**1AC – Bronx Science DM**

**1AC – Centralized Injustice**

**Contention one is centralized injustice**

**Centralized solar energy is inevitable globally – especially in Mexico**

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The recent slew of quarterly reports from the world’s major solar PV manufacturers have delivered some encouraging news: surplus capacity is being removed, manufacturing costs continue to fall, selling prices have stabilised and margins are improving. Some solar manufacturers may even post a profit later this year or in 2014. But by far the most impressive piece of information was the extent to which the industry is growing in new markets. The influence of Europe, which kicked off the solar PV boom nearly a decade ago with its feed-in tariffs, is fading. China, Japan and the US will compete for domination in the coming years, but strong markets in the rest of Asia, Africa and South America are also emerging. “The global PV market is becoming more diversified,” says Liangshing Miao, the chairman and CEO of Yingli Solar, the world’s biggest manufacturer of solar PV. “China, the US, Japan and other new and emerging markets, will become the main drivers of demand in the second half of this year. (We are witnessing) the globalization of the PV industry.” This is a recurring theme in the industry. Last month, Deutsche Bank published an analysis which talked of a major “inflection point” in the global PV industry. Analyst Vishal Shah said that three-quarters of the world’s market will be “sustainable” for solar within 18 months, meaning there is an economic case to install solar PV with little or no subsidy. More recently, Deutsche Bank noted that the US – the world’s biggest electricity market – was rapidly approaching the point where more than half of its states were at “grid parity”, also meaning that no additional subsidies are required for solar PV. It predicted the US market would reach annual installations of 16GW by 2016, and have total installed capacity of 50GW. But it’s not ju[s]t the big four markets that are offering huge opportunities for solar PV. In another report, Deutsche said Chile could become the first subsidy-free market in the world, explaining why it had more than 3,500MW of projects in the pipeline. Robert Petrina, Yingli’s head in the Americas, says sales in Latin America have surged 1,700 per cent over the last year, utility-scale projects are popping up everywhere and distributed generation is very strong. He cited Chile, Mexico, Ecuador and Brazil (Yingli is a sponsor of the FIFA World Cup in 2014) as being among the strongest markets in Latin America. It now operates in 18 countries there. “The signals overwhelmingly point to continued development in accelerated PV adoption,” Petrina says. “We are seeing new markets open up and project sizes increasing in those regions.” Yingli published this graph in relation to its 2nd quarter results to illustrate how demand is moving away from Europe. The most interesting parts are the first and third columns, because they highlight how Europe has shrunk from more than 50 per cent of demand to just over one quarter. Yingli’s Miao says the company is already redeploying staff and resources to other emerging markets in Africa and Asia. In South Africa, the government has already signed contracts for 1GW of solar PV and is currently holding an auction for another 400MW of PV capacity. The provincial government of Gauteng announced earlier this month it would spend $1 billion installing 300MW of solar on the rooftops of all state-owned buildings. In Zimbabwe, solar developer Twalumba has reportedly signed an MoU with British company Thompson Cole to develop eight solar farms totaling 600MW over the next 15 months, with the help of Chinese and British financing. Saudi Arabia is gearing up to make a massive investment in solar PV, along with other Gulf and north African countries. On a smaller level, Ethiopia is half way through a World Bank-sponsored program to bring distributed solar to 25,000 households not connected to the grid. Private companies offer similar programs in Africa and Asia to some of the 1.6 billion people who don’t have electricity. In Asia, India is working its way through its ambitious program to have 20GW of solar PV by 2022, Pakistan has just announced plans for 700MW of solar capacity in Punjab province, Bangladesh already has installed a million off-grid solar systems, and has announced plans for another 500MW deployment. Thailand and Malaysia are emerging as strong markets, and a new source of manufacturing. Even Brunei is looking at introducing a feed-in tariff for solar, albeit to help the oil-rich sultanate reach an incredibly modest renewables target of just 10 per cent by 2035. Russia is also holding a tender for 700MW of solar projects. The predictions of Deutsche Bank, other investment banks, and individual analysts such as Tony Seba, are based on the premise that fossil fuel prices will continue to rise, while solar PV costs will continue to fall. This last assumption is contested by many in the traditional utilities business, but these two graphs below tell us much about the changing dynamics of the industry, and puncture holes in the views of some that the price falls in solar PV modules are unsustainable. The first graph on the left (from Yingli’s 2nd quarter accounts) shows that in just the past year, the non-silicon cost of PV modules has fallen by 18 per cent. And on the right, we see that because prices have stabilised, or even risen in some markets, the gross margins of the company have rebounded. The fall in costs are consistent with a recent study by the National Renewable Energy Laboratory and the Massachusetts Institute of Technology that suggests production scale, rather than low labour costs, has driven China’s boom in manufacturing PV modules, and delivered its cost superiority of other manufacturers. Intriguingly, Yingli chief strategy officer Yiyu Wang said that project costs for its current pipeline of 130MW in utility-scale solar projects in China are about $1.03-$1.05 a watt. That is less than half the cost of smaller projects in Australia, such as those to be built under the ACT Big Solar program, and one-third of the cost of AGL Energy’s 155MW solar plant proposed for Broken Hill and Nyngan in NSW. Wang suggested that Yingli would generate a return in the “higher mid teens” for these projects.

**Status-quo efforts to provide energy access have failed – millions of rural communities in Mexico face energy poverty that strikes at the heart of human quality of life – the plan alleviates it**

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During the last decade, few projects related to PV technology have been made to improve the quality of life in rural and isolated communities in Mexico but, there is one that we consider that is really fighting against poverty: the recently initiated, US$98-million Integrated Energy Services for Rural Mexico (IESRM) project that is a dedicated off-grid project that uses a variety of renewable energy technologies. The long-term national impact of this project is expected to be larger due to replication effects. According to the last population census (INEGI, 2005), Mexico had already achieved an electrification coverage of 96.6%, serving approximately all but 3.5 million of the 103 million population. These 3.5 million people represent about 812,000 households concentrated in small communities, the majority under 500 people. Electrifying the remaining households is challenging, since the majority of them are found in small, remote, isolated communities. Further, the un-electrified population is expected to increase by 20% through population growth over the next decade. About 60% of the people with no electricity are indigenous. Typically, these communities also lack other basic services and infrastructure such as roads, water, telecommunications, education and health. 70% of the un-electrified population in extreme poverty is concentrated in the Southern States. The project is a five-year, adaptable program financed by the Global Environmental Facility, the Government of Mexico and the private sector. The project is designed to increase access to electricity services and promote social and economic development in the rural areas of the poorest States of Mexico. The geographical scope of the Project includes primarily Oaxaca, Veracruz and Guerrero (period May 2007-2012) with the possibility of extending to Chiapas and Puebla after 2008. Will focus on communities or aggregates of communities in the range of 50 to 500 households. The initiative will target 50,000 households in the period May 2007-2012. The project has five main components: 1. Strengthening of strategy, policy, and regulatory frameworks, 2. Investment in rural electrification sub-projects, 3. Technical assistance and capacity building activities necessary to ensure the success and sustainability of the Project at different stages of implementation, 4. Technical assistance to increase productive uses of electricity and co-financing─on a pilot basis─of a limited number of productive or micro-business activities, and 5. Project management. The project is designed to be implemented over a five-year period. The institutional structure for the implementation of the Project includes the participation of key government organizations at the Federal, State and Municipal levels, community leaders, the private sector and the civil society (NGOs). The project will target less than 6% of the 4,692 communities in the Southern States whose primary electrification alternative is an off-grid technological solution. The project has, therefore, a significant potential for replication in the remaining 94% of un-electrified communities and in other States of Mexico. The solution of using PV systems to supply electricity to populations in remote areas targeted by the project is, from an economic perspective, the least-cost supply option-based on an economic-engineering analysis performed by the Mexican Institute of Electrical Research (Division de Energias Alternas). The economic benefits have two components: 1. The avoided costs for lighting and batteries (dry cells and rechargeable car-batteries) that households will not incur when the PV systems are installed, 2. The consumer surplus resulting from the increased consumption at lower per unit prices. With regards to the costs of PV panels, a recent market assessment conducted in Mexico determined that the costs of PV panels vary between US$6.90 and US$8.50 watt peak (before taxes). These prices are much higher than in Germany, Spain, Japan and the U.S.A., where average prices are estimated in US$5.45, US$5.60, US$5.35 and US$5.20 respectively. Based on the economic analysis, the Solar Home Systems (SHS) component of the project shows high economic returns. Under relatively conservative assumptions, the Economic Rate of Return (ERR) for the total SHS component is about 40%, with an economic net present value of about 805 million pesos (about US$73 Million), reflecting a significant improvement in the quality of lighting and battery services using PV systems in households. The economic returns of the SHS component are robust, and risks are considered minor. The main technological options considered under the program include: a. Photovoltaic systems serving a single customer, customer clusters or community center (e.g., hospital, school, other) and, b. Wind generators serving a single customer, customer clusters or community center. It is expected that these two types of technologies will be the most appropriate solution for about 85% of households targeted under the project. Poverty is a striking hindrance to human life quality, a hindrance to economic development worldwide, and can breed an immense amount of problems in the future, if not solved quickly. There are many definitions around the world for poverty, yet the same common element remains in most of them, which is the low quality of life and the little expectations there can be to overcome that particular situation. Several approaches have been taken in order to considerably and drastically reduce the percentage of poverty, although not all of them have been effective. Programs of general aid have turned out to be largely ineffective, mainly because they do not reduce the incapacities or obstacles that the least well off sector of society face, and which effectively hinder an improvement in their quality of life. In Mexico, a rich variety of programs have been implemented in order to reduce the levels of poverty. Nevertheless, very few have been successful in both reducing poverty, and having a lasting effect. PV technologies have managed to be a tool for improving quality of life unfortunately not all people can pay for it. With the use of these technologies, we could develop big changes; poor people just need the tools to be able to develop.

**Specifically, indigenous communities in Mexico are disproportionately affected by water deprivation and elite commodification of nature – allowing resource autonomy sustains indigenous culture and is a pre-requisite to environmental justice**

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Today we call the ongoing expansion of the capitalist world system “globalization.” Globalization of the Americas began when settlers from Europe arrived at the end of the fifteenth century and began to construct a “New World” with their meanings and practices as the foundation. Since the Conquest, the definition, allocation, and enforcement of values and rights has been shaped by a dominant culture that itself has been both a cause and effect of globalization. Indigenous peoples progressively lost control over lands and resources as they were forcibly removed whenever their traditional territories became of interest to the conquerors. Today the rewards of development continue to accrue primarily to members of the dominant culture even as indigenous movements take advantage of changing values about justice and development itself to assert claims to traditional territories and resources in the political arena. At the dawn of the twenty-first century, Chile, Bolivia, and Mexico are facing water shortages and increasing demands for water. Paradoxically, at roughly the same time that Latin American state agencies in charge of development began to recognize the importance of sustainable development, but before state-led development could successfully promote sustainable or just management of water resources, powerful outsiders began to take advantage of their indebtedness to impose neoliberal development models that de-emphasized both the public interest and the environment. In the 1960s Chile’s liberal governments experimented with reallocation of rights to water to incorporate new technology and planning criteria and to promote transformative social justice aims. This was too much. The country was forcibly neoliberalized in the 1970s and the 1980s by a military dictatorship backed by the United States. Mexico’s neoliberalization came about a decade later, and was implemented by Mexican elites working with transnational capital and the United States and Canada to promote a hemispheric program of “free” trade. Mexican elites have attempted to deconstruct the corporatist political culture of the Mexican Revolution, but have yet to replace it with a new political culture. The neoliberalization of Bolivia has failed. Attempts by elites in control of the state to privatize control of water resources there began in earnest in the mid 1980s and came to a screeching halt in 2000. Because they are the poorest and most politically disenfranchised groups in all three countries, indigenous communities struggling to remain engaged in traditional productive activities have been disproportionately impacted by neoliberalism. They also typically face the most immediate threats associated with unsustainable management of water resources. Indigenous communities dependent upon agriculture are at risk, along with those displaced by hydroelectric development and those who see their waters depleted and polluted by intensified industrial development. The Zapatistas and other disenfranchised Mexicans, Mapuches and other indigenous peoples of Chile, like the Bolivians who staged the Cochabamba “water wars,” are working both within and around the political structures of settler states to promote more just and sustainable use of water. To work within the system, they must, as individual stakeholders, assert convincing claims based on dominant cultural values. This tactic has met with limited success because elites control politics by imposing their own values, especially the prioritization of individual rights over community rights. Ejidos in Mexico and Mapuche and highland Andean communities in Chile have lost their control over water and even been displaced when individuals and corporations backed by the state assert claims to it. Elites and multinational corporations can purchase their rights to water, but individuals who comprise indigenous communities cannot usually afford to exercise their rights or protect them when they are violated— even when backed by prominent intergovernmental organizations or transnational NGOs. When nature is commodified and privatized, elites create wealth for themselves and poverty for others whose life ways have depended on natural relationships for centuries. Dominant cultural values and notions of rights conflict with meanings and practices that support community and indigenous peoples’ capacities to engage in ecologically sustainable development. In Mexico, the Zapatista movement has worked around the state’s authority by constructing autonomous local and regional resource-management regimes that prioritize community stewardship of water over individual rights and draw at least symbolic strength from indigenous values about water. Indigenous movements and organizations in Bolivia are exerting control over the state and they— along with the new indigenous president of the country— are busy imagining a new approach to politics and resource management and restructuring from the community to national levels to promote decision making based on indigenous meanings and practices. The challenge seems to be the implementation of viable policies that can be agreed upon by all stakeholders. Indigenous communities and organizations in Chile continue to resist exploitative development projects backed by the state and to seek redress for environmental injustice both nationally and internationally. Implementing autonomous and sustainable uses of water will be especially challenging there because the state’s water-resource-management regime has so effectively empowered transnational business. The cases examined here suggest that when indigenous communities and organizations can effectively impede exploitative development schemes that usurp community control of water and undermine indigenous cultures, they may open the door to new possibilities for preserving meanings and practices and creation of more just and sustainable resource management— so long as states and elite interests can be dissuaded from using violence to crush their movements. Changing dominant culture values about indigenous peoples, global communications, and the weakening of the state by neoliberalism have recently offered indigenous movements in Latin America opportunities to promote sustainable development. In all three countries, assistance from the international indigenous movement, environmental and human rights organizations, and transnational NGOs that work across international borders to support indigenous rights and promote sustainable development and environmental justice have helped indigenous communities in attempts to gain more control over water and pursue autonomous and sustainable development. Some attribute this support to successful “framing” by indigenous movements that involves foregrounding indigenous values that appeal to environmentalists. Some research suggests that non-indigenous groups facing similar problems have not received the same level of support from transnational actors (Transnational Communities Programme n.d.). Zapatista communities and institutions of autonomous government have been especially adept at gaining support from global civil society and making sure it doesn’t undermine movement solidarity. For Bolivians who organized the “water wars,” for Zapatista communities and others that emulate their tactics in Mexico, and for exploited indigenous communities of Chile, environmental justice has not been achieved by ensuring their inclusion as stakeholders in resource-management regimes loosely managed by states. Environmental justice in Latin American is more than a movement by disenfranchised people to enjoy fuller benefits of environmental protection. The communities of indige- nous peoples that still remain in the Americas have long-term experience organizing themselves politically, economically, and socially and interacting with nature to establish ecologically sustainable productive activities that enable survival and well-being in the landscapes that comprise their traditional territories. For them, environmental justice means control over what the dominant culture calls “resources.” Preservation and cultivation of that along with authority to manage development rooted in indigenous meanings and practices (as well as freely chosen non-indigenous values and practices) are key. The emergence of just and sustainable water use in the contemporary context is contingent upon the successful incorporation of indigenous cultures’ meanings and practices as resource-management regimes adapt to changing political, economic, and environmental realities. Environmental justice will be achieved only when answers to fundamental questions about how we ought to interpret and interact with nature are constructed by all peoples.

