s turn toward both greater international space cooperation and greater attention to space policy in general. This first-of-its-kind strategic statement culminates a congressionally mandated space posture review.6 The initial section portraying the strategic environment to which U.S. security policy must be responsive highlights the growing problems of space debris, orbital congestion and coordination among a growing number of space actors — not state-based security threats per se. The Security Space Strategy features the objective of a “stable space environment in which nations exercise shared responsibility.”7 Specific provisions intended to implement this strategy, relevant to the preceding observations, include:8 • The strategy presents a full section on “Partnering with Responsible Nations, International Organizations, and Commercial Firms.” This category is not wholly multilateral in the traditional sense, displaying a symbiosis of alliance-building and collective cooperation not always carefully distinguished; i.e., “The United States will lead in building coalitions of like-minded space-faring nations and, where appropriate, work with international institutions to do so.” • The strategy intends to “encourage responsible behavior in space and lead by the power of example,” a significant observation given the tendency of U.S. policy-makers (as noted above) not to expect quid pro quo responses to cooperative gestures. Also, the strategy states the U.S. “will support development of data standards, best practices, transparency and confidence-building measures, and norms of behavior for responsible space operations.” [italics added] In the context of the section on “Preventing and Deterring Aggression,” the strategy similarly intends to “support diplomatic efforts to promote norms of responsible behavior in space” as well as “pursue international partnerships that encourage potential adversary restraint,” along with other measures. This emphasis on norm-building and the role of example suggests a near-term endorsement of the development of “codes of conduct” for space activities (such as the recently revised European Union Code of Conduct, discussed below), whether or not such concord leads to more formal arms control arrangements in the longer-term. • The Department of Defense is directed to “foster cooperative SSA relationships,” and to “expand provision of safety of flight services to U.S. Government agencies, other nations, and commercial firms.” Greater SSA information sharing has been a key suggestion for fostering international cooperation; the U.S. possesses globally superior SSA capabilities, but restricts the sharing of this information on the basis of national security concerns.9 Hence, this nominal commitment is significant in its own right. • The strategy commits to reforming export controls. “In particular, as new opportunities arise for international collaboration, a revised export control system will better enable the domestic firms competing for these contracts.” As noted above, the oppressive impact of current U.S. export controls not only impinges on U.S. commercial space actors but also epitomizes the high degree to which U.S. policy has subsumed commercial and civil interests to national security concerns. The strategy appears to acknowledge this connection and commit to remedy it. • The most assertive passages of the statement are moderated with community-building intent. For example, the strategy’s section on “Preventing and Deterring Aggression” concludes that the U.S. “will retain the right and capabilities to respond in self-defense, should deterrence fail,” but immediately adds that the U.S. “will use force in a manner that is consistent with longstanding principles of international law, treaties to which the United States is a party, and the inherent right of self defense.” • The concluding and most conflict-oriented section of the strategy opens by noting that “some actors may still believe counterspace actions could provide military advantage.” Counterspace capabilities, unarticulated in the document, include ASATs, ground-based directed energy weapons and satellite transmission jamming. Deputy Assistant Secretary of Defense for Space Policy Gregory Schulte explained at the strategy’s rollout that China is a principal concern in this regard, but so is the proliferation of these technologies: “If Ethiopia can jam a commercial satellite, you have to worry what others can do.”10 This section of the strategy does not, however, call for maintaining options to develop complementary space conflict capabilities. Rather, the strategy asserts that the U.S. “must be prepared to ‘fight through’ a degraded environment,” and identifies “resilience” and “space protection” as the key criteria. The preceding survey of elements of the 2011 National Security Space Strategy is deliberately selective, highlighting those elements expressing consistency with the 2010 National Space Policy’s bend toward fostering greater international collaboration. Perhaps as striking as the prevalence of such passages, however, is the absence of expressed intention — even couched in hedging language — to sustain or expand the kind of independent space-based military capabilities that were the centerpiece of the prior administration’s aims (if not its accomplishments). Again, to some extent this turn in tone is overdetermined by extenuating global circumstances. But one must still be struck by the degree to which developments such as the Chinese ASAT test have not ignited the kind of response one might have anticipated only a few short years after Donald Rumsfeld’s notorious warning of a “space Pearl Harbor.”11 The most immediate significance of the National Security Space Strategy is likely the signals its sends concerning U.S. policy toward the recently revised European Union Code of Conduct.12 The strategy did not explicitly endorse this EU initiative, but Mr. Schulte, at the February 4 presentation of the strategy, highlighted the initiative “as a potential way” to promote “transparency and confidence-building measures, which tend to be voluntary as opposed to legally binding.” A week earlier, Rose Gottemoeller, Assistant Secretary of State for Arms Control, Verification and Compliance, stated at the Conference on Disarmament that the administration was nearing a decision on whether the U.S. would sign on to the code, and what modifications might be required in order to do so.13 As U.S. interest in the Code of Conduct has increased, debates over its provisions and its relationship to the Outer Space Treaty have intensified. These policy movements toward multilateral engagement and commitment to behavioral standards (even if non-binding) mark a sharp departure from the stiff resistance to curtailing U.S. “freedom of action” in the previous administration, and have accordingly generated resistance from congressional opponents on just those terms. Prior to the release of the National Security Space Strategy, a group of 37 Republican senators led by Arizona Senator Jon Kyl issued a letter to Secretary of State Hillary Rodham Clinton expressing concern over a potential multilateral commitment that might limit development and/or deployment of space-based missile defense interceptors and ASAT-defeating systems.14 Critics also decried the strategy’s emphasis on “the old fallacious assumption that the power of example will prevent adversaries from doing the United States harm,” and endorsed maintaining the goal of U.S. retention of a “dominant position in military and intelligence space capabilities.”15 In fact, the administration’s warming toward normative commitments in general — and the EU Code of Conduct in particular — are in part intended to forestall pressure for more formal and binding measures that would definitively cut off the “hedge” of unilateral U.S. weapons development options.16 The balance of U.S. debate may have shifted toward greater international cooperation, but the terms of the debate remain the same. In sum, the National Security Space Strategy appears to mark not only a swing in U.S. policy toward greater global engagement but also, and more importantly, a step toward greater long-term coherence in thinking concerning the core goals of U.S. space activities. Even supporters of the general directions of the strategy noted its more-than-expected breadth of thought.17 But if this reading is sound, the strategy is still but one step on a long road, and ongoing debates over the role of U.S. space policy vis-à-vis broader national security interests will insure that road is bumpy. Suggesting such limitations, Mr. Schulte acknowledged that the classified version of the strategy is only four pages longer than the released version, indicating that more specific guidelines for military implementation of the strategy remain to be developed.18 Many devils may lurk in these details.

#### SPS is dual use – it would be perceived as a weapon

Fan et al 6/2 (William, Senior Planning Manager at PCCW, Harold Martin, James Wu, Brian Mok, Space Based Solar Power

Industry and Technology Assessment, <http://www.pickar.caltech.edu/e103/Final%20Exams/Space%20Based%20Solar%20Power.pdf>)

Due to the high energy transmitter that it will utilize, space based solar power could potentially be in violation of international space treaties. In 1967, the Outer Space Treaty was signed by the United States and other world powers. One of the key issues addressed by this treaty is space based weapons. The Outer Space Treaty bans the placement of nuclear weapons and other weapons of mass destruction in space or on any celestial body. This could become a serious issue for space based solar power because of the potential for the transmitter to become a dual use weapon. Additionally, the newly proposed Space Preservation Treaty could severely hinder the implementation of space based solar power, as it would ban the any kind of weapon from being placed in space. In addition to political issues, there may be social disapproval of having a potential weapons system in space.

#### Specifically, unilateral DoD development ensures backlash

Glaser, 8 - aerospace engineer, vice president at Arthur D. Little, consulting on consulting projects in aerospace, solar energy, and materials science (Peter, Ad Astra, Interview, “An energy pioneer looks back”, Spring, <http://www.nss.org/adastra/AdAstra-SBSP-2008.pdf>) //DH

Glaser: Since it would be such a huge undertaking, I think it would be best accomplished at an international level, perhaps even managed by the United Nations. Each country could contribute their best effort, and then each country would reap the benefit of cheap and plentiful power from the sun. We could utilize the knowledge of all the nations that have been researching space- based solar power. If only one country has the satellites, the international community will worry that the technology will be misused. With every nation taking part in the planning, building, and operation of the system, there would be inherent transparency, oversight, and equality. There would be no secrets, and no country would be left in the dark. ¶ On the other hand, if one nation decides to build the system, all hell may break loose. There would be distrust and a huge shift in the balance of power. Any nation with such a system would not only have an advantage in space, but they would have economic and military advantages on the ground as well. And there are many countries taking the idea of solar power from space much more seriously that we are in the United States. I would prefer to see a network of power satellites built by an international effort.

#### Causes space war—results in extinction

Mitchell, et al ’01, Dr. Gordon Mitchell, Associate Professor of Communication and Director of Debate at the University of Pittsburgh, ISIS Briefing on Ballistic Missile Defence, “Missile Defence: Trans-Atlantic Diplomacy at a Crossroads”, No. 6 July, <http://www.isisuk.demon.co.uk/0811/isis/uk/bmd/no6.html>

A buildup of space weapons might begin with noble intentions of 'peace through strength' deterrence, but this rationale glosses over the tendency that '… the presence of space weapons…will result in the increased likelihood of their use'.33 This drift toward usage is strengthened by a strategic fact elucidated by Frank Barnaby: when it comes to arming the heavens, 'anti-ballistic missiles and anti-satellite warfare technologies go hand-in-hand'.34 The interlocking nature of offense and defense in military space technology stems from the inherent 'dual capability' of spaceborne weapon components. As Marc Vidricaire, Delegation of Canada to the UN Conference on Disarmament, explains: 'If you want to intercept something in space, you could use the same capability to target something on land'. 35 To the extent that ballistic missile interceptors based in space can knock out enemy missiles in mid-flight, such interceptors can also be used as orbiting 'Death Stars', capable of sending munitions hurtling through the Earth's atmosphere. The dizzying speed of space warfare would introduce intense 'use or lose' pressure into strategic calculations, with the spectre of split-second attacks creating incentives to rig orbiting Death Stars with automated 'hair trigger' devices. In theory, this automation would enhance survivability of vulnerable space weapon platforms. However, by taking the decision to commit violence out of human hands and endowing computers with authority to make war, military planners could sow insidious seeds of accidental conflict. Yale sociologist Charles Perrow has analyzed 'complexly interactive, tightly coupled' industrial systems such as space weapons, which have many sophisticated components that all depend on each other's flawless performance. According to Perrow, this interlocking complexity makes it impossible to foresee all the different ways such systems could fail. As Perrow explains, '[t]he odd term "normal accident" is meant to signal that, given the system characteristics, multiple and unexpected interactions of failures are inevitable'.36 Deployment of space weapons with pre-delegated authority to fire death rays or unleash killer projectiles would likely make war itself inevitable, given the susceptibility of such systems to 'normal accidents'. It is chilling to contemplate the possible effects of a space war. According to retired Lt. Col. Robert M. Bowman, 'even a tiny projectile reentering from space strikes the earth with such high velocity that it can do enormous damage — even more than would be done by a nuclear weapon of the same size!'. 37 In the same Star Wars technology touted as a quintessential tool of peace, defence analyst David Langford sees one of the most destabilizing offensive weapons ever conceived: 'One imagines dead cities of microwave-grilled people'.38 Given this unique potential for destruction, it is not hard to imagine that any nation subjected to space weapon attack would retaliate with maximum force, including use of nuclear, biological, and/or chemical weapons. An accidental war sparked by a computer glitch in space could plunge the world into the most destructive military conflict ever seen.

#### Perception of weaponization causes China to destroy the SPS satellites

Van Ness ’10,Peter, PhD (Berkley), lectures on security and peace building in the Department of International Relations in the College of Asia and the Pacific at the ANU. Previously faculty at the Graduate School of International Studies, University of Denver **’10** (ASIAN PERSPECTIVE, “ THE TIME HAS COME FOR A TREATY TO BAN WEAPONS IN SPACE” Vol. 34, No. 3, 2010, pp. 215-225)

First and foremost in designing an agreement is the need to ban space-based weapons before any are deployed. Both China and R ussia are adamantly opposed to these weapons, and Chinese analysts make a strong case that a U.S. space-based, boost-phase missile defense system would indeed threaten the PRC’s basic nuclear deterrent.12 Space-based weapons, if they are ever devel-oped, would be hugely expensive, difficult to deploy, and vulnera-ble to attack by China’s and Russia’s existing ASAT capabilities. What China seems to be saying to the United States, by its actions more than its words, is: If you go to the expense of devel-oping and deploying space-based weapons, we will be able to defend against them with our current ASAT, missile defense, and cyber war capabilities. If it should come to a military conflict between us, we could destroy those weapons in space or con-found their command and control by means of cyber attacks. As a result, the United States would be engaged in a one-sided arms race in space, trying to gain dominance by means of space-based weapons, while ignoring the fact that the weapons are vulnerable to asymmetrical attack. Protection of satellites is a more difficult problem. One fact that should help in their defense is that all countries are increas-ingly dependent upon the communication, surveillance, and geo-positioning functions of earth satellites, so they all have a huge stake in their defense. Secondly, attacks on satellites are likely to produce debris (as the Chinese ASAT test of January2007 did), which endangers the proper operation of everyone’s satellites. A major attack on several satellites could have a disas-trous impact on global military and commercial communica-tions. So there exists a contradictory situation in which the Unit-ed States, China, and Russia all have the capability to attack and destroy each other’s satellites, but if they did attack, they would very likely destroy as well their own use of satellites in space. In that sense, an attack would be suicidal. One answer with regard to the protection of satellites might be to use the lesson of the Limited Nuclear Test Ban Treaty of1963. After the Cuban missile crisis of 1962, both the United States and the USSR realized that they had weapons that could not be used, and they agreed with each other to begin to limit their use. They maintained the capacity to use them, but realized that any use would be counterproductive. If the United States and China began to think about their ASAT capabilities in these terms, it seems to me that agreement could be reached to limit the testing, deployment, and use of ASAT weapons.

