# 1NC

### 1

**A. Definitions**

**Substantially means 90%**

WORDS & PHRASES citing Auclair v Riley 2000, p. no page. (DRGCL/A44) N.H. 1949. -The Word "substantially" as used in provision of Unemployment Compensation Act that experience rating of an employer may transferred to' an employing unit which acquires the organization, -trade, or business, or "substantially" all of the assets thereof, is 'an elastic term which does not include a. definite, fixed amount of percentage, and the transfer does not have to be 100 per cent but cannot be less than 90 per cent in the ordinary situation. R.L c. 218, § 6, subd. F, as added by Laws 1945, c. 138, § 16.-Auclair Transp. v. Riley, 69 A.2d 861, 96 N.H. l.-Tax347.1.

**ON means creating OPPOSITION**

Merriam Webster 12ON—used as a function word to indicate the object of collision, opposition, or hostile action <bumped my head *on* a limb> <an attack *on* religion> <pulled a gun *on* me>

**Energy Production means AMOUNT OF SUPPLY**

5th Circuit Court of Appeals 6 IN THE MATTER OF: MIRANT CORPORATION, Debtor, BONNEVILLE POWER ADMINISTRATION, Appellant, VERSUS MIRANT CORPORATION, Appellee. No. 04-11264 UNITED STATES COURT OF APPEALS FOR THE FIFTH CIRCUIT 440 F.3d 238; 2006 U.S. App. LEXIS 3438; Bankr. L. Rep. (CCH) P80,453; 55 Collier Bankr. Cas. 2d (MB) 1050; 46 Bankr. Ct. Dec. 13 February 13, 2006, Filed BPA is a federal power marketing agency within the United States Department of Energy. BPA was created in 1937 by Congress to market low-cost hydroelectric power generated by a series of federal dams along the Columbia River in the Pacific Northwest. See generally Bonneville Project Act of 1937, [16 U.S.C. § 832](http://www.lexisnexis.com/lnacui2api/mungo/lexseestat.do?bct=A&risb=21_T15305759034&homeCsi=6396&A=0.3905894189281863&urlEnc=ISO-8859-1&&citeString=16%20U.S.C.%20832&countryCode=USA). Originally, BPA marketed the energy produced for the benefit of the public, particularly domestic and rural customers, giving preference and priority to public bodies and cooperatives. See [§ 832c(a)](http://www.lexisnexis.com/lnacui2api/mungo/lexseestat.do?bct=A&risb=21_T15305759034&homeCsi=6396&A=0.3905894189281863&urlEnc=ISO-8859-1&&citeString=16%20U.S.C.%20832C&countryCode=USA). For some time, surplus in energy production meant BPA could market freely to all who desired to purchase in the area. In 1980, increasing demands upon the supply triggered, in part, Congress's enactment of the Pacific Northwest Electric Power Planning and Conservation Act, [16 U.S.C. §§ 839-839h](http://www.lexisnexis.com/lnacui2api/mungo/lexseestat.do?bct=A&risb=21_T15305759034&homeCsi=6396&A=0.3905894189281863&urlEnc=ISO-8859-1&&citeString=16%20U.S.C.%20839&countryCode=USA), which required BPA to offer new contracts to its customers. See [Aluminum Co. of Am. v. Cent. Lincoln Peoples' Util. Dist., 467 U.S. 380, 382, 104 S. Ct. 2472, 81 L. Ed. 2d 301 (1984)](http://www.lexisnexis.com/lnacui2api/mungo/lexseestat.do?bct=A&risb=21_T15305759034&homeCsi=6396&A=0.3905894189281863&urlEnc=ISO-8859-1&&citeString=467%20U.S.%20380,%20382&countryCode=USA). Thereafter, BPA was authorized to acquire additional resources in order to increase the supply of federal power. See [16 U.S.C. § 839d(a)(2)](http://www.lexisnexis.com/lnacui2api/mungo/lexseestat.do?bct=A&risb=21_T15305759034&homeCsi=6396&A=0.3905894189281863&urlEnc=ISO-8859-1&&citeString=16%20U.S.C.%20839D&countryCode=USA). [\*\*5] Accordingly, BPA entered certain contracts related to the marketing of federal power. See [§ 832a(f)](http://www.lexisnexis.com/lnacui2api/mungo/lexseestat.do?bct=A&risb=21_T15305759034&homeCsi=6396&A=0.3905894189281863&urlEnc=ISO-8859-1&&citeString=16%20U.S.C.%20832A&countryCode=USA).

**B. Violation – the Aff does not reduce restrictions on SUPPLY of energy, but instead encourage use indirectly**

**C. Voting Issue**

1. **Ground – the heart of this years topic are the debates over which type of energy is superior AND how the market will achieve that. They skirt this debate by claiming they have a specific effect in the market we cannot predict.**
2. **Limits – there are THOUSANDS of potential restrictions and THOUSANDS of incentive programs – the only way to limit this topic for research is to ensure the negative has a link to energy based disads on SUPPLY not use..**

**T is a voter it tells the neg what to prepare**

### 2

#### Passing now – room for disagreements remain – PC key

Sheets, 3-22 **-**International Biz Times staff, [Connor Adams, “Immigration Reform Bill Suddenly Close: What Made Republicans Change Their Minds?”, http://www.ibtimes.com/immigration-reform-bill-suddenly-close-what-made-republicans-change-their-minds-1145763#]

But immigration reform is turning out to be one area of policy where action is happening, and experts on the issue say that a landmark law will likely be on the books by the end of this summer. “People want to get this done well before the August recess, and people are talking about before July 4,” David Koelsch, an attorney and law professor who runs the Immigration Law Clinic at the University of Detroit Mercy, said. “A signing ceremony on the Fourth of July looks really good, there’s nice optics around that.” It’s almost shocking at this point to see members of Congress from both sides of the aisle coming together to support a groundbreaking piece of important legislation. But that’s what’s happening as even Tea Party-backed Republicans like Senator Rand Paul of Kentucky are coming into the fold and endorsing a path to citizenship and other pillars of what is shaping up to be the framework for comprehensive immigration reform. There are still some differences between even the most centrist members of Congress that must be ironed out, but in most cases they are disagreements of scale and specifics, and a consensus about what to include in the bill is taking shape.

#### Nuclear power requires PC

Sachs 9 (Jeff, Writer at the Economists View“Obama Has Lost His Way on Jobs”) <http://economistsview.typepad.com/economistsview/2009/11/obama-has-lost-his-way-on-jobs.html>

During the Obama campaign we were told about a green recovery... We were told about ... complex multi-state projects that would employ huge numbers of workers while building a cutting-edge economy. Little bits of these efforts are strewn through the stimulus legislation... But the administration has not done the hard work to bring these complex initiatives to reality. Intercity rail does not just appear by itself. Direct-voltage transmission lines require a new federal and regional power grid strategy. Nuclear power requires presidential leadership to get moving again. Carbon-capture and storage requires a partnership of science and industry, backed in early stages by public technology funds. The president has lost the economic initiative, weighed down by a tedious fight between two outmoded ideologies: Keynesianism and supply-side tax cuts, as well as by the president’s excessive deference to Congress. ... Move now, Mr President, or we will spend our time digging out of the next consumer bust and buying our technology from China.

#### CIR is key to the economy – capital injection, work force, tax base

Ojeda 12 (Raul Hinojosa, “The Economic Benefits of Comprehensive Immigration Reform”) http://www.cato.org/sites/cato.org/files/serials/files/cato-journal/2012/1/cj32n1-12.pdf

The results of our modeling suggest that comprehensive immigration reform would increase U.S. GDP by at least 0.84 percent per year. Using 10-year GDP projections prepared by the Congressional Budget Office, this translates into a steadily increasing amount of added annual GDP over the coming decade. The 10-year total is at least $1.5 trillion in added GDP, which includes roughly $1.2 trillion in additional consumption and $256 billion in additional investment. Comprehensive immigration reform brings substantial economic gains even in the short run—during the first three years following legalization. The real wages of newly legalized workers increase by roughly $4,400 per year among those in less-skilled jobs during the first three years of implementation, and $6,185 per year for those in higher-skilled jobs. The higher earning power of newly legalized workers translates into an increase in net personal income of $30 billion to $36 billion, which would generate $4.5 to $5.4 billion in additional net tax revenue nationally, enough to support 750,000 to 900,000 new jobs.

**Economic downturn causes great power wars and extinction.**

**AUSLIN ‘9** - scholar at American Enterprise Institute (Michael, “The global Economy Unravels” American Enterprise Institute, [http://www.aei.org/publications/filter.all,pubID.29502/pub\_detail.asp](http://www.aei.org/publications/filter.all%2CpubID.29502/pub_detail.asp))

What do these trends mean in the short and medium term? The Great Depression showed how social and global chaos followed hard on economic collapse. The mere fact that parliaments across the globe, from America to Japan, are unable to make responsible, economically sound recovery plans suggests that they do not know what to do and are simply hoping for the least disruption. Equally worrisome is the adoption of more statist economic programs around the globe, and the concurrent decline of trust in free-market systems. The threat of instability is a pressing concern. China, until last year the world's fastest growing economy, just reported that 20 million migrant laborers lost their jobs. Even in the flush times of recent years, China faced upward of 70,000 labor uprisings a year. A sustained downturn poses grave and possibly immediate threats to Chinese internal stability. The regime in Beijing may be faced with a choice of repressing its own people or diverting their energies outward, leading to conflict with China's neighbors. Russia, an oil state completely dependent on energy sales, has had to put down riots in its Far East as well as in downtown Moscow. Vladimir Putin's rule has been predicated on squeezing civil liberties while providing economic largesse. If that devil's bargain falls apart, then wide-scale repression inside Russia, along with a continuing threatening posture toward Russia's neighbors, is likely. **Even** apparently **stable societies** face increasing risk and the threat of internal or possibly external conflict. As Japan's exports have plummeted by nearly 50%, one-third of the country's prefectures have passed emergency economic stabilization plans. Hundreds of thousands of temporary employees hired during the first part of this decade are being laid off. Spain's unemployment rate is expected to climb to nearly 20% by the end of 2010; Spanish unions are already protesting the lack of jobs, and the specter of violence, as occurred in the 1980s, is haunting the country. Meanwhile, in Greece, workers have already taken to the streets. Europe as a whole will face dangerously increasing tensions between native citizens and immigrants, largely from poorer Muslim nations, who have increased the labor pool in the past several decades. Spain has absorbed five million immigrants since 1999, while nearly 9% of Germany's residents have foreign citizenship, including almost 2 million Turks. The xenophobic labor strikes in the U.K. do not bode well for the rest of Europe. A prolonged global downturn, let alone a collapse, would dramatically raise tensions inside these countries. Couple that with possible protectionist legislation in the United States, unresolved ethnic and territorial disputes in all regions of the globe and a loss of confidence that world leaders actually know what they are doing. The result may be a series of small explosions that **coalesce into a big bang**

### 3

#### Civil Society is dominated by walking dildos who have regulated women to the private sphere. The AFF uses energy production to make the system look legitimate while continually dominating women

**Fraser 90**

Nancy Fraser. Rethinking the Public Sphere. Social Text. No 25/26.

Now, let me juxtapose to this sketch of Habermas's account an alternative account that I shall piece together from some recent revisionist historiography. Briefly, scholars like Joan Landes, Mary Ryan, and Geoff Eley contend that Habermas's account idealizes the liberal public sphere. They argue that, despite the rhetoric of publicity and accessibility, that official public sphere rested on, indeed was importantly constituted by, a number of significant exclusions. For Landes, the key axis of exclusion is gender; she argues that the ethos of the new republican public sphere in France was constructed in deliberate opposition to that of a more woman- friendly salon culture that the republicans stigmatized as "artificial," "effeminate," and "aristocratic." Consequently, a new, austere style of public speech and behavior was promoted, a style deemed "rational," "virtuous," and "manly." In this way, masculinist gender constructs were built into the very conception of the republican public sphere, as was a logic that led, at the height of Jacobin rule, to the formal exclusion from political life of women.4 Here the republicans drew on classical traditions that cast femininity and publicity as oxymorons; the depth of such traditions can be gauged in the etymological connection between "public" and "pubic," a graphic trace of the fact that in the ancient world possession of a penis was a requirement for speaking in public. (A similar link is preserved, incidentally, in the etymological connection between "testimony" and "testicle.")5 Extending Landes's argument, Geoff Eley contends that exclusion are operations were essential to liberal public spheres not only in France but also in England and Germany, and that in all these countries gender exclusions were linked to other exclusions rooted in processes of class formation. In all these countries, he claims, the soil that nourished the liberal public sphere was "civil society," the emerging new congeries of voluntary associations that sprung up in what came to be known as "the age of societies." But this network of clubs and associations-philanthropic, civic, professional, and cultural-was anything but accessible to everyone. On the contrary, it was the arena, the training ground, and eventually the power base of a stratum of bourgeois men, who were coming to see themselves as a "universal class" and preparing to assert their fitness to govern. Thus, the elaboration of a distinctive culture of civil society and of an associated public sphere was implicated in the process of bourgeois class formation; its practices and ethos were marker of "distinction" in Pierre Bourdieu's sense,6 ways of defining an emerge elite, setting it off from the older aristocratic elites it was intent on displacing, on the one hand, and from the various popular and plebeian strata it aspired to rule, on the other. This process of distinction, more over, helps explain the exacerbation of sexism characteristic of the liberal public sphere; new gender norms enjoining feminine domesticity and a sharp separation of public and private spheres functioned as key signifier of bourgeois difference from both higher and lower social strata. It is a measure of the eventual success of this bourgeois project that these norms later became hegemonic, sometimes imposed on, sometimes embraced by, broader segments of society.7 Now, there is a remarkable irony here, one that Habermas's account of the rise of the public sphere fails fully to appreciate.s A discourse of publicity touting accessibility, rationality, and the suspension of status hierarchies is itself deployed as a strategy of distinction. Of course, in and of itself, this irony does not fatally compromise the discourse of publicity; that discourse can be, indeed has been, differently deployed in different circumstances and contexts. Nevertheless, it does suggest that the relationship between publicity and status is more complex than Habermas intimates, that declaring a deliberative arena to be a space where extant status distinctions are bracketed and neutralized is not sufficient to make it so.

#### Patriarchy turns all impacts

**Ray in 1997**

A. E. Ray “The Shame of it: gender-based terrorism in the former Yugoslavia and the failureof international human rights law to comprehend the injuries.” The American University Law Review. Vol 46.