**This system of environmental injustice creates disposable populations and threatens an emerging apocalypse that demands challenging short term catastrophe focus - visible violence develops from subterranean structures of inequity**

**Nixon ‘9** [Rob, Professor of English at the University of Wisconsin-Madison, “NEOLIBERALISM, SLOW VIOLENCE, AND THE ENVIRONMENTAL PICARESQUE”, MFS Modern Fiction Studies, Volume 55 number 3, Fall 2009, <http://sustainabilityparadox.commons.gc.cuny.edu/files/2010/09/Nixon-Neoliberalism2.pdf>]

The picaresque proves uncannily effective at dramatizing another critical dimension to the environmentalism of the urban poor—their relationship to time. Like the picaro, the environmentally embattled slum dwellers are hell-bent on immediate survival, improvising from day to day, from hour to hour. Their temporal element is "now o'clock" (Animal's 185), their lives subject to the ﬁckle tyranny of the eternal today. Yet collectively, the city's environmentally afﬂicted are bound in complex ways to past and future through the metamorphoses wrought by toxicity, the pursuit of social justice, and their collective relationship to apocalyptic time. The environmental picaresque of Animal's People pivots on two apocalypses: the horrors of "that night" (1) when the interminable narrative of poisoning began and the certainty that, over the long haul, as the activist Zafar insists, the poor possess "the power of zero" (214). 18 Global geopolitics may, in the short term, be skewed against them, but time is on their side: the Kampani has everything to fear from those with nothing to lose. Animal insists as much in the novel's closing lines: "All things pass, but the poor remain. We are the people of the Apokalis. Tomorrow there will be more of us" (366). Animal's ﬁnal words echo uncannily the end of Mike Davis's non-ﬁctional Planet of the Slums, the most arresting socio-political account of the contemporary neoliberal shantytown world from which, implicitly, the contemporary picaro emerges. "**If** the **empire can deploy Orwellian technologies of repression**," Davis warns, "**its outcasts have the gods of chaos on their side"** (206). Reﬂecting on Hurricane Katrina, Michael Eric Dyson writes memorably of "the color of disaster" as integral to the "neoliberal neglect" that has plagued American politics for over twenty years (23). In keeping with Dyson's stance, we can refuse the unsustainable divide between human disasters (like Bhopal and Chernobyl) and natural ones (like Katrina), dissociating ourselves, for example, from ex-President George W. Bush's insistence that "the storm didn't discriminate and neither will the recovery effort" (qtd. In Weinberg 3). 19 **Discrimination predates disaster**: in failures to maintain protective structures, failures at pre-emergency hazard mitigation, failures to maintain infrastructure, failures to organize evacuation plans for those who lack private transport, all of which make the poor and racial minorities disproportionately vulnerable to catastrophe. As investigative Indian reporters writing for publications like the Hindustan Times and Statesmen were quick to reveal, the Union Carbide disaster was preceded by a long history of structural neglect and a reckless ﬂouting of elementary safety measures. 20 If we project Dyson's national "color of disaster" onto a transnational screen, his phrase can be seen—like Animal's ﬁnal words—to point backward to global crimes of environmental racism (that treat certain communities as more expendable than others) and forward as a global portent. The poor of the world are the uncontainable color of a future that cannot be held in check. Yet there is another way to read that future, as a wager—however idealistic—to those in power to embrace the project of more equitable risk distribution, within the nation and beyond. The South African writer, Njabulo Ndebele, puts this case most forcefully: We are all familiar with the global sanctity of the white body. Wherever the white body is violated in the world, severe retributions follow somehow for the perpetrators if they are non-white, regardless of the social status of the white body. The white body is inviolable, and that inviolability is in direct proportion to the vulnerability of the black body. This leads me to think that if South African whiteness is a beneﬁciary of the protectiveness assured by international whiteness, it has an opportunity to write a new chapter in world history. . . . Putting itself at risk, it will have to declare that it is home now, sharing in the vulnerability of other compatriot bodies. South African whiteness will declare that its dignity is inseparable from the dignity of black bodies. (137) Three points are worth underscoring here. First, international whiteness provides a second shield for national whiteness, a protective dynamic that has profound consequences for the way slow violence has unfolded across the global stage in a neoliberal age. Second, and relatedly, the internal distance between the inviolable body and the vulnerable body is widened by being routed through international circuits of power. Third, implicit in Ndebele's racial narrative of violation and retribution is the kind of environmental narrative that Sinha's novel tells, whereby a corporate bastion of white power deploys a battery of distancing strategies (temporal, legalistic, geographical, scientiﬁc, and euphemistic) in the long duree between the initial catastrophe and the aftermath. Through this battery of attritional, dissociative mechanisms the transnational company strives to wear down the environmental justice campaigns that seek compensation, remediation, and restored health and dignity. Under cover of a variety of temporal orders, the company can hope that public memory and demands for restitution will slowly seep out of sight, vanishing into the sands of time. 21 Yet the open-ended politics of catastrophic procrastination do not operate in isolation within the corporate realm. What of the roles of the state and science? If Ndebele exhorts the state to "jealously and vigorously protect all bodies within its borders and beyond," he acknowledges this has seldom been the case (137). 22 In Khaufpur, the Chief Minister and the Minister for Poison Affairs, their palms well greased with bribes, provide local cover for the American Kampani while going through the motions of taking seriously the concerns of exposed locals. The role of science is more complex. In Khaufpur—as in Bhopal— the transnational corporation withheld from the afﬂicted community details about the chemical composition of the insecticides it was producing at the site, profoundly weakening remedial prospects by denying those exposed precise scientiﬁc information. Small wonder that, when an American doctor arrives to open a free clinic in Khaufpur, local activists mounted a boycott, viewing her as an agent of tendentious Kampani science—science whose long-term remit is to generate a circular narrative that will conﬁrm the larger narrative of corporate self-exculpation or, at the very least, oil the machinery of doubt. From this skeptical perspective, the scientiﬁc process, like the legal one, provides further temporal camouﬂage, ostensibly uncovering what happened while deferring and occluding any decisive, actionable narrative. Terror Time and Shadow Kingdoms Khaufpur, translated from the Urdu, means "city of terror" ("The Accidental Activist"). The city's poorest denizens inhabit a different terror time from the terror time projected by the Kampani. When the slum-dwellers rise up non-violently to protest the Kampani's inaction, the Kampani, invoking the fallback international rhetoric of terrorism, demands that the protestors be tried in the very Indian courts it has been evading. Back in America, the Kampani engages in corporate anti-terrorist exercises, staging mock abductions and executions of their employees by Khaufpuri "terrorists" (Animal's 283). Khaufpuris, by contrast, face a clear and present danger of an environmental kind: an immanent and imminent terror, faceless yet physically intimate, percolating through the penumbral time of the aftermath which is also the suspended time of the illimitable in-between. We all inhabit multiple temporal orders that often co-exist in frictional states, shifting and sliding like tectonic plates. The predominance—and our awareness of—some temporal orders as opposed to others are shaped by where and how we live. We need to ask how directly, how forcefully a given community is impacted by the cycles of sun and moon, by ebbing and ﬂowing tides, by shifts in the seasons, stars, and planets, by the arrivals and departures of migratory life, and by climate change in ways that are cross-hatched with the migratory cycles of transnational capital, electoral cycles (local, national, and foreign), digital time, and the dictates of sweatshop time. Sinha hints at, for example, the unpredictable interface between digital and seasonal time when Animal discovers the "internest" on a computer (92). We can gloss his malapropism as fusing different ecologies of time: the "internest" is, after all, where images go to breed. Animal's People exposes the uneven timelines, the multiple speeds, of environmental terror: the initial toxic event that kills thousands instantly; the fatal ﬁre that erupts years later when the deserted but still-polluted factory reignites; the contaminants that continue to leach into the communal bloodstream; and the monsoon season that each year washes abandoned chemicals into the aquifers, repoisoning wells and producing new cycles of deferred casualties. Thus the initial air-borne terror morphs into a water-borne terror that acquires its own seasonal rhythms of heightened risk. 23 Ordinarily, rural subsistence communities—"ecosystem people"— are attuned (and vulnerable) to different ecologies of time from those that impact the lives of the urban poor. 24 This is not to suggest that ecosystem people possess some romantic, timeless organic bond to the pulse of nature, but rather to acknowledge that their often precarious conditions of survival depend on different combinations of temporal awareness. However, both rural and urban communities share a vulnerability to the vagaries, the haunting uncertainties, of what Ulrich Beck depicts as a "shadow kingdom": Threats from civilization are bringing about a kind of new "shadow kingdom," comparable to the realm of the gods and demons in antiquity, which is hidden behind the visible world and **threatens human life on their Earth.** People no longer correspond today with spirits residing in things but ﬁnd themselves exposed to "radiation," ingest "toxic levels," and are pursued into their very dreams by the anxiety of a "nuclear

holocaust" . . . Dangerous, hostile substances lie concealed behind the harmless facades. Everything must be viewed with a double gaze, and can only be correctly understood and judged through this doubling. **The world of the visible must be investigated,** relativized **with respect to a second reality**, only existent in thought and concealed in the world. (72) In Beck's depiction this imperceptible shadow kingdom is spatially recessed behind "harmless facades." But his spatial trope warrants a temporal gloss as well: beyond the optical façade of immediate peril what demons lurk in the penumbral realms of the long duree? What forces distract or discourage us from maintaining the double gaze across time? And what forces—imaginative, scientiﬁc, and activist—can help us extend the temporal horizons of our gaze not just retrospectively but prospectively as well? How, in other words, do we subject that shadow kingdom to a temporal optic that might allow us to see—and foresee—the lineaments of slow terror behind the façade of sudden spectacle? We need to question here Beck's assumption that "people no longer correspond today with spirits residing in things," that, in other words, the divine and demonic shadow kingdom "of antiquity" has been superseded by the modern shadow kingdom of toxic and radiological hazards. This sequential narrative of threat does not adequately convey the persistent vitality of the numinous within modernity. For the majority of our planet's people (and this is something Sinha brings to life) the two kingdoms of toxic threat and spiritual threat interpenetrate and blend, creating a hybrid world of technonuminous fears. Sinha and Carson: Leakages and Corporate Evaporations Animal's People gives focus to the environmental politics of permeation and duration. Leakages suffuse the novel: gas leakages and category leakages, porous borders and permeable membranes, the living who are semi-dead and the dead who are living specters. 25 What, the novel asks across a variety of fronts, are the boundaries of identity? Where do identities part or merge? How much change must an entity (an individual, a community, a corporation) undergo before it can assume the name of categorical difference, drawing a line across time? On the subject of bounded and porous identities, it is worth noting one aspect of the Union Carbide story that Sinha, for whatever reasons, declined to enfold into his novel. In 2001, Union Carbide disappeared through that act of corporate necromancy known as the merger. Dow Chemical bought out Union Carbide; the name indelibly associated with disaster evaporated, further confounding the quest in Bhopal for environmental justice, compensation, remediation, and redress. Dow Chemical deployed this nominal vanishing act, this corporate shape shifting, as a rationale for disclaiming responsibility for a disaster committed by a now-extinct corporation. 26 If, with Chernobyl, the environmental fallout outlasted the empire responsible, with Union Carbide, the fallout outlasted the transnational company responsible. Thus Soviet imperial fracture and American corporate merger both effectively circumvented or ofﬂoaded historical culpability for the continued slow violence of delayed effects. The evaporation of Union Carbide exempliﬁes the gap between the relative immobility of environmentally afﬂicted populations and the mobility (in time and space) afforded transnational corporations. What the extinct company leaves behind is ongoing proof of the excellent durability of its products; as Animal notes sardonically, the Kampani clearly concocted "wonderful poisons . . . so good it's impossible to get rid of them, after all these years they're still doing their work" (Animal's 306). The factory may have been abandoned, but the invisible poisons remain dynamic, industrious, and alive—full time workers round the clock. The far less resilient biota, however, express themselves primarily through the sensuality of absence: "Listen, how quiet," Animal observes as he wanders the factory grounds. "No bird song. No hoppers in the grass. No bee hum. Insects can't survive here" (185). Sinha's rhetorical strategy here—his summoning of ecological carnage through negative presence—echoes "La Belle Dame sans Merci" which Rachel Carson chose as the epigraph to Silent Spring: "The sedge is wither'd from the lake, / And no birds sing." Sinha's approach calls to mind, too, Carson's use of negative presence in the controversial "Fable for Tomorrow" that launches Silent Spring, where she evokes the plight of a devastated community. In a once harmonious American heartland town (dubbed "Green Meadows" in an early draft) "There was a strange stillness. The birds, for example—where had they gone? . . . The hens brooded, but no chicks hatched. . . . The apple trees were coming into bloom but no bees droned among the blossoms, so there was no pollination and there would be no fruit" (Carson 2–3). Both writers give the absence wrought by toxicity a sensory density; in so doing they strike a complex temporal note, inducing in us, through blended elegy and apocalypse, lamentation and premonition, a double gaze, backward in time to loss and forward to as-yet-unrealized-threats. Through this double gaze **they restage environmental time, asserting its broad parameters against the myopic**, fevered **immediacy that governs the society of** the **catastrophe**-as-**spectacle**. The blighted community Carson depicts in "A Fable for Tomorrow" did not exist in its entirety, although all the component disasters Carson fed into her composite, ﬁctionalized portrait had occurred at some point somewhere in America. By clustering these scattered micro-disasters into a single imaginary community, **she sought to counter** the **dissociative thinking encouraged by** the **temporal and spatial dispersion of environmental** **violence**, acts **which in isolation would pass beneath the radar** of the newsworthy. Like Carson, Sinha has clearly grappled with the imaginative dilemmas posed by the diffusion of slow violence across environmental time. But his response is differently inﬂected, given that all the disasters he summons to mind had indeed been concentrated in a single community. The problem he tackled, moreover, was one Carson never addressed directly: how, through the mechanisms of globalization, environmental racism, and class discrimination, some afﬂicted communities are afforded more visibility—and more access to remediation—than others. This discriminatory distribution of environmental visibility—intranationally and transnationally—lies at the heart of Sinha's ﬁctional endeavor. Forty-ﬁve years ago, Carson protested that the scattershot victims of "herbicides" and "pesticides" ought to be recognized as victims of indiscriminate "biocides" instead (8). Sinha develops this idea of biocidal risk in terms redolent of Carson: one old woman, bent double by the poisons, upbraids the Kampani lawyer thus: "you told us you were making medicine for the ﬁelds. You were making poisons to kill insects, but you killed us instead. I would like to ask, was there ever much difference, to you?" (Animal's 306). Yet Sinha departs from Carson in representing "pesticides" as both indiscriminate and discriminatory: their killing power exceeds their targeted task of eliminating troublesome insects, but they do discriminate in the unadvertised sense of saddling the local and global poor with the highest burden of risk. Thus, by implication, the biocidal assault on human life is unevenly universal. Extraordinary Events, Ordinary Forgettings Looking back at Chernobyl, Hiroshima, Nagasaki, and Bhopal, Petryna laments how "many persons who have survived these largescale technological disasters have been caught in a long-term and vicious bureaucratic cycle in which they carry the burden of proof of their physical damage while experiencing the risk of being delegitimated in legal, welfare, and medical institutional contexts" (216). Such people, above all the illiterate poor, are thrust into a labyrinth of self-fashioning as they seek to ﬁt their bodily stories to the story lines that dangle hope of recognition, possibly, though elusively, even recompense. In so doing, the poor face the double challenge of invisibility and amnesia: numerically they may constitute the majority, but they remain on the margins in terms of visibility and ofﬁcial memory. From an environmental perspective, this marginality is perpetuated, in part, by what Davis terms "**the dialectic of ordinary disaster**," whereby a calamity is incorporated into history and rendered forgettably ordinary precisely because the burden of risk falls unequally on the unsheltered poor ("Los Angeles" 227). Such disasters are readily dismissed from memory and policy planning by framing them as accidental, random, and unforeseeable acts of God, without regard for the precautionary measures that might have prevented the catastrophe or have mitigated its effects. At stake here is the role of neoliberal globalization in exacerbating both uneven economic development and the uneven development of ofﬁcial memory. What we witness is a kind of fatal bigotry that **operates through** the spatializing of time, by **ofﬂoading risk onto "backward" communities** that are barely visible in the ofﬁcial media. Contemporary global politics, then, must be recognized "as a struggle for crude, material dominance, but also (threaded ever closer into that struggle) as a battle for the control over appearances" (Boal 31). That battle over spectacle becomes especially decisive for public memory—and for the foresight with which public policy can motivate and execute precautionary measures—when it comes to the attritional casualties claimed, as at Bhopal, by the forces of slow violence.