#### Space BMD would require nearly 6,000 interceptors, cost hundreds of billions of dollars, and numerous tech problems make successful interception extremely unlikely

Theresa Hitchens 7/21/03 (Vice President and director of the Space Security Project at the Center for Defense Information, PROLIFERATION BRIEF, VOLUME 6, NUMBER 13, Carnegie Endowment for National Peace, Global Think Tank)

But here's the rub: The physicists themselves admit that the system described above is based on assumptions that are optimistic enough to border on unrealistic. Under more realistic technical parameters, a system to defend the continental United States against a North Korean launch would involve 3,600 orbiting interceptors, at a cost of either $99 billion, or using the lower launch cost figure, $49.5 billion. However, the study itself notes that even these "more realistic" assumptions are quite optimistic, not only in pushing the edge of what is technically feasible but also in that the space-based system described is one in which every element works perfectly 100 percent of the time --something unheard of in the annuals of U.S. weapons development. There is more bad news. To cover Alaska, more than double the number of interceptors would be required to defend against a North Korean ICBM, thus more than doubling the cost (more than $198 billion or more than $99 billion). To defend against a single shot from Iran (another of the countries labeled by U.S. President George W. Bush as part of the axis of evil, and a country with a ballistic missile program), the study found, is more difficult and would require more interceptors. The study found under its more realistic scenario, that 5,700 interceptors would be required, weighing 7,000 metric tons, equaling a launch cost of $154 billion (or $77 billion). Some might say that such price-tags are not out of line for a future strategic system, given what the United States has spent on its nuclear arsenal. That may be so. But remember, these figures involve only the direct cost of launching the space-based interceptors. Such interceptors, which according to the study must be much faster and much larger than any to date, would have to be developed and built. More cost. In addition, a complex computerized system to control the interceptors would have to be developed. Yet more cost. Finally, a sophisticated new system of detecting, tracking and targeting ICBM launches and nearly instantaneously providing that data to the orbiting interceptors, would be required. Substantially more cost. Even more troubling is the fact that the study's more realistic scenarios include assumptions that are forgiving in the extreme. For example, these scenarios include only 30 seconds of time for a decision to fire - the best-case analysis assumed an automatic shot once a potential target was detected. This is highly problematic, in that it is impossible to tell during the early boost-phase whether what just went up was an ICBM or a space-launch vehicle carrying a satellite (or, in the case of China, possibly astronauts). To put it mildly, it seems unlikely that any U.S. commander in chief would be comfortable with automating such a momentous decision. Furthermore, as noted above, these scenarios all are based on essentially a one-shot (in some cases, two-shots), one-kill architecture. This means there is no margin for error; no redundancy in the system. If North Korea decided to launch two ICBMs (once they get them) at Alaska from nearby launch sites, the U.S. networks postulated by the study would most likely be useless. To be able to target multiple interceptors at each incoming ICBM, however, not only involves even more astronomical costs, but also raises the technical problem of ensuring that the interceptors don't become confused and mistake another of their fellow interceptors for the target. The APS study, in its generosity, called space-based missile defense "impractical." A more realistic look at the data shows that it is wildly so.

#### Plan spurs rogue nations to develop cruise missiles

Dutra 4 (Michael Dutra, Associate, White & Case LLP, 2004, “Strategic Myopia: The United States, Cruise Missiles, and the Missile Technology Control Regime,” Journal of Transnational Law & Policy, Vol. 14, No. 1)

Cruise missiles represent a way for Third World states to offset the technological superiority of the United States and exploit the weaknesses of extant U.S. systems. The U.S. focus on building theater anti-ballistic missile systems such as the Theater High Altitude Area Defense (THAAD) program will only push nations such as North Korea and Iran, which have long sought to acquire long-range means to threaten U.S. interests, to look for an alternative to ballistic missiles. As the effectiveness of U.S. antiballistic missile defenses increases, potential foes are likely to turn to LACMs as an alternative. 54 In the 2003 war in Iraq, the effectiveness of U.S. Patriot SAMs at shooting down approximately fifty percent of Iraqi Scud ballistic missiles launched at U.S. forces should be contrasted with the failure of U.S. missile defenses to intercept any of the antiquated Iraqi Seersucker cruise missiles fired at U.S. forces. 55 David Tanks, an analyst with the Institute for Foreign Policy Analysis, notes that “[i]f we start fielding ballistic missile defense, other countries will start developing more cruise missiles. It is cheap and relatively easy.” 56 The logical choice for such nations is to start a cruise missile program, which is increasingly technologically feasible, or to try to obtain LACMs from another source. As cruise missiles are more accurate than firstgeneration ballistic missiles like the Scud, less technologically complex, and less expensive to develop, they are the most attractive choice for a state seeking long-range strike capability as the technology required for indigenous LACM development becomes easier to obtain. 57

#### b) It’s unique: rogues are focused on ballistic missiles now; switch to cruise missiles causes nuclear war and CBW attacks

Gormley 8 (Dennis M. Gormley, senior fellow in the Washington office of the Monterey Institute of International Studies’ James Martin Center for Nonproliferation Studies, faculty member at the University of Pittsburgh’s Graduate School of Public and International Affairs, September 2008, “The Risks and Challenges of a Cruise Missile Tipping Point,” http://www.nti.org/e\_research/e3\_missile\_tipping\_point.html)

Ballistic missiles have dominated the missile proliferation scene thus far. They emblematized ultimate military power during the Cold War. Iraq's use of modified Scud ballistic missiles during the 1991 Gulf War mesmerized the public with lasting images of duels between Iraqi ballistic Scuds and U.S. Patriot missile defenses. Ballistic missiles based on Scud technology have spread widely to potential American adversaries and, as a potential means of WMD delivery, they represent significant impediments to U.S. force projection and a potent means of future coercive diplomacy. An epidemic of cruise missile proliferation would aggravate matters gravely. If the use of large numbers of LACMs becomes a major feature of military operations in the next decade, a combination of cruise and ballistic missile attacks, even with conventional payloads, could make early entry into regional bases of operation increasingly problematic. Nuclear, and possibly biological, payloads would produce catastrophic consequences.

#### China Turn –

#### A. Perception of missile defense undermines Chinas nuclear deterrent – causing them to expand and use multiple warheads

John **Newhouse** **01** (Senior Fellow at the Center for Defense Information, Foreign Affairs p.97, “The Missile Defense Debate”, August 2001, <http://www.foreignaffairs.com/articles/57057/john-newhouse/the-missile-defense-debate>)

Deeply conscious of its vulnerability, China believes a system such as the one Clinton put forward would wholly neutralize China's small strategic force and could therefore threaten China's survival. And since China undoubtedly thinks of North Korean strategic weapons as nonexistent and conjectural, its leadership assumes that a U.S. missile defense along those lines would actually be directed against Chinese forces. China will almost certainly hedge against the prospect by expanding its strategic forces beyond the modest upgrade now underway. China could equip them with multiple warheads, a step that missile defense makes more attractive.

#### B. That ripples throughout asia causing instability

John **Newhouse** **01** (Senior Fellow at the Center for Defense Information, Foreign Affairs p.97, “The Missile Defense Debate”, August 2001, <http://www.foreignaffairs.com/articles/57057/john-newhouse/the-missile-defense-debate>)

A similar cycle could beget a nuclear arms buildup in South Asia. Washington tends to see Pakistan as India's major concern, even though China, which has been the main supplier of Pakistan's nuclear technology, is the abiding source of Indian insecurity. Indeed, India can deploy a more than ample retaliatory capacity against Pakistan but has almost no such ability to strike the Chinese heartland. And if China's upgrade enlarges its threat to India, as it probably will, India will expand its forces accordingly. Pakistan will follow suit. The world will indeed have become a more dangerous place. Missile defense can produce this scenario.

#### C) Asian instability goes nuclear

Dibb, 2001, (Prof – Australian National University, 2001 Paul, Strategic Trends: Asia at a Crossroads, Naval War College Review, Winter, <http://www.nwc.navy.mil/press/Review/2001/Winter/art2-w01.htm>)

The areas of maximum danger and instability in the world today are in Asia, followed by the Middle East and parts of the former Soviet Union. The strategic situation in Asia is more uncertain and potentially threatening than anywhere in Europe. Unlike in Europe, it is possible to envisage war in Asia involving the major powers: remnants of Cold War ideological confrontation still exist across the Taiwan Straits and on the Korean Peninsula; India and Pakistan have nuclear weapons and ballistic missiles, and these two countries are more confrontational than at any time since the early 1970s; in Southeast Asia, Indonesia—which is the world’s fourth-largest country—faces a highly uncertain future that could lead to its breakup. The Asia-Pacific region spends more on defense (about $150 billion a year) than any other part of the world except the United States and Nato Europe. China and Japan are amongst the top four or five global military spenders. Asia also has more nuclear powers than any other region of the world. Asia’s security is at a crossroads: the region could go in the direction of peace and cooperation, or it could slide into confrontation and military conflict. There are positive tendencies, including the resurgence of economic growth and the spread of democracy, which would encourage an optimistic view. But there are a number of negative tendencies that must be of serious concern. There are deep-seated historical, territorial, ideological, and religious differences in Asia. Also, the region has no history of successful multilateral security cooperation or arms control. Such multilateral institutions as the Association of Southeast Asian Nations and the ASEAN Regional Forum have shown themselves to be ineffective when confronted with major crises.

#### Rationality checks miscalculation- means nuke war not inevitable.

Quinlan 9 [Sir Michael, co-founder and President Emeritus of the International Institute for Strategic Studies, 2009, Thinking About Nuclear Weapons: Principle, Problems, Prospects, p. 68-71]

Similar considerations apply to the hypothesis of nuclear war being mistakenly triggered by false alarm. Critics again point to the fact, as it is understood, of numerous occasions when initial steps in alert sequences for US nuclear forces were embarked upon, or at least called for, by indicators mistaken or misconstrued. In none of these instances, it is accepted, did matters get at all near to nuclear launch-extraordinary good fortune again, critics have suggested. But the rival and more logical inference from hundreds of events stretching over sixty years of experience presents itself once more: that the probability of initial misinterpretation leading far towards mistaken launch is **remote.** Precisely because any nuclear-weapon possessor recognizes the vast gravity of any launch, release sequences have many steps, and human decision is repeatedly interposed as well as capping the sequences. To convey that because a first step was prompted the world somehow came close to accidental nuclear war is wild hyperbole, rather like asserting, when a tennis champion has lost his opening service game, that he was nearly beaten in straight sets. History anyway scarcely offers any ready example of major war started by accident even before the nuclear revolution imposed an order-of-magnitude increase in caution. It was occasionally conjectured that nuclear war might be triggered by the real but accidental or unauthorized launch of a strategic nuclear-weapon delivery system in the direction of a potential adversary. No such launch is known to have occurred in over sixty years. The probability of it is therefore **very low.** But even if it did happen, the further hypothesis of its initiating a general nuclear exchange is **far-fetched.** It fails to consider the real situation of decision-makers, as pages 63-4 have brought out. The notion that cosmic holocaust might be mistakenly precipitated in this way belongs to science fiction. One special form of miscalculation appeared sporadically in the speculations of academic commentators, though it was scarcely ever to be encountered-at least so far as my own observation went-in the utterances of practical planners within government. This is the idea that nuclear war might be erroneously triggered, or erroneously widened, through a state under attack misreading either what sort of attack it was being subjected to, or where the attack came from. The postulated misreading of the nature of the attack referred in particular to the hypothesis that if a delivery system-normally a missile-that was known to be capable of carrying either a nuclear or a conventional warhead was launched in a conventional role, the target country might, on detecting the launch through its earlywarning systems, misconstrue the mission as an imminent nuclear strike and immediately unleash a nuclear counter-strike of its own. This conjecture was voiced, for example, as a criticism of the proposals for giving the US Trident SLBM, long associated with nuclear missions, a capability to deliver conventional warheads. Whatever the merit of those proposals (it is not explored here), it is hard to regard this particular apprehension as having any real-life credibility. The flight time of a ballistic missile would not exceed about thirty minutes, and that of a cruise missile a few hours, before arrival on target made its character-conventional or nuclear-unmistakable. No government will need, and no nonlunatic government could wish, to take within so short a span of time a step as enormous and irrevocable as the execution of a nuclear strike on the basis of early-warning information alone without knowing the true nature of the incoming attack. The speculation tends moreover to be expressed without reference either to any realistic political or conflict-related context thought to render the episode plausible, or to the manifest interest of the launching country, should there be any risk of doubt, in ensuring-by explicit communication if necessary-that there was no misinterpretation of its conventionally armed launch.