In order to reach all of the violence perpetrated against the women of the former Yugoslavia that is not committed by soldiers or other officials of the state, human lights law must move beyond its artificially constructed barriers between "public" and "private" actions: A feminist perspective on human rights would require a rethinking of the notions of imputability and state responsibility and in this sense would challenge the most basic assumptions of international law. If violence against women were considered by the international legal system to be as shocking as violence against people for their political ideas, women would have considerable support in their struggle.... The assumption that underlies all law, including international human rights law, is that the public/private distinction is real: human society, human lives can be separated into two distinct spheres. This division, however, is an ideological construct rationalizing the exclusion of women from the sources of power. 2 6 The international community must recognize that violence against women is always political, regardless of where it occurs, because it affects the way women view themselves and their role in the world, as well as the lives they lead in the so-called public sphere. 2 6 ' When women are silenced within the family, their silence is not restricted to the private realm, but rather affects their voice in the public realm as well, often assuring their silence in any environment. 262 For women in the former Yugoslavia, as well as for all women, extension beyond the various public/private barriers is imperative if human rights law "is to have meaning for women brutalized in less-known theaters of war or in the by-ways of daily life." 63 Because, as currently constructed, human rights laws can reach only individual perpetrators during times of war, one alternative is to reconsider our understanding of what constitutes "war" and what constitutes "peace. " " When it is universally true that no matter where in the world a woman lives or with what culture she identifies, she is at grave risk of being beaten, imprisoned, enslaved, raped, prostituted, physically tortured, and murdered simply because she is a woman, the term "peace" does not describe her existence. 2 5 In addition to being persecuted for being a woman, many women also are persecuted on ethnic, racial, religious, sexual orientation, or other grounds. Therefore, it is crucial that our re-conceptualization of human rights is not limited to violations based on gender." Rather, our definitions of "war" and "peace" in the context of all of the world's persecuted groups should be questioned. Nevertheless, in every culture a common risk factor is being a woman, and to describe the conditions of our lives as "peace" is to deny the effect of sexual terrorism on all women. 6 7 Because we are socialized to think of times of "war" as limited to groups of men fighting over physical territory or land, we do not immediately consider the possibility of "war" outside this narrow definition except in a metaphorical sense, such as in the expression "the war against poverty." However, the physical violence and sex discrimination perpetrated against women because we are women is hardly metaphorical. Despite the fact that its prevalence makes the violence seem natural or inevitable, it is profoundly political in both its purpose and its effect. Further, its exclusion from international human rights law is no accident, but rather part of a system politically constructed to exclude and silence women. 2 6 The appropriation of women's sexuality and women's bodies as representative of men's ownership over women has been central to this "politically constructed reality. 2 6 9 Women's bodies have become the objects through which dominance and even ownership are communicated, as well as the objects through which men's honor is attained or taken away in many cultures.Y Thus, when a man wants to communicate that he is more powerful than a woman, he may beat her. When a man wants to communicate that a woman is his to use as he pleases, he may rape her or prostitute her. The objectification of women is so universal that when one country ruled by men (Serbia) wants to communicate to another country ruled by men (Bosnia-Herzegovina or Croatia) that it is superior and more powerful, it rapes, tortures, and prostitutes the "inferior" country's women. 2 71 The use of the possessive is intentional, for communication among men through the abuse of women is effective only to the extent that the group of men to whom the message is sent believes they have some right of possession over the bodies of the women used. Unless they have some claim of right to what is taken, no injury is experienced. Of course, regardless of whether a group of men sexually terrorizing a group of women is trying to communicate a message to another group of men, the universal sexual victimization of women clearly communicates to all women a message of dominance and ownership over women. As Charlotte Bunch explains, "The physical territory of [the] political struggle [over female subordination] is women's bodies." 7 2

#### Our Alternative is a castration of the system – separating us from the phallocentric logic of the polis. A method of radical female revolution through a lesbian separatist society refuses male presence.

#### Only Reclaiming the notion of lesbianism beyond mere sexual classification breaks from the norms imposed by Male Hegemony and exposes the dehumanizing understanding of woman as an object to be fucked by man. To reclaim lesbianism is to reject the demands of the male cultural system and to create and celebrate the bonds of the female world.

**Radicalesbians 1970** [Radicalesbians, “The Woman Identified Woman” http://scriptorium.lib.duke.edu/wlm/womid/]

**What is a lesbian? A lesbian is the rage of all women condensed to the point of explosion. She is the woman who**, often beginning at an extremely early age, acts i**n accordance with her inner compulsion to be a more complete and freer human being than her society** - perhaps then, but certainly later - cares to allow her. These needs and actions, over a period of years, bring her into painful conflict with people, situations, the accepted ways of thinking, feeling and behaving, until she is in a state of continual war with everything around her, and usually with her self. **She may not be fully conscious of the political implications of what for her began as personal necessity, but on some level she has not been able to accept the limitations and** oppression laid on her **by the most basic role of her society--the female role.** The turmoil she experiences tends to induce guilt proportional to the degree to which she feels she is not meeting social expectations, and/or eventually drives her to question and analyze what the rest of her society more or less accepts. She is forced to evolve her own life pattern, often living much of her life alone, learning usually much earlier than her "straight" (heterosexual) sisters about the essential aloneness of life (which the myth of marriage obscures) and about the reality of illusions. **To the extent that she cannot expel the heavy socialization that goes with being female, she can never truly find peace with herself**. For she is caught somewhere between accepting society's view of her - in which case she cannot accept herself - and coming to understand what this sexist society has done to her and why it is functional and necessary for it to do so. Those of us who work that through find ourselves on the other side of a tortuous journey through a night that may have been decades long. **The perspective gained from that journey, the liberation of self, the inner peace, the real love of self and of all women, is something to be shared with all women - because we are all women.** It should first be understood that **lesbianism**, like male homosexuality, **is a category of behavior possible only in a sexist society characterized by rigid sex roles and dominated by male supremacy**. Those sex roles dehumanize women by defining us as a supportive/serving caste in relation to the master caste of men, and emotionally cripple men by demanding that they be alienated from their own bodies and emotions in order to perform their economic/political/military functions effectively. **Homosexuality is a by-product of a particular way of setting up roles** ( or approved patterns of behavior) on the basis of sex; as such it is an inauthentic ( not consonant with "reality") category. In a society in which men do not oppress women, and sexual expression is allowed to follow feelings, the categories of homosexuality and heterosexuality would disappear. But **lesbianism is also different from male homosexuality, and serves a different function in the society. "Dyke" is a different kind of put-down from "faggot",** although both imply you are not playing your socially assigned sex role. . . are not therefore a "real woman" or a "real man. " The grudging admiration felt for the tomboy, and the queasiness felt around a sissy boy point to the same thing: the contempt in which women-or those who play a female role-are held. And the investment in keeping women in that contemptuous role is very great. **Lesbian is a word**, the label, **the condition that holds women in line. When a woman hears this word tossed her way, she knows she is stepping out of line.** She knows that she has crossed the terrible boundary of her sex role. She recoils, she protests, she reshapes her actions to gain approval. Lesbian is a label invented by the Man to throw at any woman who dares to be his equal, who dares to challenge his prerogatives (including that of all women as part of the exchange medium among men), who dares to assert the primacy of her own needs. To have the label applied to people active in women's liberation is just the most recent instance of a long history; older women will recall that not so long ago, any woman who was successful, independent, not orienting her whole life about a man, would hear this word. **For in this sexist society, for a woman to be independent means she can't be a woman - she must be a dyke.** That in itself should tell us where women are at. It says as clearly as can be said: women and person are contradictory terms. For a lesbian is not considered a "real woman. " And yet, **in popular thinking, there is really only one essential difference between a lesbian and other women: that of sexual orientation - which is to say, when you strip off all the packaging, you must finally realize that the essence of being a "woman" is to get fucked by men**. "Lesbian" is one of the sexual categories by which men have divided up humanity.While all women are dehumanized as sex objects, as the objects of men they are given certain compensations: identification with his power, his ego, his status, his protection (from other males), feeling like a "real woman, " finding social acceptance by adhering to her role, etc. **Should a woman confront herself by confronting another woman, there are fewer rationalizations, fewer buffers by which to avoid the** stark **horror of her dehumanized condition.** Herein we find the overriding fear of many women toward being used as a sexual object by a woman, which not only will bring her no male-connected compensations, but also will reveal the void which is woman's real situation. This dehumanization is expressed when a straight woman learns that a sister is a lesbian; she begins to relate to her lesbian sister as her potential sex object, laying a surrogate male role on the lesbian. This reveals her heterosexual conditioning to make herself into an object when sex is potentially involved in a relationship, and it denies the lesbian her full humanity. For women, especially those in the movement, to perceive their lesbian sisters through this male grid of role definitions is to accept this male cultural conditioning and to oppress their sisters much as they themselves have been oppressed by men. Are we going to continue the male classification system of defining all females in sexual relation to some other category of people? **Affixing the label lesbian not only to a woman who aspires to be a person, but also to any situation of real love, real solidarity, real primacy among women, is a primary form of divisiveness among women: it is the condition which keeps women within the confines of the feminine role, and it is the debunking/scare term that keeps women from forming any primary attachments, groups, or associations among ourselves**.

### 4

#### Text: The National Aeronautics and Space Association should create and fully fund a prize to demonstrate a solar evolutionary xenon thruster ion engine powered propulsion booster in the United States

#### CP solves the aff

**Szondzy , 12** (David “, NASA's NEXT ion thruster clocks up continuous operation world record” <http://www.gizmag.com/next-ion-record/25570/> , Dec 27)

NASA~’s Evolutionary Xenon Thruster (NEXT) ion engine has set a new world record by clocking up 43,000 hours of continuous operation at NASA~’s Glenn Research Center~’s Electric Propulsion Laboratory. The seven-kilowatt thruster is intended to propel future NASA deep space probes on missions where chemical rockets aren~’t a practical option. Ion propulsion has come a long way from the 1960s when it was an engineering curiosity with a cool Star Trek name. Instead of burning fuel, an ion thruster gets its electrical power from solar panels or a nuclear power source. It uses this electricity to ionize molecules (in NEXT~’s case, xenon) and then a cathode to accelerate them electrostatically. As the molecules shoot out the back of the engine, they create thrust. That sounds simple, but the amount of thrust is tiny – about the equivalent AND amount of thrust to build up into speeds needed for deep space missions. The NEXT ion thruster is one of NASA~’s latest generation of engines. With a power output of seven kilowatts, it~’s over twice as powerful as the ones used aboard the unmanned [[Dawn-http://www.gizmag.com/dawn-departs-vesta/24042/]] space probe. Yet it is simpler in design, lighter and more efficient, and is also designed for very high endurance. Its current record of 43,000 hours is the equivalent of nearly five years of continuous operation while consuming only 770 kg (1697.5 lbs) of xenon propellant. The NEXT engine would provide 30 million-newton-seconds of total impulse to a spacecraft. What this means in simple terms is that the NEXT engine can make a spacecraft go (eventually) very far and very fast.

#### The NRC ignores feminist understandings of knowing

Culley and Angelique 2003 - Culley is a PhD Community Psychologist at University of Missouri – Kansas. Angelique PhD Psychologist and Professor of Community Psychology and Social Change at Penn State. *Women’s Gendered Experiences as Long-term Three Mile Island Activists. Gender and Society,* Vol. 17, No. 3 (Jun., 2003), pp. 445-461.

Half of the women activists recalled others' negative reactions to them. Three women described meetings with NRC officials that suggested they weren't being taken seriously. Paula K. remembered the men to be "very condescending" and said, "I mean it was like ... [mimicking] mommies.... We have everything under control. You go home and bake your cookies and go to your PTA [Parent-Teacher Association] meetings." Deb D. added, A lot of what happened here is people were told you're not really an expert [or] this is anecdotal information [and] I think the people that stuck with this knew that was ridiculous. This is real stuff and it wasn't anybody's imagination. ... It wasn't nerves.

### CASE

#### No warming- Newest peer review studies prove

**Taylor ’11** (7/27- senior fellow for environment policy at the Heartland Institute (2011, “New NASA Data Blow Gaping Hole In Global Warming Alarmism,” Forbes, http://blogs.forbes.com/jamestaylor/2011/07/27/new-nasa-data-blow-gaping-hold-in-global-warming-alarmism/)

**NASA satellite data** from the years 2000 through 2011 show the Earth’s atmosphere is allowing far more heat to be released into space than alarmist computer models have predicted, reports a new study in the peer-reviewed science journal Remote Sensing. The study indicates far less future global warming will occur than United Nations computer models have predicted, and supports prior studies indicating increases in atmospheric carbon dioxide trap far less heat than alarmists have claimed. Study co-author Dr. Roy Spencer, a principal research scientist at the University of Alabama in Huntsville and U.S. Science Team Leader for the Advanced Microwave Scanning Radiometer flying on NASA’s Aqua satellite, reports that real-world data from NASA’s Terra satellite contradict multiple assumptions fed into alarmist computer models. “The satellite observations suggest there is much more energy lost to space during and after warming than the climate models show,” Spencer said in a July 26 University of Alabama press release. “**There is a huge discrepancy between the data and the forecasts** that is especially big over the oceans.” In addition to finding that far less heat is being trapped than alarmist computer models have predicted, the NASA satellite data show the atmosphere begins shedding heat into space long before United Nations computer models predicted. The new findings are extremely important and **should dramatically alter the** global **warming debate**. Scientists on all sides of the global warming debate are in general agreement about how much heat is being directly trapped by human emissions of carbon dioxide (the answer is “not much”). However, the single most important issue in the global warming debate is whether carbon dioxide emissions will indirectly trap far more heat by causing large increases in atmospheric humidity and cirrus clouds. Alarmist computer models assume human carbon dioxide emissions indirectly cause substantial increases in atmospheric humidity and cirrus clouds (each of which are very effective at trapping heat), but **real-world data have** long **shown that carbon dioxide emissions are not causing** as much **atmospheric humidity** and cirrus clouds as the alarmist computer models have predicted. The new NASA Terra satellite data are consistent with long-term NOAA and NASA data indicating atmospheric humidity and cirrus clouds are not increasing in the manner predicted by alarmist computer models. The Terra satellite data also support data collected by NASA’s ERBS satellite showing far more longwave radiation (and thus, heat) escaped into space between 1985 and 1999 than alarmist computer models had predicted. Together, the NASA ERBS and Terra satellite data show that for 25 years and counting, carbon dioxide emissions have directly and indirectly trapped far less heat than alarmist computer models have predicted. In short, the central premise of alarmist global warming theory is that carbon dioxide emissions should be directly and indirectly trapping a certain amount of heat in the earth’s atmosphere and preventing it from escaping into space. Real-world measurements, however, show far less heat is being trapped in the earth’s atmosphere than the alarmist computer models predict, and far more heat is escaping into space than the alarmist computer models predict. **When objective NASA satellite data, reported in a peer-reviewed scientific journal, show a “huge discrepancy” between alarmist climate models and real-world facts, climate scientists**, the media and our elected officials **would be wise to take notice**. Whether or not they do so will tell us a great deal about how honest the purveyors of global warming alarmism truly are.