**This outweighs any impact on probability and magnitude – risk assessment is epistemologically biased towards white male elites who discount the severity of localized environmental hazards in destroying marginalized communities.**

**Verchick 96** [Robert, Assistant Professor, University of Missouri -- Kansas City School of Law; J.D., Harvard Law School, 1989, “IN A GREENER VOICE: FEMINIST THEORY AND ENVIRONMENTAL JUSTICE” 19 Harv. Women's L.J. 23]

Because risk assessment is based on statistical measures of risk, policymakers view it as an accurate and objective tool in establishing environmental standards. n275 The scientific process used to assess risk purports to focus single-mindedly on only one feature of a potential injury: the objective probability of its occurrence. n276 Risk assessors, who consider most value judgments irrelevant in determining statistical risk, seek to banish them at every stage. n277 As a result, the language of risk assessment -- and of related environmental safety standards -- often carry an air of irrebuttable precision and certainty. The EPA, for example, defines the standard acceptable level of risk under Superfund as "10<-6>" -- that is, the probability that one person in a million would develop cancer due to exposure to site contamination. n278 [\*76] Feminism challenges this model of scientific risk assessment on at least three levels. First, feminism questions the assumption that scientific inquiry is value-neutral, that is, free of societal bias or prejudice. n279 Indeed, as many have pointed out, one's perspective unavoidably influences the practice of science. n280 Western science may be infused with its own ideology, perpetuating, in the view of the ecofeminists, cycles of discrimination, domination, and exploitation. n281 Second, even if scientific inquiry by itself were value-neutral, environmental regulation based on such inquiry would still contain subjective elements. Environmental regulation, like any other product of democracy, inevitably reflects elements of subjectivity, compromise, and self-interest. The technocratic language of regulation serves only to "mask, not eliminate, political and social considerations." n282 We have already seen how the subjective decision to prefer white men as subjects for epidemiological study can skew risk assessments against the interests of women and people of color. The focus of many assessments on the risk of cancer deaths, but not, say, the risks of birth defects or miscarriages, is yet another example of how a policymaker's subjective decision of what to look for can influence what is ultimately seen. n283 Once risk data are collected and placed in a statistical form, the ultimate translation of that information into rules and standards of conduct once again reflects value judgments. A safety threshold of one in a million or a preference for "best conventional technology" does not spring from the periodic table, but rather evolves from the application [\*77] of human experience and judgment to scientific information. Whose experience? Whose judgment? Which information? These are the questions that feminism prompts, and they will be discussed shortly. Finally, feminists would argue that questions involving the risk of death and disease should not even aspire to value neutrality. Such decisions -- which affect not only today's generations, but those of the future -- should be made with all related political and moral considerations plainly on the table. n284 In addition, policymakers should look to all perspectives, especially those of society's most vulnerable members, to develop as complete a picture of the moral issues as possible. Debates about scientific risk assessment and public values often appear as a tug of war between the "technicians," who would apply only value-neutral criteria to set regulatory standards, and the "public," who demand that psychological perceptions and contextual factors also be considered. n285 Environmental justice advocates, strongly concerned with the practical experiences of threatened communities, argue convincingly for the latter position. n286 A feminist critique of the issue, however, suggests that the debate is much richer and more complicated than a bipolar view allows. For feminists, the notion of value neutrality simply does not exist. The debate between technicians and the public, according to feminists, is not merely a contest between science and feelings, but a broader discussion about the sets of methods, values, and attitudes to which each group subscribes. Furthermore, feminists might argue, the parties to this discussion divide into more than two categories. Because one's world view is premised on many things, including personal experience, one might expect that subgroups within either category might differ in significant ways from other subgroups. Therefore, feminists would anticipate a broad spectrum of views concerning scientific risk assessment and public values. Intuitively, this makes sense. Certainly scientists disagree among themselves about the hazards of nuclear waste, ozone depletion, and global warming. n287 Many critics have argued that scientists, despite their allegiance [\*78] to rational method, are nonetheless influenced by personal and political views. n288 Similarly, members of the public are a widely divergent group. One would not be surprised to see politicians, land developers, and blue-collar workers disagreeing about environmental standards for essentially non-scientific reasons. Politicians and bureaucrats are two sets of the non-scientific community that affect environmental standards in fundamental ways. Their adherence to vocal, though not always broadly representative, constituencies may lead them to disfavor less advantaged socioeconomic groups when addressing environmental concerns. n289 In order to understand a diversity of risk perception and to see how attitudes and social status affect the risk assessment process, we must return to the feminist inquiry that explores the relationship between attitudes and identity. 1. The Diversity of Risk Perception A recent national survey, conducted by James Flynn, Paul Slovic, and C.K. Mertz, measured the risk perceptions of a group of 1512 people that included numbers of men, women, whites, and non-whites proportional to their ratios in society. n290 Respondents answered questions about the health risks of twenty-five environmental, technological, and "life-style" hazards, including such hazards as ozone depletion, chemical waste, and cigarette smoking. n291 The researchers asked them to rate each hazard as posing "almost no health risk," a "slight health risk," a "moderate health risk," or a "high health risk." The researchers then analyzed [\*79] the responses to determine whether the randomly selected groups of white men, white women, non-white men, and non-white women differed in any way. The researchers found that perceptions of risk generally differed on the lines of gender and race. Women, for instance, perceived greater risk from most hazards than did men. n292 Furthermore, non-whites as a group perceived greater risk from most hazards than did whites. n293 Yet the most striking results appeared when the researchers considered differences in gender and race together. They found that "white males tended to differ from everyone else in their attitudes and perceptions -- on average, they perceived risks as much smaller and much more acceptable than did other people." n294 Indeed, without exception, the pool of white men perceived each of the twenty-five hazards as less risky than did non-white men, white women, or non-white women. n295 Wary that other factors associated with gender or race could be influencing their findings, the researchers later conducted several multiple regression analyses to correct for differences in income, education, political orientation, the presence of children in the home, and age, among others. Yet even after all corrections, "gender, race, and 'white male' [status] remained highly significant predictors" of perceptions of risk. n296 2. Explaining the Diversity From a feminist perspective, these findings are important because they suggest that risk assessors, politicians, and bureaucrats -- the large majority of whom are white men n297 -- may be acting on attitudes about security and risk that women and people of color do not widely share. If this is so, white men, as the "measurers of all things," have crafted a system of environmental protection that is biased toward their subjective understandings of the world. n298 [\*80] Flynn, Slovic, and Mertz speculate that white men's perceptions of risk may differ from those of others because in many ways women and people of color are "more vulnerable, because they benefit less from many of [society's] technologies and institutions, and because they have less power and control." n299 Although Flynn, Slovic, and Mertz are careful to acknowledge that they have not yet tested this hypothesis empirically, their explanation appears consistent with the life experiences of less empowered groups and comports with previous understandings about the roles of control and risk perception. n300 Women and people of color, for instance, are more vulnerable to environmental threat in several ways. Such groups are sometimes more biologically vulnerable than are white men. n301 People of color are more likely to live near hazardous waste sites, to breathe dirty air in urban communities, and to be otherwise exposed to environmental harm. n302 Women, because of their traditional role as primary caretakers, are more likely to be aware of the vulnerabilities of their children. n303 It makes sense that such vulnerabilities would give rise to increased fear about risk. It is also very likely that women and people of color believe they benefit less from the technical institutions that create toxic byproducts. n304 Further, people may be more likely to discount risk if they feel somehow compensated for the activity. n305 For this reason, Americans worry relatively little about driving automobiles, an activity with enormous advantages in our large country but one that claims tens of thousands of lives per year. The researchers' final hypothesis -- that differences in perception can be explained by the lack of "power and control" exercised by women and people of color -- suggests the importance that such factors as voluntariness and control over risk play in shaping perceptions. [\*81] Risk perception research frequently emphasizes the significance of voluntariness in evaluating risk. Thus, a person may view water-skiing as less risky than breathing polluted air because the former is accepted voluntarily. n306 Voluntary risks are viewed as more acceptable in part because they are products of autonomous choice. n307 A risk accepted voluntarily is also one from which a person is more likely to derive an individual benefit and one over which a person is more likely to retain some kind of control. n308 Some studies have found that people prefer voluntary risks to involuntary risks by a factor of 1000 to 1. n309 Although environmental risks are generally viewed as involuntary risks to a certain degree, choice plays a role in assuming risks. White men are still more likely to exercise some degree of choice in assuming environmental risks than other groups. Communities of color face greater difficulty in avoiding the placement of hazardous facilities in their neighborhoods and are more likely to live in areas with polluted air and lead contamination. n310 Families of color wishing to buy their way out of such polluted neighborhoods often find their mobility limited by housing discrimination, redlining by banks, and residential segregation. n311 The workplace similarly presents workers exposed to toxic hazards (a disproportionate number of whom are minorities) n312 with impossible choices between health and work, or between sterilization and demotion. n313 Just as marginalized groups have less choice in determining the degree of risk they will assume, they may feel less control over the risks they face. "Whether or not the risk is assumed voluntarily, people have greater [\*82] fear of activities with risks that appear to be outside their individual control." n314 For this reason, people often fear flying in an airplane more than driving a car, even though flying is statistically safer. n315 If white men are more complacent about public risks, it is perhaps because they are more likely to have their hands on the steering wheel when such risks are imposed. White men still control the major political and business institutions in this country. n316 They also dominate the sciences n317 and make up the vast majority of management staff at environmental agencies. n318 Women and people of color see this disparity and often lament their back-seat role in shaping environmental policy. n319 Thus, many people of color in the environmental justice movement believe that environmental laws work to their disadvantage by design. n320 [\*83] The toxic rivers of Mississippi's "Cancer Alley," n321 the extensive poisoning of rural Indian land, n322 and the mismanaged cleanup of the weapons manufacturing site in Hanford, Washington n323 only promote the feeling that environmental policy in the United States sacrifices the weak for the benefit of the strong. In addition, the catastrophic potential that groups other than white men associate with a risk may explain the perception gap between those groups and white males. Studies of risk perception show that, in general, individuals harbor particularly great fears of catastrophe. n324 For this reason, earthquakes, terrorist bombings, and other disasters in which high concentrations of people are killed or injured prove particularly disturbing to the lay public. Local environmental threats involving toxic dumps, aging smelters, or poisoned wells also produce high concentrations of localized harm that can appear catastrophic to those involved. n325 Some commentators contend that the catastrophic potential of a risk should influence risk assessment in only minimal ways. n326 Considering public fear of catastrophes, they argue, will irrationally lead policymakers to battle more dramatic but statistically less threatening hazards, while accepting more harmful but more mundane hazards. n327 [\*84] At least two reasons explain why the catastrophic potential of environmental hazards must be given weight in risk assessment. First, concentrated and localized environmental hazards do not simply harm individuals, they erode family ties and community relationships. An onslaught of miscarriages or birth defects in a neighborhood, for instance, will create community-wide stress that will debilitate the neighborhood in emotional, sociological, and economic ways. n328 To ignore this communal harm is to underestimate severely the true risk involved. n329 Second, because concentrated and localized environmental hazards tend to be unevenly distributed on the basis of race and income level, any resulting mass injury to a threatened population takes on profound moral character. For this reason, Native Americans often characterize the military's poisoning of Indian land as genocide. n330 [\*85] 3.

**And, focus on underlying structures producing violence outweighs a one shot linear cause for conflict**

**Hendrick 9** (Diane, University of Bradford, Dept of Peace Studies, “Complexity Theory and Conflict Transformation: An Exploration of Potential and Implications”, Centre for Conflict Resolution, June)

John Paul Lederach, drawing on Wheatley, has found the notion of ―process-structures to be of value in understanding this notion of change and stability. Wheatley uses other terms than Maturana and Varela : "things that maintain form over time yet have no rigidity of structure." (Wheatley, 2006 p. 16) (emphasis added). Lederach is concerned to show a combination of linearity and circularity in the dynamics of conflicts. His representation of complexity concepts is filtered but has, therefore, the advantage that it is not a direct translation of terms from one realm to another with the inherent dangers mentioned above. He stresses connection but it is important for him to understand this in social systems as ―relationship‖. In the circular change process he describes there are non-linear relationships in terms of unpredictability and disproportionality (no linear progress in this sense) at the same time, however, the system is moving in a certain direction (time irreversibility). He understands system properties as the context of relationships out of which conflict episodes emerge. He recognises the importance of discovering the underlying patterns in the system that are producing the conflicts. As Lederach notes a systemic approach requires a reorientation from a focus on events and specific outcomes to the recognition of patterns that emerge over time, and here he echoes the advice of Peter Senge when he refers to the human tendency to a ―fixation on events: ―We are conditioned to see life as a series of events, and for every event, we think there is one obvious cause...such explanations may be true as far as they go, but they distract us from seeing the longer-term patterns of change that lie behind the events and from understanding the causes of those patterns". (Senge, 1990; 2006 p. 2)

**Energy decision-making avoids complexity – it facilitates a constantly shifting form of organization that adapts and combats injustice**

**Gilchrist 2k** [Alison, BA and MS, Regional Links Manager (England) for the Community Develop- ment Foundation, advising the emerging regional authorities on their strat- egies for community involvement in a variety of government funding programmes and policy initiatives, “The well-connected community: networking to the edge of chaos”, COMMUNITY DEVELOPMENT JOURNAL VOL. 35 NO. 3 July 2000 pp. 264–275]