#### Deterrence checks EMP attack.

Scott Stewart and Nate Hughes, Stratfor Analysts, 9/9/10, “Gauging the Threat of an Electromagnetic Pulse (EMP) Attack,” http://www.stratfor.com/weekly/20100908\_gauging\_threat\_electromagnetic\_pulse\_emp\_attack

However, there are significant deterrents to the use of nuclear weapons in a HEMP attack against the United States, and nuclear weapons have not been used in an attack anywhere since 1945. Despite some theorizing that a HEMP attack might be somehow less destructive and therefore less likely to provoke a devastating retaliatory response, such an attack against the United States would inherently and necessarily represent a nuclear attack on the U.S. homeland and the idea that the United States would not respond in kind is absurd. The United States continues to maintain the most credible and survivable nuclear deterrent in the world, and any actor contemplating a HEMP attack would have to assume not that they might experience some limited reprisal but that the U.S. reprisal would be full, swift and devastating.

### Solvency

#### 1. SPS fails – not cost competitive, can’t be launched, and won’t spur investment – their authors are fatally optimistic

Donald Rapp, B.S. Chemical Engineering, Cooper Union, 1955, M.S. Chemical Engineering, Princeton, 1956, Graduate study, California Institute of Technology, 1957, Ph.D. Chemical Physics, University of California, “Solar Power Beamed from Space”, January 1 2007, Astropolitics, The International Journal of Space Politics & Policy, 5:1, 63-86, Taylor and Francis, http://www.spaceclimate.net/Astropolitics.final.pdf//jchen

A multitude of issues hang over the SPS concept. These are summarized briefly below. . It is not clear how many SPS can be safely placed into GEO. . The greatest technical and economic challenge of the SPS concept is the problem of transporting huge amounts of mass to GEO. Two problems stand out in regard to launching the materiel for SPS. One is the cost and the other is scheduling the large number of launches that would be required. . Orbit-raising from LEO to GEO is another major challenge for SPS. Use of reusable SEP vehicles has been proposed for this purpose, but this approach has significant problems. The viability of the SEP tug concept depends critically on use of hypothetical high-efficiency lightweight solar arrays that are likely to be difficult to develop, and lightweight propulsion components. Radiation would gradually diminish the efficiency of the solar arrays with each passage through the radiation belts. . The size and scope of the solar arrays needed by SPS are orders of magnitude beyond the scope of any solar arrays ever used in space missions. . Assembly on-orbit is another major challenge. On-orbit construction requires a massive construction facility in involving hundreds of astronauts working continuously over several decades. While most concept papers assume assembly in LEO and transport of the assembled SPS to GEO via SEP, Reference [4] claims that assembly in lower orbits is not viable due to space debris and radiation. . Degradation of the solar cells and their optical coverings due to the space environment. . Research planned by the U.S. Department of Energy (DOE) in 1979 on environmental effects does not seem to have been carried out to completion, leaving many uncertainties. . In order for SPS to have any hope of becoming economically competitive, large reductions must be made in current launch and orbit-raising costs and the mass of solar arrays per kW generated must also be reduced significantly. It is not clear how feasible this will be. . Of equal importance is the fact that no revenues are generated until the entire system is complete and operational. The very large cost-to-first power characteristic will be unattractive to investors. . The outstanding international legal issues that might affect SPS development include: (1) jurisdiction over the placement of satellites in GEO; (2) provisions against environmental disturbances; and (3) military uses of space. The problem with evaluating the prospects for SPS is that the benefit=cost ratio cannot be determined. While a number of authors have made specific cost estimates for SPS, these estimates require great future transportation cost reductions, and lack depth and detail. While some analysts have warned us against being overly conservative in predicting future cost reductions, and indeed that is a danger, the tendency seems to be greater in the opposite direction. **A system that could potentially provide the world with almost unlimited power is too important to be treated with brief, simplistic evaluations that lack depth and substance.** On the other hand, the problems associated with the SPS concept for deployment in GEO appear to be so great as to cast great doubt on the whole enterprise. Chief among these are the requirements to lift huge masses to GEO, as well as the problems in scheduling heavy-lift launches. There are other problems as well across environmental, political, technical and economic factors. The need for making unprecedented large investments for many years with no return on investment looms as a potential show-stopper. Based on what is known at this point, the SPS in GEO concept does not appear to be affordable or practical. That does not necessarily mean that further study is not useful, but it does cast a shadow of doubt on the concept.

#### 2. Takes 32000 years to set up – this assumes future tech advances

Donald Rapp, B.S. Chemical Engineering, Cooper Union, 1955, M.S. Chemical Engineering, Princeton, 1956, Graduate study, California Institute of Technology, 1957, Ph.D. Chemical Physics, University of California, “Solar Power Beamed from Space”, January 1 2007, Astropolitics, The International Journal of Space Politics & Policy, 5:1, 63-86, Taylor and Francis, http://www.spaceclimate.net/Astropolitics.final.pdf//jchen

A number of alternate SPS designs have evolved since the late 1970s. Regardless of the specific design details, the technical and economic challenges in developing a SPS are launch, assembly, and orbit-raising. It is generally conjectured that the modular elements of SPS would be brought up to low Earth orbit (LEO) via multiple launches with a heavy lift launch vehicle (HLV) and assembled into a working unit in LEO. Subsequently, either the entire assembled SPS, or a major module of the SPS, would be carried up to GEO by a reusable launch vehicle (RLV), possibly using some form of solar electric propulsion. However, one study concluded that assembly in LEO is not feasible due to problems caused by radiation exposure and space debris. 5 Two problems stand out in regard to launching the material required for SPS. One is the cost and the other is scheduling the large number of launches that would be required. The number of launches required per SPS depends on the mass of one SPS and the assumed lift capability of the launch vehicle. The number of launches per year depends on the previous two quantities plus the assumed rate at which SPS systems are deployed. It has already been noted that an estimate for the mass of a 5 GW SPS is about 35,500 MT based on significant advances in solar cell technology. While some studies have assumed that a HLV capable of lifting 400 to 500 MT to LEO will be developed, the 125 MT-to-LEO HLV presently being developed by the National Aeronautics and Space Agency (NASA) for human lunar and Mars missions is more realistic. Delivery of one 5 GW SPS would require about 280 launches with this vehicle. It is not clear how frequently such heavy-lift launches can be implemented from ground facilities, but it seems likely that they might be limited to an upper limit of perhaps one launch per month per launch site. If there were say, three heavy-lift launch sites, each capable of sending up HLVs at the rate of one per month, the entire set of 280 launches for one SPS could be carried out in about eight years. To send up an entire family of 4000 such satellites would take 32,000 years at this rate. Even with the assumed super HLV capable of lifting 500 MT to LEO, it would still require 6000 years to establish the entire fleet of SPS, although one could establish the capability for say, sixty GW of power on Earth in one century.

#### 3. Technical barriers of space access make SPS impossible

John Mankins, Ad Astra, president of the Space Power Association, and former Manager, Advanced Concepts Studies, Office of Space Flight at NASA, Spring 2008, “Inexhaustible Energy from Orbit”, pg. 20, http://www.nss.org/adastra/AdAstra-SBSP- 2008.pdf

A major barrier to all space endeavors also applies to space solar power, and that is affordable access to space. This barrier is one of compelling importance. The problem of space access includes both low-cost and highly-reliable Earth-to-orbit transportation, and in-space transportation. (Fortunately, one of the key ingredients in overcoming this barrier is having a market that requires many flights. It’s hard to imagine how air travel between continents would be affordable if the aircraft were used once or twice per year rather than once or twice per day!)Advances that drive down the cost of space operations present significant hurdles, too. These hurdles involve a range ofcapabilities, most of which have never been demonstrated in space—but all of which are entirely taken for granted here on Earth. The kinds of capabilities in question include the highly-autonomous assembly of large structures, the deployment and integration of modular electronic systems, refu-eling, and repair and maintenance. (The key ingredient is to perform such operations without large numbers of operators and sustaining engineers on Earth—which drive the high cost of contemporary space operations.)

#### 4. Can’t establish the required 60 antennas to solve for US alone – unsuitable locations and NIMBY prevent siting

Donald Rapp, B.S. Chemical Engineering, Cooper Union, 1955, M.S. Chemical Engineering, Princeton, 1956, Graduate study, California Institute of Technology, 1957, Ph.D. Chemical Physics, University of California, “Solar Power Beamed from Space”, January 1 2007, Astropolitics, The International Journal of Space Politics & Policy, 5:1, 63-86, Taylor and Francis, http://www.spaceclimate.net/Astropolitics.final.pdf//jchen

Land use is discussed at length by Kotin. 13 As previously discussed, the dimension of a rectenna site is estimated to be seventeen by 13 km for 5 GW of electricity at 34 N latitude. The land area occupied by the entire installation would be about 200 km 2 . Kotin hypothesizes an ensemble of sixty of these installations across the United States (U.S.) providing a total of 300 GW of electric power capability. Such a 300 GW system provides about 25% of future U.S. power needs. Based on 300 GW, the required total area for these sixty sites of five GW installations is roughly 60 1,700 10 5 km 2 or an area 300 km 300 km. References [12] and [13] estimate an area of about 10% of this estimate due to use of smaller buffer zones. Stated in the simplest possible terms, the objective of any land use=siting study is to answer the question, where can we put rectenna sites, and are there sixty sites in the continental U.S. where rectennas can be located? Several studies were carried out in the 1970s regarding these questions. Not all land areas are appropriate for siting rectennas because of topography, terrain, intense weather, drainage, flooding, location relative to population centers, seismic activity, communications interference, airline corridors, recreational needs, national forests, parks, bird flyways, and so on. Kotin discussed offshore rectennas. 14 They will, however, have a very high capital cost and a significant impact on shipping lanes. A Japanese proposal for a planned city under a suspended rectenna may be difficult due to fears of radiation. Thus, the siting of rectennas remains a significant open question.

#### 5. Double bind – either SPS orbits too low and debris takes it out or too high and radiation destroys it

Donald Rapp, B.S. Chemical Engineering, Cooper Union, 1955, M.S. Chemical Engineering, Princeton, 1956, Graduate study, California Institute of Technology, 1957, Ph.D. Chemical Physics, University of California, “Solar Power Beamed from Space”, January 1 2007, Astropolitics, The International Journal of Space Politics & Policy, 5:1, 63-86, Taylor and Francis, http://www.spaceclimate.net/Astropolitics.final.pdf//jchen

Relatively little work has been done on assembly of the SPS in space. An URSI study briefly examined several scenarios in which assembly was carried out in GEO or in a lower orbit. 6 Another scenario involves rapid transport of thin-film cells to GEO to avoid cell degradation by radiation. In these scenarios, assembly at lower altitudes (assembly at 500 km) is undesirable due to debris impacts. The debris problem can be avoided by carrying out assembly at altitudes above 3000 km. However it was concluded that the SPS should not be assembled at any altitude between 3000 km and 11,000 km due to degradation of the cells in the radiation environment. Other papers on the SPS seem to imply assembly in LEO. This remains an issue that requires further study.