#### 4. Warming doesn't cause extinction

**Lomborg ‘8** (Director of the Copenhagen Consensus Center and adjunct professor at the Copenhagen Business School, Bjorn, “Warming warnings get overheated”, The Guardian, 8/15, <http://www.guardian.co.uk/commentisfree/2008/aug/15/carbonemissions.climatechange>

These alarmist predictions are becoming quite bizarre, and could be dismissed as sociological oddities, if it weren’t for the fact that they get such big play in the media. Oliver Tickell, for instance, writes that a global warming causing a 4C temperature increase by the end of the century would be a “catastrophe” and the beginning of the “extinction” of the human race. This is simply silly. His evidence? That 4C would mean that all the ice on the planet would melt, bringing the long-term sea level rise to 70-80m, flooding everything we hold dear, seeing billions of people die. Clearly, Tickell has maxed out the campaigners’ scare potential (because there is no more ice to melt, this is the scariest he could ever conjure). But he is wrong. Let us just remember that the UN climate panel, the IPCC, expects a temperature rise by the end of the century between 1.8 and 6.0C. Within this range, the IPCC predicts that, by the end of the century, sea levels will rise 18-59 centimetres – Tickell [he] is simply exaggerating by a factor ofup to400. Tickell will undoubtedly claim that he was talking about what could happen many, many millennia from now. But this is disingenuous. First, the 4C temperature rise is predicted on a century scale – this is what we talk about and can plan for. Second, although sea-level rise will continue for many centuries to come, the models unanimously show that Greenland’s ice shelf will be reduced, but Antarctic ice will increase even more (because of increased precipitation in Antarctica) for the next three centuries. What will happen beyond that clearly depends much more on emissions in future centuries. Given that CO2 stays in the atmosphere about a century, what happens with the temperature, say, six centuries from now mainly depends on emissions five centuries from now (where it seems unlikely non-carbon emitting technology such as solar panels will not have become economically competitive). Third, Tickell tells us how the 80m sea-level rise would wipe out all the world’s coastal infrastructure and much of the world’s farmland – “undoubtedly” causing billions to die. But to cause billions to die, it would require the surge to occur within a single human lifespan. This sort of scare tactic is insidiously wrong and misleading, mimicking a firebrand preacher who claims the earth is coming to an end and we need to repent. While it is probably true that the sun will burn up the earth in 4-5bn years’ time, it does give a slightly different perspective on the need for immediate repenting. Tickell’s claim that 4C will be the beginning of our extinction is again many times beyond wrong and misleading, and, of course, made with no data to back it up. Let us just take a look at the realistic impact of such a 4C temperature rise. For the Copenhagen Consensus, one of the lead economists of the IPCC, Professor Gary Yohe, did a survey of all the problems and all the benefits accruing from a temperature rise over this century of about approximately 4C. And yes, there will, of course, also be benefits: as temperatures rise, more people will die from heat, but fewer from cold; agricultural yields will decline in the tropics, but increase in the temperate zones, etc. The model evaluates the impacts on agriculture, forestry, energy, water, unmanaged ecosystems, coastal zones, heat and cold deaths and disease. The bottom line is that benefits from global warming right now outweigh the costs (the benefit is about 0.25% of global GDP). Global warming will continue to be a net benefit until about 2070, when the damages will begin to outweigh the benefits, reaching a total damage cost equivalent to about 3.5% of GDP by 2300. This is simply not the end of humanity. If anything, global warming is a net benefit now; and even in three centuries, it will not be a challenge to our civilisation. Further**, the IPCC expects the average person on earth to be 1,700% richer by the end of this century.**

#### No human impact to eruptions

**Dorries ‘8** (Matthias, Prof of History of Science @ Louis Pasteur University, History of Meteorology 4 (2008), http://www.meteohistory.org/2008historyofmeteorology4/3dorries.pdf)

Clive Oppenheimer, from the Department of Geography at Cambridge University, was the first to give the existing Toba literature a critical review. Oppenheimer revived the tradition of British pragmatism and understatement in the title of his 2002 article “Limited global change due to ... Toba.” He did not engage in catastrophic discourse, and took care to lay emphasis on the uncertainties concerning the Toba eruption: there remain major gaps in our understanding of the ... Toba eruption that hinder attempts to model its global atmospheric and climatic, and hence human consequences. ... The volcanological uncertainties need to be appreciated before accepting arguments for catastrophic consequences of the Toba super-eruption.47 Oppenheimer pointed out that figures for the eruption's basic parameters like intensity, height, and magnitude were more or less the result of guesswork. He furthermore made it clear that Toba's climatic impact should be judged by the sulphate aerosols, whose amount differed by several magnitudes in various studies. For Oppenheimer, globally averaged surface temperatures were more likely to have dropped only 1°C than the 3-5°C proposed by Rampino and Self. In addition, Oppenheimer saw no “firm evidence ... linking ... [Toba] to a human demographic crash,” particularly, because there was “no clear picture even of the relative timing of events,” which made it impossible to “establish a causal chain.”48 He pointed out that the year of the eruption was not uniquely cold, and that human beings have survived perhaps several of these super-eruptions. In short, “... a number of conclusions have been based on unreliable assumptions and inferences,” and more research was necessary.49

#### Mastering antimatter is impossible – They disappear as soon as they meet matter.

**Lawrence Berkeley National Laboratory 04** “Antimatter” http://www.lbl.gov/abc/Antimatter.html

**A particle and its antimatter particle annihilate when they meet: they disappear and their kinetic plus rest-mass energy is converted into other particles (E = mc2). For example, when an electron and a positron annihilate at rest, two gamma rays, each with energy 511 keV, are produced. These gamma rays go off in opposite directions** because both energy and momentum must be conserved. The annihilation of positrons and electrons is the basis of Positron Emission Tomography (PET) discussed in the section on Applications (Chapter 14). **When a proton and an antiproton annihilate at rest, other particles are usually produced**, but the total kinetic plus rest mass energies of these products adds up to twice the rest mass energy of the proton (2 x 938 MeV).

#### Antimatter is safe – Their impacts assume creating huge quantities which take 2 billion years. Plus, CERN protocols check.

**European Organization for Nuclear Research 08** January, “Angels and Demons” http://public.web.cern.ch/public/en/Spotlight/SpotlightAandD-en.html

**How safe is antimatter? Perfectly safe, given the minute quantities we can make. It would be very dangerous if we could make a few grams of it, but this would take us billions of years. If so, does CERN have protocols to keep the public safe**? There is no danger from antimatter. There are of course other dangers on the CERN site, as in any laboratory: high voltage in certain areas, deep pits to fall in, etc. but for these dangers the usual **industrial safety measures are in place. There is no danger of radioactive leaks a**s you might find near nuclear power stations. Does one gram of antimatter contain the energy of a 20 kilotonne nuclear bomb? Twenty kilotonnes of TNT is the equivalent of the atom bomb that destroyed Hiroshima. The explosion of a kilotonne (=1000 tonnes) of TNT corresponds to a energy release of 4.2x1012 joules (1012 is a 1 followed by 12 zeros, i.e. a million million). For comparison, a 60 watt light bulb consumes 60 J per second. You are probably asking for the explosive release of energy by the sudden annihilation of one gram of antimatter with one gram of matter. Let's calculate it. To calculate the energy released in the annihilation of 1 g of antimatter with 1 g of matter (which makes 2 g = 0.002 kg), we have to use the formula E=mc2, where c is the speed of light (300,000,000 m/s): E= 0.002 x (300,000,000)2 kg m2/s2 = 1.8 x 1014 J = 180 x 1012 J. Since 4.2x1012 J corresponds to a kilotonne of TNT, then 2 g of matter-antimatter annihilation correspond to 180/4.2 = 42.8 kilotonnes, about double the 20 kt of TNT. This means that **you ‘only’ need half a gram of antimatter to be equally destructive as the Hiroshima bomb, since the other half gram of (normal) matter is easy enough to find. At CERN we make quantities of the order of 107 antiprotons per second** and there are 6x1023 of them in a single gram of antihydrogen. You can easily calculate how long it would take to get one gram: we would need 6x1023/107=6x1016 seconds. There are only 365 (days) x 24 (h) x 60 (min) x 60 (sec) = around 3x107 seconds in a year, so **it would take roughly 6x1016 / 3x107 = 2x109 = two billion years!** It is quite unlikely that anyone wants to wait that long.

#### Deflection solves astroids

**NASA** **99** (StarChild, “Question,” http://starchild.gsfc.nasa.gov/docs/StarChild/questions/question11.html)

**If astronomers find such an object, there would be plenty of time to track it, measure its orbit** precisely, **and plan a system for deflecting it** from its current orbital path. There **would be no great hurry and no great panic**. It would be a project for all the world's nations to take part in. Because **we will have found it long before it actually intersects the Earth's orbit, it probably would take only a small push** (perhaps from chemical rockets we land on the surface of the asteroid**) to divert it** from a threatening path.

#### No asteroid threat

**Wall ‘3-14**

(Michael, Michael was a science writer for the Idaho National Laboratory and has been an intern at Wired.com, The Salinas Californian newspaper, and the SLAC National Accelerator Laboratory. He has also worked as a herpetologist and wildlife biologist. He has a Ph.D. in evolutionary biology from the University of Sydney, Australia, a bachelor's degree from the University of Arizona, and a graduate certificate in science writing from the University of California, Santa Cruz. “Deflecting Killer Asteroid Could Be Geopolitical Nightmare” by Mike Wall, SPACE.com Senior Writer: 14 March 2013)

While astronomers have spotted 95 percent of the 980 near-Earth asteroids at least 0.6 miles (1 km) wide, which might end civilization if they hit us, many smaller but still hazardous space rocks remain undetected. Researchers have discovered less than 30 percent of the close-flying 330-foot-wide (100 m) objects, for example, which could destroy an area the size of a state if they hit us. And they've mapped out the orbits of less than 1 percent of the 130-footers thought to be out there, which could wipe out a city. In all, just 9,700 near-Earth asteroids have been catalogued to date, out of a population numbering in the millions. Many astronomers and politicians are thus calling for more resources to be put toward asteroid-detection efforts, so that we have a better idea of what's headed our way in the future. Something big will hit us again, experts say, and we'll probably need years or decades of warning to do something about it. [Meteor Explodes Over Russia (Video)] How to deflect an asteroid Scientists think they know how to deflect an asteroid headed directly for Earth, given enough lead time. The strategy involves mounting at least two coordinated space missions, Schweickart said. The first would slam a kinetic impactor into the asteroid to knock it off course. The second would launch a "gravity tractor" probe to fly alongside the space rock, nudging it farther via a tiny but persistent gravitational tug. "You always need a gravity tractor there to ensure that any deflection does not end up having the asteroid go through a [gravitational] 'keyhole,' which would simply bring it back later," Schweickart told SPACE.com. This approach can avert more than 98 percent of projected collisions, according to a 2008 report called "Asteroid Threats: A Call for Global Response." The report was put together by the Association of Space Explorers' International Panel on Asteroid Threat Mitigation, which Schweickart chaired. [Photos: Asteroids in Deep Space] A different strategy — such as a nuclear blast — may be needed for asteroids more than 1,300 feet (400 m) wide, or for those detected with little warning time, the report adds. But such dire cases are likely to come along just once every 100,000 years or so. Political hurdles Humanity has successfully demonstrated both aspects of the impactor-tractor technique. In 2005, for example, NASA smashed a probe into the Comet Tempel 1 to investigate the icy body's composition. And several spacecraft, such as NASA's Dawn probe and Japan's Hayabusa craft, have rendezvoused with asteroids in deep space. But the main challenges of an asteroid-deflection mission will probably be more political than technical, Schweickart said. And perhaps the biggest hurdle of all will be getting the world to agree which way to steer the asteroid. Each incoming asteroid whose orbit has been mapped will threaten Earth along a specific "risk corridor" — a line of potential impact sites that extends about 180 degrees across the planet's surface but is just a few tens of kilometers wide. A deflection campaign would not be able to make huge changes to the dangerous asteroid's orbit. Rather, it could merely drag the projected impact point along the risk corridor to the left or to the right, by slowing the space rock down or speeding it up slightly. The goal, of course, would be to drag the impact site off the planet entirely. But determining how exactly to achieve this — to go left or right, to push the asteroid or to pull it — would be difficult, for any decision would necessarily put some nations at greater risk than others, Schweickart said. "If you start a deflection and something goes wrong, you have now shifted that impact point along the risk corridor one way or the other," Schweickart said. "And now people are in danger who were not in danger before you started this operation." And that's just one of many tricky geopolitical issues a potential asteroid-deflection mission would present, he added. "Who does it? Who pays for it? Who handles the liability?" Schweickart said. "How does the decision get made? Do we deflect the 40-meter object, or do we evacuate? Who makes that decision? And who pays for the evacuation? Everybody, because we all collectively made the decision? Or do the people who were unlucky enough to evacuate have to handle the cost?" Getting the ball rolling Schweickart and many of his colleagues think it's imperative to develop an international framework for dealing with the asteroid threat, so that the world can work together to predict and prevent catastrophic impacts. The Association of Space Explorers (ASE) — a group of veteran astronauts and cosmonauts — lays out a proposed framework in its 2008 report, calling for the United Nations to oversee a three-tiered program consisting of 1) an international asteroid detection and warning network; 2) a mission-planning group that would assess deflection options; and 3) a mission-authorization body tasked with developing "the policies and guidelines that represent the international will to respond to the global impact hazard." The United Nations' Action Team on Near-Earth Objects — better known as Action Team 14 — embraced much of this plan in a set of recommendations it drew up late last year. These recommendations are likely to be adopted by the U.N.'s Working Group on Near-Earth Objects, then go up the chain from there, ASE officials said. "Given the work methods of the [UN's] Committee on the Peaceful Uses of Outer Space, the recommendations of the Working Group will likely be adopted by the Committee in June," ASE officials wrote in a Feb. 27 update. "The [UN] General Assembly will likely follow suit in October without further discussions." The U.N.'s ponderous pace and many layers of bureaucracy may be frustrating to scientists who have been working the technical side of the hazardous-asteroid problem for years. But Schweickart voiced optimism that the political progress made will eventually be worth the wait. "When you get there, the whole world has bought into it," he said. "I mean, you're moving the whole world."

**The claim that we must go to space or we will die – creates a self-fulfilling prophesy of earth’s problems – their descriptions make it more likely that we will die from catastrophies on earth**

**Williams ‘10** Lynda Williams Physics Instructor, Santa Rosa Junior College. Peace Review, a Journal of Social Justice Irrational Dreams of Space Colonization. The New Arms Race in Outer Space (22.1, Spring 2010)

**Life on Earth is more urgently threatened by the destruction of the biosphere and its life sustaining habitat due environmental catastrophes such as climate change, ocean acidification, disruption of the food chain, bio-warfare, nuclear war, nuclear winter, and myriads of other man-made doomsday prophesies. If we accept these threats as inevitabilities** on par with real astronomical dangers **and divert our natural, intellectual, political and technological resources from solving these problems into escaping them, will we playing into a self- fulfilling prophesy of our own planetary doom? Seeking space based solutions to our Earthly problems may indeed exacerbate the planetary threats we face.** This is the core of the ethical dilemma posed by space colonization: should we put our recourses and bets on developing human colonies on other worlds to survive natural and man-made catastrophes or should we focus all of our energies on solving the problems that create these threats on Earth?

**Technology is nowhere near ready**

**Clark 2k** (Greg, Staff Reporter – Space.com, “Will Nuclear Power Put Humans on Mars?”, Space.com, 5-21,

<http://www.space.com/scienceastronomy/solarsystem/nuclearmars_000521.html>)

When it comes to attracting interest in new mission plans to far-out places in the solar system, it is often the **wildly futuristic concepts** that **get the attention**. **Antimatter propulsion**, **solar and magnetic sails** all **make great stories, but** such **futuristic concepts** **don't do anything** **to get humans out** to the moon, or Mars, or to various local comets or asteroids **within the** **foreseeable futur**e. **With** these **futuristic technologies** **barely out of their conceptual phases**, practical use of such far-out concepts for **human space transportation is** **decades away at best**.