Organizational studies suggest that network forms of organization provide the most effective means of coping with high levels of uncertainty and ambiguity (Scott, 1992). Environments which favour networking-type interactions are characterized by diversity, autonomy, ‘voluntary’ choices, risk and turbulence. In such situations communication and cooperation tend to be based on personal relationships rather than formal rules and regu- lations. Perhaps under these conditions a network of approximately forty members provides the optimal way of managing what might otherwise be organizational ‘chaos’. Complexity theory provides fresh insights into the dynamics of social connections, the functioning of community networks and the morphology of small-scale voluntary organizations. Key elements of complexity theory The basic tenets of complexity theory were developed concurrently across a number of different scientific fields: ecology, quantum physics, artificial intelligence, embryology, evolutionary biology and meteorology (Lewin, 1993). Complexity theory encompasses chaos theory, and seeks to explain the behaviour of non-linear systems (such as global weather patterns), in which apparently insignificant events (the flap of a butterfly wing) have far- reaching consequences (Gleick, 1988). Complex systems comprise a multi- plicity of elements, interacting with one another in ways which are mutually influential, yet relatively ‘local’. Complex systems are open and dynamic. They are affected by changes in the wider environment and they have an impact on what happens around them. History is significant in that their current state is influenced by the concatenation of previous events and activ- ity (Luhmann, 1995). Complex systems are able to ‘learn’ from the past and to adapt to changing conditions. Complexity theory assumes that connections between elements are subject to relatively simple rules of interaction (Boolean logic) and that, in the absence of central control mechanisms, local clusters exhibit only limited awareness of the total system. Over a period of time, however, with each unit responding systematically to signals received from its neighbours the entire system eventually settles down to a state of dynamic equilibrium, featuring familiar, but unique configurations termed ‘strange attractors’. The system has evolved, apparently spontaneously and without external intervention, from an initially random set of interacting elements towards stable (or fractal) patterns of self-organization. The actual configurations which appear cannot be predicted in advance, but adopt forms which are characteristic of the system and its environment. This process is known as autopoiesis. In addition to the appearance of ‘strange attractors’, a funda- mental theme of complexity theory is that of emergent properties which are generated as a result of localized interactions between connected units and characteristic of the whole system. It is possible to think of ‘community’ as the overarching ‘property’ of human social systems. The capacity to process and store information from a variety of sources seems to be an important feature of complex systems. The neuro-physio- logical structure of the human brain is a prime example of a highly evolved parallel information processing system consisting of neural networks (Bechtel and Abrahamsen, 1991). It has been suggested that ‘consciousness’ is the ‘emergent’ property which integrates our individual experiences and creates our sense of ‘self’ (Dennett, 1991; Rose, 1998). Perhaps ‘community’ is the collective equivalent, creating both ‘social identity’ (Tajfel, 1981) and ‘social capital’ (Putnam, 1993). Social networks provide efficient parallel processing systems; receiving, relaying and interpreting information from a diversity of sources. In this way, the whole system or community is able to adjust its thinking and organizational forms to changing conditions. Com- munity networks hold a repository of common sense, experiential know- ledge and shared wisdom (often mediated by women). This provides a collective resource, but also makes an appearance through oppressive tra- ditions and xenophobia. These can be damaging to individuals within that society but also prevent the community acquiring new insights or learning from experiences which challenge outdated assumptions. Self-organizing at the ‘edge of chaos’ Complex systems generate clusters and patterns of self-organization, some of which are more useful in a given situation and therefore more likely to survive. In human terms, groups and organizations crystallize and evolve in an environment of complex and dynamic social interactions. Complexity theory suggests that systems with low levels of connectivity and highly similar elements become ‘stagnant’ or frozen. Populations which have reached these states of isolation, fragmentation or homogeneity (either by choice or cir- cumstance) are unable to innovate or adapt to change. At the opposite (chaotic) end of the spectrum are found systems in which the behaviour of elements is influenced by many highly diverse connections. These are overly volatile and cannot achieve stability. In an uncertain, turbulent world, systems operate best within an intermediate zone along the continuum, somewhere between rigidity and randomness. This has become known as the ‘edge of chaos’. In this state of ‘untidy creativity’ the activities of component parts are co-ordinated through waves of horizontal communication sweep- ing across the inter-connections. The existence of ‘community’ achieves this for human societies, through the integrating function of informal networks. These allow self-monitoring and regulation without recourse to a central or external control mechanism. The system maintains itself in a state of dynamic equilibrium, adjusting constantly to slight alterations in its operat- ing environment but avoiding cataclysmic upheaval. Computer simulations indicate that the sustainability of a complex system is dependent on the overall number of participating elements, their diversity and degree of con- nectivity (Kauffman, 1995). Mature complex systems seem to evolve ‘nat- urally’ towards the ‘edge of chaos’. A networking approach to community development encourages such processes within civil society forming links and alliances which provide the requisite conditions for the emergence of community and voluntary organizations. The significance of social networks in co-ordinating everyday exchanges and decision-making is well-documented in studies of community and organizational life (Thompson et al., 1991;Crow and Allan, 1995). Indeed, Toennies (1887) referred to the informal and emotional nature of these relationships to distinguish ‘community’ (Gemeinschaft) from ‘society’ (Gesellschaft). Building on the early studies of locality-based social systems, the notion of ‘community’ has since embraced the political significance of identity and solidarity (Clarke, 1973). These may transcend ‘place’ and find their expression through mutual-help groups, equality movements and new forms of self-organization, including cyber-alliances (Schuler, 1996; Hoggett, 1997). Despite continuing sociological debate as to the existence and exact meaning of ‘community’, there exists sufficient evidence and a broad consensus that social interaction and informal networks represent an important (and desirable) aspect of people’s lives promoting both health and happiness (Pilisuk and Parks, 1986; Argyle, 1996). ‘Community’ as managing complex and dynamic processes Whatever the shared basis for the connections between individuals, it is clear that robust social networks are crucial to the development and main- tenance of collective action strategies. This has been observed in relation to social movements (Tarrow, 1994), community groups and voluntary organizations (Chanan, 1992) and effective local participation in multi- agency partnerships (Taylor, 1995). Common cause is identified through strategic conversations and casual encounters, whilst burgeoning trust and collective identity ensure that consensus and resources can be swiftly and effectively mobilized for collective action (Marwell and Oliver, 1993; Klan- dermans, 1997). Those forms of organization which best ‘fit’ the current environment are resourced and reproduced. Some persist over time, con- solidating their power and position in the organizational field. Others are more ephemeral; temporary coalitions which serves their purpose and then melt back into the more fluid realm of informal and serendipitous liaison. People’s sense of ‘community’ derives from their perception (real or imagined) of being linked into the dynamics of a complex system of relationships and interaction. It incorporates both objective experience and subjective responses to real life events. Social exclusion is the opposite. It results from a combination of factors (poverty, discrimination, homeless- ness, unemployment, etc.) which disconnect people from the rest of society. As the recent PAT 9 Report (SEU, 1999) recognized, informal networks provide a crucial foundation for community self-help and may need strengthening through professional interventions in some neighbourhoods or for particularly marginal sections of the population. In a system at the ‘edge of chaos’, community emerges from the myriad of micro-interactions as a vital means of social integration. It supplies cohesion without imposing formal control. ‘Community’ represents both the context and the process through which collective problem-solving mechanisms emerge, in much the same way as lifeforms evolved from the ‘primordial soup’ of previous aeons (Kauffman, 1995). The precise format and membership of these combinations are influenced (but not determined) by factors in the environment, such as media interest, political expediency, funding regimes and the existence of similar organiz- ations competing for the same resources (Milofsky, 1988). Within civil society, a familiar range of ‘strange attractors’ can be discerned in the groups, forums, federations, consortia and intermediary bodies which popu- late the community and voluntary sectors. They reflect prevailing cultural expectations, local conventions and often perpetuate existing inequalities of power and privilege. Networks of social interaction are constructed and reinforced through the activities of everyday life and cultural rituals, cre- ating inter-personal ties and affirming community boundaries (Cohen, 1985). For the individual, these connections (with family, friends, col- leagues, neighbours, associates) shape their sense of ‘self’: their social iden- tities and personal narratives. They embody the natural sociality or ‘tribalism’ of human beings (Maffesoli, 1996), allowing access to a range of support, resources and expertise which might not otherwise be available. People in communities which have been dislocated, up-rooted or trauma- tized may need help re-connecting with one another and with wider society. Community development as networking If the purpose of community development is to develop ‘community’, it can be re-defined as enhancing people’s capacity to network both individually, collectively and through social institutions. Although professional com- munity work has long acknowledged the importance of contacts and connections (Henderson and Thomas, 1980, ch. 5), there has been an emphasis on helping people to establish and manage specific forms of association (such as neighbourhood councils, festival committees, self-help support groups or similar community organizations) as goals in their own right. The ‘edge of chaos’ model of community suggests that in addition to their stated aims, these activities provide opportunities for interaction, mutual learning and the development of relationships based on trust as well as respect. The intended outcomes must include flexible, self-reliant net- works which contain a ‘sufficient diversity’ of skills, knowledge, interests and resources for the formation of any number of potential groups and initiatives. The ‘well-connected community’ captures this idea even though it is not yet clear what criteria might be used for measuring progress towards this ideal (or indeed knowing when it has been reached). As in any complex system, events at a local level are determined partly by unplanned interactions and partly by the social, organizational and political environment (patterns of power and affinity). Many community workers will recognize that what happens in practice is usually a combi- nation of serendipity and strategy, in which professional interventions play a catalytic but not controlling function (Gilchrist, 1995). This acknow- ledgement of ‘chance’ and emotion within community development prac- tice is not intended to diminish the influence of policy makers nor the skilled input of community workers. Rather it highlights the futility of accurate prediction and the need for flexibility around evaluation. Com- munity development cannot be realized through business plans or the ful- filment of specific performance criteria. Rather it is about helping disadvantaged populations move towards the ‘edge of chaos’ by sowing and nurturing dynamic, integrated and socially diverse networks which are neither utterly confusing, nor frozen rigid. Community development involves human horticulture rather than social engineering. Empowerment and equality A system at the ‘edge of chaos’ is immensely capable of responding posi- tively to changes in the external environment. Communication channels operate well and it is certainly not isolated from the outside world. Links which cross system boundaries permit the import of new ideas and com- parisons between different perspectives (cf. Granovetter’s identification of the importance of ‘weak ties’, 1973). The ‘well-connected community’ has strong internal relationships, but also valuable and challenging links with people and organizations beyond its own membership and immediate vicinity. It may have a strong collective identity (based on shared geogra- phy, common interests or experience) but its defining edges are ‘fuzzy’ and permeable, allowing ideas and resources to flow to where they can best be used. The principles of empowerment and equality can be incorporated into a complexity model of community development, enabling it to be used to underpin a radical paradigm, independently of contemporary or contested values of social justice. Oppression, prejudice and social

exclusion hinder and distort communication of information across the system and constrain potentially advantageous collaborative arrangements. Equality issues must therefore be addressed in order to dismantle barriers to cooperation by improving tolerance and understanding within the networks. These ensure the integrity, diversity and authenticity of the whole system. Organizational power is often manifested (and challenged) through micro-transactions reflecting the prevailing culture rather than explicit rules and regulations (Foucault, 1977). Post-modernists might say ‘Power is the texture of our lives – we live it rather than have it’ (Appignanesi and Garrett, 1995: 87). Empowerment, increasing the capacity of an actor to influence decisions entails the establishment, negotiation and maintenance of connections which challenge and change unequal power relations. Power flows through dynamic circuits, linking sources of energy and influence to potential appli- cations (Clegg, 1989). Its operation is contextual, dependent on particular configurations and local circumstances (Hosking and Morley, 1991). Empowerment can be promoted using networks to invent alternative pat- terns of interaction at the level of the individual, the group, the organization or wider society (Gilchrist and Taylor, 1997). Sharing experience and expertise creates synergy by harnessing solidarity and self-help to a common purpose. The strength of united action may exert sufficient pressure on decision-makers for a community’s interests to be suc- cessfully articulated and achieved. It is often useful to cultivate links beyond the immediate community, building alliances with individuals and organiz- ations that enjoy greater access to power and resources. More formal empowerment strategies use ‘equal opportunities’ policies and anti-dis- criminatory legislation to enhance both respect and access for those who find it difficult to participate in decision-making structures, whether these are official bodies or informal networks (Skelcher et al., 1996). This requires tackling institutional discrimination as well as individual cases of maltreat- ment, and as such embraces political, practical and psychological levels of transformation (Ledwith, 1997). Complexity theory offers a new and potentially liberating explanation for key principles of community development, most notably the emphasis placed on ‘process’. This has major implications for community work prac- tice and the growing number of policy initiatives which rely on notions of ‘community’ involvement (Chanan and West, 1999). Many of these require the co-operation of agencies from different sectors as ‘partners’ in various joint ventures designed to alleviate poverty, environmental degradation, crime and poor health. The need for ‘capacity building’ is acknowledged but this is often interpreted as training for individual players rather than organizational development. Sustainable community development requires support for community infrastructure, including the growth of informal networks, increased participation in community activities and the strength- ening of local democratic processes.

**1AC – Scalar Politics**

**Contention two is scalar politics**

**Uncertainty and nonlinearity are inevitable due to inherent complexity within systems**

**Ramalingam et al 8** [Ben, Senior Research Associate at the Overseas Development Institute, and Harry jones at ODI, "Exploring the science of complexity: Ideas and Implications for development and humanitarian efforts" <http://www.odi.org.uk/resources/docs/833.pdf> ] 10

Concept 4: Nonlinearity5 ‘... the darkest corner of science [is] the realm of non-linear problems’ (Strogatz, 2003). Outline of the concept Traditional scientific approaches are based on the idea that linear relationships can be identified through data gathering and analysis, and can be used as the basis of ‘laws’ of behaviour (Byrne, 1998). Such approaches in the physical sciences have informed the development of social, economic and political science, using broad theories of behaviour to generate hypotheses about causal relations between variables of interest (Homer-Dixon, 1995). However, complexity science suggests that human systems do not work in a simple linear fashion. Feedback processes between interconnected elements and dimensions lead to relationships that see change that is dynamic, nonlinear and unpredictable (Stacey, 1996). Nonlinearity is a direct result of the mutual interdependence between dimensions found in complex systems. In such systems, clear causal relations cannot be traced because of multiple influences. The distinction between linear and nonlinearity is far from trivial. If dynamic nonlinear feedbacks in response to rising greenhouse gases are included in the model used in the Stern Review of Climate Change (cited in Concept 2), for example, the total average cost of climate change rises from 5% to at least 20% of global per capita consumption (HM Treasury, 2006).6 Detailed explanation Vast numbers of naturally occurring systems exhibit nonlinearity. As one thinker has dryly suggested (Stanislaw Ulam, in the 1950s), calling a situation nonlinear is like going to the zoo and talking about all the interesting non-elephant animals you can see there (Campbell et al., 1985): there are as many nonlinear situations as there are non-elephant animals. Linearity describes the proportionality assumed in idealised situations where responses are proportional to forces and causes are proportional to effects (Strogatz, 2003). Linear problems can be broken down into pieces, with each piece analysed separately; finally, all the separate answers can be recombined to give the right answer to the original problem. In a linear system, the whole is exactly equivalent to the sum of the parts. However, linearity is often an approximation of a more complicated reality – most systems only behave linearly if they are close to equilibrium and are not pushed too hard. When a system starts to behave in a nonlinear fashion, ‘all bets are off’ (Strogatz, 2003). This is not to suggest that nonlinearity is necessarily a dangerous or unwanted aspect of systems. The biology of life itself is dependent on nonlinearity, as are the laws of ecology. Combination therapy for HIV/AIDS using a cocktail of three drugs works precisely because the immune response and viral dynamics are nonlinear – the three drugs taken in combination are much more effective than the sum of the three taken separately. The nonlinearity concept means that linear assumptions of how social phenomena play out should be questioned. It is important to note that such thinking has only relatively recently been incorporated into the ‘hard’ science paradigms and, moreover, is still only starting to shape thinking in the social, economic and political realms. Nonlinearity poses challenges to analysis precisely because such relationships cannot be taken apart – they have to be examined all at once, as a coherent entity. However, the need to develop such ways of thinking cannot be overstated – as one thinker puts it: ‘... every major unresolved problem in science – from consciousness to cancer to the collective craziness of the economy, is nonlinear’ (Capra, 1996). 5 It is important to distinguish nonlinearity as used here, which relates to relationships and proportionality, and nonlinearity in terms of sequences of events – one thing following another. 6 Note that the previously cited increase from 5 to 14.4% was due to natural, known feedbacks and does not include non-linear feedbacks 25 Although nonlinearity is a mathematical formulation, it is useful to take the suggestion that what is required is a ‘qualitative understanding of [the] quantitative’ when attempting to investigate them systematically (Byrne, 1998). Such a qualitative understanding has been furthered by the work of Robert Jervis (1997) on the role of complexity in international relations. Starting with the notion that understanding of social systems has tacitly incorporated linear approaches from Newtonian sciences, Jervis goes on to highlight three common assumptions that need to be challenged in order to take better account of nonlinearity. These assumptions provide a solid basis for investigating nonlinearity. First, it is very common to test ideas and propositions by making comparisons between two situations which are identical except for one variable – referred to as the independent variable. This kind of analysis is usually prefaced with the statement ‘holding all other things constant’. However, in a system of interconnected and interrelated parts, with feedback loops, adaptive agents and emergent properties, this is almost impossible, as everything else cannot be held constant and there is no independent variable. Jervis argues that, in such systems, it is impossible to look at ‘just one thing’, or to make only one change, hence to look at a situation involving just one change is unrealistic. Secondly, it is often assumed that changes in system output are proportional to changes in input. For example, if it has been assumed that a little foreign aid slightly increases economic growth, then more aid should produce more growth. However, as recent work by ODI and others argues, absorption capacity needs to be taken account – more aid does not necessarily equate to better aid. In complex systems, then, the output is not proportional to the input. Feedback loops and adaptive behaviours and emergent dynamics within the system may mean that the relationship between input and output is a nonlinear one: ‘Sometimes even a small amount of the variable can do a great deal of work and then the law of diminishing returns sets in [a negative feedback process] … in other cases very little impact is felt until a critical mass is assembled’ (Jervis, 1997). The third and final commonly made assumption of linearity is that the system output that follows from the sum of two different inputs is equal to the sum of the outputs arising from the individual inputs. In other words, the assumption is that if Action A leads to Consequence X and Action B has Consequence Y then Action A plus Action B will have Consequences X plus Y. This frequently does not hold, because the consequences of Action A may depend on the presence or absence of many other factors which may well be affected by B or B’s Consequence (Y). In addition, the sequence in which actions are undertaken may affect the outcome. Example: The growth dynamics model as an alternative to linear regression models Studies of economic growth face methodological problems, the foremost of which is dealing with real world complexity. The standard way of understanding growth assumes, implicitly, that the same model of growth is true for all countries, and that linear relationships of growth are true for all countries. However, linear relationships might not apply in many cases. An example would be a country where moderate trade protection would increase economic growth but closing off the economy completely to international trade would spell economic disaster. Linear growth models imply that the effect of increasing the value of the independent variable would be the same for all countries, regardless of the initial value of that variable or other variables. Therefore, an increase of the tariff rate from 0% to 10% is presumed to generate the same change in the growth rate as a change from 90% to 100%. Furthermore, the change from 0% to 10% is assumed to have the same effect in a poor country as in a rich country, in a primary resource exporter as in a manufacturing exporter, and in a country with well developed institutions as in a country with underdeveloped institutions. Despite some efforts to address these issues by relaxing the linear framework and introducing mechanisms to capture nonlinearities and interactions among some variables, this is still a poor way of addressing real world nonlinearity. Econometric research has identified that linear models cannot generally be expected to 26 provide a good approximation of an unknown nonlinear function, and in some cases can lead to serious misestimates (Rodríguez, 2007). Research at Harvard University has focused on the problem of designing a growth strategy in a context of ‘radical uncertainty’ about any generalised growth models. They call their method ‘growth diagnostics’, in part because it is very similar to the approach taken by medical specialists in identifying the causes of ailments. In such a context, assuming that every country has the same problem is unlikely to be very helpful. The principal idea is to look for clues in the country’s concrete environment about the specific binding constraints on growth. The growth diagnostics exercise asks a set of basic questions that can sequentially rule out possible explanations of the problem. The answers are inherently country-specific and time-specific. The essential method is to identify the key problem to be addressed as the signals that the economy would provide if a particular constraint were the cause of that problem. Implication: Challenge linearity in underlying assumptions Within complex systems, the degree of nonlinearity and relationships between various factors, and the lack of proportionality between inputs and outputs, means that the dynamics of change are highly context-specific. Therefore, if there are assumptions, aggregations and theories about the relations among different aspects of a specific situation, and these are not entirely appropriate when applied to the dynamics of a new local situation, then this perspective is unlikely to lead to a deep understanding of what should be done, and is furthermore unlikely to lead to the hoped-for changes. Nonlinearity implies that, as well as understanding the limitations of a particular model or perspective, it is important to build and improve new models that can provide the sort of information required for the particular task at hand. ‘No kind of explanatory representation can suit all kinds of phenomena ... any one diagnosis of [a] problem and its solution is necessarily partial’ (Holland, 2000). From this perspective, it is important to tailor to the particular situation one’s perspective on the dynamics of some phenomena. In a complex system, one must examine the complex web of interrelationships and interdependencies among its parts or elements (Flynn Research, 2003). It is important **from the outset** to understand the association and interaction among variables, rather than assuming that one causes another to change, and to look at how variables interact and feed back into each other over time (Haynes, 2003). Homer-Dixon, cited above, suggests that political scientists use methods that are modelled on the physical sciences, developing broad theories of political behaviour to generate hypotheses about causal relations between variables of interest. These ideas resonate strongly with a recent assessment undertaken for Sida on the use of the log frame (Bakewell and Garbutt, 2005), highlighting some of the advantages and disadvantages in a way which is particularly pertinent for this paper. In the international aid world, much of programme planning and development is undertaken using a set of methods and tools called the logical framework. For most of the study respondents, the advantage of logical frameworks was that they force people to think carefully through what they are planning to do, and to consider in a systematic fashion how proposed activities might contribute to the desired goal through delivering outputs and outcomes. As a result, many see the log frame as a useful way of encouraging clear thinking. However, these positive aspects were offset by the almost universal complaint that the log frame rests on a very