#### 6. Their ev is hype – SPS advocates are overly optimistic

Day 09 (Dwayne, senior program officer with the Aeronautics and Space Engineering Board at the National Research Council, Space fetishism: space activism’s obsession with technological and ideological saviors, <http://www.thespacereview.com/article/1534/1>)

Now many of these technologies have some merit, and there is justification for spreading some development money around in order to see which ones can bear fruit. These technologies are not inherently invalid or stupid, but their enthusiastic advocates often dramatically overstate their utility, and ignore political or economic reality. Quite often, they are advocates talking to themselves, and failing to convince anybody outside of space activist circles. Go to a conference on energy development, or read magazines and journals on energy production, and you would be hard-pressed to see any mention of space solar power at all. If the people who are experts in energy development, and who make their living finding ways to improve the field—and make money—do not recognize space solar power as even a niche idea, then that tells you something about the claims made in the space activist community about SSP. Similarly, if you went to a conference on terrorism or third world poverty and proposed space solar power as a solution, the conference attendees would toss you out as a crank. But more to the point, many of these technologies have limited respectability even within the space R&D field, where engineers and managers are focused on near-term problems and technologies that can serve more immediate needs. Several years ago I read a blog commentary where somebody proposed in situ resource utilization (ISRU)—turning atmosphere into fuel—as a “solution” to a Mars sample return mission. But if you talk to the engineers who devote their time to Mars sample return, ISRU is a solution to a problem they don’t have. Their problem is not reducing the amount of propellant that they need to carry to Mars, but finding a way of protecting the propellant that they carry during a long cold soak in the extreme Martian environment. ISRU is unproven and highly challenging. It is not something that they would add to a mission that already has a large number of technology challenges. ISRU is a potentially highly beneficial technology, but not the kind of thing that any sane engineer would insert into an operational mission until it had been developed and tested on its own. To the people who work in the field, it is not a solution, but a diversion. To the activists, ISRU was a magic technological capability that they reflexively applied to a proposed Mars mission. Similarly, many of these technologies will require so much time, effort and money to develop that it is hard to see any connection to near-term needs. Does anybody really think that space elevators can be built in the next half century? Is the VASIMIR rocket really something that could be developed—assuming that it would actually work—without the expenditure of many billions of dollars? The advocates in some ways have to oversell the benefits of such long-term technologies in order to hide the reality that these are remote solutions. Only with hyperbole can they attract attention. Maybe if people think that the payoff is great, they’ll be willing to work on it for decades. The mundane bureaucratic reality is that in the past decade NASA has gutted its technology development budget and now trails industry and other countries in many R&D areas. As an agency with a relatively limited budget and too much to do, NASA has a hard time funding technology development for a number of reasons, including the fact that when space missions run over budget, the leadership goes looking for money in projects that are not tied to immediate needs, and technology programs take a hit. But another recent problem has been that the agency’s technology development program lacked focus—NASA funded too many in-space propulsion programs, for instance, rather than the one or two that it might use in the next decade—and this made the overall development program vulnerable. Anyone familiar with the current state of NASA’s technology development effort will realize that there are far more pressing needs than the technologies that many activists have glommed on to. NASA could make use of better ion engines and aerocapture, as two examples. But both of these are considered mundane by the space activist community, which is obsessed with technologies they consider sexier. The point to remember is that there is a vast gulf between present reality, and what technologies the activists are excited about.

#### It doesn’t matter where innovation happens – the US can absorb it better than anyone else

Beckley, Michael is a research fellow in the International Security Program at Harvard Kennedy School’s Belfer Center for Science and International Affairs and a fellow at the Miller Center at the University of Virginia “China’s Century? Why America’s Edge Will Endure.” *International Security*, Vol. 36, No. 3 (Winter 2011/12), pp: 41-78.

In theory, globalization should help developing countries obtain and absorb advanced technology. In practice, however, this may not occur because some of the knowledge and infrastructure necessary to absorb certain technologies cannot be specified in a blueprint or contained within a machine. Instead they exist in peoples’ minds and can be obtained only through “hands-on” experience. The World Bank recently calculated that 80 percent of the wealth of the United States is made up of intangible assets, most notably, its system of property rights, its efficient judicial system, and the skills, knowledge, and trust embedded within its society. If this is the case, then a huge chunk of what separates the United States from China is not for sale and cannot be copied. Economies and militaries used to consist primarily of physical goods (e.g., conveyor belts and tanks), but today they are composed of systems that link physical goods to networks, research clusters, and command centers. 72 Developing countries may be able to purchase or steal certain aspects of these systems from abroad, but many lack the supporting infrastructure, or “absorptive capacity,” necessary to integrate them into functioning wholes.

73 For example, in the 1960s, Cummins Engine Company, a U.S. technological leader, formed joint ventures with a Japanese company and an Indian company to produce the same truck engine. The Japanese plant quickly reached U.S. quality and cost levels while the Indian plant turned out second-rate engines at three to four times the cost. The reason, according to Jack Baranson, was the “high degree of technical skill . . . required to convert techniques and produce new technical drawings and manufacturing specifications.” 74 This case illustrates how an intangible factor such as skill can lead to significant productivity differences even when two countries have access to identical hardware. Compared to developing countries such as China, the United States is primed for technological absorption. Its property rights, social networks, capital markets, flexible labor laws, and legions of multinational companies not only help it innovate, but also absorb innovations created elsewhere. Declinists liken the U.S. economic system to a leaky bucket oozing innovations out into the international system. But in the alternative perspective, the United States is more like a sponge, steadily increasing its mass by soaking up ideas, technology, and people from the rest of the world. If this is the case, then the spread of technology around the globe may paradoxically favor a concentration of technological and military capabilities in the United States.

### UAV

#### SPS not key—batteries

#### No arctic conflict or escalation.

Axe 11 [David, Wired, How the U.S. Wins the Coming Arctic War \* January 11, 2011 | \* 2:38 pm | \* Categories: Navy http://www.wired.com/dangerroom/2011/01/how-the-u-s-wins-the-coming-arctic-war/?utm\_source=feedburner&utm\_medium=feed&utm\_campaign=Feed%3A+WiredDangerRoom+%28Blog+-+Danger+Room%29&utm\_content=Google+Reader]

The story always starts and ends the same way. Up top, how global climate change will, by 2015 or so, result in ice-free Arctic summers — allowing shipping and oil and natural-gas extraction. At the bottom, how the U.S. isn’t doing enough to secure its slice of the Arctic pie. I should know: in weaker moments, I’ve written this tale, too. But these tales, my versions included, usually omit two vital points: that **Arctic conflict is unlikely to occur** at all; and even if it does, the U.S. will have an **overwhelming advantage** over any rival. The Washington Post was the latest to repeat the Arctic-war theme, in a story published yesterday. “The Arctic is believed to hold nearly a quarter of the world’s untapped natural resources and a new passage could shave as much as 40 percent of the time it takes for commercial shippers to travel from the Atlantic to the Pacific,” Jacquelyn Ryan wrote. But, she added, “government and military officials are concerned the United States is not moving quickly enough to protect American interests in this vulnerable and fast-changing region.” Specifically, the U.S. does not have enough icebreakers or permanent bases on the Alaskan north slope. Canada and Russia, by contrast, are buying ice-hardened Arctic ships and building new facilities to enforce their Arctic claims, Ryan pointed out. The thing is, it’s not icebreakers and patches of wind-blasted tarmac that would really matter in some future North Pole showdown. In the Arctic, as in any sea battle, American nuclear attack submarines — quiet, versatile and lethal — would make all the difference. U.S. subs have been sneaking around under the Arctic ice, and occasionally surfacing, for decades. Today, they even carry geologists and other scientists in order to help map Arctic mineral deposits. “In addition to being more heavily armed than most foreign boats, U.S. submarines generally have superior quieting and combat systems, better-trained crewmen, and much more rigorous maintenance standards,” Bob Work wrote in 2008, before becoming Navy undersecretary. “As a result, the U.S. submarine force has generally been confident that **it could defeat any** potential undersea **opponent, even if** significantly **outnumbered.”** But in the Arctic, facing only the Canadians, Russians, Danes and Norwegians — none of whom have large or healthy sub fleets — the U.S. Navy’s 50 Los Angeles-, Seawolf- and Virginia-class subs would be more numerous as well as more powerful. And besides, an Arctic war is highly unlikely, at best. “Militarized conflict over the Arctic is unlikely, and regional disputes are unlikely to cause an overall deterioration in relations between or among polar nations,” the Carnegie Endowment for International Peace concluded in a 2009 conference. “Security issues should not be sensationalized in order to attract attention towards the Arctic.” But it’s rare anyone writes stories about how we’ve got enough weapons — and don’t really need them, besides. After all, it’s the sensational stories about shortages and looming disaster that sell newspapers.

#### International dispute settlement checks.

Baker 8 [Betsy, prof. International Law @ Vermont Law School Arctic Mapping and the Law of the Sea, 9-14-08” http://arctic-healy-baker-2008.blogspot.com/2008/09/conflict-in-arctic-tenacity-of-media.html]

Just hours after I returned, a week ago, from my trip to the Arctic Ocean, I was dismayed to open the New York Times and find on its editorial page hyperbole verging on that which other media sources use to perpetuate the myth of "fierce disputes over territory and natural resources" in the Arctic. ("Arctic in Retreat", September 8, 2008). As the sea-ice retreats, states are turning **not to arms** but to **existing legal structures** and a **tradition of scientific and and diplomatic cooperation** to address common problems as well as disagreements. Immediately after transporting our mapping crew to shore last week, The Healy turned right around and began breaking ice for a Canadian icebreaker, the Louis Saint Laurent. This month-long joint mission to map parts of the Arctic Ocean floor is scientific and diplomatic cooperation at its international best. Like the Russian mapping the NYT mentions in its editorial, the US and Canada are gathering data in preparation not for conflict but for submission in a staid and stable legal process designed to provide certainty for all states involved. The Law of the Sea Convention establishes this orderly mechanism of rigorous scientific vetting for states seeking to extend their authority over larger portions of the continental shelf. The United States is the only Arctic state not party to the Convention but is nonetheless mapping for its potential shelf extension in keeping with procedures agreed by the international community.

#### Artic bioD not k2 shit

#### No biodiversity collapse.

Doremus, Berkeley Law, 2K [Holly, Law Professor – Cal Berkeley, 57 Wash & Lee L. Rev. 11, L/N]

Reluctant to concede such losses, tellers of the ecological horror story highlight how close a catastrophe might be, and how little we know about what actions might trigger one. But the apocalyptic vision is less credible today than it seemed in the 1970s. **Nor is human extinction probable any time soon.** Homo sapiens is adaptable to nearly any environment. Even if the world of the future includes far fewer species, it likely will hold people. n215 [\*47] One response to this credibility problem tones the story down a bit, arguing not that humans will go extinct but that ecological disruption will bring economies, and consequently civilizations, to their knees. n216 But this too may be overstating the case. Most ecosystem functions are performed by **multiple species.** This **functional redundancy** means that a high proportion of species can be lost without precipitating a collapse. n217

#### Alt cause outweigh.

Pynn 7 [Larry, staff writer at The Vancouver Sun, “Global warming not biggest threat: expert,” The Vancouver Sun, http://www2.canada.com/vancouversun/news/story.html?id=6e2988da-31ab-4697-810d-7a008306d571&p=1]

"We all worry about climate change, as we should, but it doesn't mean we shouldn't worry about protecting habitat," says James Grant, a biology professor at Concordia University in Montreal and co-author of a new report on threats to endangered species in Canada. "The really immediate causes right now for many species are things like farming, urbanization and habitat loss caused by the direct things we do." Research by Grant and his pupils shows the **biggest threat** is habitat loss at 84 per cent, overexploitation 32 per cent, native species interactions 31 per cent, natural causes 27 per cent, pollution 26 per cent, and introduced species 22 per cent. On average, species are threatened by at least two of the six categories. Human activities representing the biggest source of habitat loss and pollution are not industrial resource extraction, but agriculture at 46 per cent and urbanization at 44 per cent. "Farming is huge," Grant said in an interview. "The Prairies are one of the most affected habitats in the world. We've turned them into wheat fields." The southern Okanagan-Similkameen is another example, home to about one-third of species at risk in B.C. as well as a thriving agricultural industry, including vineyards, and increased urban development.

#### No Indo-Pak war.

Loudon 8 [Bruce, The Australian, Doomsday dread, December 04, 2008, http://www.theaustralian.news.com.au/story/0,25197,24746635-25837,00.html]

THE doomsayers' published assessments tell the grim story: upwards of 12 million people killed on the first day of a nuclear exchange, more than 150 million dead in a longer nuclear conflict. Devastation and destruction on a scale that is almost unimaginable. A catastrophe that would vastly transcend that seen at Hiroshima and Nagasaki at the end of World War II. That is why, as India and Pakistan muscle up to each other after the Mumbai massacre and leaders from across the world hurry to counsel cool heads and caution in New Delhi and Islamabad, the unspoken fear everywhere is that the two South Asian neighbours could be pushed into the unthinkable: their fourth war, and one in which they would mobilise their nuclear arsenals. It is, it must be said, **an unlikely prospect.** No one in either capital -- even among the hotheads -- is thinking in those terms. **Experienced strategic analysts rule it out**. "Don't even think about it. It ain't going to happen," one says. But as the crisis over terrorism across South Asia deepens and jihadist groups linked to al-Qa'ida launch devastating attacks such as the one in Mumbai last week -- attacks designed to exacerbate tensions between India and Pakistan -- there is, in the view of most analysts, always the potential for events to tumble out of control and lead to a doomsday nuclear conflagration, with enormous loss of life. "South Asia's a nuclear tinderbox," a leading military analyst in New Delhi tells The Australian. "Yes, of course, I'd just about rule it out in the context of the face-off following the Mumbai attack. "But it's always there, always nagging at the edges of the constant tensions in the subcontinent. And there's no doubt that Osama (bin Laden) is doing his bit to stir the pot and do what he can to increase those tensions, since conflict between India and Pakistan serves the jihadist cause." Yesterday, US military officials in Washington, DC, closely monitoring the situation described the military temperature between the two neighbours as "pretty low right now", adding that although Pakistan has moved some aircraft and air defence units closer to the Indian border since the Mumbai attack, "on the nuclear side there is nothing". Which is hardly surprising, for the political will in both sides, despite the muscle-flexing, is **overwhelmingly against** resort to their nuclear arsenals. India, since it demonstrated its nuclear capability in 1998, has maintained a firm no-first-strike policy and a few days ago Pakistan's President Asif Ali Zardari turned longstanding Pakistani policy on its head (some believe to the annoyance of the country's powerful generals) by articulating a similar stance. On both sides there is a **mood of extreme caution** on the subject of any possible use of nuclear weapons, matched only by the intense secrecy that surrounds their arsenals.