**Humans can’t survive in space**

**Kruerger 8** (Curtis, “Dangers of Space”, St. Petersburg Times, 2-18, Lexis)

An undisclosed medical problem forced German astronaut Hans Schlegel to miss his first planned space walk last week. But Schlegel was lucky. He recovered in time for Wednesday's excursion outside the space station to help swap out a cooling system. It could be a much different picture for astronauts who travel to Mars, a treacherous 30-million-mile journey that NASA has begun to plan. The trip there would take half a year. Along the way, **astronaut's bones** would **shrink 1.5 percent each month, making them** more **fragile**. Their **bodies would be exposed to radiation that could damage** their **DNA** or cause cancer. Their **hearts would weaken from** the months of **pumping blood inside a weightless body**. **Space travel could tear down** their **minds**, as well as their bodies. Imagine stepping outside the space shuttle, staring back at Earth. Unlike Apollo astronauts who stood on the moon, Earth would not look like a giant, swirling-blue globe. It would look like one of the stars. "I think going to Mars and looking back to Earth and seeing Earth as a bluish star, that's got to have some impact on you, as to how remote you are," said Don Thomas, a former NASA astronaut who traveled to space four times. All these dangers show the challenges of NASA's plan for the future, which is to develop a spacecraft that would take Americans back to the moon as soon as 2018, and eventually on to Mars.

**Long time-frame**

**Britt 1** (Robert Roy, “Survival of the Elitist: Bioterrorism May Spur Space Colonies”, Space.com, 10-30,

[www.space.com/scienceastronomy/generalscience/colonize\_now\_011030-1.html](http://www.space.com/scienceastronomy/generalscience/colonize_now_011030-1.html))

Whether opportunity or fear will eventually push us off the pale blue dot that has been home to hominids for more than a million years, no one is going anywhere anytime soon. At least not on a permanent basis. **Even** Tumlinson, the director of FINDS and arguably **the most energetic** and productive **proponent of space settlement, expects the** whole **process to take a** **generation**. Sure, the first tourist has already flown. Others may soon follow. **Mars could** conceivably be **visited in a** **decade or two**.

1. **Global PR campaign shutting down nuclear power now – causing transition to renewables – stopping extinction from meltdowns**

**Wasserman 12**

(Harvery, American journalist, author, democracy activist, and advocate for renewable energy. He has been a strategist and organizer in the anti-nuclear movement in the United States for over 30 years., 'SOLARTOPIA! Our Green-Powered Earth' http://www.huffingtonpost.com/harvey-wasserman/post\_3127\_b\_1353253.html)

In the wake of Fukushima, grassroots citizen action is shutting the worldwide nuclear power industry. A Solartopian tipping point is upon us in the U.S., Europe and Japan which will re-define how the human race gets its energy. States rights and local democracy are at the core of the battle. The definitive breaking point looms in Vermont. By mid-March a state board is likely to deny the Yankee reactor licenses to operate or to create radioactive waste. If that happens, a Vermont shutdown could mark a critical moment in establishing state power over an atomic reactor. A critical domino would fall -- as it has in Japan and Europe -- and we will begin taking down old reactors all across the U.S. Four new reactors barely under construction will go down with them, **making inevitable the end** America's age of atomic power. In Vermont, the New Orleans-based Entergy bought the Yankee reactor in 2002. Entergy agreed to shut it if the state's Public Service Board denied it a Certificate of Public Good to continue to operate and generate radioactive waste. That decision is due by March 21, the forty-year anniversary of the reactor's 1972 opening. Entergy has horrified many of its staunchest Green Mountain supporters. One of its cooling towers has simply collapsed from ancient rot and basic negligence. It has leaked tritium and other radioactive isotopes from pipes the company has said -- under oath -- do not exist. Entergy sued Vermont after the legislature voted (26 to 4) to shut the reactor. When its lawyers won in federal court, Entergy demanded the public pay it $4 million in legal fees. But the company miscalculated. It welcomed Federal Judge Garvan Murtha's ruling that the legislature could not shut Yankee (the state is appealing). But Murtha also upheld the right of the Public Service Board to deny Entergy those operating and waste production permits. So after lauding the decision, Entergy's lawyers now want Murtha to change it. Entergy has also asked the Public Service Board for a stay in its expected denial of the permits. The case is clearly headed to the corporate-owned U.S. Supreme Court. But for Entergy to win, the Roberts majority would have to rule that the company was temporarily insane when signed its agreements with the state, and that a state agency can be forced (against its will) to issue reactor operating and waste creating permits. The history of U.S. courts denying states the right to shut reactors dates back to the 1954 Atomic Energy Act. But deferral to the federal Nuclear Regulatory Commission's bent for keeping rush-bucket reactors on line is rapidly eroding. The Commission granted Vermont Yankee a license extension one day before the Fukushima disaster. A state-mandated shut down could seriously impact the political calculus for an industry whose grassroots opposition **has become a full-on tsunami.** New York's Indian Point reactors are under assault from Governor Andrew Cuomo, whose father cut the 1988 deal that forced Long Island's Shoreham reactor to shut without ever achieving commercial operation. Cuomo is being pushed by a fierce grassroots anti-nuke groundswell. Entergy does need state permits that would let two remaining reactors at Indian Point (Unit One went down long ago) continue heating and irradiating the Hudson River. New York could demand Entergy build extremely expensive cooling towers,which may force it to shut down for economic reasons. Similar forces are at work in New Jersey and other states. In Florida, botched multi-billion dollar repairs to the Crystal River reactor near Tampa have forced a brutal grassroots battle over soaring electric rates which must be approved by increasingly beleaguered state regulators. It is highly likely that reactor will never operate again. At Pilgrim, Mass., is strongly intervening against a license extension. Both remaining reactors are currently shut at California's San Onofre (Unit One there also went down long ago), where grassroots activists -- including local surfers -- are in pitched battle against re-opening. Ohio's Davis-Besse is having its containment dome sliced for the fourth time. Two reactors in Nebraska are still recovering from major flooding. All across the country, dozens of rust-bucket nukes stagger on their last legs even as the Nuclear Regulatory Commission hands them extended licenses in the face of escalating state and local opposition. Once the firewall against recourse from the states is breached, a flood of shutdowns could well follow. In Japan, utilities must have permits from a host prefecture to re-open after refueling or repairs. Of 54 licensed reactors nationwide, only two now operate. Both could be shut soon, rendering Japan nuke-free for the first time in four decades. Germany has shut eight reactors and will take down 11 more by 2012. Except for Great Britain and a number of eastern holdouts, the "nuclear renaissance" has been all but abandoned in Europe, with an escalating cascade of elderly nukes going cold and proposed new projects being abandoned. The accelerating revolution in renewables has allowed solar, wind and other green sources to outstrip atomic reactors in cost, time to build, ecological impact and safety. As billions pour into Solartopian sources, private investment in atomic energy has all but disappeared -- **except where there are massive taxpayer subsidies**. **Even that's not enough.** In 2011, President Obama handed $8.33 billion in federal loan guarantees to the builders of two reactors at Georgia's Vogtle. But Peach State ratepayers are already being soaked for billions more in pre-payments, and the cost of the project is soaring. A parallel financial disaster looms at the Robinson site in neighboring South Carolina. Though the industry assumes these four reactors will eventually be finished, economic realities may say otherwise. Cost estimates for new nukes have been soaring even before construction begins. Even with federal money, the builders still demand that state ratepayers foot the bill as the process proceeds, meaning consumers are on the hook for multiple billions even if the reactors never open. Pitched battles over this Construction Work in Progress scam have already been won by consumers in Missouri and are being fought in Iowa and elsewhere. As the years of building drag on, costs will escalate while renewables continue to become cheaper. Sooner or later, construction is likely to stop, as it did at numerous projects in the 1970s and 1980s which were never finished. Today the Department of Energy still sits on some $10 billion in available guarantees without a recipient ready to build a new nuke. For the first time since early in the George W. Bush years, there has been no executive request for additional reactor construction loan guarantees. In Finland and Flamanville, France, new reactor projects are years behind schedule and billions over budget. With new construction virtually abandoned, and the continued operation of old reactors under intense attack in Japan, Europe and the U.S., only China and India remain as likely sites for large numbers of new nukes. Russia is doing its best to peddle them throughout the Third World. South Korea wants to sell reactors to the United Arab Emirates. But grassroots resistance in India has been fierce. China is still mulling a post-Fukushima decision on whether to proceed with reactors already under construction. Signs of a popular uprising against rampant pollution -- including nuclear reactors -- indicate growing public opposition. But here in the U.S., **we are at the fall-off-the-cliff moment** for atomic energy, new and old. Entergy, says Deb Katz of the Citizens Awareness Network, has been "blinded by its arrogance and contempt for the state of Vermont." The company, she says, "is attempting to establish that corporations are more powerful than the states they operate in." If the citizens of Vermont can shut Yankee, a dam will be breached and the post-Fukushima power of a rising grassroots tsunami will be made tangible. **Solartopia will be that much closer**. And **the** grassroots **No Nukes campaign will** begin to take its **place as one of history's most successful** popular **movements**. Let's just make sure these shut-downs happen before the **next Fukushima irradiates us all.**

1. **Only Renewables can solve climate quick enough -**

**Rees 11** (Don't believe the spin on thorium being a greener nuclear option

, <http://www.guardian.co.uk/environment/2011/jun/23/thorium-nuclear-uranium>, Eifon)

Proponents counter that the NNL paper fails to address the question of MSR technology, evidence of its bias towards an industry wedded to PWRs. **Reliant on diverse uranium/plutonium revenue streams – fuel packages and fuel reprocessing**, for example – **the nuclear energy giants will never give thorium a fair hearing**, they say. But even **were** its **commercial viability established**, **given 2010's soaring greenhouse gas levels, thorium is one magic bullet that is years off target**. Those who support **renewables** say they **will** have **come** **so far in cost and efficiency terms by the time the technology is perfected and upscaled that thorium reactors will already be uneconomic**. Indeed, if renewables had a fraction of nuclear's current subsidies they could already be light years ahead.

# 2NC

## ! Framing

### Structural Violence

#### It’s try or die for the neg

ECKHARDT ’90 (William Eckhardt, Lentz Peace Research Laboratory of St. Louis, February 1990, Journal of Peace Research, Vol. 27, No. 1, jstor, p. 15-16

Wright looked at the relation between modern civilization and war in somewhat more detail, based on his own list of 278 modern wars from 1480 to 1941, plus 30 more ‘hostilities’ from 1945 to 1964. Modern war was not especially different from other civilized wars in its drives or motives of dominance, independence, and rivalry, but it was quite different in its geographical scope (the world) and in its technologies (from the hand gun to the atom bomb, from the printing press to the mass media). Modern Western Civilization used war as well as peace to gain the whole world as a domain to benefit itself at the expense of others: The expansion of the culture and institutions of modern civilization from its centers in Europe was made possible by imperialistic war… It is true missionaries and traders had their share in the work of expanding world civilization, but always with the support, immediate or in the background, of armies and navies (pp. 251-252). The importance of dominance as a primary motive in civilized war in general was also emphasized for modern war in particular: ‘[Dominance] is probably the most important single element in the causation of major modern wars’ (p. 85). European empires were thrown up all over the world in this process of benefiting some at the expense of others, which was characterized by armed violence contributing to structural violence: ‘World-empire is built by conquest and maintained by force… Empires are primarily organizations of violence’ (pp. 965, 969). ‘The struggle for empire has greatly increased the disparity between states with respect to the political control of resources, since there can never be enough imperial territory to provide for all’ (p. 1190). This ‘disparity between states’, not to mention the disparity within states, both of which take the form of racial differences in life expectancies, has killed 15-20 times as many people in the 20th century as have wars and revolutions (Eckhardt & Kohler, 1980; Eckhardt, 1983c). When this structural violence of ‘disparity between states’ created by civilization is taken into account, then the violent nature of civilization becomes much more apparent. Wright concluded that ‘Probably at least 10 per cent of deaths in modern civilization can be attributed directly or indirectly to war… The trend of war has been toward greater cost, both absolutely and relative to population… The proportion of the population dying as a direct consequence of battle has tended to increase’ (pp. 246, 247). So far as structural violence has constituted about one-third of all deaths in the 20th century (Eckhardt & Kohler, 1980; Eckhardt, 1983c), and so far as structural violence was a function of armed violence, past and present, then Wright’s estimate was very conservative indeed. Assuming that war is some function of civilization, then civilization is responsible for one-third of 20th century deaths. This is surely self-destruction carried to a high level of efficiency. The structural situation has been improving throughout the 20th century, however, so that structural violence caused ‘only’ 20% of all deaths in 1980 (Eckhardt, 1983c). There is obviously room for more improvement. To be sure, armed violence in the form of revolution has been directed toward the reduction of structural violence, even as armed violence in the form of imperialism has been directed toward its maintenance. But imperial violence came first, in the sense of creating structural violence, before revolutionary violence emerged to reduce it. It is in this sense that structural violence was basically, fundamentally, and primarily a function of armed violence in its imperial form. The atomic age has ushered in the possibility, and some would say the probability, of killing not only some of us for the benefit of others, nor even of killing all of us to no one’s benefit, but of putting an end to life itself! This is surely carrying self-destruction to some infinite power beyond all human comprehension. It’s too much, or superfluous, as the Existentialists might say. Why we should care is a mystery. But, if we do, then the need for civilized peoples to respond to the ethical challenge is very urgent indeed. Life itself may depend upon our choice.

## Separatism

### 2NC Alt OV

**Lesbian anger comes from a woman’s experiences of violence and oppression by the hands of men. It unleashes a frightening rage capable of changing the world around her. Women will no longer be a walking apology, and lesbian rage demands attention and even without it tears at the walls of male supremacy for new female-driven world-making.**

**Kaplow in 1973**

 Susi Kaplow. “Getting Angry” Radical Feminism. 1973.