**linear logic, which suggests that if Activity A is done, Output B will result, leading to Outcome C and Impact D.** This linear idea of cause and effect is profoundly ill-at-ease with the implications of complexity science and, indeed, the experiences of many development practitioners. The authors of the study sum up the problems of the log frame in a way that is key to our discussion of complexity: ‘Unfortunately (for the logical framework approach at least) we are not working with such a selfcontained system and there are so many factors involved which lie beyond the scope of the 27 planned initiative that will change the way things work. Although the LFA makes some attempt to capture these through the consideration of the risks and assumptions, these are limited by the imagination and experience of those involved. As a result the LFA tends to be one-dimensional and fails to reflect the messy realities facing development actors’ (Bakewell and Garbutt, 2005). Nonlinearity also has clear implications for the increased interest in randomised control trials (RCTs). While the implications of nonlinearity for techniques and tools such as the log frame and RCTs are increasingly well understood by many actors within the aid system, the answer to the deeper question as to whether incorporation of nonlinearity will be feasible, given the pressure on donors to justify aid budgets while having to deal with a reducing headcount, is less clear. The distinction between linearity and nonlinearity can be seen in as providing a theoretical underpinning of the frequently cited tension between upward accountability and learning. It also provides a means to re-frame the debate. If the two goals of accountability and learning are also about different mindsets, the degree to which an appropriate balance can be struck – without exploring these mindsets and the assumptions on which they are based – is open to question. Concept 5: Sensitivity to initial conditions Outline of the concept The behaviours of complex systems are sensitive to their initial conditions. Simply, this means that two complex systems that are initially very close together in terms of their various elements and dimensions can end up in distinctly different places. This comes from nonlinearity of relationships – where changes are not proportional, small changes in any one of the elements can result in large changes regarding the phenomenon of interest. Detailed explanation Imagine a small ball dropped onto the edge of a razor blade, as shown in the first image in Figure 4 below. The ball can strike the blade in such a way that it can go off to the left (centre image) or to the right (right-hand image). The condition that will determine whether the ball goes to the left or right is minute. If the ball were initially held centred over the blade (as in the first image), a prediction of which direction the ball would bounce would be impossible to make with certainty. A very slight change in the initial conditions of the ball can result in falling to the right or left of the blade. Figure 4: Sensitivity to initial conditions – ball striking razor blade Source: <http://www.schuelers.com/ChaosPsyche/part_1_14.htm>. The concept of phase space (Concept 6) allows a more precise understanding of initial conditions. Phase space allows for the analysis of the evolution of systems by considering the evolution process as a sequence of states in time (Rosen, 1991). A state is the position of the system in its phase space at a given time. At any time, the system’s state can be seen as the initial conditions for whatever processes follow. The sensitive dependence on initial conditions, in phase space terms, means that the position of a system in its phase space at a particular moment will have an influence on its future evolution. The interactions that are taking place at any moment in time have evolved from a previous moment in time, that is, all interactions are contingent on an historical process. Put simply, history matters in complex systems. 28 The infamous butterfly effect was a metaphor developed to illustrate this idea in the context of the weather. Edward Lorenz (1972), a meteorologist, used the metaphor of a flapping wing of a butterfly to explain how a minute difference in the initial condition of a weather system leads to a chain of events producing large-scale differences in weather patterns, such as the occurrence of a tornado where there was none before. As more recent thinkers have put it, in relation to complex systems in general, an initial uncertainty in measurement of the state of a system: ‘… however small, inevitably grow[s] so large that long-range prediction becomes impossible … even the most gentle, unaccounted-for perturbation can produce, in short order, abject failure of prediction’ (Peak and Frame, 1998). A large proportion of complex systems are prone to exhibiting the butterfly effect, so much so that some have defined complex behaviour as occurring where the butterfly effect is present (ibid). As no two situations will be exactly alike, the phenomenon will inevitably occur in many settings. As with nonlinearity, many have not used formal models to demonstrate the butterfly effect, but instead have tried to develop a qualitative understanding of the likely quantitative nature of real life situations. Sensitivity to initial conditions also means that ‘the generalisation of good practice [between contexts] begins to look fragile’ (Haynes, 2003) because initial conditions are never exactly the same, and because the complexity and nonlinearity of behaviour make it extremely difficult to separate the contributions to overall behaviour that individual factors have. Any notion of ‘good practice’ requires a detailed local knowledge to understand why the practice in question was good. This concept highlights the importance of understanding what can be forecast in complex systems to what level of certainty, as well as what is comparable across complex systems. It reinforces the point that both of these areas are necessarily restricted by the perspective of the observer. Sensitive dependence on initial conditions suggests that no single perspective can capture all there is to know about a system, that it may be wise to look in detail at how appropriate our solution to a problem is, and that it may be better to work with inevitable uncertainty rather than plan based on flimsy or hopeful predictions. This may mean, to take the example of predictability, that the success of a nation may be best explained not by its population’s virtues, its natural resources and its government’s skills, but rather simply by the position it took in the past, with small historical advantages leading to much bigger advantages later. Another example is how socioeconomic policy can result in a separation of neighbourhoods, driving a large gap between the rich and the poor so that, in short order, a gulf in wealth can result between two families who once had similar wealth (Byrne and Rogers, 1996). This is closely related to the notion of ‘path dependence’, which is the idea that many alternatives are possible at some stages of a system’s development, but once one of these alternatives gains the upper hand, it becomes ‘locked in’ and it is not possible to go to any of the previous available alternatives. For example, ‘… many cities developed where and how they did not because of the “natural advantages” we are so quick to detect after the fact, but because their establishment set off self-reinforcing expectations and behaviours’ (Cronon, cited in Jervis, 1997). In economic development, the term ‘path dependence’ is used to describe how standards which are first-to-market can become entrenched ’lock ins’ - such as the QWERTY layout in typewriters still used in computer keyboards (David, 2000). In certain situations, positive feedbacks leading from a small change can lead to such irreversible path dependence (Urry, 2003). Urry gives the example of irreversibility across an entire industry or sector, whereby through sensitive dependence on initial conditions, feedback can set in motion institutional patterns that are hard or impossible to reverse. He cites the example of the domination of steel and petroleum-based fuel models, developed in the late 29 19th century, which have come to dominate over other fuel alternatives, especially steam and electric, which were at the time preferable. The concept of path dependence has received some criticism from exponents of complexity science, because it has imported into economics the view that minor initial perturbations are important while grafting this onto an underlying theory that still assumes that there are a finite number of stable and alternative end-states, one of which will arise based on the particular initial conditions. As will be explained in Concept 7 on attractors and chaos, this is not always the case in complex systems (Margolis and Liebowitz, 1998).  Example: Sensitive dependence on initial conditions and economic growth Economists have generally identified sensitive dependence on initial conditions as one of the important features of the growth process – that is, what eventually happens to an economy depends greatly on the point of departure. There is mounting evidence that large qualitative differences in outcomes can arise from small (and perhaps accidental) differences in initial conditions or events (Hurwicz, 1995). In other words, the scope for and the direction and magnitude of change that a society can undertake depend critically on its prevailing objective conditions and the constellation of sociopolitical and institutional factors that have shaped these conditions. For specific economies, the initial conditions affecting economic growth include levels of per capita income; the development of human capital; the natural resource base; the levels and structure of production; the degree of the economy’s openness and its form of integration into the world system; the development of physical infrastructure; and institutional variables such as governance, land tenure and property rights. One might add here the nature of colonial rule and the institutional arrangements it bequeathed the former colonies, the decolonisation process, and the economic interests and policies of the erstwhile colonial masters. Wrongly specifying these initial conditions can undermine policy initiatives. Government polices are not simply a matter of choice made without historical or socioeconomic preconditions. Further, a sensitive appreciation of the differences and similarities in the initial conditions is important if one is to avoid some of the invidious comparisons one runs into today and the naive voluntarism that policymakers exhibit when they declare that their particular country is about to become the ‘new tiger’ of Africa. Such comparisons and self-description actually make the process of learning from others more costly because they start the planning process off on a wrong foot (Mkandawire and Soludo, 1999). Implication: Rethink the scope of learning and the purpose of planning in an uncertain world Sensitivity to initial conditions suggests that there are inevitably degrees of non-comparability across, and unpredictability within, complex systems. Some have argued that this implies that: ‘… the map to the future cannot be drawn in advance. We cannot know enough to set forth a meaningful vision or plan productively’ (Tetenbaum, 1998). The general implications for development theory and practice have been highlighted by a previous ODI working paper on participatory approaches, which suggests that this implies the notion of development as planned change is paradoxical. To quote directly, ‘… perfect planning would imply perfect knowledge of the future, which in turn would imply a totally deterministic universe in which planning would not make a difference’ (Geyer, cited in Sellamna, 1999). Sellamna goes on: ‘For this reason, development planning should abandon prescriptive, goal-oriented decision making and prediction about future states and focus instead on understanding the dynamics of 30 change and promoting a collective learning framework through which concerned stakeholders can constantly, through dialogue, express their respective interests and reach consensus.’ With regards to learning, this poses profound issues for the transferability of ‘best practice’, a concept that has taken on increasing meaning within the development sector since the rise of knowledge management and organisational learning strategies (Ramalingam, 2005). While it is possible that, for example, an understanding of the interplay of factors driving urban change in the Philippines may be relevant for analysis of urban change in Guatemala, this is not necessarily the case. The sensitivity to initial conditions gives us a strong reason to suppose that, even if we have a generally useful perspective on urban environments, this may entirely fail to capture the key features of the next situation we look at. This means that the search for ‘best practices’ may need to be replaced by the search for ‘good principles’. Some have suggested that the most appropriate way to bring the principles of effective approaches from one context to another is for ‘… development workers to become facilitators … enabling representatives of other communities … to see first hand what in the successful project they would wish to replicate’ (Breslin, 2004). Moving onto planning, to say that prediction of any kind is impossible may be overstating the case. Complexity does suggest that, in certain kinds of systems, future events cannot be forecasted to a useful level of probability and that, from certain perspectives, it is not possible to offer any firm prediction of the way the future will pan out on certain timescales. However, in other systems, future events can be foreseen in a helpful manner. For example, Geyer (2006) suggests that, with political dynamics, it is fairly safe to predict the short-term dynamics of basic power resources and political structures and that, therefore, there is decent scope for forecasting voting and decision outcomes of policy. On the other hand, examining party and institutional dynamics becomes more difficult, and grasping the potential shifts in contested political and social debates is even harder, while the longterm development of political dynamics is effectively characterised by disorder, as far as our ability to predict is concerned. It is important to clarify that certain levels of uncertainty are unavoidable when looking into the future. Complexity science suggests that it is important to identify and analyse these levels of unpredictability as part of the nature of the systems with which we work, and not treat uncertainty as in some way ‘unscientific’ or embarrassing. Rather than rejecting planning outright, there is a need to rethink the purpose and principles of planning. This has two key strands. First, it is necessary to incorporate an acceptance of the inherent levels of uncertainty into planning. The requirement for a certain level of detail in understanding future events should be balanced with the understanding that both simple and intricate processes carry uncertainty of prediction. While improving one’s models of change and analyses of facets of a situation may be worthwhile, it is just as important and often more practical to work with a realistic understanding of this uncertainty and build a level of flexibility and adaptability into projects, allowing for greater resilience. It has been argued that development projects have ‘fallen under the enchantment of [delivering] clear, specific, measurable outcomes’ (Westley et al., 2006).