### NANO

#### No cyber war – deterrence.

Lewis 11 [Project Director James A. Lewis January 2011 a report of the csis commission on cybersecurity for the 44th presidency Cybersecurity Two Years Later Commission Cochairs Representative James R. Langevin Representative Michael T. McCaul Scott Charney Lt. General Harry Raduege, USAF (ret.) <http://csis.org/files/publication/110128_Lewis_CybersecurityTwoYearsLater_Web.pdf>]

However, we are not engaged in a cyber war. Short of armed conflict, nation-states are unlikely to launch cyber attacks against the United States. **The political risk is too high.** Just as with missiles and aircraft, countries can strike the United States using cyber attack, but they know this would trigger a violent if not devastating response. The risks are too high for frivolous engagement.

#### Fears of cyberapocalypse are threat inflation of the highest order.

Brito and Watkins 12 [Jerry, Senior Research Fellow, Mercatus Center at George Mason University and Tate, Research Associate, Mercatus Center at George Mason University. Loving the Cyber Bomb? The Dangers of Threat Inflation in Cybersecurity Policy, http://harvardnsj.org/wp-content/uploads/2012/01/Vol.-3\_Brito\_Watkins1.pdf]

Cybersecurity is an important policy issue, but the alarmist rhetoric coming out of Washington that focuses on worst-case scenarios is unhelpful and dangerous. Aspects of current cyber policy discourse parallel the run-up to the Iraq War and pose the same dangers. Pre-war threat inflation and conflation of threats led us into war on shaky evidence. By focusing on doomsday scenarios and conflating cyber threats, government officials threaten to legislate, regulate, or spend in the name of cybersecurity based largely on fear, misplaced rhetoric, conflated threats, and credulous reporting. The public should have access to classified evidence of cyber threats, and further examination of the risks posed by those threats, before sound policies can be proposed, let alone enacted.

#### 1. No extinction – genetics.

Posner 5 [Richard A., Judge U.S. Court of Appeals 7th Circuit, Professor Chicago School of Law, January 1, 2005, Skeptic, Altadena, CA, Catastrophe: Risk and Response, http://goliath.ecnext.com/coms2/gi\_0199-4150331/Catastrophe-the-dozen-most-significant.html#abstract]

Yet the fact that Homo sapiens has managed to survive every disease to assail it in the 200,000 years or so of its existence is a source of genuine comfort, at least if the focus is on extinction events. There have been enormously destructive plagues, such as the Black Death, smallpox, and now AIDS, but none has come close to destroying the entire human race. There is a biological reason. Natural selection favors germs of limited lethality; they are fitter in an evolutionary sense because their genes are more likely to be spread if the germs do not kill their hosts too quickly. The AIDS virus is an example of a lethal virus, wholly natural, that by lying dormant yet infectious in its host for years maximizes its spread. **Yet there is no danger that AIDS will destroy the entire human race**. The likelihood of a natural pandemic that would cause the extinction of the human race is probably even less today than in the past (except in prehistoric times, when people lived in small, scattered bands, which would have limited the spread of disease), despite wider human contacts that make it more difficult to localize an infectious disease. The reason is improvements in medical science. But the comfort is a small one. Pandemics can still impose enormous losses and resist prevention and cure: the lesson of the AIDS pandemic. And there is always a lust time. That the human race has not yet been destroyed by germs created or made more lethal by modern science, as distinct from completely natural disease agents such as the flu and AIDS viruses, is even less reassuring. We haven't had these products long enough to be able to infer survivability from our experience with them. A recent study suggests that as immunity to smallpox declines because people am no longer being vaccinated against it, monkeypox may evolve into "a successful human pathogen," (9) yet one that vaccination against smallpox would provide at least some protection against; and even before the discovery of the smallpox vaccine, smallpox did not wipe out the human race. What is new is the possibility that science, bypassing evolution, will enable monkeypox to be "juiced up" through gene splicing into a far more lethal pathogen than smallpox ever was.

2. Can’t solve – they only affect AIDS in \_\_\_\_ - still exists on every other continent. Population dense areas like Asia provide a greater risk for mutation.

# 1NC Binghamton GR

### Rare Earth 1NC

#### The rare earth market is stable now – future mines will meet growing demand

Kuepper 2/8

Justin Kuepper, financial journalist, chief editor of The OTC Investor, an investment news site that provides market news and stock highlights, 2/8/13, “Understanding China's Rare Earth Metals Market: What Changing Regulations Could Mean”, http://commodityhq.com/2013/inside-chinas-rare-earth-metal-industry/ //jchen

Rare earth metals are a vital component of many critical technologies, ranging from renewable energy to defense applications. While China has been a quintessential provider since the 1990s, REE reserves are starting to pop up in many other major world markets, after the communist country imposed export restrictions that wreaked havoc on the market in 2010.

Moving forward, China appears ready to continue its crackdown on the rare earth metals industry, putting pressure on global supply and helping boost prices. But, the opposing supply coming online from other markets around the world could help offset these trends and ultimately stabilize the market with a more robust supply to meet growing demand.

#### Nuclear plants require rare earth – plan creates a resource crisis.

Zyga 11 [Lisa Zyga, PhysOrg.com, Why nuclear power will never supply the world's energy needs May 11, 2011 http://phys.org/news/2011-05-nuclear-power-world-energy.html]

The 440 commercial nuclear reactors in use worldwide are currently helping to minimize our consumption of fossil fuels, but how much bigger can nuclear power get? In an analysis to be published in a future issue of the Proceedings of the IEEE, Derek Abbott, Professor of Electrical and Electronic Engineering at the University of Adelaide in Australia, has concluded that nuclear power cannot be globally scaled to supply the world’s energy needs for numerous reasons. The results suggest that we’re likely better off investing in other energy solutions that are truly scalable. Ads by Google Short Films on Energy - Watch the Energy Film Series That Will Change the Energy Conversation - RationalMiddle.com As Abbott notes in his study, global power consumption today is about 15 terawatts (TW). Currently, the global nuclear power supply capacity is only 375 gigawatts (GW). In order to examine the large-scale limits of nuclear power, Abbott estimates that to supply 15 TW with nuclear only, we would need about 15,000 nuclear reactors. In his analysis, Abbott explores the consequences of building, operating, and decommissioning 15,000 reactors on the Earth, looking at factors such as the amount of land required, radioactive waste, accident rate, risk of proliferation into weapons, uranium abundance and extraction, and the exotic metals used to build the reactors themselves. “A nuclear power station is resource-hungry and, apart from the fuel, **uses many rare metals in** its **construction,”** Abbott told PhysOrg.com. “The dream of a utopia where the world is powered off fission or fusion reactors is simply unattainable. Even a supply of as little as 1 TW stretches resources considerably.” His findings, some of which are based on the results of previous studies, are summarized below. Land and location: One nuclear reactor plant requires about 20.5 km2 (7.9 mi2) of land to accommodate the nuclear power station itself, its exclusion zone, its enrichment plant, ore processing, and supporting infrastructure. Secondly, nuclear reactors need to be located near a massive body of coolant water, but away from dense population zones and natural disaster zones. Simply finding 15,000 locations on Earth that fulfill these requirements is extremely challenging. Lifetime: Every nuclear power station needs to be decommissioned after 40-60 years of operation due to neutron embrittlement - cracks that develop on the metal surfaces due to radiation. If nuclear stations need to be replaced every 50 years on average, then with 15,000 nuclear power stations, one station would need to be built and another decommissioned somewhere in the world every day. Currently, it takes 6-12 years to build a nuclear station, and up to 20 years to decommission one, making this rate of replacement unrealistic. Ads by Google Zenni Optical® Glasses - Shop 5600+ Styles Starting At $6.95 Top Quality Rx Lenses, Order Now! - www.zennioptical.com Nuclear waste: Although nuclear technology has been around for 60 years, there is still no universally agreed mode of disposal. It’s uncertain whether burying the spent fuel and the spent reactor vessels (which are also highly radioactive) may cause radioactive leakage into groundwater or the environment via geological movement. Accident rate: To date, there have been 11 nuclear accidents at the level of a full or partial core-melt. These accidents are not the minor accidents that can be avoided with improved safety technology; they are rare events that are not even possible to model in a system as complex as a nuclear station, and arise from unforeseen pathways and unpredictable circumstances (such as the Fukushima accident). Considering that these 11 accidents occurred during a cumulated total of 14,000 reactor-years of nuclear operations, scaling up to 15,000 reactors would mean we would have a major accident somewhere in the world every month. Proliferation: The more nuclear power stations, the greater the likelihood that materials and expertise for making nuclear weapons may proliferate. Although reactors have proliferation resistance measures, maintaining accountability for 15,000 reactor sites worldwide would be nearly impossible. Uranium abundance: At the current rate of uranium consumption with conventional reactors, the world supply of viable uranium, which is the most common nuclear fuel, will last for 80 years. Scaling consumption up to 15 TW, the viable uranium supply will last for less than 5 years. (Viable uranium is the uranium that exists in a high enough ore concentration so that extracting the ore is economically justified.) Uranium extraction from seawater: Uranium is most often mined from the Earth’s crust, but it can also be extracted from seawater, which contains large quantities of uranium (3.3 ppb, or 4.6 trillion kg). Theoretically, that amount would last for 5,700 years using conventional reactors to supply 15 TW of power. (In fast breeder reactors, which extend the use of uranium by a factor of 60, the uranium could last for 300,000 years. However, Abbott argues that these reactors’ complexity and cost makes them uncompetitive.) Moreover, as uranium is extracted, the uranium concentration of seawater decreases, so that greater and greater quantities of water are needed to be processed in order to extract the same amount of uranium. Abbott calculates that the volume of seawater that would need to be processed would become economically impractical in much less than 30 years. Exotic metals: The nuclear containment vessel is made of a variety of exotic rare metals that control and contain the nuclear reaction: hafnium as a neutron absorber, beryllium as a neutron reflector, zirconium for cladding, and niobium to alloy steel and make it last 40-60 years against neutron embrittlement. Extracting these metals raises issues involving cost, sustainability, and environmental impact. In addition, these metals have **many competing industrial uses**; for example, hafnium is used in microchips and beryllium by the semiconductor industry. If a nuclear reactor is built every day, the global supply of these exotic metals needed to build nuclear containment vessels would **quickly run down and create a mineral resource crisis**. This is a new argument that Abbott puts on the table, which places resource limits on all future-generation nuclear reactors, whether they are fueled by thorium or uranium. As Abbott notes, many of these same problems would plague fusion reactors in addition to fission reactors, even though commercial fusion is still likely a long way off. Of course, not many nuclear advocates are calling for a complete nuclear utopia, in which nuclear power supplies the entire world’s energy needs. But many nuclear advocates suggest that we should produce 1 TW of power from nuclear energy, which may be feasible, at least in the short term. However, if one divides Abbott’s figures by 15, one still finds that 1 TW is barely feasible. Therefore, Abbott argues that, if this technology cannot be fundamentally scaled further than 1 TW, perhaps the same investment would be better spent on a fully scalable technology. “Due to the cost, complexity, resource requirements, and tremendous problems that hang over nuclear power, our investment dollars would be more wisely placed elsewhere,” Abbott said. “Every dollar that goes into nuclear power is dollar that has been diverted from assisting the rapid uptake of a safe and scalable solution such as solar thermal.”

#### Short term energy investment skyrockets rare earth prices – devastates manufacturers and deters innovation across all industries.

Epstein 12 [Nicholas Epstein, Chicago Policy Review, Medium Rare: What’s Cooking in the Rare Earth Element Market? Evaluating Rare Earth Element Availability: A case with Revolutionary Demand From Clean Technologies Elisa Alonso, Andrew M. Sherman, Timothy J. Wallington, Mark P. Everson, Frank R. Field, Richard Roth, and Randolph E. Kirchain Environmental Science & Technology. 2012.Jul 12th, 2012 http://chicagopolicyreview.org/2012/07/12/medium-rare-whats-cooking-in-the-rare-earth-element-market/]

REE supplies are vulnerable for several reasons. Most importantly, one nation, China, controls 98 percent of the world’s REE production. Further, REEs are found together in geological formations. As a result, REEs are co-mined, so production is highly concentrated geographically. Lastly, Rare Earth extraction has negative environmental impacts and China’s poor labor standards add social concerns to the supply market. The authors identify circumstances under which REEs may experience revolutionary demand, that is, when new sudden technological innovations sharply increase the demand for REEs. They explain that **revolutionary demand changes can lead to supply and price instability** in the materialsmarket. This effect is **harmful to manufacturers**, who depend on a consistent supply-chain, and **deters additional innovation.**

#### China will respond by cutting off rare earth supply – culminates in U.S.-China war.

Cohen 7 [David Cohen, New Scientist, 5-23-7 “Earth's natural wealth: an audit” http://environment.newscientist.com/channel/earth/mg19426051.200-earths-natural-wealth-an-audit.html]

These may sound like drastic solutions, but as Graedel points out in a paper published last year (Proceedings of the National Academy of Sciences, vol 103, p 1209), "Virgin stocks of several metals appear inadequate to sustain the modern 'developed world' quality of life for all of Earth's people under contemporary technology." And **when resources run short, conflict is often not far behind**. It is widely acknowledged that one of the key motives for civil war in the Democratic Republic of the Congo between 1998 and 2002 was the riches to be had from the country's mineral resources, including tantalum mines - the biggest in Africa. The war coincided with a surge in the price of the metal caused by the increasing popularity of mobile phones (New Scientist, 7 April 2001, p 46). Similar **tensions over supplies of other rare metals are not hard to imagine**. The Chinese government is supplementing its natural deposits of rare metals by investing in mineral mines in Africa and buying up high-tech scrap to extract metals that are key to its developing industries. The US now imports over 90 per cent of its so-called "rare earth" metals from China, according to the US Geological Survey. If China decided to cut off the supply, that would create a **big risk of conflict**, says Reller.