Two scenarios: An angry man: someone has infringed on his rights, gone against his interests, or harmed a loved one. Or perhaps his anger is social--against racism or militarism. He holds his anger in check (on the screen we can see the muscles of his face tighten, his fists clench) and then, at the strategic moment, he lets it go. We see him yelling, shouting his angry phrases with sureness and confidence--or pushing a fist into his opponent's stomach with equal conviction. In either event, the anger is resolved; our hero has vented it and is content with success or accepts what he knows to be unmerited defeat. Dissolve to scene two. An angry woman: angry at her man for cheating on her or (more likely) at the other woman. If we're in the good old days, she stomps up to her man and begins to scream wildly, he holds her down with his pinky, her anger melts in his embrace. After the fade-out, we find a puzzled heroine wondering how she could have been angry at such a good man. Or she marches over to the local saloon, hurls a few choice epithets at her rival, and then the hair-pulling begins. This ludicrous scene is always broken up by the amused and slightly scandalized gentlemen on the sidelines. In modern dress the same episode would be played differently. Discovering her hsuband's or lover's infidelity, the woman would smolder inwardly until the anger had burned down to a bitter resentment or becomes such a pressurized force that it could only come out in a rage so uncontrollable that the man (and the audience) can dismiss it as irrational. "I can't talk to you when you're like this." Hell hath no fury like a woman scorned. For a woman in our society is denied the forthright expression of her healthy anger. Her attempts at physical confrontation seem ridiculous; "ladies" do a slow burn, letting out their anger indirectly in catty little phrases, often directed against a third party, especially children. A woman has learned to hold back her anger: It's unseemly, aesthetically displeasing, and against the sweet, pliant feminine image to be angry. And the woman fears her own anger: She the great conciliator, the steadier of rocked boats, moves, out of her fear, to quiet not only others' anger but also her own. Small wonder that when the vacuum-sealed lid bursts off, the angry woman seems either like a freaked-out nut or a bitch on wheels. Her frenzy is intensified by the shakiness of her commitment to her own anger. What if she's really wrong? What if the other person is right? --Or worse (and this is the greatest fear) hits back with, "You're crazy, I don't know what you're so mad about." Why can't women allow themselves the outlet of their contained anger? Why do those around them find an angry woman so frightening that they must demoralize and deflate her into a degraded, inauthentic calm? Healthy anger says "I'm a person. I have certain human rights which you can't deny. I have a right to be treated with fairness and compassion. I have a right to live my life as I see fit, I have a right to get what I can for myself without hurting you. And if you deprive me of my rights, I'm not going to thank you, I'm going to say 'fuck off' and fight you if I have to." A person's anger puts him or her on center stage. It claims attention for itself and demands to be taken seriously, or else. (Or else I won't talk to you, I won't work with you or be friendly toward you, or else, ultimately, our association is over.) Expressing anger means risking. Risking that the other person will be angry in return, risking that he or she will misunderstand the anger or refuse to deal with it, risking that the anger itself is misplaced or misinformed. So you need strength to say you're angry--both the courage of your convictions and the ability to accept that your anger may be unwarranted without feeling crushed into nothingness. You must not have your total worth as a person riding on the worth of each individual case of anger. Thus anger is self-confident, willing to fight for itself even at the jeopardy of the status quo, capable of taking a risk and, if necessary, of accepting defeat without total demise. Above all, anger is assertive. The traditional woman is the polar opposite of this description. Lacking confidence in herself and in her own perception, she backs away from a fight or, following the rules of chivalry, lets someone else do battle for her. Strong emotions disturb her for the disruption they bring to things-as-they-are. So shaky is her self-image that every criticism is seen as an indictment of her person. She is a living, walking apology for her own existence--what could be more foreign to self-assertion? Although the reality has changed somewhat, most women will recognize themselves somewhere in this description. And society clings to this model as its ideal and calls an angry woman unfeminine. Because anger takes the woman out of her earth mother role as bastion of peace and calm, out of her familial role as peacemaker, out of her political role as preserver of the status quo, out of her economic role as cheap labor, out of her social role as second-class citizen. It takes her out of roles altogether and makes her a person. It is no accident, then, that the emotion which accompanies the first steps toward liberation is, for most women, anger. Whatever sense of self-worth you have been able to emerge with after twenty or thirty years of having your mind messed with, gives you the vague feeling that your situation is not what it should be and sends you looking tentatively at the world around you for explanations. Realizations are, at first, halting, and then begin to hit you like a relentless sledge hammer, driving the anger deeper and deeper into your consciousness with every blow. Your fury focuses on the select group of individuals who have done you the most damage. You are furious at your parents for having wanted a boy instead; at your mother (and this fury is mixed with compassion) for having let herself be stifled and having failed to show you another model of female behavior; at your father for having gotten a cheap bolster to his ego at your and your mother's expense. You are furious at those who groom you to play your shabby role. At the teachers who demanded less of you because you were a girl. At the doctors who told you birth control was the woman's responsibility, gave you a Hobson's choice of dangerous and ineffective devices, then refused you an abortion when these failed to work. At the psychiatrist who called you frigid because you didn't have vaginal orgasms and who told you you were neurotic for wanting more than the unpaid, unappreciated role of maid, wet nurse, and occasional lay. At employers who paid you less and kept you in lousy jobs. At the message from the media which you never understood before: "You've come a long way, baby" -- down the dead-end, pre-fab street we designed for you. Furious, above all, at men. For the grocer who has always called you "honey" you now have a stiff, curt "don't call me honey." For the men on the street who visit their daily indignities on your body, you have a "fuck off," or, if you're brave, a knee in the right place. For your male friends (and these get fewer and fewer) who are "all for women's lib" you reserve a cynical eye and a ready put-down. And for your man (if he's still around), a lot of hostile, angry questions. Is he different from other men? How? And when he fails to prove himself, your rage explodes readily from just beneath the surface. This is an uncomfortable period to live through. You are raw with an anger that seems to have a mind and will of its own. Your friends, most of whom disagree with you, find you strident and difficult. And you become all the more so because of your fear that they are right, that you're crazy after all. You yourself get tired of this anger--it's exhausting to be furious all the time--which won't even let you watch a movie or have a conversation in peace. But from your fury, you are gaining strength. The exercise of your anger gives you a sense of self and of self-worth. And the more this sense increases, the angrier you become. The two elements run in a dialectic whirlwind, smashing idols and myths all around them. You see, too, that you can get angry and it doesn't kill people, they don't kill you, the world doesn't fall apart. Then this anger, burning white hot against the outside world, suddenly veers around and turns its flame toward you. Sure, they fucked you up and over, sure, they oppressed you, sure they continue to degrade and use you. But--why did you let it happen? Why do you continue to let it happen? All of a sudden you are up against the part you played in your own oppression. You were the indispensible accomplice to the crime. You internalized your own inferiority, the pressing necessity to be beautiful and seductive, the belief that men are more important than women, the conviction that marriage is the ultimate goal. Seeing this, you are violent against yourself for every time you were afraid to try something for fear of failing, for all the hours lost on make-up and shopping, for every woman you missed because there was a man in the room, for getting *yourself* stuck as a housewife or in a job you hate because "marriage is your career." This phase of anger turned inward is terrifying. You are alone with your own failed responsibilities toward yourself, however much you can still blame others. It is this phase that some women find unbearable and flee from, returning to the first phase of anger or dropping out altogether. Because this inturned anger demands action--change--and won't let go until its demands begin to be satisfied. You can fall back on your inability to control others and their behavior toward you. But you can't comfortably claim powerlessness over your own conduct. Nor can you, at least for long, go on being furious at others (the forty-five-year-old who still blames mommy, flounders) if you don't even try to get yourself together. This inturned anger is a constructive or rather reconstructive catalyst. For what you can do under its impetus is to restructure yourself, putting new images, patterns and expectations in place of the old,// no longer viable ones. As you use your anger, you also tame it. Anger becomes a tool which you can control, not only to help you make personal changes but to deal with the world outside as well. You can mobilize your anger to warn those around you that you're not having any more bullshit, to underscore your seriousness, to dare to drive your point home. Through the exercise of your anger, as you see its efficacy and thus your own, you gain strength. And the growing feeling that you control your anger and not vice versa adds to this strength. As you gain this control, become surer of yourself, less afraid of being told you're crazy, your anger is less enraged and, in a sense, calmer. So it becomes discriminating. You reserve it for those individuals and groups who are messing with your mind--be they men or other women. This progression of anger finds its ultimate meaning as an experience shared with other women. All striving to understand their collective situation, women in a group can help each other through the first, painful phase of outward-directed anger. Through consciousness-raising each woman can (at least ideally) find sufficient confirmation of her perceptions to be reassured of her own sanity--and can find growing strength to do without such confirmation when necessary. In the second phase of inturned anger, women can support one another in their attempts at self-definition and change, change which others will try to forestall. And, at the same time, they can start to move together to create new social forms and structures in which individual changes can come to fruition. Controlled, directed, but nonetheless passionate, anger moves from the personal to the political and becomes a force for shaping our new destiny.

**Voting Neg as an act of symbolic castration is the only option – key to cause “Castration anxiety” and transformation**

**Larvalsubjects in 2007**

Symbolic Castration. <http://larvalsubjects.wordpress.com/2007/01/15/symbolic-castration/>

What is particularly frustrating about the evaporation of desire is that the desire to write insists. For the blessed Lars of [Spurious](http://spurious.typepad.com/), the [question](http://spurious.typepad.com/spurious/2007/01/sainthood.html) is always one of how to continue to write, and he has gone so far as to conceive a writing that is not driven by content but a content driven by writing. Yet what of this desire to write in the first place, this oppressive sense that I am somehow violating some duty if I don’t write? Is this not the phenomenon of phallus or symbolic castration? As Zizek puts it,The status of possibility, while different from that actuality, is thus not simply deficient with regard to it. *Possibility as such exerts actual effects which disappear as soon as it ‘actualizes’ itself.*Such a ‘short-circuit’ between possibility and actuality is at work in the Lacanian notion of ‘symbolic castration’: the so-called ‘castration-anxiety’ cannot be reduced to the psychological fact that, upon perceiving the absence of the penis in woman, man becomes afraid that ‘he also might lose it.’ ‘Castration anxiety’ rather designates the precise moment at which the possibility of castration takes precidence over its actuality, i.e., the moment at which the very possibility of castration, its mere threat, produces actual effects in our psychic economy. This threat as it were ‘castrates’ us, branding us with an irreducible loss. (*Tarrying With the Negative*, 159)In this context Zizek is speaking specifically of the manner in which power functions. What is important where power is concerned is the threat of force and not the exercise itself. That is, a certain potentiality is seen as pervading intersubjective relations– the potentiality of violence –and this potentiality leads to transformations at the level of actuality or how we act.However, generalizing the notion of symbolic castration or the phallic function, then, it can be said that symbolic castration is that moment where possibility enters the world, where the world becomes haunted by incompleteness, and this incompleteness compels us to produce regardless of whether there is any need to produce. Over and above the need to communicate something, over and above the aim of “padding my CV”, or intervening in some situation, there is the insistent call to write even where there is nothing and no reason to write. And even though there is no concrete call to write anything, even though there is nothing to be accomplished in writing, even though there is nothing to be said, I nonetheless feel as if I am failing in some crucial way when I’m not writing, that something in the world is fundamentally incomplete. Why should writing function as such an aim in itself? And why must I feel so wretched when I have nothing to write?

### FWK

**This framework is another link—it’s patriarchal censorship that silencing the feminist worldview—this independently warrants a negative ballot to fight against gendered censorship**

**Mojab 02 (**Shahrzad, director of the Women and Gender Studies Institute and an Associate Professor in the Department of Adult Education and Psychology at University of Toronto, Canada; “Information, Censorship, and Gender Relations in Global Capitalism” Information for Social Change 1)

It is important to know more about the ties that bind censorship to gender. Even when one barrier is removed, others emerge to ensure the reproduction of the status quo**.** For instance, after decades of struggle, beginning in late nineteenth century, legal barriers to women's access to parliament and political office were removed in the West and, later, in many non-Western states. This was achieved, not simply through access to information, but rather due to women's determination to create knowledge and consciousness, and engage in mobilizing and organizing (sit-ins, demonstrations, picketing, leafleting, singing, etc.) in schools, homes, streets, churches, and university campuses. However, states and state-centred politics continue to be male-centred**.** Even when women have a proportionate participation in the parliament, there is no guarantee that they would all advocate feminist alternatives to an androcentric agenda; and this is the case for the simple reason that women can be as patriarchal in their politics as some men are.A more adequate approach to the understanding of censorship is, I believe, to see it not as an irrational practice, as a mischievous attitude, or a technical problem of obstructing channels of communication. Censorship is an integral part of the exercise of gender power, class power, and the powers of the nation, ethnicity, religion and governance. Not only does it deny women access to information, but also limits their participation in the creation of knowledge, and denies them the power to utilize knowledge.If in pre-modern times the church was the major player in creating knowledge, today the market produces, disseminates, and utilizes much of the knowledge, which has achieved the status of a commodity. Knowledge is "intellectual property." Even the knowledge created in public and semi-public institutions such as universities is increasingly geared to the agenda of the market, and serves the promotion of market interests. Moreover, Western states primarily entertain the market as the lifeline of economy, culture and society. They increasingly aim at giving all the power to the market. In dictatorial regimes, however, the state still plays a prominent role in censoring the creation and dissemination of knowledge. From Peru to Turkey, to Iran and to China, states suppress activists, journalists, libraries, bookstores, print and broadcast media, satellite dishes and the Internet**.** They often do so by committing violence against the citizens and the communication systems they use.Although we may find much gender-based subtlety in the techniques of limiting women's access to information, I believe that the subtlest censorship is denying feminist knowledge a visible role in the exercise of power. The state, Western and non-Western, rules through privileging androcentric knowledge as the basis for governance.The conduct of national censuses, for instance, continues to be based on androcentric worldviews in spite of devastating feminist critique. To give another example, women are now recruited into Western armies in combat functions, but states continue to ignore feminist and pacifist knowledge that challenges the very phenomenon of war and violence (Cynthia Enloe, 2000). Women themselves can be and, often, are part of the problem. In the absence of feminist consciousness, they generally act as participants in the reproduction of patriarchal gender relations. In Islamic societies, when men engage in the "honour" killing of their wives, daughters or sisters, sometimes mothers participate in or tolerate the horrendous crime (Mojab, 2002). The democratisation of gender relations is a conscious intervention in a power structure that is closely interlocked with the powers of the state, class, race, ethnicity, religion and tradition. For both women and men, challenging patriarchy means defying one's own values, worldviews, emotions, and traditions. At the same time, it involves risk taking including, in some situations, loss of life. Women's full access to androcentric knowledge will not disturb the status quo. I argue that, in the absence of feminist consciousness, women may even act as ministers of propaganda and censorship. They will not be in a position to exercise the democratic right to revolt against oppressive rule. In the West, feminist knowledge cannot be suppressed through book-burning, jailing, torture, and assassination. Censorship is conducted, much more effectively, by stigmatizing and marginalising feminist knowledge as "special interest," while androcentrism is promoted as the norm, the canon, and "human nature." That is why, I contend, that if we fill all the media institutions with female managers and staff, if we give all educational institutions to women, or hand over all high-rank military positions to women, the androcentric world order with its violence, war, poverty, and degenerating environment will continue to function. Globalization, as it is understood in mainstream media and in state discourses, is nothing new; it emerged with the rise of capitalism; the main engine of globalization is the capitalist market, and it is promoted and planned by capitalist states through various organs such as the G8, World Bank, European Union, World Trade Organization, International Monetary Fund, etc. The impact of this globalization on women has been largely negative, especially in the developing world. Millions of girls aged 5 to 15 are recruited into the global prostitution market. Millions more leave their families and countries to raise some income as maids. However, other forms of globalization or, rather, internationalization have been in the making. For instance, feminism has evolved as an international movement in spite of the opposition of conservatives in many parts of the world. It has been able to put women's demands on the agenda of states and international organs such as the United Nations. Media are also important actors in globalisation. Women have had more presence in the media both as producers and as targets or sources of entertainment and information programming. There is considerable progress, for instance, in the production of women and feminist press in many developing countries. The Internet and desktop publishing present new opportunities for more media activism. Egypt has a women's television channel. Focusing on the question of censorship, the crucial issue is freedom of speech not only for women but also more significantly, for feminists and feminist knowledge. Feminist knowledge and consciousness is the primary target of censorship. Do the globalizing media allow women of the developing countries to learn about the achievements of Western women in fighting patriarchy? Do women of the West learn from the struggles of women in India, Jamaica or Saudi Arabia? Do the global media allow women everywhere to know about the Beijing Conference and its aftermath? Do they disseminate adequate and accurate information about the World March of Women? My answers are rather in the negative. The cyberspace is much like the realspace that creates it. The fact that many individual women or groups can set up their websites does not change power relations in the realspace. The negative stereotyping of women, for instance, cannot change without the dissemination of feminist consciousness among both men and women. Even if stereotyping is eliminated, gender inequality will persist. "Gender-based censorship" cannot be overcome as long as gender relations remain unequal and oppressive. It can, however, be reduced or made less effective. While the concept "gender-based censorship" is useful, it should be broadened to include "censorship of feminist knowledge." The following are just a few ideas about what we may do:A) Creating theoretical and empirical knowledge about gender-based censorship, and especially the censorship of feminist knowledge and feminist movements. B) Disseminating this knowledge and awareness among citizens. Using this knowledge for the purpose of dismantling patriarchal power. Knowledge makes a difference when it is put into practice. C) Making this knowledge available to policy makers and integrating it into policy making in the institutions of the market, the state, and non-state and non-market forces. These goals will not be achieved in the absence of feminist and women's movements. If censorship is not a mistake, but rather it is an organ for exercising gender and class power, resistance to it, too, should be a part of the struggle for a democratic regime.