**The plan’s shifting of the scale of energy decision-making spurs social movements despite complexity**

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The fight over Keystone XL is thus as much about justice as it is about energy. Energy choices are, while obviously technological, also thoroughly social. How societies produce and consume energy is intimately tied to the function and organization of not only ecological but also social, political, and economic systems at scales ranging from one village to the whole planet. Energy is vital to the success of modern societies, the smooth functioning of the global economy, and the day-to-day lives of the world’s inhabitants. It is one of the largest sources of wealth on Earth and the driver of some the planet’s gravest risks. Over the next fifty years, humanity will face hundreds of choices like Keystone XL: choices about what kinds of energy systems to build for the future, where to build them, and how to distribute their benefits, costs, and risks. These choices will play a key role in shaping the human consequences of our energy future, and will ultimately help determine which communities flourish and which deteriorate over the course of the twenty-first century. No wonder it’s a fight. Humanity cannot rely on its current sources of energy. This is a historical fact that results from four important trends. First, energy demand continues to grow; hence, communities must continue to add new capacities to generate energy over time (or they must find new strategies for reducing the growth of energy demand, through energy efficiency for example). Second, energy infrastructure ages and must be replaced over finite periods of time in order to update technologies, retire old facilities, and meet new regulatory requirements. In the United States, for instance, the electricity grid infrastructure is already over half a century old and most nuclear and coal-fired power plants are forty to sixty years old. The joke goes that the United States has the best grid money could buy–in 1947. Third, current energy resources become depleted and must be replaced with new resources. According to the International Energy Agency’s 2011 World Energy Outlook, existing sources of crude oil will supply no more than 20 percent of the world’s demand for oil by 2035. Therefore additional oil supplies will need to be found or be replaced with other forms of energy in the intervening years. Fourth, energy prices are rising in an unsustainable fashion, especially in the oil sector. Blame for this rise is often placed on new demand from China and India, prompting calls for more drilling, especially in the United States. The truth is more complex. Exploration costs and the politics of oil wealth increasingly combine to put a high floor beneath world oil prices. New oil is expensive to find and produce, as the search for conventional oil moves to more extreme environments and the bulk of new oil finds are unconventional, such as Venezuelan heavy crude and Canadian tar sands. At the same time, the major oil producing countries need high oil prices to balance their budgets. None of this is a new phenomenon in the energy sector. We often think of the energy system as remarkably durable, while in fact the energy system is in constant flux. New power plants replace old ones. New oil and gas wells are drilled as old ones dry up. Since the 1970s, for example, the Powder River Basin in Wyoming has emerged as a major source of both coal and natural gas, with seven companies now operating coal mines in the region, tens of thousands of natural gas wells dotting the landscape, and new infrastructures connecting the region to major railways. This burst of development occurred in large part as a result of 1970 amendments to the 1963 Clean Air Act, which put a high premium on the region’s coal resources; containing little or no sulfur, the region’s coal significantly reduced the nation’s sulfur dioxide emissions. At current rates of extraction, however, most coal mines in the Powder River Basin have only about twenty years of active life left, and any new mines in the region would require new federal permits. Hence, the basin’s economic future remains deeply uncertain. Fashioning an energy future can seem, therefore, as if it is simply a matter of choosing what kind of energy technologies to deploy in the replacement and expansion of existing infrastructures. And, indeed, widespread deliberations are now occurring both within the energy sector and societies across the globe about energy technology choices for the next fifty years. Yet, to describe these choices as merely about technology does a gross injustice to their import and complexity. Energy choices are ultimately choices not only about what technologies to deploy but also about what societies want to build around those technologies. They are about how people will live and make their livings in the future and how the benefits, costs, and risks of energy systems will be distributed across diverse communities. They are, in other words, choices about energy justice. Energy and People To fully appreciate the subtle complexities of concerns about energy justice requires an exploration of the many and varied ways that human lives and livelihoods are bound together with technologies that produce and consume energy. Social scientists refer to such interconnections as socio-technological systems, acknowledging that the social and technical dimensions of such systems can be difficult—at best—to make sense of separately. These ties between the social and the technical range across many facets of all human society. Social identities (and imaginaries) exist around machines—why else would someone pay a large sum of money for a Jaguar, a Ferrari, or a Maserati? So, too, do patterns of human relationships, organization, and work. Human values and objectives are inevitably designed into technologies and technological systems. Indeed, the defining characteristic of technology—its use as a tool to serve human purposes—invariably shapes the crafting of the technology. Modern human activity and organization and their technical foundations thus come together in tightly coupled socio-technological systems. The significance of the ties between patterns of energy and patterns of human organization and activity is clearly evident in other energy systems: electricity generation and distribution from coal, natural gas, and nuclear power plants; the production and refining of oil; and the mining and transport of natural gas for household and industrial use as well as for automobile, railway, and ocean transportation. Collectively, energy systems comprise the largest and most important of all human enterprise. Energy infrastructure—electricity grids, oil and gas pipelines, road and rail networks—span continents. Oil production, refining, and distribution is a global system involving oil wells, including massive offshore oil platforms, in dozens of countries, transport ships, pipelines, refineries, gas stations, and hundreds of millions of gasoline and diesel engines in cars, trucks, airplanes, trains, boats, tanks, lawnmowers, generators, industrial facilities, etc. It is no accident that nine of the twelve largest companies on the Fortune 500 are energy companies. Consider, for a moment, one particular socio-technological energy system: air transportation. In technical terms, the air transportation system comprises a wide range of technological elements designed to convert jet fuel into the ability to move passengers and freight rapidly around the globe. This system is integral to modern social order. Companies, governments, universities, and tourists all depend on its smooth functioning to carry out their business, activities, and operations. In a globally networked society, new technologies of transportation and communication mix to make patterns of human activity and organization never before possible in human history. Yet, the system also depends fundamentally on patterns of human activity and organization. The smooth functioning of air transportation relies on a large and diverse workforce of highly trained pilots, mechanics, flight attendants, ticket salespeople, baggage handlers, fuelers, de-icing machine operators, meteorologists, air traffic controllers, managers, accountants, software programmers, and many others—not to mention the people and institutions required to train and certify all these individuals. Of course, airlines also need investors, airplane manufacturers, and the companies that drill oil and refine it into jet fuel. Most important of all, airlines require passengers, as became abundantly clear after the terrorist attacks of September 11, 2011. A renewed fear of flying led to a roughly 25 percent drop in ridership and nearly bankrupted several U.S. airlines in the ensuing six months. To ease travelers’ concerns and restore their trust in the system, the U.S. government established the Transportation Security Administration (TSA) and radically increased security operations at U.S. airports, including the short-term deployment of U.S. military personnel. Airlines also need to be able to trust their passengers not to hijack or otherwise exploit airplane technologies for non-authorized purposes. This trust must either come via a voluntary compact or through robust security procedures to ensure that no passenger carries any other technology onto the plane that could be used as a weapon. In addition to highlighting the ways in which the social and the technological merge in modern systems, the air transportation system also reveals two other important dimensions of such systems. The first is complexity. Air transportation operates at the intersection of several distinct systems—airplane manufacturing, air travel, fuel production, airport maintenance and operations—as well as a range of social, economic, and political, processes, and phenomena. Routine air travel has increased mobility, for example, for students going to college, grandparents visiting their grandchildren, and middle class families going on vacation to Disney World and Las Vegas. Multinational corporations have become common—as have global supply chains. The floral industry is now global, linking consumers in Europe and the United States with producers in Africa and South America. Some of these processes, such as national air safety policies, are highly top down in organization. Others, such as the flight plans of casual and business travelers, accrete from the daily decisions of millions of individuals, families, and organizations. The transformation of the air transportation industry after 9/11 also reveals, secondly, the implications of socio-technological systems change. If taken in the context of the global air transportation system, as a whole, the addition of new security procedures at airports constitutes a relatively modest overall change. We might say that passengers must merely now pass through a somewhat more rigorous security evaluation before boarding aircraft. Yet, the depth and implications of this modest change have nonetheless turned out to be quite significant for social and political organization. In the United States, the change ushered into existence an entirely new, if modestly sized government agency, with sixty thousand employees and an annual $8.1 billion budget (roughly comparable to the budget of the U.S. Environmental Protection Agency or the U.S. National Science Foundation). Security technologies have been upgraded throughout the industry, including onboard planes as well as in airports. The TSA maintains a list of passengers who are not allowed to fly and screens every passenger before allowing them to fly. Airport buildings have, in some cases, been significantly reconfigured. New scanning machines have raised, for some passengers, difficult questions about privacy and propriety. Alternative screening practices involving hand searches have also piqued the ire of passengers and raised unsettling ethical questions about the suitability of professional security behaviors in a civilian setting. All foreign visitors to the United States must now be fingerprinted and photographed at the border, be registered upon entry and exit, and have their visits to the country tracked. In sum, changes to air travel have altered not only the technological infrastructure of airports and airplanes but people’s relationship to one another, their expectations of fellow travelers and foreign visitors, and the organization of government. Energy systems help define not only what we do and where we go but also who we are and how we live as human beings. When electricity grids began being constructed in the late nineteenth and early twentieth centuries, their predominant customers were industrial factories replacing water wheels or steam engines. Those factories were primarily daytime operations. Early coal-fired power plants didn’t like to shut down, however, and so operated twenty-four hours each day. Our 24/7 culture derives from the design of those early power plants. Electricity utilities, looking for ways to improve business, created ways to sell electrons in the evenings, at night, and at weekends. They invested in electric streetcars to move people to and from work in the early mornings and late evenings. They also invested in amusement parks to provide entertainment for evenings and weekends, entertainment that required moving people around the city on streetcars. All of which, incidentally, consumed energy. Firms like General Electric, one of Thomas Edison’s inventions, began manufacturing and marketing electrical devices for the home: lights, stoves, irons, toasters, basically anything to get us to consume more electricity in the mornings and evenings. Today’s televisions, microwaves, stereos, video game systems, and the multiplicity of other devices owe much to the original infrastructure of household electric delivery—power lines connected to homes and electric wires and outlets run throughout the walls—built to handle the earliest electrification of the home. In order to push sales of electric lighting, early utility companies sponsored massive lighting displays to illuminate the power of light and its ability to transform night from a time of sleep to a time of play. Early generations were encouraged to use light profligately, and even now sumptuous electric light shows reminiscent of these earlier displays—and still sponsored more often than not by utility companies—remain popular holiday traditions. Perhaps most significantly, lighting extended the business day. Shops remained open longer. Factories moved to double and then triple shifts, benefiting from the sale of cheap electricity at night, when utilities still had excess power to give away. Ultimately, dark cities became symbols of fear, giving rise to widespread street lighting to help ensure the safety of people now out on the town until all hours. Automobiles, too, have shaped patterns of human settlement and activity in fundamental ways. In postwar cities like Phoenix, Los Angeles, and Atlanta, the car freed urban developers from the need for density in order to accommodate human transportation by foot. Cities, suburbs, and exurbs continue to sprawl across vast distances, with daily commutes to and from work still extending to an hour or more. The family home, on its own plot of land, has become the de facto American dream—albeit one temporarily set back by the collapse of the housing bubble in the late 2000s. Paved streets and parking lots have become ubiquitous to ensure easy transportation from the home to work, to the shops, and to entertainment. Nor are these trends limited to the United States. Private automobile ownership has exploded around the world as the burgeoning global middle class demands access to this powerful technology of personal transport. Addiction and its Consequences The depth of energy’s role in constituting modern societies has turned energy into an addiction. That addiction is fueled by a global energy industry primed to provide cheap, reliable energy. Indeed, these two criteria—the cost of energy and its reliable availability, where and when people want it—have defined energy policy and energy business in much of the world over the past several decades. It is hard to gainsay this emphasis. The Arab oil embargo in the 1970s caused major problems for economies highly dependent on cheap oil. More recently, a rapid rise in the price of oil—to well over $100 per barrel in 2008—has contributed to major social and economic dislocations in many parts of the world. In the United States, gasoline prices over $4 per gallon threw poor households, who are often more dependent on automobiles than richer families, into disarray, which helped undercut consumer spending and push the nation further into recession. The continuing high price of oil worldwide has contributed to rising food prices and, with them, a wave of global social and political unrest. Cost and reliability matter in the energy business. In many respects, they are the energy business. Nonetheless, over the past twenty years, energy policies have added a third major criterion to energy analyses: carbon. Rising concentrations of carbon dioxide in the atmosphere, coupled with projections regarding the resultant climate change, have fundamentally altered energy policy debates. Energy’s carbon content has become almost as significant as its cost and reliability. Carbon-based energy sources—oil, coal, and natural gas—have seen their long-term prospects challenged by other, non-carbon energy technologies, such as solar, wind, geothermal, and nuclear. Countries now face stark choices between continuing to rely on carbon-based energy, and risking the resultant disruptive shifts in the Earth’s climate system, or adopting newer energy technologies that remain, for the most part, more expensive and less reliable. These choices largely pit current stability against long-term climate change for future generations. Yet, as critical as these three criteria are (cost, reliability, and carbon content), they cannot remain, I argue, the only standards for making energy choices in the twenty-first century. It is critical, I believe, that human societies develop robust frameworks for assessing the human consequences of energy system change. There must be a quest for energy justice. Meeting this challenge will require two fundamental shifts in energy governance. First, the ends of energy governance must change. If societies are to go to the trouble of transforming the largest human enterprise on the planet, they should set higher ambitions than just reducing carbon emissions. Large-scale energy system change should be an opportunity to significantly improve the flourishing of human communities and to markedly reduce the risks energy production and consumption impose on many of the world’s communities. Second, the processes of energy governance must be reinvented. Today, energy planning is largely designed to handle incremental changes and to privilege incumbents. Indeed, in many parts of the world, energy production is a monopoly enterprise. Procedures for siting new energy facilities in the United States, for example, allow only for the proposal and evaluation of specific facilities at specific locations. Instead, new strategies are needed that enable communities and energy industries to partner in reimagining and redesigning broad energy futures. The need for these changes is particularly urgent given the magnitude and complexity of potential transformations of energy technologies and their associated socio-technological systems. For most of the past century, energy change has been largely incremental. Energy supply and demand grew so energy systems expanded geographically. Major changes occurred slowly, however, and did not fundamentally alter basic patterns of energy production and consumption, giving individuals, communities, and societies time to adapt. Key exceptions to this rule—the rise of nuclear energy in the 1950s and the 1960s and the regulatory push toward low sulfur coal in the United States—are illustrative in their human consequences. Like it or not, energy systems change will bring fundamental technological and social change in the twenty-first century. Even the established fossil fuel industry faces reformations far removed from those experienced in the past. Drilling for conventional oil has delved into more extreme and difficult environments, including deeper offshore waters. In turn, these operations carry greater risks, as became apparent from the massive economic and environmental damage caused by the Deepwater Horizon spill in the Gulf of Mexico. Similarly, the oil industry will rely more heavily over time on unconventional sources of oil, such as Venezuelan heavy crude and Canadian tar sands, which not only pose greater risks of environmental degradation during drilling and extraction but also result in even greater carbon dioxide emissions per unit of fuel produced and consumed. Likewise, the current boom in the natural gas industry has resulted, to a large extent, from unconventional sources of methane stored in shale in places like the Marcellus Formation in Pennsylvania, Ohio, West Virginia, Maryland, and New York, and the Powder River Basin in Wyoming. Extracting these resources uses a technology called hydraulic fracturing, or ‘fracking,’ that injects high pressure water and chemicals deep into the ground. This method is now under attack by activists and communities concerned about the consequences of the extraction process to land, water, and health. Nor are renewable technologies exempt from concerns about human consequences. Solar panels on rooftops have transformed energy consumers into energy producers, for example. A good thing, yes, but in large numbers, they threaten the stability of the existing electricity grid and the business model of utilities. This in turn threatens the reliability of the income stream for utility investors, the majority of whom are retirees. Utility companies are energy providers of the last resort and their failure would threaten those who rely on such services, especially the poor who cannot afford their own rooftop energy. Yet, solar panels also grant a degree of freedom to homeowners and businesses, changing their relationship with the centralized socio-technological systems that are modern utilities today. Solar panels may also infect behavioral patterns, reversing incentives that utilities have given us to consume energy at night instead of during the day. Over the next century, our energy consumption patterns may change as much as they did during the last. Large-scale solar farms need land that must be acquired. For a while yet, already disturbed agricultural and public lands will suffice for building solar power plants, but meeting the energy demands of the future will ultimately require building on wild lands. Biologists already worry about the impacts of large-scale solar facilities on biologically diverse deserts. Some solar power plants also consume very high levels of water that can strain water supplies, especially in the arid lands that seem to have so much of the world’s available sunlight. Many rural residents complain that solar and wind projects alter rural landscapes largely for the benefit of urban communities. And indigenous communities worry that future renewable energy projects will be carried out with the same disregard for their heritage and history as previous generations of energy projects. Upstream, Midstream, Downstream In evaluating the human consequences of energy systems change, it is useful to differentiate the benefits, costs, and risks that occur upstream, in energy production, midstream, in energy consumption, and downstream, as choices about production and consumption ripple through society and the environment. Upstream benefits, costs, and risks occur in the production, distribution, and sale of both energy and the fuels used to produce it. Owners of energy resources and infrastructure often create enormous wealth for themselves and the communities they invest in. Thanks to the coal mines mentioned earlier, the state of Wyoming, when I grew up there, had no state income tax and one of the nation’s lowest sales tax rates, yet it spent more per student on education than any other state but one. Alberta—and Canada—are quickly learning this lesson, too. Yet, the downsides of energy wealth are also apparent. For decades, the U.S. and Europe helped authoritarian rulers retain power in oil-rich states in order to ensure control over reliable energy supplies. Even after last year’s Arab Spring, the relationship between power and oil remains relatively unchanged in the region. Of the major oil producing nations, only Libya ousted its dictator. Leaders in Iran, Kuwait, Saudi Arabia, and elsewhere remain firmly in control, at least for the moment. Oil revenues provide the central resource via which the Tehran government maintains the fealty of both its military and security forces in the face of the very real threat of widespread political unrest. Even in democratic societies, energy producers often use their wealth and position to secure power. It may not be a coincidence that Canada’s current prime minister hails from Alberta. The United States has had several presidents and other national leaders with close ties to the oil industry—and widespread concerns persist in the United States about the corrupting influence of the coal and oil industries on American politics. Changes in energy systems can also have profound consequences for communities and regions. In 2010, for example, U.S. President Barack Obama declared a six-month moratorium on offshore drilling in the aftermath of the Deepwater Horizon oil spill. The outcry from Gulf Coast states was immediate. A region already reeling economically from the spill’s impacts on coastal fisheries and tourism now faced at least a short-term halt in revenues from offshore drilling platforms, as well as the longer-term threat that platforms would leave the region in favor of less regulated waters. These events offered a window into the long-term economic consequences that could occur, both regionally and nationally, should the U.S. opt to transition from oil to other energy resources. A quick glance at renewable energy resource maps shows that the geography of renewable energy across the nation overlaps little with the geography of oil, coal, and natural gas. A large-scale shift from coal-fired to solar-fired electricity would bring a financial boom to California, Nevada, and Arizona while undermining the economic futures of states like West Virginia and Wyoming, although the latter also has some potential wind energy resources. Nor, of course, are the risks of energy production solely financial. American Indian tribes in the desert Southwest have felt the environmental and health impacts of coal and uranium mining for decades, as have miners in many parts of the world. Alberta’s tar sands operations have had significant impacts on water and forests in the province. Louisiana workers whose communities are utterly dependent on the oil industry also face highly polluted environments, as do the predominantly African-American communities who live in the state’s ‘Chemical Alley’—a concentration of industries that process oil into a wide range of energy and other products. Even solar panels are not free of concern. Life cycle assessments of the industry are only beginning to estimate the potential environmental and social impacts of large-scale solar manufacturing and deployment, and to design strategies for ensuring that ‘green’ energy is really as green as its image. Energy is extraordinarily valuable to those who have access to it at low costs. Energy consumption and its midstream benefits are at the heart of modern industrial and post-industrial economies. While Saudi Arabia has grown wealthy from selling oil to the United States and Europe, it is the United States and Europe that have transformed the resulting energy into the world’s most powerful economies. China, too, has long recognized how central energy is to economic growth and has gone to great lengths both to secure access to reliable and inexpensive energy and to diversify its energy resources: China today has the largest solar energy manufacturing facilities in the world. Lack of access to reliable and inexpensive energy can also impose severe limits on poor communities. These poor communities, many of which are just as dependent on energy as anyone else in modern societies, often pay a significantly higher proportion of their income for energy as a result. In the United States, where automobiles are all but essential transportation tools in many cities, families made homeless often face just as difficult challenges from the loss of their vehicle as their home. Without a car, they must rely on minimally available public transportation to get children to and from school and parents to and from work, an exercise that can often require hours at the beginning and end of each day. The resulting time loss makes it even more difficult to seek out new housing arrangements or new jobs that might transform the family’s fortunes. Energy consumption technologies can be just plain dangerous. Anyone living with a toddler in the house knows that children must become thoroughly socialized in order to avoid highly dangerous encounters with electrical cords and plugs, irons, fireplaces, lawnmowers, automobiles, and many other modern technologies. Until they are socialized, children must be carefully protected to avoid injury or death. Even adults are at risk: so dependent are modern societies on technologies that convert energy into transportation that those societies willingly ignore high rates of injuries and deaths from transportation accidents. In the United States, tens of thousands of individuals die in automobile accidents each year, and hundreds of thousands are injured. In Japan, hundreds of thousands of people were displaced from their homes by the threat of radiation exposure after the accident at Fukushima. Yet societies seem perfectly willing to simply ignore these harms in planning for energy futures. Finding ways to make future energy technologies not only clean but also friendly to all of the world’s inhabitants seems an important criteria for future energy justice. Last but certainly not least, it is critical to remember that the evolution of energy systems can create a range of benefits, costs, and risks well downstream of energy production and consumption. These indirect human consequences stem from the evolution of energy systems as they expand, engage, and transform larger patterns of social, economic, and political organization. Suburbs, for example, are not an energy technology, but they resulted from the choices made by individuals, institutions, and communities as societies reorganized themselves around the rise of the automobile and the availability of inexpensive gasoline. Not surprisingly, therefore, when gasoline prices soared in 2008, it had enormous consequences for the lives of, especially, less wealthy families who had moved to the extreme edges of suburbs to take advantage of new low-cost housing. For the first time, significant numbers were forced to quit secure jobs in search of new ones, closer to home, in order to reduce rapidly rising fuel costs—a choice that turned disastrous for some in the subsequent global economic collapse, when employers tended to shed their newest employees first. The downstream human consequences of energy systems can flow in other ways, as well. Historically, oil has shaped geopolitics and played a major factor in conflict in the Middle East. The resultant patterns of political oppression, ethnic conflict, and social mobilization helped produce terrorist networks partly financed by oil wealth. The geography of energy geopolitics continues in the rise of Venezuela, Canada, Australia, and Russia as regional energy suppliers. The climatic consequences of oil and coal consumption are also already flowing downstream, challenging communities around the globe. The World Health Organization estimates conservatively that one hundred and fifty thousand people have died as the result of shifts in disease patterns in Africa and Asia due to climate change. Scientists have also begun to link the recent extreme flooding events that have devastated many parts of the globe to climate change. The geography of climatic vulnerability is still being debated in detail, but its patterns will have enormous social, economic, and political consequences for decades to come. The Search for Energy Justice Energy system change will arguably remain one of the most important policy domains throughout much of the twenty-first century and energy technologies will make regular headlines throughout this period. Alberta’s fight against an international coalition of environmental groups to build an infrastructure to channel its oil to the world is one such story, but hardly the only one. An Ecuadorian court recently ordered Chevron to pay $18 billion in compensation for damage inflicted on the Amazon jungle. In Japan, after the Fukushima nuclear accident, public confidence in government efforts to ensure the safety of Japan’s food supply has collapsed in the face of new revelations regarding radiation-tainted food. Around the globe, communities are mobilizing against the human consequences of energy systems, giving rise to a wide range of social protest. The government of India has faced extensive social opposition, protest, and even violence over its decision to accelerate the growth of the country’s nuclear power industry. Elsewhere, wind and solar farms face strong opposition, too. These events now rival new technologies for energy headlines, introducing world publics to the deep questions of energy justice pervading humanity’s choices about energy futures. At stake in these choices is not just how humanity will produce and consume energy but what kind of societies people will live in and how those societies will distribute power, wealth, and risk. Energy stagnation is not the answer, of course. It cannot be. Energy systems must change. But the world’s leaders—in the energy sector and in every other aspect of society—must acknowledge the fundamental questions of justice and injustice that inevitably accompany every energy transformation. Energy assessments must supplement technological and environmental assessments with assessments of the human dimensions of new energy technologies. The energy industry–and society more generally–must learn to ask: “Progress for whom?” and “According to what criteria?” It must find ways to approach communities as honest partners, both in the opening of new energy systems and the closing of old ones. Energy system design and redesign must, from the outset, fully engage the public in thorough deliberations about broad energy futures, alternative energy technology options, and specific energy system design choices. Such strategies will never eliminate the politics of energy change, but they may help mitigate its worst excesses while helping ensure that energy systems of the future are not only more environmentally friendly but also more just.