#### Extinction.

White 11 [Mr. Hugh White is professor of strategic studies at the Australian National University in Canberra and a visiting fellow at the Lowy Institute in Sydney. The Obama Doctrine WSJ, 11/25/11 http://online.wsj.com/article/SB10001424052970204452104577057660524758198.html]

One risk is that escalating strategic competition will disrupt the vital economic relationship between the U.S. and China. Many hope that the two countries' deep interdependence will prevent their rivalry getting out of hand. But that will only happen if both sides are willing to forgo strategic objectives to protect their economic cooperation. With the Obama Doctrine, the President has declared that he has no intention of doing that. Why should we expect the Chinese to act any different? So it is more likely that escalating rivalry will soon start to erode economic interdependence between the two nations, at great cost to both. The other risk is the growing chance of conflict. A war with China over Taiwan or the Spratly Islands is simple to start but hard to end, and could **very easily escalate**. China is a nuclear-armed power capable of destroying American cities, and the **threshold** for nuclear exchanges in a U.S.-China clash **might be dangerously unclear and disastrously low.**

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Our interpretation is that an affirmative should defend a topical action by the USfg as the endpoint of their advocacy. This does not mandate roleplaying, immediate fiat or any particular means of impact calculus.

“USFG should” proscribes both a stable agent and mechanism

Ericson ‘03

(Jon M., Dean Emeritus of the College of Liberal Arts – California Polytechnic U., et al., The Debater’s Guide, Third Edition, p. 4)

The Proposition of Policy: Urging Future Action In policy propositions, each topic contains certain key elements, although they have slightly different functions from comparable elements of value-oriented propositions. 1. An agent doing the acting ---“The United States” in “The United States should adopt a policy of free trade.” Like the object of evaluation in a proposition of value, the agent is the subject of the sentence. 2. The verb *should*—the first part of a verb phrase that urges action. 3. An action verb to follow *should* in the *should*-verb combination. For example, *should adopt* here **means to put a** program or **policy into action though governmental means**. 4. A specification of directions or a limitation of the action desired. The phrase *free trade*, for example, gives direction and limits to the topic, which would, for example, eliminate consideration of increasing tariffs, discussing diplomatic recognition, or discussing interstate commerce. Propositions of policy deal with future action. Nothing has yet occurred. The entire debate is about whether something ought to occur. What you agree to do, then, when you accept the *affirmative side* in such a debate is to offer sufficient and compelling reasons for an audience to perform the future action that you propose.

The Aff undermines the ability to have a limited and stable number of Affirmatives to prepare against. This is a reason to vote negative.

First is Decision-making

Increasing the abstraction of debates and undermining stasis hampers the decision-making benefits of debate

Steinberg, lecturer of communication studies – University of Miami, and Freeley, Boston based attorney who focuses on criminal, personal injury and civil rights law, ‘8

(David L. and Austin J., Argumentation and Debate: Critical Thinking for Reasoned Decision Making p. 45)

Debate is a means of settling differences, so there must be a difference of opinion or a conflict of interest before there can be a debate. If everyone is in agreement on a tact or value or policy, there is no need for debate: the matter can be settled by unanimous consent. Thus, for example, it would be pointless to attempt to debate "Resolved: That two plus two equals four," because there is simply no controversy about this statement. (Controversy is an essential prerequisite of debate. Where there is no clash of ideas, proposals, interests, or expressed positions on issues, there is no debate. In addition, debate cannot produce effective decisions without clear identification of a question or questions to be answered. For example, general argument may occur about the broad topic of illegal immigration. How many illegal immigrants are in the United States? What is the impact of illegal immigration and immigrants on our economy? What is their impact on our communities? Do they commit crimes? Do they take jobs from American workers? Do they pay taxes? Do they require social services? Is it a problem that some do not speak English? Is it the responsibility of employers to discourage illegal immigration by not hiring undocumented workers? Should they have the opportunity- to gain citizenship? Docs illegal immigration pose a security threat to our country? Do illegal immigrants do work that American workers are unwilling to do? Are their rights as workers and as human beings at risk due to their status? Are they abused by employers, law enforcement, housing, and businesses? I low are their families impacted by their status? What is the moral and philosophical obligation of a nation state to maintain its borders? Should we build a wall on the Mexican border, establish a national identification can!, or enforce existing laws against employers? Should we invite immigrants to become U.S. citizens? Surely you can think of many more concerns to be addressed by a conversation about the topic area of illegal immigration. Participation in this "debate" is likely to be emotional and intense. However, it is not likely to be productive or useful without focus on a particular question and identification of a line demarcating sides in the controversy. To be discussed and resolved effectively, controversies must be stated clearly. Vague understanding results in unfocused deliberation and poor decisions, frustration, and emotional distress, as evidenced by the failure of the United States Congress to make progress on the immigration debate during the summer of 2007.

Someone disturbed by the problem of the growing underclass of poorly educated, socially disenfranchised youths might observe, "Public schools are doing a terrible job! They are overcrowded, and many teachers are poorly qualified in their subject areas. Even the best teachers can do little more than struggle to maintain order in their classrooms." That same concerned citizen, facing a complex range of issues, might arrive at an unhelpful decision, such as "We ought to do something about this" or. worse. "It's too complicated a problem to deal with." Groups of concerned citizens worried about the state of public education could join together to express their frustrations, anger, disillusionment, and emotions regarding the schools, but without a focus for their discussions, they could easily agree about the sorry state of education without finding points of clarity or potential solutions. A gripe session would follow. But if a precise question is posed—such as "What can be done to improve public education?"—then a more profitable area of discussion is opened up simply by placing a focus on the search for a concrete solution step. One or more judgments can be phrased in the form of debate propositions, motions for parliamentary debate, or bills for legislative assemblies. The statements "Resolved: That the federal government should implement a program of charter schools in at-risk communities" and "Resolved: That the state of Florida should adopt a school voucher program" more clearly identify specific ways of dealing with educational problems in a manageable form, suitable for debate. They provide specific policies to be investigated and aid discussants in identifying points of difference.

To have a productive debate, which facilitates effective decision making by directing and placing limits on the decision to be made, the basis for argument should be clearly defined. If we merely talk about "homelessness" or "abortion" or "crime'\* or "global warming" we are likely to have an interesting discussion but not to establish profitable basis for argument. For example, the statement "Resolved: That the pen is mightier than the sword" is debatable, yet fails to provide much basis for clear argumentation. If we take this statement to mean that the written word is more effective than physical force for some purposes, we can identify a problem area: the comparative effectiveness of writing or physical force for a specific purpose.

Although we now have a general subject, we have not yet stated a problem. It is still too broad, too loosely worded to promote well-organized argument. What sort of writing are we concerned with—poems, novels, government documents, website development, advertising, or what? What does "effectiveness" mean in this context? What kind of physical force is being compared—fists, dueling swords, bazookas, nuclear weapons, or what? A more specific question might be. "Would a mutual defense treaty or a visit by our fleet be more effective in assuring Liurania of our support in a certain crisis?" The basis for argument could be phrased in a debate proposition such as "Resolved: That the United States should enter into a mutual defense treatv with Laurania." Negative advocates might oppose this proposition by arguing that fleet maneuvers would be a better solution. This is not to say that debates should completely avoid creative interpretation of the controversy by advocates, or that good debates cannot occur over competing interpretations of the controversy; in fact, these sorts of debates may be very engaging. The point is that debate is best facilitated by the guidance provided by focus on a particular point of difference, which will be outlined in the following discussion.

Decision-making is the most important facet of education we could take away from debate – key to success in any future role

Steinberg, lecturer of communication studies – University of Miami, and Freeley, Boston based attorney who focuses on criminal, personal injury and civil rights law, ‘8

(David L. and Austin J., Argumentation and Debate: Critical Thinking for Reasoned Decision Making p. 9-10)

After several days of intense debate, first the United States House of Representatives and then the U.S. Senate voted to authorize President George W. Bush to attack Iraq if Saddam Hussein refused to give up weapons of mass destruction as required by United Nations's resolutions. Debate about a possible military\* action against Iraq continued in various governmental bodies and in the public for six months, until President Bush ordered an attack on Baghdad, beginning Operation Iraqi Freedom, the military campaign against the Iraqi regime of Saddam Hussein. He did so despite the unwillingness of the U.N. Security Council to support the military action, and in the face of significant international opposition.

Meanwhile, and perhaps equally difficult for the parties involved, a young couple deliberated over whether they should purchase a large home to accommodate their growing family or should sacrifice living space to reside in an area with better public schools; elsewhere a college sophomore reconsidered his major and a senior her choice of law school, graduate school, or a job. Each of these\* situations called for decisions to be made. Each decision maker worked hard to make well-reasoned decisions.

Decision making is a thoughtful process of choosing among a variety of options for acting or thinking. It requires that the decider make a choice. Life demands decision making. We make countless individual decisions every day. To make some of those decisions, we work hard to employ care and consideration; others seem to just happen. Couples, families, groups of friends, and coworkers come together to make choices, and decision-making homes from committees to juries to the U.S. Congress and the United Nations make decisions that impact us all. Every profession requires effective and ethical decision making, as do our school, community, and social organizations.

We all make many decisions even- day. To refinance or sell one's home, to buy a high-performance SUV or an economical hybrid car. what major to select, what to have for dinner, what candidate CO vote for. paper or plastic, all present lis with choices. Should the president deal with an international crisis through military invasion or diplomacy? How should the U.S. Congress act to address illegal immigration?

Is the defendant guilty as accused? Tlie Daily Show or the ball game? And upon what information should I rely to make my decision? Certainly some of these decisions are more consequential than others. Which amendment to vote for, what television program to watch, what course to take, which phone plan to purchase, and which diet to pursue all present unique challenges. At our best, we seek out research and data to inform our decisions. Yet even the choice of which information to attend to requires decision making. In 2006, TIMI: magazine named YOU its "Person of the Year." Congratulations! Its selection was based on the participation not of ''great men" in the creation of history, but rather on the contributions of a community of anonymous participants in the evolution of information. Through blogs. online networking. You Tube. Facebook, MySpace, Wikipedia, and many other "wikis," knowledge and "truth" are created from the bottom up, bypassing the authoritarian control of newspeople. academics, and publishers. We have access to infinite quantities of information, but how do we sort through it and select the best information for our needs?

The ability of every decision maker to make good, reasoned, and ethical decisions relies heavily upon their ability to think critically. Critical thinking enables one to break argumentation down to its component parts in order to evaluate its relative validity and strength. Critical thinkers are better users of information, as well as better advocates.

Colleges and universities expect their students to develop their critical thinking skills and may require students to take designated courses to that end. The importance and value of such study is widely recognized.

Much of the most significant communication of our lives is conducted in the form of debates. These may take place in intrapersonal communications, in which we weigh the pros and cons of an important decision in our own minds, or they may take place in interpersonal communications, in which we listen to arguments intended to influence our decision or participate in exchanges to influence the decisions of others.

Our success or failure in life is largely determined by our ability to make wise decisions for ourselves and to influence the decisions of others in ways that are beneficial to us. Much of our significant, purposeful activity is concerned with making decisions. Whether to join a campus organization, go to graduate school, accept a job oiler, buy a car or house, move to another city, invest in a certain stock, or vote for Garcia—these are just a few of the thousands of decisions we may have to make. Often, intelligent self-interest or a sense of responsibility will require us to win the support of others. We may want a scholarship or a particular job for ourselves, a customer for out product, or a vote for our favored political candidate.

Next is substantive side bias

Surely the Aff will say the Neg can still debate them on the substance of their advocacy but not defending the clear actor and mechanism of the resolutional produces a substantive side bias.

Affirmatives that don’t defend the resolution make deploying other strategies against them inordinately Aff tilted. They have the ability to radically recontextualize link arguments, empathize different proscriptive claims of the 1AC while using traditional competition standards like perms to make being impossible inordinately difficult.