### 2NC A2 - Perm

**.**

**B. This debate is about methods - we question the assumption that the public sphere is capable of making politics that benefit all. Perm is another assimilation tactic to quell dissent against male domination. The belief that they can steal our method is reason enough to reject them. The AFF has chosen their bed, and we are refusing to make it for them!**

**Hoagland 95**

Sarah Lucia, Professor of Philosophy and Women's Studies at Northeastern, “Separating from Heterosexuality” in *Feminism and Community*. 278-9

Upon examining the system, we may find we actually agree with the underlying value and structure. Alternatively, we may find we disagree significantly with it but judge that it is the best structure around or that the existing structure is better than no structure or better than the risk involved in creating a new one. We might even feel that a new structure would be preferable but that the current situation is a crisis which needs immediate relief, even though this results in incomplete solution and cooptation. After all, working to create a new value system hardly solves an immediate problem of starvation. **But what is missing from the focus of traditional ethics as well as from lesbian community ethics is acknowledgment that these choices involve agreement with the system in certain key ways, acknowledgment that such agreement is a choice, and acknowledgment that there is another choice**. What is missing from traditional ethics is acknowledgment that there are ethical choices at this level, that participation is one of those choices, and that separation -at the very least from the belief system -is another. **Now beyond noting that withdrawal or separation is a crucial moral option**, **I want to 'suggest that such a c hoice is central to lesbian moral agency.** What I am calling separation or withdrawal is not a set of rules we live up to, particularly in an attempt to be purists. It is rather a general approach to the world which involves various choices in various circumstances, choices which depend on various factors but which are choices from a lesbian center.

### Exclusion

**To disallow women-only spaces is an act of patriarchal control – the AFF has no alternative to solve male privilege other than to toss all forms of sexual difference into one group**

**Real in 2012**

Julian Real. “Who Gets to define “women-only space”? People WITH male privilege or people WITHOUT male privilege?” People of color Organize. 2012. http://peopleofcolor.tumblr.com/post/15029267647/who-gets-to-define-women-only-space-people-with-male

This whole Western assault on women/wimmin-only space by people who are behaving in the most GLARINGLY pro-patriarchal ways is, in the view of this blogger, socially conservative and oppressive and controlling to women-raised-as-girls. I see it that way based on what women/wimmin tell me. And based on what I see happening to radical feminism, lesbian feminism, and wimmin-only spaces in the last fifteen years. They are under social assault, as they always have been. But now there’s a new contingent of people (liberals who are pro-trans), who are making liberal arguments for why it is women-raised-as-girls ought not have spaces that are only for women-raised-as-girls. How ISN’T that male domination at work? In what ways isn’t that a function and expression of male domination? Does radical feminism, lesbian feminism, and women’s liberation get supported in spaces where men and male-privileged people are allowed? Not in my experience, with few exceptions. Male supremacy and male dominance never take a holiday, unlike the super-privileged men who possess the social power to name other people’s realities. This erosion of wimmin-only space is, far more often than not, in my view, a man-infestation of male supremacy. I radically support women’s autonomy and independence from men, interpersonally; I stand with women and wimmin who desire and demand wimmin-only spaces and community. Anyone who defends men’s power and privileges to encroach on women’s and girls’ lives is behaving in an anti-woman way, in my view. ***More power to any woman raised as a girl*** who wants to create woman/wimmin-only spaces that are *exclusively for women-raised-as-girls*—or for “women” as she defines the terms—***not*** as male-privileged people define them. ***More power to radical lesbian feminists who want or demand radical lesbian feminist-only spaces, as the radical lesbian-feminists define their terms.*** This is not an oppressor-group, anywhere in the world. Male privileged people rule globally, if not universally. And people raised as boys were raised with male privileges; some boys, in growing into adulthood, have lost some of those privileges, or never acquired some of them, because they were socially perceived as a girl, “acting like a girl”, or because they are perceived as being a woman. But males, of whatever gender identity, can and do learn male privileges and practice male entitlements without feeling either like a boy or like a man. I’ve seen woman-identified trans people use male privilege and entitlements, and power, over and against lesbian feminists. And I stand with women-raised-as-girls who are lesbian and feminist when this happens. This message has been brought to you by someone who is TRANS and INTERgender-identified. By someone who was marked as a boy, raised to be a boy, never felt like a boy, resisted the training, and guess what? I got lots of male privileges and entitlements just the same that my female family members didn’t get. Now, how many of those gender conservatives and gender liberals will come to defend MY position on this? I’m male-privileged, so surely that means my point of view matters more than any woman raised as a girl, right? (Wrong.) Surely because I’m trans, academic queer circles will listen to and respect me more than any radical lesbian feminist, right? I’d put money on it. The views expressed below by me are my own. My views have been deeply shaped and informed by my commitment to women-raised-as-girls in their efforts to radically transform (eradicate) patriarchy—in all its manifestations (liberal and otherwise). On with the revolution for women’s and girls’ liberation from men, male supremacy, and male domination!

### 1. Link – fear

**Fear is the original pillar of patriarchy – it invades the internal assessment of women, causing us to continually question ourselves in light of men. The AFFs use of fear cause passivity in confronting male-oriented civil society**

**Vivienne Louise. “Fear.” For Lesbians Only, Onlywoman Press. 1988**

Upon commencement of writing a piece on lesbian separatism I was overwhelmed by numerous themes dancing soberly in my head. The all cleansing rage pulsing through the hearts of wimmin screaming for release from the prison of self-denial. Love of a richer and deeper kind than any professed in matrimonial terms of possession and conquest. Trust that reaches the gutsy planes of spiritual bonding through forthright honesty. The dissipation of patriarchal illusions breaking the shackles of a deadly contract. Decisions ushering in a new and yet very old age conversant with a natural meter and time. Ancient truths made known today through newly awakened vehicles of memory. The power to create and decreate given the constancy of faith, clarity and balance. And fear. That all pervasive entity rendering potential inanimate and driving forward energy into stagnant pools of conciliation and failure. After due consideration I chose fear as the main theme recognizing its relevance to all issues of lesbian separatism because of its ability to immobilize by gradual weakening, leading to total enfeeblement. Fear is False Evidence Appearing Real. It is the essence of fascism and the original pillar of patriarchy. Invalidation of internal assessment abilities and total reliance on external judgment is its goal. In other words, it is a controlling mechanism designed to destroy self belief and internal faith, replacing them with desired approval from outside sources. Debilitation results as self-love evaporates in an atmosphere of submissive behavior. Lesbian separatism is a politic of empowerment. It touts the values of self love and acceptance promoting creativity of spirit and mind. It challenges demons of fear stripping those supporting realities of their intimidating wonder and exposing them as a plague of necrophilic addiction. Radical lesbianism is the reclama- tion of our most intimate power, the right to walk the planet free from the scourge of patriarchal terror. As a seasoned activist I am not prepared to say that the disappearance of all men on the planet would also mean the disappearance of patriarchy. Unfortunately there are millions of wimmin who support and practice an ethic of top-bottom and who believe in the validity of fear. As long as trepidation is the song then dissolution will be the dance and helter-skelter the ball at which they're played. As wimmin in this society we are taught to coddle and pamper our fears. We are encouraged to give in, yielding them full reign in our free will decisions and actions. Confrontation of any sort is not supported and acquiescence of a defenseless mode lauded. This promotes a message of weakness and an acquiescence of powerlessness. The acceptance of passivity leads to a failing sense of self belief and therefore a diminishing consciousness of personal power. It is at this stage that patriarchal values set in. Subscription to these mores is enforced by violence (mental, physical, emotional and spiritual) and promulgation of the lie that there is no relief from this violence. Thus a map with only one dead end road is presented when there are really many roads blocked by the sentry of fear. Above I listed several issues relating to lesbian separatism: illusions, decisions, herstory, love, trust, rage and power. These areas and many not listed, are compromised daily because of deep pockets of fear.

### 2. \*\* Impact – 2NC SPF

**Our accessibility links mean serial policy failure**

**Fraser 90**

Nancy Fraser. Rethinking the Public Sphere. Social Text. No 25/26.

The misplaced faith in the efficacy of bracketing suggests another flaw in the bourgeois conception. This conception assumes that a public sphere is or can be a space of zero degree culture, so utterly bereft of any specific ethos as to accommodate with perfect neutrality and equal ease interventions expressive of any and every cultural ethos. But this assumption is counterfactual, and not for reasons that are merely accidental. In stratified societies, unequally empowered social groups tend to develop unequally valued cultural styles. The result is the development of powerful informal pressures that marginalize the contributions of members of subordinated groups both in everyday life contexts and in official public spheres.7 Moreover, these pressures are amplified, rather than mitigated, by the peculiar political economy of the bourgeois public sphere. In this public sphere, the media that constitute the material support for the circulation of views are privately owned and operated for profit. Consequently, subordinated social groups usually lack equal access to the material means of equal participation.'" Thus, political economy enforces structurally what culture accomplishes informally. If we take these considerations seriously, then we should be led to entertain serious doubts about a conception of the public sphere that purports to bracket, rather than to eliminate, structural social inequalities. We should question whether it is possible even in principle for interlocutors to deliberate as if they were social peers in specially designated discursive arenas, when these discursive arenas are situated in a larger societal context that is pervaded by structural relations of dominance and subordination.

### A2 – case t/ k

**The impact is Extinction**

**Warren and Cady 94**—Warren is the Chair of the Philosophy Department at Macalester College and Cady is Professor of Philosophy at Hamline University (Karen and Duane, “Feminism and Peace: Seeing Connections”, p. 16, JSTOR, http://www.jstor.org/stable/pdfplus/3810167.pdf)

Operationalized, the evidence of patriarchy as a dysfunctional system is found in the behaviors to which it gives rise, (c), and the unmanageability, (d), which results. For example, in the United States, current estimates are that one out of every three or four women will be raped by someone she knows; globally, rape, sexual harassment, spouse-beating, and sado-masochistic pornography are examples of behaviors practiced, sanctioned, or tolerated within patriarchy. In the realm of environmentally destructive behaviors, strip-mining, factory farming, and pollution of the air, water, and soil are instances of behaviors maintained and sanctioned within patriarchy. They, too, rest on the faulty beliefs that it is okay to "rape the earth," that it is "man's God-given right" to have dominion (that is, domination) over the earth, that nature has only instrumental value, that environmental destruction is the acceptable price we pay for "progress."And the presumption of warism, that war is a natural, righteous, and ordinary way to impose dominion on a people or nation, goes hand in hand with patriarchy and leads to dysfunctional behaviors of nations and ultimately to international unmanageability. Much of the current" unmanageability" of contemporary life in patriarchal societies, (d), is then viewed as a consequence of a patriarchal preoccupation with activities, events, and experiences that reflect historically male-gender identified beliefs, values, attitudes, and assumptions. Included among these real-life consequences are precisely those concerns with **nuclear proliferation, war, environmental destruction, and violence toward women**, which many feminists see as the logical outgrowth of patriarchal thinking. In fact, it is often only through observing these dysfunctional behaviors-the symptoms of dysfunctionality that one can truly see that and how patriarchy serves to maintain and perpetuate them. When patriarchy is understood as a dysfunctional system, this "unmanageability" can be seen for what it is-as a predictable and thus logical consequence of patriarchy.'1 The theme that global environmental crises, war, and violence generally are predictable and logical consequences of sexism and patriarchal culture is pervasive in ecofeminist literature (see Russell 1989, 2). Ecofeminist Charlene Spretnak, for instance, argues that "militarism and warfare are continual features of a patriarchal society because they reflect and instill patriarchal values and fulfill needs of such a system. Acknowledging the context of patriarchal conceptualizations that feed militarism is a first step toward reducing their impact and preserving life on Earth" (Spretnak 1989, 54). Stated in terms of the foregoing model of patriarchy as a dysfunctional social system, the claims by Spretnak and other feminists take on a clearer meaning: Patriarchal conceptual frameworks legitimate impaired thinking (about women, national and regional conflict, the environment) which is manifested in behaviors which, if continued, **will make life on earth difficult, if not impossible**. It is a stark message, but it is plausible. Its plausibility lies in understanding the conceptual roots of various woman-nature-peace connections in regional, national, and global contexts.