**Shifting the scale fosters empirically successful grassroots movements against the environmental injustice of elites**

**Towers 2k** [George, PhD and professor of human geography at Concord University, “Applying the Political Geography of Scale: Grassroots Strategies and Environmental Justice\*”, Professional Geographer, 52(1) 2000, pages 23–36]

The grassroots environmental movement is defined by geographical scale. The thou- sands of citizens groups that comprise the movement fight to block siting proposals which would locate an unwanted land use—for exam- ple, a hazardous waste facility, nuclear power plant, or a transmission line—in their commu- nity. Grassroots environmentalists are rooted in the scale of everyday experience (Dowie 1995; Tesh and Williams 1996). For many, however, the grassroots environmental movement is better named the envi- ronmental justice movement. Transcending the grassroots, environmental justice applies to the scale of humanity in its appeals for both distributive and procedural justice. “Distribu- tive justice” (Lake 1996) or “outcome equity” (Cutter 1995) require that noxious land uses be distributed fairly across communities. Environmental justice embraces the principle that all people and communities are entitled to equal protection of environmental and public health laws and regulations. (Bullard 1996, 493). “Procedural justice” (Lake 1996) extends be- yond siting to the demand that the public have a voice in the production decisions that gener- ate environmental threats. . . . the grassroots movement for environmental justice represents a populist challenge to exclusive private control of the production process it- self. Pollution prevention ultimately requires pollution control (Heiman 1996a, 113). The vast political space between the move- ment’s scales of protest—that is, from contest- ing local siting decisions to challenging national and international political structures—invites exploration. How and why do small groups of citizens fighting against locally unwanted land uses translate their efforts into the language of environmental justice? I address this question by examining grassroots environmentalists’ strategic appeals for environmental justice in their struggle to defeat a proposed electricity transmission line in Monroe County, West Vir- ginia. Monroe County is an economically de- pressed rural community: in 1990, the county had 12,406 residents, an 11% unemployment rate, and a median family income of $18,217 (U.S. Department of the Census 1990). In 1991, American Electric Power Company (AEP) announced its plans to cross the county with an extra high voltage transmission line (see Figure 1). On September 30, 1997, AEP applied to the Public Service Commission of West Virginia (PSC) for approval of a new power line route which would avoid Monroe County entirely. In the intervening six years, AEP, America’s largest investor-owned utility, waged and lost a political struggle with Com- mon Ground and the Border Conservancy, Monroe County grassroots environmental organizations that formed to fight AEP’s power line proposal. The case study provides a second striking contrast in scale. How were several dozen Monroe Countians, marshaling only a few thousand dollars for their cause, able to defeat one of the country’s biggest corporations? Common Ground and the Border Conser- vancy won by strategically sliding between the scale of everyday experience and the scale of environmental justice. That is, they put geo- graphic scale to their political advantage. With concepts emerging from the recent bloom of interest in the political geography of scale, I interpret the citizens’ successful campaign against AEP’s power line and show how their strategies link the grassroots scale with that of environmental justice. The next section of the paper introduces grassroots environmentalism and reviews ex- planations for its metamorphosis into the envi- ronmental justice movement. In the third sec- tion, I draw a framework for analysis from the political geography of scale literature. The fourth part of the paper uses this framework to explicate the success of Common Ground and the Border Conservancy. Informed by the po- litical geography of scale and the case study, the summary section identifies the strategic link- ages between the grassroots and environmental justice. The Grassroots Environmental Movement and Environmental Justice Although the grassroots environmental move- ment battles threats against the safety of our immediate surroundings, the movement’s po- tential political impact has moved to the national scale. The grassroots environmental movement reveals distributional and proce- dural injustices. Studies in the 1980s and early 1990s indicated distributional environmental inequity. That is, while many noxious land uses are sited in European American communities, a disproportionate number are sited in minority neighborhoods (Bullard 1983; U.S. General Accounting Office 1983; United Church of Christ 1987; Bryant and Mohai 1991). Minority grassroots environmental groups have charged that corporations, with government complicity, target their neighborhoods and perpetrate environmental racism. The grassroots environ- mental movement draws upon this conver- gence of social and environmental discrimina- tion to demand fair, democratic siting (Bullard and Wright 1987; Pulido 1994). Similarly, the direction of the grassroots en- vironmental movement collides with that of our political economy and provokes demands for what Lake (1996) calls procedural environ- mental justice. Because grassroots groups are drawn into conflict with the implacable growth that has threatened citizens’ living space and because capital accumulation is contingent upon economic growth, some grassroots envi- ronmentalists question the logic of capitalist economics (Hofrichter 1993; Goldman 1996; Heiman 1996a). The radicalized element of the movement opposes “. . . a whole system of tech- nology and chemical production, driven by profit, unchecked by a government that serves private wealth rather than public interest” (Szasz 1994, 81) and “. . . may require a change in the prevailing social relations to reach a sat- isfactory solution” (Pulido 1996a, 28). That grassroots environmentalists should call for environmental justice makes sense. That they do, however, is contingent and re- turns us to the original questions of how and why do small groups of citizens fighting against locally unwanted land uses translate their ef- forts into the language of environmental jus- tice? Researchers sought explanation through contextual investigation of historical circum- stances, transformative activism, and network- ing. This case study focuses on a fourth contex- tual explanation, the strategic exigencies of the siting process itself. Historical analysis provides an explanation for the incorporation of a social justice agenda. The sequence of social, technological, and po- litical events in the postwar period contributed to the conception of environmental injustice. The civil rights movement, protest against the Vietnam War, and the feminist movement modeled social justice perspectives. Simulta- neously, advanced production technologies produced more toxic wastes and the public be- came more aware of the dangers of environ- mental contamination. Finally, the federal gov- ernment contributed to the conception of environmental injustice by endorsing environ- mentalism in the 1970s through the creation of the Environmental Protection Agency (EPA) and environmental law, then infuriating envi- ronmentalists in the 1980s by hobbling the EPA and deregulating the environment (Freuden- berg and Steinsapir 1991; Kraft and Clary 1991; Cable and Shriver 1995). Many investigators have examined the trans- formation of individual activists’ political per- spectives through participation in the grass- roots movement (Freudenberg 1984; Szasz 1994; Pulido 1996a; Salazar and Moulds 1996; Kirk 1997). For example, Krauss (1989) fo- cused on a single informant’s experience in fighting the siting of a New Jersey toxic waste dump. For Krauss’ subject, activism revealed the state’s undemocratic advancement of cor- porate interests and he became a political radi- cal, supporting structural change. By forming networks with other community groups facing similar struggles, grassroots en- vironmentalists have become proponents of environmental justice. National networks like the Citizens Clearinghouse for Hazardous Wastes and the National Toxics Campaign Fund quickly grew and welcomed groups fighting all manner of environmental hazards. Networking caused grassroots environmentalists to recog- nize national patterns of distributional and structural injustice and radicalize their agenda to include environmental justice (Szasz 1994; Dowie 1995). On the regional scale, many net- works promoting environmental justice have sprouted. For example, Gardner and Greer’s (1996) case study of the progressive Carolina Alliance for Fair Employment’s success in unit- ing local struggles demonstrates the efficacy of networking in drawing grassroots groups to environmental justice. Historical circumstances, the radicalizing ex- perience of activism, and the emergence of environmental justice networks explain why “[e]ven if, tactically, the movement still mostly takes the form of local actions against single lo- cal targets, those local actions are informed more and more by explicit, long-term goals of radical social change and visions of a just soci- ety” (Szasz 1994, 82–3). I argue, however, that the tactical environment facing local actions in siting decisions on single local targets consti- tutes yet another contextual basis for the grass- roots environmental movement’s incorporation of environmental justice**.** That is, these tactical environments may encourage the expression of radical goals and visions. Drawing upon con- cepts from the political geography of scale, this case study demonstrates that grassroots envi- ronmentalists’ strategic responses to siting cri- teria may promote environmental justice. Primordial, absolute, empty space, Soja’s “con- textual space” or Lefebvre’s “first nature,” is physically transformed by the reproduction of social relationships to produce “created space” (Soja 1980) or “second nature” (Lefebvre 1991), socially relative space invested with meanings and regulations. Furthermore, “created space” is locked in a “socio-spatial dialectic”: it is not only the outcome of social process but the me- dium for social practice as well (Soja 1980, 1985). In other words, the production of space fixes social relations in the landscape (Smith 1984; Gottdiener 1985; Lefebvre 1991). The landscape is the physical form of our social world and a basis for the political geography of scale. Scales are delimited fragments of landscape, the “level[s] of geographic resolution at which a given phenomenon is thought of, acted on or studied” (Agnew 1997, 100). The political geog- raphy of scale begins with the premise that scale, like space itself, is socially produced. The local, urban, regional, and national scales are human constructs that reflect and refract social rela- tions, no matter how naturally inscribed in the landscape these scales may appear (Smith 1984; Swyngedouw 1997; Jones 1998; Marston forth- coming). Smith reminds us that even the global scale, the earth as we know it, is a social con- struct. In this millennium, Western civilization has expanded the global from the margins of the Old World to encompass the planet and em- brace the solar system (Smith 1992). Scale is not ontologically given; to insist on the essential ex- istence or priority of any scale is scalar fetishism. As Smith’s example indicates, scales are de- limited by their social content. Two categories of scalar content derive from the growing liter- ature on the political geography of scale: mean- ing and regulation. The social production of space invests the landscape with meaning and regulation and divides the landscape into scales of meaning and scales of regulation. These scale categories intersect geographically and politically, generating analytical complexity and productivity. The production of space attaches meanings and values to the landscape (Smith 1984; Gott- diener 1985; Harvey 1996; Brenner 1997). We delineate scales to apprehend or interpret this cultural landscape. Scales of meaning range from individual landscape features to the imag- inable extent of the landscape. For example, Merrifield (1993) relates that the residents of southeast Baltimore made the American Can Company’s defunct factory a scale of meaning. The community struggled to prevent the com- mercial redevelopment of “American Can” be- cause the building had become “especially evocative of the neighborhood’s blue-collar heritage” (Merrifield 1993, 111). Similarly, actors may geographically expand scales of meaning. The deep ecology or “radi- cal” environmental movement rallies around a scale of meaning that encompasses the entire planet. Their biocentric perspective values all life equally and posits that the rights of all species depend on humans according priority to “earth first” by preserving undisturbed ecosystems around the globe (Manes 1990; Sessions 1992). Brenner (1997), reviewing Lefebvre, identi- fies a second category of scalar content, regula- tion. Scales of regulation define landscapes ad- ministered by distinct decision-making bodies. Both the public and private sectors establish scales of regulation. To connect the state with civil society, governments delimit overlapping scales of legal authority supervised by separate bureaucracies (Brenner 1997). These govern- ment bodies establish regulations that guide their administration of scale. For example, the PSC evaluates a proposal for a new power line by considering the line’s potential value to the West Virginia economy and the line’s environ- mental impact. Private entities may also establish scales of regulation. For example, AEP divided its ser- vice territory between several subsidiary utili- ties. The AEP subsidiary Appalachian Power Company (APCO) administered electricity provision to southern West Virginia and west- ern Virginia until APCO was subsumed by AEP in the mid-1990s. Crump and Merrett (1998) write on the scale of regulation of labor relations in the farm machinery industry in western Illinois. They record the movement of collective bargaining between the scale of the firm and the scale of the entire industry. As these examples show, the demarcation of scales of meaning and scales of regulation are contin- gent processes articulated through social prac- tice and are, therefore, inherently arbitrary and political. The Struggle for Scale As scales are socially delimited, unique constel- lations of social relationships form, and people rely upon these to pursue their interests and their livelihoods. Scales thus become, in Cox’s phrase, “spaces of dependence” to which peo- ple are politically bound (Cox 1998). We will organize to prevent developments that threaten the advantageous qualities of our scales of de- pendence, as it were, and act collectively to change scalar content to enhance our opportu- nities (Cox and Mair 1991; Swyngedouw 1992; Cox 1998). By recognizing the “locality as agent,” Cox and Mair (1991) connect the polit- ical geography of scale to work initiated by Harvey (1973) and extended by Gottdiener (1985) and Logan and Molotch (1987) that identifies the political volatility created by the contradiction between spatially defined “use values” and “exchange values.” Struggles over scale are, however, not iso- lated at individual scales of dependence. Scales are linked by social structures and human agency. Theorists of the production of space posit that the creation of interconnected spatial scales is fundamental to the survival of capital- ism (Soja 1980; Smith 1984; Lefebvre 1991). For example, Smith sees the “uneven develop- ment” of class struggle—that is, the equaliza- tion of labor relations within individual scales and the differentiation of labor’s rights and wages between scales—as crucial to capitalists’ domination of labor. Mobile capitalists pene- trate distant scales simultaneously and shift in- vestment away from militant labor forces to- wards more vulnerable ones, exploiting labor’s scales of dependence (Smith 1984). Cox and Mair (1991) link this discussion with the politi- cal geography of scale, pointing out that changes in the wider “scale division of labor” may threaten people’s scales of dependence and spark political action. Not only does the social structure connect scales, but individuals also operate at a variety of scales. As Harvey (1996, 353) puts it, people have “memberships” and “loyalties” at many scales and “we can never be purely ‘local’ be- ings, no matter how hard we try.” Because social processes are articulated across scales and agents’ interests spread amongst scales, political action may be strategically targeted at a range of geographical scales (Smith 1992; Cox 1998; Marston forthcoming). The political ge- ography of scale is set in motion as agents contest social change at the scales of meaning and regu- lation they believe to be most propitious. Agents strategically scale meanings to serve their political purposes. According to Delaney and Leitner, “scale is . . . a way of framing con- ceptions of reality. The politics of scale may often take the form of contending “framings” . . .” (1997, 94–5). Agents struggle for scalar hegemony, campaigning to convince decision- makers at contested scales to accept their rep- resentations as reality. The siting conflict over the GSX Company’s proposed hazardous waste facility for Robeson County, NC illustrates this process. At the scale of the County, GSX claimed that the facility would generate jobs and tax revenue. A Robeson County citizens organization, the Center for Community Ac- tion (CCA), challenged GSX’s representation. CCA projected that the waste site would bring the risk of an expensive toxic cleanup that could cost the County more than the dump’s poten- tial revenue (Regan and Legerton 1990). Because political contests spill across scales, framings are constructed not for one, but for a variety of scales. To succeed, a single political cause should tailor different framings to sepa- ratescales.To ignore the subtleties of scale is to invite defeat. For example, Miller (1997) at- tributes the failure of the Nuclear Freeze movement to gain voter support for a referen- dum which would prohibit public defense spending in Cambridge, MA to the Freeze’s in- sensitivity to the politics of scale. The Freeze framed its opposition to military investment by invoking the global threat of nuclear war and did not counter its opponents’ arguments that the local economy would suffer from passage of the referendum. Therefore, the Freeze allowed its opponents to gain hegemony at what turned out to be the decisive scale in the election, the scale of the Cambridge economy. Not only do actors endeavor to frame their case at as many relevant scales as possible, they try to limit their opponents’ framings to disad- vantageous scales. In this vein, firms siting lo- cally unwanted land uses often portray their opponents as NIMBYs (not in my backyard) who are selfishly preoccupied with their imme- diate surroundings and unconcerned with the larger public good (Brion 1991; Capek 1992; Hofrichter 1993). The scale of regulation is also contested. For example, actors may try to move regulation to the scales that appear more favorable to their cause, potentially creating new scales of regula-tion. Herod (1997) shows that the Interna- tional Longshoremen’s Association struggled to shift collective bargaining from the scale of individual ports to the scale of entire seacoasts. When the union was able to negotiate at a larger scale, it gained better contracts for its members. With relevance to the case at hand, utilities advocate establishing new scales of reg- ulation for power line construction. Because of their difficulty in gaining approval for new lines from state public service commissions, utilities call for the advent of multistate agen- cies with the power to site transmission lines (Consumer Energy Council of America Re- search Foundation 1990).Secondly, focusing on the scale of route in- creased organizational motivation. Instead of passively learning complicated arguments on need issues from lectures and technical docu- ments, citizens could actively contribute to mapping projects by drawing upon their expe- rience with their land. Like other grassroots groups (Kraft and Clary 1991), Common Ground and the Border Conservancy success- fully and strategically drew upon their mem- bers’ emotional investment in their immediate environment. Thirdly, many Common Ground members challenged the strategic wisdom of contesting need. They echoed Tesh and Williams’ (1996) observation that grassroots groups usually have difficulty challenging the technical expertise of their corporate opponents. McNeely argued that the credentials of AEP’s engineers and economists conferred credibility on their as- sessments of need that the citizens could not match. As he put it at a Common Ground meeting, Common Ground “can’t beat APCO at their own game” (McNeely 1994a). Instead, the citizens would take advantage of their area of unsurpassed expertise, their knowledge of the local landscape. Monroe Countians’ focus on and success at the scale of the grassroots did not, however, ob- viate their dedication to environmental justice. Power line opponents used their framing of the scale of need, that is, their assessment that the line would serve out-of-state interests while hurting the West Virginia economy, to appeal to southern West Virginians’ sense of environ- mental justice. Big money talks. These companies want to mis- use West Virginia for profits. (West Virginians for West Virginia 1993) The APCO study portrayed West Virginia as a cultural, environmental and recreational waste- land—a good place to put a power line. (Com- mon Ground 1993c, 11) Common Ground enlisted local officials to make the same case. At a rally in 1992, Nick Rahall, southern West Virginia’s delegate to the House of Representatives, supported Com- mon Ground: . . . there are those who would encroach upon these woods, these waters and this land. There are those who would perpetuate the historic in- difference some have shown to the people of southern West Virginia. It has been said that West Virginia only prospers when something is removed from the State, be it our coal or our timber. And this, before the advent of new regu- lations, has left us with a grim legacy. A legacy of scarred landscapes, polluted waters, abandoned mines, and abandoned coal miners. We are here to say that from this point forward, no project or proposal shall proceed unless it provides solid benefits to the people and to our communities (Rahall 1992, 2). For Tate Lohr, President of the Mercer County Commission, the power line project meant that: “. . . we [southern West Virginians] are be- ing raped by out of state interests” (in Rosen 1991, 1). The rhetoric of environmental justice, which resonates in the most economically depressed region of one of the country’s most depressed states, served two important strategic goals. First, Common Ground sought to convince the public and the PSC that the power line would create not economic development but only a scar across southern West Virginia. Common Ground used the logic of environmental justice to try to seize the scale of need. Second, Common Ground’s dedication to West Virginia’s welfare countered AEP’s accu- sations of NIMBYism. For example, Tanger criticized the power line’s adversaries for their localized, “head in the sand” approach and urged them to focus on “the total picture” by helping AEP to find the best power line route (in McCue 1994, B7). AEP also cast Common Ground in a negative light after a 1991 public meeting in Hinton to discuss possible power line routes. Ben Johnson, a Virginia Tech pro- fessor and member of AEP’s study team, al- leged that three women attending the meeting warned him: “Come to Monroe County and we’ll kill you” (in Kegley 1991, A1). By depict- ing Common Ground as parochial, emotional, and violent, AEP sought to erode their oppo- nents’ credibility, accused them of being un- concerned with the larger scale of the public good, and invoked dismissals of the grassroots environmental movement as NIMBYism. As Rahall and Lohr’s endorsements attest, however, calls for environmental justice elevated Com- mon Ground’s cause from the scale of route to the more politically appealing scale of need. While appeals for environmental justice proved inconsequential to the regulatory agen- cies’ decisive emphasis on route, the goals of environmental justice are served by a strategic emphasis on the grassroots scale. Materially, the accumulation of local siting victories results in improving environmental quality. For exam- ple, the grassroots movement has stalled the construction of toxic waste dumps (Portney 1992; Pulido 1996b). Industry has responded with alternative production methods that re- duce toxic output significantly (Dowie 1995; Heiman 1996b). In the case of power lines, ob- servers agree that grassroots environmentalists make siting new lines increasingly difficult if not impossible (Elmes 1996; Wasserstrom et al. 1996). In response, local independent power producers may proliferate in high demand areas and eliminate the need for long distance high voltage lines that scar the landscape (Fla- vin and Lenssen 1994; Seiple 1997). Organizationally, a narrow geographic focus may engender broad support. For example, by limiting its goals to the grassroots scale, the de- fense of southern West Virginia’s landscape, the Border Conservancy identified a shared in- terest that was intended to galvanize people across the political spectrum against the power line (McNeely 1994b). Salazar and Moulds (1996) extend this argument to a societal scale. They claim that by shrinking the scale of envi- ronmental meaning to “where you live,” the environmental justice movement increases its appeal across race and class (Salazar and Moulds 1996, 622). “Groups and organizations strategically ‘map out’ material scales that eventually might liberate them from their existing scale con- straints” (Jonas 1994, 262). This case study confirms that Jonas’ generalization is true of the grassroots environmental movement. En- couraged by regulatory practices, the groups tactically “mapped out” their fight primarily at the scale of route. This limited, strategic scale, however, freed Common Ground and the Bor- der Conservancy to achieve distributional envi- ronmental justice and approach procedural en- vironmental justice. Distributionally, Common Ground and the Border Conservancy com- pelled government to honor Monroe Coun- tians’ entitlement to the protection of environ- mental regulations. Furthermore, as evidenced by the local politicians’ testimony, Common Ground’s focus on the landscape taught the community the language of systemic environ- mental justice.