And we have an external impact to this net benefit

Sufficient research-based preparation and debates focused on detailed points of disagreement are crucial to transforming political culture

Gutting (professor of philosophy at the University of Notre Dame) 13

(Gary, Feb 19, A Great Debate, http://opinionator.blogs.nytimes.com/2013/02/19/a-great-debate/?emc=eta1)

This is the year of what should be a decisive debate on our country’s spending and debt. But our political “debates” seldom deserve the name. For the most part representatives of the rival parties exchange one-liners: “The rich can afford to pay more” is met by “Tax increases kill jobs.” Slightly more sophisticated discussions may cite historical precedents: “There were higher tax rates during the post-war boom” versus “Reagan’s tax cuts increased revenues.”

Such volleys still don’t even amount to arguments: they don’t put forward generally accepted premises that support a conclusion. Full-scale speeches by politicians are seldom much more than collections of such slogans and factoids, hung on a string of platitudes. Despite the name, candidates’ pre-election debates are exercises in looking authoritative, imposing their talking points on the questions, avoiding gaffes, and embarrassing their opponents with “zingers” (the historic paradigm: “There you go again.”).

There is a high level of political discussion in the editorials and op-eds of national newspapers and magazines as well as on a number of blogs, with positions often carefully formulated and supported with argument and evidence. But even here we seldom see a direct and sustained confrontation of rival positions through the dialectic of assertion, critique, response and counter-critique.
Such exchanges occur frequently in our law courts (for example, oral arguments before the Supreme Court) and in discussions of scientific papers. But they are not a significant part of our deliberations about public policy. As a result, partisans typically remain safe in their ideological worlds, convincing themselves that they hold to obvious truths, while their opponents must be either knaves or fools — with no need to think through the strengths of their rivals’ positions or the weaknesses of their own.

Is there any way to make genuine debates — sustained back-and-forth exchanges, meeting high intellectual standards but still widely accessible — part of our political culture? (I leave to historians the question of whether there are historical precedents— like the Webster-Hayne or Lincoln-Douglas debates.) Can we put our politicians in a situation where they cannot ignore challenges, where they must genuinely engage with one another in responsible discussion and not just repeat talking points?

A first condition is that the debates be **focused on specific points of major disagreement**. Not, “How can we improve our economy?” but “Will tax cuts for the wealthy or stimulus spending on infrastructure do more to improve our economy?” This will prevent vague statements of principle that don’t address the real issues at stake.

Another issue is the medium of the debate. Written discussions, in print or online could be easily arranged, but personal encounters are more vivid and will better engage public attention. They should not, however, be merely extemporaneous events, where too much will depend on quick-thinking and an engaging manner. We want **remarks to be carefully prepared and open to considered responses**.

And effective deliberative discourse is the lynchpin to solving all existential problems

Christian O. Lundberg 10 Professor of Communications @ University of North Carolina, Chapel Hill, “Tradition of Debate in North Carolina” in Navigating Opportunity: Policy Debate in the 21st Century By Allan D. Louden, p311

The second major problem with the critique that identifies a naivety in articulating debate and democracy is that it presumes that the primary pedagogical outcome of debate is speech capacities. But the democratic capacities built by debate are not limited to speech—as indicated earlier, debate builds capacity for critical thinking, analysis of public claims, informed decision making, and better public judgment. If the picture of modem political life that underwrites this critique of debate is a pessimistic view of increasingly labyrinthine and bureaucratic administrative politics, rapid scientific and technological change outpacing the capacities of the citizenry to comprehend them, and ever-expanding insular special-interest- and money-driven politics, it is a puzzling solution, at best, to argue that these conditions warrant giving up on debate. If democracy is open to rearticulation, it is open to rearticulation precisely because as the challenges of modern political life proliferate, the citizenry's capacities can change, which is one of the primary reasons that theorists of democracy such as Ocwey in The Public awl Its Problems place such a high premium on education (Dewey 1988,63, 154). Debate provides an indispensible form of education in the modem articulation of democracy because it builds precisely the skills that allow the citizenry to research and be informed about policy decisions that impact them, to son rhroueh and evaluate the evidence for and relative merits of arguments for and against a policy in an increasingly infonnation-rich environment, and to prioritize their time and political energies toward policies that matter the most to them.

The merits of debate as a tool for building democratic capacity-building take on a special significance in the context of information literacy. John Larkin (2005, HO) argues that one of the primary failings of modern colleges and universities is that they have not changed curriculum to match with the challenges of a new information environment. This is a problem for the course of academic study in our current context, but perhaps more important, argues Larkin, for the future of a citizenry that will need to make evaluative choices against an increasingly complex and multimediatcd information environment (ibid-). Larkin's study tested the benefits of debate participation on information-literacy skills and concluded that in-class debate participants reported significantly higher self-efficacy ratings of their ability to navigate academic search databases and to effectively search and use other Web resources:

To analyze the self-report ratings of the instructional and control group students, we first conducted a multivariate analysis of variance on all of the ratings, looking jointly at the effect of instmction/no instruction and debate topic . . . that it did not matter which topic students had been assigned . . . students in the Instnictional [debate) group were significantly more confident in their ability to access information and less likely to feel that they needed help to do so----These findings clearly indicate greater self-efficacy for online searching among students who participated in (debate).... These results constitute strong support for the effectiveness of the project on students' self-efficacy for online searching in the academic databases. There was an unintended effect, however: After doing ... the project, instructional group students also felt more confident than the other students in their ability to get good information from Yahoo and Google. It may be that the library research experience increased self-efficacy for any searching, not just in academic databases. (Larkin 2005, 144)

Larkin's study substantiates Thomas Worthcn and Gaylcn Pack's (1992, 3) claim that debate in the college classroom plays a critical role in fostering the kind of problem-solving skills demanded by the increasingly rich media and information environment of modernity. Though their essay was written in 1992 on the cusp of the eventual explosion of the Internet as a medium, Worthcn and Pack's framing of the issue was prescient: the primary question facing today's student has changed from how to best research a topic to the crucial question of learning how to best evaluate which arguments to cite and rely upon from an easily accessible and veritable cornucopia of materials.

There are, without a doubt, a number of important criticisms of employing debate as a model for democratic deliberation. But cumulatively, the evidence presented here warrants strong support for expanding debate practice in the classroom as a technology for enhancing democratic deliberative capacities. The unique combination of critical thinking skills, research and information processing skills, oral communication skills, and capacities for listening and thoughtful, open engagement with hotly contested issues argues for debate as a crucial component of a rich and vital democratic life. In-class debate practice both aids students in achieving the best goals of college and university education, and serves as an unmatched practice for creating thoughtful, engaged, open-minded and self-critical students who are open to the possibilities of meaningful political engagement and new articulations of democratic life.

Expanding this practice is crucial, if only because the more we produce citizens that can actively and effectively engage the political process, the more likely we are to produce revisions of democratic life that are necessary if democracy is not only to survive, but to thrive. Democracy faces a myriad of challenges, including: domestic and international issues of class, gender, and racial justice; wholesale environmental destruction and the potential for rapid climate change; emerging threats to international stability in the form of terrorism, intervention and new possibilities for great power conflict; and increasing challenges of rapid globalization including an increasingly volatile global economic structure. More than any specific policy or proposal, an informed and active citizenry that deliberates with greater skill and sensitivity provides one of the best hopes for responsive and effective democratic governance, and by extension, one of the last best hopes for dealing with the existential challenges to democracy [in an] increasingly complex world.

Third is Mechanism Education

The Aff’s failure to ID a clear mechanism of change has the most devastating effects on the quality of debates. It makes link comparisons vacuous and means that detailed and well prepared PICs about substance, everyone’s favorite and most education part of debate are all but impossible.

We do not need to win that the state is good, rather just that the value of the state is something that should be debated about. This creates another standard for reading the Aff’s evidence – it can’t just indicate that the state or the resolution is bad or ineffective but that they should not even be discussed. Any of the aff’s ev on this account is simply proof that it can be done on the neg – no unique educational benefit to doing it on the aff, only provides an unfair tactical advantage to their arguments.

And this turns the Aff – debates over mechanisms for change are crucial to the success of leftist politics

Schostak (Professor of Education at Manchester Metropolitan University) 11

(John, Wikileaks, Tahrir Square – their significance for re-thinking democracy, Manchester social movements conference, April, http://www.enquirylearning.net/ELU/politics/tahrirwikileaks.html)

In his study of the conditions of work imposed by neo-liberal practices in France, Christophe Dejours (1998) has argued that political strategies, particularly those on the left, have not employed appropriate strategies of analysis. Without a good analysis of contemporary circumstances, he argues, **political strategies aiming at social justice will be deficient or wrong**. And **a good analysis for the production of appropriate strategies can only be accomplished through a multiplicity of collective reflections, debates and decision making in public spaces for public action(s).** The protests that have spread since the food riots in Algeria on the 6th January, the revolution in Tunisia and then the revolution in Egypt and then riots spreading to Bahrain, Yemen, Libya, Jordan and others have drawn lessons from each other providing experience for the development of local strategies. Any protest will give insights into the conditions underlying the protests and the community and state structures, discourses, practices, and processes that tacitly if not explicitly underlie the social, political and economic order at local, national, transnational and global levels. This is why, it seems to me, that critically exploring from an educational and research perspective what has happened in response to Wikileaks and has been happening in the Middle East is so important today.

This is particularly true for education on this topic

Public sphere debates over engagement with the state energy apparatus prevents energy technocracy and equips us to oppose the dominance of oil, coal, and other elitist interests they criticize

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

(Carol J., “Democratizing Technology: Citizen & State in West German Energy Politics, 1974-1990” *Polity*, Vol. 25, No. 1, p. 45-70)

During this phase, the citizen initiative attempted to overcome its defensive posture and implement an alternative politics. The strategy of legal and technical challenge might delay or even prevent plant construction, but it would not by itself accomplish the broader goal on the legitimation dimension, i.e., democratization. Indeed, it worked against broad participation. The activists had to find a viable means of achieving change. Citizens had proved they could contribute to a substantive policy discussion. Now, some activists turned to the parliamentary arena as a possible forum for an energy dialogue. Until now, parliament had been conspicuously absent as a relevant policy maker, but if parliament could be reshaped and activated, citizens would have a forum in which to address the broad questions of policy-making goals and forms. They would also have an institutional lever with which to pry apart the bureaucracy and utility. None of the established political parties could offer an alternative program. Thus, local activists met to discuss forming their own voting list.

These discussions provoked internal dissent. Many citizen initiative members objected to the idea of forming a political party. If the problem lay in the role of parliament itself, another political party would not solve it. On the contrary, parliamentary participation was likely to destroy what political innovations the extraparliamentary movement had made. Others argued that a political party would give the movement an institutional platform from which to introduce some of the grassroots democratic political forms the groups had developed. Founding a party as the parliamentary arm of the citizen movement would allow these groups to play an active, critical role in institutionalized politics, participating in the policy debates while retaining their outside perspective. Despite the disagreements, the Alternative List for Democracy and Environmental Protection Berlin (AL) was formed in 1978 and first won seats in the Land parliament with 7.2 percent of the vote in 1981.43 The founders of the AL were encouraged by the success of newly formed local green parties in Lower Saxony and Hamburg,44 whose evolution had been very similar to that of the West Berlin citizen move-ment. Throughout the FRG, unpopular administrative decisions affect-ing local environments, generally in the form of state-sponsored indus-trial projects, prompted the development of the citizen initiative and ecology movements. The groups in turn focused constant attention on state planning "errors," calling into question not only the decisions themselves, but also the conventional forms of political decision making that produced them.45 Disgruntled citizens increasingly aimed their critique at the established political parties, in particular the federal SPD/ FDP coalition, which seemed unable to cope with the economic, social, and political problems of the 1970s. Fanned by publications such as the Club of Rome's report, "The Limits to Growth," the view spread among activists that the crisis phenomena were not merely a passing phase, but indicated instead "a long-term structural crisis, whose cause lies in the industrial-technocratic growth society itself."46 As they broadened their critique to include the political system as a whole, many grassroots groups found the extraparliamentary arena too restrictive. Like many in the West Berlin group, they reasoned that the necessary change would require a degree of political restructuring that could only be accomplished through their direct participation in parliamentary politics. Green/alternative parties and voting lists sprang up nationwide and began to win seats in local assemblies. The West Berlin Alternative List saw itself not as a party, but as the parliamentary arm of the citizen initiative movement. One member explains: "the starting point for alternative electoral participation was simply the notion of achieving a greater audience for [our] own ideas and thus to work in support of the extraparliamentary movements and initia-tives,"47 including non-environmentally oriented groups. The AL wanted to avoid developing structures and functions autonomous from the citizen initiative movement. Members adhered to a list of principles, such as rotation and the imperative mandate, designed to keep parliamentarians attached to the grassroots. Although their insistence on grassroots democracy often resulted in interminable heated discussions, the participants recognized the importance of experimenting with new forms of decision making, of not succumbing to the same hierarchical forms they were challenging. Some argued that the proper role of citizen initiative groups was not to represent the public in government, but to mobilize other citizens to participate directly in politics themselves; self-determination was the aim of their activity.48

Once in parliament, the AL proposed establishment of a temporary parliamentary commission to study energy policy, which for the first time would draw all concerned participants together in a discussion of both short-term choices and long-term goals of energy policy. With help from the SPD faction, which had been forced into the opposition by its defeat in the 1981 elections, two such commissions were created, one in 1982-83 and the other in 1984-85.49 These commissions gave the citizen activists the forum they sought to push for modernization and technical innovation in energy policy.