### T/ENVIRO

#### Dominant, patriarchal masculine values that are rooted in our society are the reason that environmental atrocities occur

Mellor, 2000 (Mary, Social Science Professor at Northumbria University and author , “Feminism and Environmental Ethics: A Materialist Perspective”, Ethics and the Environment, 5(1)107-123, ISSN: 1085-6633, accessed via Project Muse)

ECOFEMINISM AND THE WOMAN/NATURE RELATION Ecofeminism has been identified as part of a 'deeper' or more radical approach to the ecological crisis (Merchant 1992, Eckersley 1992, Dobson 1995). What is contentious in ecofeminism is the way in which the relationship between women and nature has been represented. Elsewhere I have made the distinction between affinity and socialist/social contructionist ecofeminism (Mellor 1992a, 1996), that is between those who see women as having a bodily or cultural affinity with the natural world through their woman-ness as mothers, life-givers, nurturers, carers, and those who identify similar activities associated with women but see these as imposed upon women by male-dominated societies. Affinity ecofeminists such as AndrÃ©e Collard (1988) adopt a radical difference perspective seeing men/patriarchy as the source of eco-destruction and women as the contemporary representatives of an "ancient gynocentric way of life" (14) that exhibited "nurturance-based values which women experienced and projected not only on their goddesses but on to every creature among them" (8). The distinction between men and patriarchy implies that men are not necessarily bad, although Collard appears to wish to assert that all women are good. The source of women's affinity with nature is their common identity as mothers "whether or not she personally experiences biological mothering" (102). Men will be redeemed if they abandon patriarchy and embrace the values associated with women. What will motivate men to do so is less clear and as with much feminist writing that describes the patriarchal destruction of original matriarchal/egalitarian society the origin and nature of patriarchy is problematic. Collard suggests that male envy of women's ability to create life may be a psychological underpinning of patriarchy. Affinity ecofeminism does not necessarily see masculine-feminine// dualism as destructive. Instead they can be seen as complementary (Henderson 1983). Cosmologically the masculine and the feminine are seen as the two complementary sides of a common hu(man)ity that have become disaggregated in ways that are socially and ecologically dangerous. Destructive behavior occurs because masculine values are currently too dominant, more emphasis on feminine values are needed to restore the balance. I have described this as an ecofeminine rather than an ecofeminist perspective (Mellor 1992c). In contrast to asserting the affinity of women and nature, ecofeminists who come from an anarchist or socialist background tend to see sex/gender inequality as resting on other social inequalities. Women's association with nature is not explained by women's 'natural' affinity, but is socially constructed. Ynestra King (1990), from an anarchist perspective, sees sex/gender inequality as part of the wider question of hierarchy in society. She sees women as being "historically positioned" at the "biological dividing line where the organic emerges into the social" (116-117). Carolyn Merchant (1990), from a socialist feminist perspective, sees environmental problems as "rooted in the rise of capitalist patriarchy and the ideology that the Earth and nature can be exploited for human progress" (103). However, neither King nor Merchant seeks to radically dissociate themselves from cultural ecofeminism and the importance of valuing women and women's work. Merchant sees all the many strands of ecofeminism as being concerned with "reproduction construed in its broadest sense to include the continued biological and social reproduction of human life and the continuance of life on earth" (209). Although ecofeminists often make generalized statements that seem to refer to all men and all women, their specific focus is the pattern of dominance that arose in European society associated with the historical development of science, technology, industrialism, and capitalism. This is not to ignore the fact that earlier societies have been ecologically destructive (Ponting 1991) or that ecologically benign societies can be patriarchal. It could be argued that male domination and women's oppression have been more ubiquitous in history than ecological destruction. The interesting question for ecofeminists is the way in which the two have come together in the present era. Ecofeminists see the origins of the present ecological crisis as lying in the specific material and cultural developments of the North/West as reflected in its socioeconomic structures, science and technology, philosophy and religion. For many ecofeminists, particularly those with a theological or a philosophical background, this destructiveness results from the forms of knowledge and belief that justify and sustain western patriarchy. In particular, the Christian and rationalist rejection of the body and the prioritization of mind or soul (Ruether 1975, Plumwood 1993). Women are essentialized, naturalized, and condemned by their association with the body. This association I would argue is the basis of the materialist analysis that can be derived from ecofeminism.

# 1NR

### Warming

**Consensus of experts agree that there is no impact to warming**

**Hsu 10**

Jeremy, Live Science Staff, July 19, pg. <http://www.livescience.com/culture/can-humans-survive-extinction-doomsday-100719.html>

His views deviate sharply from those of **most experts**, who don't view climate change as the end for humans. Even the worst-case scenarios discussed by the Intergovernmental Panel on Climate Change don't foresee human extinction. "The scenarios that the **mainstream climate community** are advancing are not end-of-humanity, catastrophic scenarios," said Roger Pielke Jr., a climate policy analyst at the University of Colorado at Boulder. Humans have the technological tools to begin tackling climate change, if not quite enough yet to solve the problem, Pielke said. He added that doom-mongering did little to encourage people to take action. "My view of politics is that the long-term, high-risk scenarios are really difficult to use to motivate short-term, incremental action," Pielke explained. "The rhetoric of fear and alarm that some people tend toward is counterproductive." Searching for solutions One technological solution to climate change already exists through carbon capture and storage, according to Wallace Broecker, a geochemist and **renowned climate scientist** at Columbia University's Lamont-Doherty Earth Observatory in New York City. But Broecker remained skeptical that governments or industry would commit the resources needed to slow the rise of carbon dioxide (CO2) levels, and predicted that more drastic geoengineering might become necessary to stabilize the planet. "**The rise in CO2 isn't going to kill many people, and it's not going to kill humanity**," Broecker said. "But it's going to change the entire wild ecology of the planet, melt a lot of ice, acidify the ocean, change the availability of water and change crop yields, so we're essentially doing an experiment whose result remains uncertain."

#### No impact to warming – history and scientific study prove

**Jaworowski 8** (Professor Zbigniew, Chairman of the Scientific Council of the Central Laboratory for Radiological Protection in Warsaw and former chair of the United Nations Scientific Committee on the Effects of Atomic Radiation, “Fear Propaganda,” http://www.ourcivilisation.com/aginatur/cycles/chap3.htm)

Doomsayers preaching the horrors of warming are not troubled by the fact that in the Middle Ages, when for a few hundred years it was warmer than it is now, neither the Maldive atolls nor the Pacific archipelagos were flooded. Global oceanic levels have been rising for some hundreds or thousands of years (the causes of this phenomenon are not clear). In the last 100 years, this increase amounted to 10 cm to 20 cm, (24) but it does not seem to be accelerated by the 20th Century warming. It turns out that in warmer climates, there is more water that evaporates from the ocean (and subsequently falls as snow on the Greenland and Antarctic ice caps) than there is water that flows to the seas from melting glaciers. (17) Since the 1970s, the glaciers of the Arctic, Greenland, and the Antarctic have ceased to retreat, and have started to grow. On January 18, 2002, the journal Science published the results of satellite-borne radar and ice core studies performed by scientists from CalTech's Jet Propulsion Laboratory and the University of California at Santa Cruz. These results indicate that the Antarctic ice flow has been slowed, and sometimes even stopped, and that this has resulted in the thickening of the continental glacier at a rate of 26.8 billion tons a year. (25) In 1999, a Polish Academy of Sciences paper was prepared as a source material for a report titled "Forecast of the Defense Conditions for the Republic of Poland in 2001-2020." The paper implied that the increase of atmospheric precipitation by 23 percent in Poland, which was presumed to be caused by global warming, would be detrimental. (Imagine stating this in a country where 38 percent of the area suffers from permanent surface water deficit!) The same paper also deemed an extension of the vegetation period by 60 to 120 days as a disaster. Truly, a possibility of doubling the crop rotation, or even prolonging by four months the harvest of radishes, makes for a horrific vision in the minds of the authors of this paper. Newspapers continuously write about the increasing frequency and power of the storms. The facts, however, speak otherwise. I cite here only some few data from Poland, but there are plenty of data from all over the world. In Cracow, in 1896-1995, the number of storms with hail and precipitation exceeding 20 millimeters has decreased continuously, and after 1930, the number of all storms decreased. (26) In 1813 to 1994, the frequency and magnitude of floods of Vistula River in Cracow not only did not increase but, since 1940, have significantly decreased. (27) Also, measurements in the Kolobrzeg Baltic Sea harbor indicate that the number of gales has not increased between 1901 and 1990. (28) Similar observations apply to the 20th Century hurricanes over the Atlantic Ocean (Figure 4,) and worldwide.

### Volcanos

#### Vernshots is part of the

#### No human impact to eruptions

**Dorries ‘8** (Matthias, Prof of History of Science @ Louis Pasteur University, History of Meteorology 4 (2008), http://www.meteohistory.org/2008historyofmeteorology4/3dorries.pdf)

Clive Oppenheimer, from the Department of Geography at Cambridge University, was the first to give the existing Toba literature a critical review. Oppenheimer revived the tradition of British pragmatism and understatement in the title of his 2002 article “Limited global change due to ... Toba.” He did not engage in catastrophic discourse, and took care to lay emphasis on the uncertainties concerning the Toba eruption: there remain major gaps in our understanding of the ... Toba eruption that hinder attempts to model its global atmospheric and climatic, and hence human consequences. ... The volcanological uncertainties need to be appreciated before accepting arguments for catastrophic consequences of the Toba super-eruption.47 Oppenheimer pointed out that figures for the eruption's basic parameters like intensity, height, and magnitude were more or less the result of guesswork. He furthermore made it clear that Toba's climatic impact should be judged by the sulphate aerosols, whose amount differed by several magnitudes in various studies. For Oppenheimer, globally averaged surface temperatures were more likely to have dropped only 1°C than the 3-5°C proposed by Rampino and Self. In addition, Oppenheimer saw no “firm evidence ... linking ... [Toba] to a human demographic crash,” particularly, because there was “no clear picture even of the relative timing of events,” which made it impossible to “establish a causal chain.”48 He pointed out that the year of the eruption was not uniquely cold, and that human beings have survived perhaps several of these super-eruptions. In short, “... a number of conclusions have been based on unreliable assumptions and inferences,” and more research was necessary.49

### Gamma rays

#### Extend

#### Mastering antimatter is impossible – They disappear as soon as they meet matter.

**Lawrence Berkeley National Laboratory 04** “Antimatter” http://www.lbl.gov/abc/Antimatter.html

**A particle and its antimatter particle annihilate when they meet: they disappear and their kinetic plus rest-mass energy is converted into other particles (E = mc2). For example, when an electron and a positron annihilate at rest, two gamma rays, each with energy 511 keV, are produced. These gamma rays go off in opposite directions** because both energy and momentum must be conserved. The annihilation of positrons and electrons is the basis of Positron Emission Tomography (PET) discussed in the section on Applications (Chapter 14). **When a proton and an antiproton annihilate at rest, other particles are usually produced**, but the total kinetic plus rest mass energies of these products adds up to twice the rest mass energy of the proton (2 x 938 MeV).

#### READ-

#### They say that gamma rays kill ozone but

Ozone stable – and no impact

Lieberman 7 (Ben, Senior Policy Analyst – Heritage Foundation, “Ozone: The Hole Truth”, The Washington Times, 9-19, Lexis)

Environmentalists have made many apocalyptic predictions over the last several decades. Virtually none has come to pass. Yet each time, the greens and their political allies proclaim victory, arguing their preventive prescriptions averted disaster. Such is the case with the 1987 Montreal Protocol On Substances That Deplete The Ozone Layer (Montreal Protocol). The lurid predictions of ozone depletion-induced skin cancer epidemics, ecosystem destruction and others haven't come true, for which Montreal Protocol proponents congratulate themselves. But in retrospect, the evidence shows ozone depletion was an exaggerated threat in the first place. As the treaty parties return to Montreal for their 20th anniversary meeting it should be cause for reflection, not celebration, especially for those who hope to repeat this "success story" in the context of global warming. The treaty came about over legitimate but overstated concerns that chlorofluorocarbons (CFCs, a then-widely used class of refrigerants) and other compounds were rising to the stratosphere and destroying ozone molecules. These molecules, collectively known as the ozone layer, shield the Earth from excessive ultraviolet-B radiation (UVB) from the sun. The Montreal Protocol's provisions were tightened in 1990 and again in 1992, culminating with a CFC ban in most developed nations by 1996. So what do we know now? As far as ozone depletion is concerned, the thinning of the ozone layer that occurred throughout the 1980s apparently stopped in the early 1990s, too soon to credit the Montreal Protocol. A 1998 World Meteorological Organization (WMO) report said: "Since 1991, the linear [downward] trend observed during the 1980s has not continued, but rather total column ozone has been almost constant." However, the same report noted that the stratospheric concentrations of the offending compounds were still increasing through 1998. This lends credence to the skeptical view, widely derided at the time of the Montreal Protocol, that natural variations better explain the fluctuations in the global ozone layer. More importantly, the feared increase in ground level UVB radiation has also failed to materialize. Keep in mind that ozone depletion, in and of itself, doesn't really harm human health or the environment. It was the concern that an eroded ozone layer will allow more of the sun's damaging UVB rays to reach the Earth that led to the Montreal Protocol. But WMO concedes no statistically significant long-term trends have been detected, noting earlier this year that "outside the polar regions, ozone depletion has been relatively small, hence, in many places, increases in UV due to this depletion are difficult to separate from the increases caused by other factors, such as changes in cloud and aerosol." In short, the impact of ozone depletion on UVB over populated regions is so small it's hard to detect. Needless to say, if UVB hasn't gone up, then the fears of increased UVB-induced harm are unfounded. Indeed, the much-hyped acceleration in skin cancer rates hasn't been documented. U.S. National Cancer Institute statistics show malignant melanoma incidence and mortality, which had been undergoing a long-term increase that predates ozone depletion, has actually been leveling off during the putative ozone crisis. Further, no ecosystem or species was ever shown to be seriously harmed by ozone depletion. This is true even in Antarctica, where the largest seasonal ozone losses, the so-called Antarctic ozone hole, occur annually. Also forgotten is a long list of truly ridiculous claims, such as the one from Al Gore's 1992 book "Earth in the Balance" that, thanks to the Antarctic ozone hole, "hunters now report finding blind rabbits; fisherman catch blind salmon."

###  Asteroids Security

#### Empirically proven that astroids have been used to spur fear and absurd space projects

Williams ‘10 Lynda Williams Physics Instructor, Santa Rosa Junior College. Peace Review, a Journal of Social Justice Irrational Dreams of Space Colonization. The New Arms Race in Outer Space (22.1, Spring 2010)

Life on Earth is more urgently threatened by the destruction of the biosphere and its life sustaining habitat due environmental catastrophes such as climate change, ocean acidification, disruption of the food chain, bio-warfare, nuclear war, nuclear winter, and myriads of other man-made doomsday prophesies. If we accept these threats as inevitabilities on par with real astronomical dangers and divert our natural, intellectual, political and technological resources from solving these problems into escaping them, will we playing into a self- fulfilling prophesy of our own planetary doom? Seeking space based solutions to our Earthly problems may indeed exacerbate the planetary threats we face. This is the core of the ethical dilemma posed by space colonization: should we put our recourses and bets on developing human colonies on other worlds to survive natural and man-made catastrophes or should we focus all of our energies on solving the problems that create these threats on Earth?

#### READ

#### And even if the asteroid threat is scientifically valid. It serves as a projection of fear that legitimizes a *broader politics* of security, militarization, and permanent war

Mellor 7 (Felicity, Lecturer in Science Communication – Imperial College (UK), “Colliding Worlds: Asteroid Research and the Legitimization of War in Space”, Social Studies of Science, 37(4), August, p. 512)

The asteroid impact threat offered a scientifically validated enemy onto which could be projected the fears on which a militaristic culture depends. Far from providing a replacement outlet for weapons technologies, the promotion of the asteroid impact threat helped make the idea of war in space more acceptable and helped justify the continued development of spacebased weaponry. Arguably, with the Clementine and Deep Impact missions, the asteroid impact threat even facilitated the testing of SDI-style systems. The asteroid impact threat legitimized a way of talking, and thinking, that was founded on fear of the unknown and the assumption that advanced technology could usher in a safer era. In so doing, it resonated with the politics of fear and the technologies of permanent war that are now at the centre of US defence policy

#### This calculation destroys value to life – comes before their other impacts

Dillon 96 (Michael, Professor of Politics – University of Lancaster, Politics of Security, p. 26)

Everything, for example, has now become possible. But what human being seems most impelled to do with the power of its actions is to turn itself into a species; not merely an animal species, nor even a species of currency or consumption (which amount to the same thing), but a mere species of calculation. For only by reducing itself to an index of calculation does it seem capable of constructing that oplitical arithmetic by which it can secure the security globalised Western thought insists upon, and which a world made uncreasingly unpredictable by the very way human being acts into it now seem to require. Yet, the very rage for calculability which securing security incites is precisely also what reduces human freedom, inducing either despair or the surrender of what is human to the dehumanising calculative logic of what seems to be necessary to secure security. I think, then, that Hannah Arendt was right when she saw late modern humankind caught in a dangerous world-destroying cleft between a belief that everything is possible and a willingness to surender itself to so-called laws of necessity (calculability itself) which would make everything possible. That it was, in short, characterized by a combination of reckless omnipotence and reckless despair. But I also think that things have gone one stage further – the surrender to the necessity of realising everything that is possible- and that this found its paradigmatic expression for example in the deterrent security policies of the Cold War; where everything up to and including self-immolation not only became possible but actually necessary in the interests of (inter)national security. The logic persists in the metaphysical core of modern politics- the axiom of Inter-state security relations, popularized for example, through strategic discourse- even if the details have changed.

### No Impact Astroids

#### No asteroid threat

**Wall ‘3-14**

(Michael, Michael was a science writer for the Idaho National Laboratory and has been an intern at Wired.com, The Salinas Californian newspaper, and the SLAC National Accelerator Laboratory. He has also worked as a herpetologist and wildlife biologist. He has a Ph.D. in evolutionary biology from the University of Sydney, Australia, a bachelor's degree from the University of Arizona, and a graduate certificate in science writing from the University of California, Santa Cruz. “Deflecting Killer Asteroid Could Be Geopolitical Nightmare” by Mike Wall, SPACE.com Senior Writer: 14 March 2013)

While astronomers have spotted 95 percent of the 980 near-Earth asteroids at least 0.6 miles (1 km) wide, which might end civilization if they hit us, many smaller but still hazardous space rocks remain undetected. Researchers have discovered less than 30 percent of the close-flying 330-foot-wide (100 m) objects, for example, which could destroy an area the size of a state if they hit us. And they've mapped out the orbits of less than 1 percent of the 130-footers thought to be out there, which could wipe out a city. In all, just 9,700 near-Earth asteroids have been catalogued to date, out of a population numbering in the millions. Many astronomers and politicians are thus calling for more resources to be put toward asteroid-detection efforts, so that we have a better idea of what's headed our way in the future. Something big will hit us again, experts say, and we'll probably need years or decades of warning to do something about it. [Meteor Explodes Over Russia (Video)] How to deflect an asteroid Scientists think they know how to deflect an asteroid headed directly for Earth, given enough lead time. The strategy involves mounting at least two coordinated space missions, Schweickart said. The first would slam a kinetic impactor into the asteroid to knock it off course. The second would launch a "gravity tractor" probe to fly alongside the space rock, nudging it farther via a tiny but persistent gravitational tug. "You always need a gravity tractor there to ensure that any deflection does not end up having the asteroid go through a [gravitational] 'keyhole,' which would simply bring it back later," Schweickart told SPACE.com. This approach can avert more than 98 percent of projected collisions, according to a 2008 report called "Asteroid Threats: A Call for Global Response." The report was put together by the Association of Space Explorers' International Panel on Asteroid Threat Mitigation, which Schweickart chaired. [Photos: Asteroids in Deep Space] A different strategy — such as a nuclear blast — may be needed for asteroids more than 1,300 feet (400 m) wide, or for those detected with little warning time, the report adds. But such dire cases are likely to come along just once every 100,000 years or so. Political hurdles Humanity has successfully demonstrated both aspects of the impactor-tractor technique. In 2005, for example, NASA smashed a probe into the Comet Tempel 1 to investigate the icy body's composition. And several spacecraft, such as NASA's Dawn probe and Japan's Hayabusa craft, have rendezvoused with asteroids in deep space. But the main challenges of an asteroid-deflection mission will probably be more political than technical, Schweickart said. And perhaps the biggest hurdle of all will be getting the world to agree which way to steer the asteroid. Each incoming asteroid whose orbit has been mapped will threaten Earth along a specific "risk corridor" — a line of potential impact sites that extends about 180 degrees across the planet's surface but is just a few tens of kilometers wide. A deflection campaign would not be able to make huge changes to the dangerous asteroid's orbit. Rather, it could merely drag the projected impact point along the risk corridor to the left or to the right, by slowing the space rock down or speeding it up slightly. The goal, of course, would be to drag the impact site off the planet entirely. But determining how exactly to achieve this — to go left or right, to push the asteroid or to pull it — would be difficult, for any decision would necessarily put some nations at greater risk than others, Schweickart said. "If you start a deflection and something goes wrong, you have now shifted that impact point along the risk corridor one way or the other," Schweickart said. "And now people are in danger who were not in danger before you started this operation." And that's just one of many tricky geopolitical issues a potential asteroid-deflection mission would present, he added. "Who does it? Who pays for it? Who handles the liability?" Schweickart said. "How does the decision get made? Do we deflect the 40-meter object, or do we evacuate? Who makes that decision? And who pays for the evacuation? Everybody, because we all collectively made the decision? Or do the people who were unlucky enough to evacuate have to handle the cost?" Getting the ball rolling Schweickart and many of his colleagues think it's imperative to develop an international framework for dealing with the asteroid threat, so that the world can work together to predict and prevent catastrophic impacts. The Association of Space Explorers (ASE) — a group of veteran astronauts and cosmonauts — lays out a proposed framework in its 2008 report, calling for the United Nations to oversee a three-tiered program consisting of 1) an international asteroid detection and warning network; 2) a mission-planning group that would assess deflection options; and 3) a mission-authorization body tasked with developing "the policies and guidelines that represent the international will to respond to the global impact hazard." The United Nations' Action Team on Near-Earth Objects — better known as Action Team 14 — embraced much of this plan in a set of recommendations it drew up late last year. These recommendations are likely to be adopted by the U.N.'s Working Group on Near-Earth Objects, then go up the chain from there, ASE officials said. "Given the work methods of the [UN's] Committee on the Peaceful Uses of Outer Space, the recommendations of the Working Group will likely be adopted by the Committee in June," ASE officials wrote in a Feb. 27 update. "The [UN] General Assembly will likely follow suit in October without further discussions." The U.N.'s ponderous pace and many layers of bureaucracy may be frustrating to scientists who have been working the technical side of the hazardous-asteroid problem for years. But Schweickart voiced optimism that the political progress made will eventually be worth the wait. "When you get there, the whole world has bought into it," he said. "I mean, you're moving the whole world."

**Extend -**

**Technology is nowhere near ready**

**Clark 2k** (Greg, Staff Reporter – Space.com, “Will Nuclear Power Put Humans on Mars?”, Space.com, 5-21,

<http://www.space.com/scienceastronomy/solarsystem/nuclearmars_000521.html>)

When it comes to attracting interest in new mission plans to far-out places in the solar system, it is often the **wildly futuristic concepts** that **get the attention**. **Antimatter propulsion**, **solar and magnetic sails** all **make great stories, but** such **futuristic concepts** **don't do anything** **to get humans out** to the moon, or Mars, or to various local comets or asteroids **within the** **foreseeable futur**e. **With** these **futuristic technologies** **barely out of their conceptual phases**, practical use of such far-out concepts for **human space transportation is** **decades away at best**.

**Status quo solves asteroids**

**Mann ‘2-22**

(Adam, Wired Science staff writer, “Efforts to Protect Earth From Asteroids Are Under Way. But Will It Be Enough?”

Wired)

While no new money is likely to be coming to asteroid-spotting activities, the Russian strike may cause “a shift in priorities to looking at this more than we have at the past,” said space policy expert Henry Hertzfeld of George Washington University. Many ground-based telescopes are already actively watching the heavens, most coordinated through NASA’s Spaceguard program. These include the Catalina Sky Survey, the U.K. Spaceguard Centre, and the Japanese Spaceguard Association. A similar undertaking from the European Space Agency, the Space Situational Awareness program, works with amateur astronomers to monitor dangers from above, including near-Earth asteroids. A new endeavor coming online in 2015 named the Asteroid Terrestrial-impact Last Alert System Project (ATLAS) will provide an early warning system that could provide one week’s notice for city-destroying 45-meter asteroids and three week’s notice for potentially devastating 140-meter objects. But the next and most important frontier is watching from space. By sheer coincidence, a Canadian Space Agency project that started in 2008 is scheduled to launch on Feb. 25. Named the Near-Earth Object Surveillance Satellite (NEOSSat), this suitcase-sized spacecraft will circle the planet every 100 minutes, scanning space for asteroids that may someday pass near the Earth. Being in space means that NEOSSat will solve one of the main problems with current asteroid-watching techniques: You can’t do them during the day. A telescope aimed at the sky when the sun is up will see nothing other than bright sunlight. This is the reason the Chelyabinsk meteor went unnoticed — it came in from the dayside of our planet. The NEOSSat project will begin operation shortly after launch and look for some of the most dangerous objects larger than half a kilometer. Even more robust space-based telescopes are now being readied by the private sector. Planetary Resources, Inc., a company that aims to mine asteroids, intends to launch a small telescope named the Arkyd-100 that will sit in low-Earth orbit and scan for nearby space rocks. Though its primary goal will be to find valuable asteroids, the spacecraft will be able to watch for possibly dangerous objects coming from the sunlit side of Earth. Arkyd-100 is expected to launch in 18 to 20 months. A more targeted effort comes from the B612 Foundation, which plans to launch the Sentinel telescope in late 2016. This spacecraft would sit inside the orbit of Venus and constantly be on the lookout for killer asteroids, whichever direction they come from. Sentinel will spot nearly all asteroids 150 meters or larger and identify a significant portion of those down to 30 meters in diameter. With a price tag of several hundreds of millions, the project is comparable to a large municipal undertaking like a new highway overpass. But it is still much more than anything accomplished by a private non-profit in space and so there has been some doubt whether or not B612 could wrangle enough people into backing their idea. Since Chelyabinsk, their telescope is on surer footing. “There’s been a crush of people contacting us,” said Lu. “Suddenly it’s on everyone’s mind.” Online donations have increased tenfold, he added. While most of these are fairly small, generally around $100, many richer potential donors who were sitting on the fence have now fully signed on to the company’s plans. Entrepreneur Peter Diamandis, co-founder of Planetary Resources, reported a similar effect with investors who were previously hesitant but are now more willing to back in their venture. Should one of these telescope projects one day spot a doomsday asteroid, there are already many proposals for how to deflect the object. The method most favored by the B612 Foundation is fairly simple – place a modest-size spaceship near the asteroid and have its gravitational pull slowly alter the object’s course, averting catastrophe. The technique is relatively low cost and would certainly work but would require several years or possibly decades of advanced notice. For a large rock that’s headed right for us fairly quickly, B612 recommends smashing a giant projectile into the asteroid. This kinetic impactor would provide a strong kick to shuffle an asteroid off its current trajectory. Later, a gravity tractor could be used to make any more precise changes necessary.

**Lasers solve now**

**Kumar ‘2-17**

(Prashant, Administrator/writer for Vivid Times, “Scientists Propose System to Vaporize Asteroids That Threaten Earth”)

It has been an eventful year for space enthusiasts, with it seeming like a new asteroid is announced every week, each one coming closer and closer to our blue marble. Then, just a few days ago, a large meteorite smashed into Russia, injuring over 1000 people. Now a researcher and a physicist have teamed up to propose a solution to the problem – a laser-beam generating solar-based asteroid destroyer that could destroy a space rock half the size of a football field in 30 minutes. UC Santa Barbara physicist and professor Philip M. Lubin, and Gary B. Hughes, a researcher and professor from California Polytechnic State University, San Luis Obispo, conceived DE-STAR, or Directed Energy Solar Targeting of Asteroids an exploRation, as a realistic means of mitigating potential threats posed to the Earth by asteroids and comets. “We have to come to grips with discussing these issues in a logical and rational way,” said Lubin, who began work on DE-STAR a year ago. “We need to be proactive rather than reactive in dealing with threats. Duck and cover is not an option. We can actually do something about it and it’s credible to do something. So let’s begin along this path. Let’s start small and work our way up. There is no need to break the bank to start.” The system will work by using solar panels to turn energy from the sun into a “phased array” of individual laser beams that are channeled into a single mega-laser beam that eradicates the asteroids, a la the Death Star. If the asteroid is too large, DE-STAR would work by deflecting it away from our fragile planet. The best part? The concept is based on technology that is widely available now. “This system is not some far-out idea from Star Trek,” Hughes said. “All the components of this system pretty much exist today. Maybe not quite at the scale that we’d need –– scaling up would be the challenge –– but the basic elements are all there and ready to go. We just need to put them into a larger system to be effective, and once the system is there, it can do so many things.” “These are not just back-of-the-envelope numbers,” Hughes concurred. “They are actually based on detailed analysis, through solid calculations, justifying what is possible. And it’s all available under current theory and current technology. “There are large asteroids and comets that cross the Earth’s orbit, and some very dangerous ones going to hit the Earth eventually,” he added. “Many have hit in the past and many will hit in the future. We should feel compelled to do something about the risk. Realistic solutions need to be considered, and this is definitely one of those.”

**No impact and long timeframe**

**Chinese Academy of Sciences ‘2-19**

 “Earth Safe From Asteroids for 100 More Years”

A number of asteroids have flown by Earth in recent days, but astronomers say it’s unlikely to see devastating asteroid impact on Earth at least in the next 100 years. Scientists have found 1,345 potentially Earth-threatening asteroids with a diameter of at least 140 meters and whose closest distance from Earth is less than 7 million kilometers, or 18.5 times the average Earth-moon distance, says Li Chunlai, a researcher at the Center of Lunar and Deep Space Explorations under China's National Astronomical Observatories. "But we do not need to worry about it. Astronomers have collected accurate information about the orbits of these potentially Earth-threatening asteroids. We are unlikely to see devastating asteroid impact at least in the next 100 years," Li says. "All areas on Earth are equally possible to be hit by an asteroid. Oceans cover about 70 percent of Earth’s surface, and most of the land is uninhabited. This has greatly reduced the possibility of an asteroid hitting inhabited areas,” Li says. "An asteroid impact may injure people mainly through the shock wave that is formed while the object falls off," Li says. Before the asteroid hits the ground, the shock wave shows its power and shatters the windows of buildings. Lin Yangting, a researcher at the Institute of Geology and Geophysics under the Chinese Academy of Sciences, says that more than 1,000 people were injured during a recent meteor event in Russia, and their injuries were mainly caused by collapsed buildings and broken window glass shattered by the shock wave. "Some people are worried that the meteoroid may also cause injuries through radiation. In fact, asteroids and meteoroids contain few radioactive substances, and they usually burst dozens of kilometers above the ground, so their radiation is negligible," Lin says. Wang Sichao, a researcher at the Purple Mountain Observatory under the Chinese Academy of Sciences, says that a large asteroid is unlikely to hit Earth without being noticed by astronomers beforehand. An explosive device sent to a potentially Earth-threatening asteroid by spacecraft several years in advance can change the speed and direction of the asteroid through explosion. It may have only a little impact on the orbit of the asteroid, but several years later, it will move far away from Earth and pose no threat to mankind.