Although it had scaled down the proposed new plant, the utility had produced no plan to upgrade its older, more polluting facilities or to install desulfurization devices. With prodding from the energy commission, Land and utility experts began to formulate such a plan, as did the citizen initiative. By exposing administrative failings in a public setting, and by producing a modernization plan itself, the combined citizen initiative and AL forced bureaucratic authorities to push the utility for improvements. They also forced the authorities to consider different technological solutions to West Berlin's energy and environmental problems. In this way, the activists served as technological innovators. In 1983, the first energy commission submitted a list of recommendations to the Land parliament which reflected the influence of the citizen protest movement. It emphasized goals of demand reduction and efficiency, noted the value of expanded citizen participation and urged authorities to "investigate more closely the positive role citizen participation can play in achieving policy goals."50 The second energy commission was created in 1984 to discuss the possibilities for modernization and shutdown of old plants and use of new, environmentally friendlier and cheaper technologies for electricity and heat generation. Its recommendations strengthened those of the first commission.51 Despite the non-binding nature of the commissions' recommendations, the public discussion of energy policy motivated policy makers to take stronger positions in favor of environmental protection.

III. Conclusion

The West Berlin energy project eventually cleared all planning hurdles, and construction began in the early 1980s. The new plant now conforms to the increasingly stringent environmental protection requirements of the law. The project was delayed, scaled down from 1200 to 600 MW, moved to a neutral location and, unlike other BEWAG plants, equipped with modern desulfurization devices. That the new plant, which opened in winter 1988-89, is the technologically most advanced and environmen-tally sound of BEWAG's plants is due entirely to the long legal battle with the citizen initiative group, during which nearly every aspect of the original plans was changed. In addition, through the efforts of the Alter-native List (AL) in parliament, the Land government and BEWAG formulated a long sought modernization and environmental protection plan for all of the city's plants. The AL prompted the other parliamentary parties to take pollution control seriously. Throughout the FRG, energy politics evolved in a similar fashion. As Habermas claimed, underlying the objections against particular projects was a reaction against the administrative-economic system in general.

One author, for example, describes the emergence of two-dimensional protest against nuclear energy: The resistance against a concrete project became understood simul-taneously as resistance against the entire atomic program. Questions of energy planning, of economic growth, of understanding of democracy entered the picture. . . . Besides concern for human health, for security of conditions for human existence and protec-tion of nature arose critique of what was perceived as undemocratic planning, the "shock" of the delayed public announcement of pro-ject plans and the fear of political decision errors that would aggra-vate the problem.52 This passage supports a West Berliner's statement that the citizen initiative began with a project critique and arrived at *Systemkritik*.53 I have labeled these two aspects of the problem the public policy and legitima-tion dimensions. In the course of these conflicts, the legitimation dimen-sion emergd as the more important and in many ways the more prob-lematic.

Parliamentary Politics

In the 1970s, energy politics began to develop in the direction Offe de-scribed, with bureaucrats and protesters avoiding the parliamentary channels through which they should interact. The citizen groups them-selves, however, have to a degree reversed the slide into irrelevance of parliamentary politics. Grassroots groups overcame their defensive posture enough to begin to formulate an alternative politics, based upon concepts such as decision making through mutual understanding rather than technical criteria or bargaining. This new politics required new modes of interaction which the old corporatist or pluralist forms could not provide. Through the formation of green/alternative parties and voting lists and through new parliamentary commissions such as the two described in the case study, some members of grassroots groups attempted to both operate within the political system and fundamentally change it, to restore the link between bureaucracy and citizenry.

Parliamentary politics was partially revived in the eyes of West German grassroots groups as a legitimate realm of citizen participation, an outcome the theory would not predict. It is not clear, however, that strengthening the parliamentary system would be a desirable outcome for everyone. Many remain skeptical that institutions that operate as part of the "system" can offer the kind of substantive participation that grass-roots groups want. The constant tension between institutionalized politics and grassroots action emerged clearly in the recent internal debate between "fundamentalist" and "realist" wings of the Greens. Fundis wanted to keep a firm footing outside the realm of institutionalized politics. They refused to bargain with the more established parties or to join coalition governments. Realos favored participating in institutionalized politics while pressing their grassroots agenda. Only this way, they claimed, would they have a chance to implement at least some parts of their program.

This internal debate, which has never been resolved, can be interpreted in different ways. On one hand, the tension limits the appeal of green and alternative parties to the broader public, as the Greens' poor showing in the December 1990 all-German elections attests. The failure to come to agreement on basic issues can be viewed as a hazard of grass-roots democracy. The Greens, like the West Berlin citizen initiative, are opposed in principle to forcing one faction to give way to another. Disunity thus persists within the group. On the other hand, the tension can be understood not as a failure, but as a kind of success: grassroots politics has not been absorbed into the bureaucratized system; it retains its critical dimension, both in relation to the political system and within the groups themselves. The lively debate stimulated by grassroots groups and parties keeps questions of democracy on the public agenda.

Technical Debate

In West Berlin, the two-dimensionality of the energy issue forced citizen activists to become both participants in and critics of the policy process. In order to defeat the plant, activists engaged in technical debate. They won several decisions in favor of environmental protection, often proving to be more informed than bureaucratic experts themselves. The case study demonstrates that grassroots groups, far from impeding techno-logical advancement, can actually serve as technological innovators.

The activists' role as technical experts, while it helped them achieve some success on the policy dimension, had mixed results on the legitimation dimension. On one hand, it helped them to challenge the legitimacy of technocratic policy making. They turned back the Land government's attempts to displace political problems by formulating them in technical terms.54 By demonstrating the fallibility of the technical arguments, activists forced authorities to acknowledge that energy demand was a political variable, whose value at any one point was as much influenced by the choices of policy makers as by independent technical criteria.

Submission to the form and language of technical debate, however, weakened activists' attempts to introduce an alternative, goal-oriented form of decision making into the political system. Those wishing to par-ticipate in energy politics on a long-term basis have had to accede to the language of bureaucratic discussion, if not the legitimacy of bureaucratic authorities. They have helped break down bureaucratic authority but have not yet offered a viable long-term alternative to bureaucracy. In the tension between form and language, goals and procedure, the legitima-tion issue persists. At the very least, however, grassroots action challenges critical theory's notion that technical discussion is inimical to democratic politics.55 Citizen groups have raised the possibility of a dialogue that is both technically sophisticated and democratic.

In sum, although the legitimation problems which gave rise to grass-roots protest have not been resolved, citizen action has worked to counter the marginalization of parliamentary politics and the technocratic character of policy debate that Offe and Habermas identify. The West Berlin case suggests that the solutions to current legitimation problems may not require total repudiation of those things previously associated with technocracy.56

In Berlin, the citizen initiative and AL continue to search for new, more legitimate forms of organization consistent with their principles. No permanent Land parliamentary body exists to coordinate and con-solidate energy policy making.57 In the 1989 Land elections, the CDU/ FDP coalition was defeated, and the AL formed a governing coalition with the SPD. In late 1990, however, the AL withdrew from the coali-tion. It remains to be seen whether the AL will remain an effective vehi-cle for grassroots concerns, and whether the citizenry itself, now includ-ing the former East Berliners, will remain active enough to give the AL direction as united Berlin faces the formidable challenges of the 1990s. On the policy dimension, grassroots groups achieved some success. On the legitimation dimension, it is difficult to judge the results of grass-roots activism by normal standards of efficacy or success. Activists have certainly not radically restructured politics. They agree that democracy is desirable, but troublesome questions persist about the degree to which those processes that are now bureaucratically organized can and should be restructured, where grassroots democracy is possible and where bureaucracy is necessary in order to get things done. In other words, grassroots groups have tried to remedy the Weberian problem of the marginalization of politics, but it is not yet clear what the boundaries of the political realm should be. It is, however, the act of calling existing boundaries into question that keeps democracy vital. In raising alternative possibilities and encouraging citizens to take an active, critical role in their own governance, the contribution of grassroots environmental groups has been significant. As Melucci states for new social movements in general, these groups mount a "symbolic" challenge by proposing "a different way of perceiving and naming the world."58 Rochon concurs for the case of the West German peace movement, noting that its effect on the public discussion of secur-ity issues has been tremendous.59 The effects of the legitimation issue in the FRG are evident in increased citizen interest in areas formerly left to technical experts. Citizens have formed nationwide associations of environmental and other grassroots groups as well as alternative and green parties at all levels of government. The level of information within the groups is generally quite high, and their participation, especially in local politics, has raised the awareness and engagement of the general populace noticeably.60 Policy concessions and new legal provisions for citizen participation have not quelled grassroots action. The attempts of the established political parties to coopt "green" issues have also met with limited success. Even green parties themselves have not tapped the full potential of public support for these issues. The persistence of legitima-tion concerns, along with the growth of a culture of informed political activism, will ensure that the search continues for a space for a delibera-tive politics in modern technological society.61

### Case

Vote neg to remember fukushima—don’t remove restrictions on nuclear power to remember fukushima

Fukushima casualty is zero – there has been no deaths from actual radiation.

World Nuclear Association, 2013 January 10, “Fukushima Accident 2011” http://www.world-nuclear.org/info/fukushima\_accident\_inf129.html

Following a major earthquake, a 15-metre tsunami disabled the power supply and cooling of three Fukushima Daiichi reactors, causing a nuclear accident on 11 March 2011. All three cores largely melted in the first three days. The accident was rated 7 on the INES scale, due to high radioactive releases in the first few days. Four reactors are written off - 2719 MWe net. After two weeks the three reactors (units 1-3) were stable with water addition but no proper heat sink for removal of decay heat from fuel. By July they were being cooled with recycled water from the new treatment plant. Reactor temperatures had fallen to below 80ºC at the end of October, and official 'cold shutdown condition' was announced in mid December. Apart from cooling, the basic ongoing task was to prevent release of radioactive materials, particularly in contaminated water leaked from the three units. There have been no deaths or cases of radiation sickness from the nuclear accident, but over 100,000 people had to be evacuated from their homes to ensure this. Government nervousness delays their return.

Default to util – must weigh consequences.

Harries, 94 – Editor @ The National Interest (Owen, Power and Civilization, The National Interest, Spring, lexis)

Performance is the test. Asked directly by a Western interviewer, “In principle, do you believe in one standard of human rights and free expression?”, Lee immediately answers, “Look, it is not a matter of principle but of practice.” This might appear to represent a simple and rather crude pragmatism. But in its context it might also be interpreted as an appreciation of the fundamental point made by Max Weber that, in politics, it is “the ethic of responsibility” rather than “the ethic of absolute ends” that is appropriate. While an individual is free to treat human rights as absolute, to be observed whatever the cost, governments must always weigh consequences and the competing claims of other ends. So once they enter the realm of politics, human rights have to take their place in a hierarchy of interests, including such basic things as national security and the promotion of prosperity. Their place in that hierarchy will vary with circumstances, but no responsible government will ever be able to put them always at the top and treat them as inviolable and over-riding. The cost of implementing and promoting them will always have to be considered.

#### Moral absolutism fails.

Isaac, 2 – Professor of Poli Sci @ U Indiana, Bloomington (Jeffrey, Ends, Means and Politics, Dissent, Vol 49, Iss. 2, Spring)

As writers such as Niccolo Machiavelli, Max Weber, Reinhold Niebuhr, and Hannah Arendt have taught, an unyielding concern with moral goodness undercuts political responsibility. The concern may be morally laudable, reflecting a kind of personal integrity, but it suffers from three fatal flaws: (1) It fails to see that the purity of one’s intention does not ensure the achievement of what one intends. Abjuring violence or refusing to make common cause with morally compromised parties may seem like the right thing; but if such tactics entail impotence, then it is hard to view them as serving any moral good beyond the clean conscience of their supporters; (2) it fails to see that in a world of real violence and injustice, moral purity is not simply a form of powerlessness; it is often a form of complicity in injustice. This is why, from the standpoint of politics--as opposed to religion--pacifism is always a potentially immoral stand. In categorically repudiating violence, it refuses in principle to oppose certain violent injustices with any effect; and (3) it fails to see that politics is as much about unintended consequences as it is about intentions; it is the effects of action, rather than the motives of action, that is most significant. Just as the alignment with “good” may engender impotence, it is often the pursuit of “good” that generates evil. This is the lesson of communism in the twentieth century: it is not enough that one’s goals be sincere or idealistic; it is equally important, always, to ask about the effects of pursuing these goals and to judge these effects in pragmatic and historically contextualized ways. Moral absolutism inhibits this judgment. It alienates those who are not true believers. It promotes arrogance. And it **undermines political effectiveness**.

#### Democracy checks.

O’Kane 97 [“Modernity, the Holocaust, and politics”, Economy and Society, February, ebsco]

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