**Probability outweighs magnitude – the logic of any risk of extinction outweighs destroys rational risk assessment**

**Kessler ‘8** [Oliver Kessler, Sociology at University of Bielefeld, “From Insecurity to Uncertainty: Risk and the Paradox of Security Politics” *Alternatives*  33 (2008), 211-232]

If the risk of terrorism is definedin traditional terms byprobability and potential loss, then the focus on dramatic terror attacks leads to the marginalization of probabilities. The reason is that even the highest degree of improb- ability becomes irrelevant asthe measure of loss goes to infinity.^o The mathematical calculation of the risk of terrorism thus tends to overestimate and to dramatize the danger. This has consequences beyond the actual risk assessment for the formulation and execution of "risk policies": If one factor of the risk calculation approaches infinity (e.g., if a case of nuclear terrorism is envisaged), then there is no balanced measure for antiterrorist efforts, and risk manage- ment as a rational endeavor breaks down. Under the historical con- dition of bipolarity, the "ultimate" threat with nuclear weapons could be balanced by a similar counterthreat, and new equilibria could be achieved, albeit on higher levels of nuclear overkill. Under the new condition of uncertainty, no such rational balancing is possible since knowledge about actors, their motives and capabilities, is largely absent. The second form of security policy that emerges when the deter- rence model collapses mirrors the "social probability" approach. It represents a logic of catastrophe. In contrast to risk management framed in line with logical probability theory, the logic of catastro- phe does not attempt to provide means of absorbing uncertainty. Rather, it takes uncertainty as constitutive for the logic itself; uncer- tainty is a crucial precondition for catastrophies. In particular, cata- strophes happen at once, without a warning, but with major impli- cations for the world polity. In this category, we find the impact of meteorites. Mars attacks, the tsunami in South East Asia, and 9/11. To conceive of terrorism as catastrophe has consequences for the formulation of an adequate security policy. Since catastrophes hap- pen irrespectively of human activity or inactivity, no political action could possibly prevent them. Of course, there are precautions that can be taken, but the framing of terrorist attack as a catastrophe points to spatial and temporal characteristics that are beyond "ratio- nality." Thus, political decision makers are exempted from the responsibility to provide security—as long as they at least try to pre- empt an attack. Interestingly enough, 9/11 was framed as catastro- phe in various commissions dealing with the question of who was responsible and whether it could have been prevented. This makes clear that under the condition of uncertainty, there are no objective criteria that could serve as an anchor for measur- ing dangers and assessing the quality of political responses. For ex- ample, as much as one might object to certain measures by the US administration, it is almost impossible to "measure" the success of countermeasures. Of course, there might be a subjective assessment of specific shortcomings or failures, but there is no "common" cur- rency to evaluate them. As a consequence, the framework of the security dilemma fails to capture the basic uncertainties. Pushing the door open for the security paradox, the main prob- lem of security analysis then becomes the question how to integrate dangers in risk assessments and security policies about which simply nothing is known. In the mid 1990s, a Rand study entitled "New Challenges for Defense Planning" addressed this issue arguing that "most striking is the fact that we do not even know who or what will constitute the most serious future threat, "^i In order to cope with this challenge it would be essential, another Rand researcher wrote, to break free from the "tyranny" of plausible scenario planning. The decisive step would be to create "discontinuous scenarios ... in which there is no plausible audit trail or storyline from current events"52 These nonstandard scenarios were later called "wild cards" and became important in the current US strategic discourse. They justified the transformation from a threat-based toward a capability- based defense planning strategy.53 The problem with this kind of risk assessment is, however, that even the most absurd scenarios can gain plausibility. By construct- ing a chain of potentialities, improbable events are linked and brought into the realm of the possible, if not even the probable. "Although the likelihood of the scenario dwindles with each step, the residual impression is one of plausibility. "54 This so-called Oth- ello effect has been effective in the dawn of the recent war in Iraq. The connection between Saddam Hussein and Al Qaeda that the US government tried to prove was disputed from the very begin- ning. False evidence was again and again presented and refuted, but this did not prevent the administration from presenting as the main rationale for war the improbable yet possible connection between Iraq and the terrorist network and the improbable yet possible proliferation of an improbable yet possible nuclear weapon into the hands of Bin Laden. As Donald Rumsfeld famously said: "Absence of evidence is not evidence of absence." This sentence indicates that under the condition of genuine uncer- tainty, different evidence criteria prevail than in situations where security problems can be assessed with relative certainty.

**1AC – Plan**

**Thus the plan: The United States federal government should provide decentralized integrated photovoltaic electrification assistance to Mexico.**

**1AC – Solvency**

**Contention three is solvency**

**The past MREP focused on Solar Home Systems**

**van Campen et al, 2k** Environment and Natural Resources Service, Food and Agriculture Organization of the United Nations (Bart Van Campen; Daniele Guidi, Renewable Energy Consultant; Gustavo Best, Environment and Natural Resources Service “Solar Photovoltaics for Sustainable Agriculture and Rural Development” 2000 <http://www.fao.org/uploads/media/Solar%20photovoltaic%20for%20SARD.pdf>) //NKG

The Mexico Renewable Energy Programme (MREP) is managed by Sandia National Laboratories (USA) for the US Agency for International Development (USAID) and the US Department of Energy (USDOE). It aims to promote the use of renewable energy systems, enhance economic and social development in Mexico, create new business opportunities for US industry and off-set greenhouse gas emissions. The focus is on rural, off- grid productive uses of renewable energy systems in off-grid areas, mainly solar and small-scale wind. Productive uses include water pumping for irrigation and/or livestock, communication and lighting for eco- tourism facilities. The MREP complements programmes by the Mexican Government mainly focusing on Solar Home Systems.

**That’s why integrated PV assistance solves best – it’s distinct from past policies since it goes beyond SHS and promotes local integration**

**van Campen et al, 2k** Environment and Natural Resources Service, Food and Agriculture Organization of the United Nations (Bart Van Campen; Daniele Guidi, Renewable Energy Consultant; Gustavo Best, Environment and Natural Resources Service “Solar Photovoltaics for Sustainable Agriculture and Rural Development” 2000 <http://www.fao.org/uploads/media/Solar%20photovoltaic%20for%20SARD.pdf>) //NKG

The findings of this study have led the authors to believe that the time is now ripe to advance towards a new phase of "PV beyond the light bulb". This does not exclude PV lighting in general, but stresses the necessity (and potential) of looking beyond SHSs towards other PV applications and to the impact they can have on rural development. PV electrification is not a panacea for all rural development problems and is still hampered by high costs, but as shown in the preceding chapters, a growing number of PV applications is becoming economically viable and has a significant impact on rural development. To exploit the full potential of PV in areas such as agriculture, rural education and health care, there is a need for adequate policies and for improved collaboration among institutions from the energy, agricultural, health, education and other sector organizations involved in rural development. Annex 6 presents a package of recommendations, directed at promoting such policies and cooperation with the aim to use the opportunities that PV systems offer in contributing to sustainable agriculture and rural development. As mentioned in Section 2.4, barriers are being encountered in trying to fully exploit the potential of PV, which often act in a vicious circle: high investment costs, lack of financing mechanisms, lack of infrastructure , lack of familiarity, low volumes of sales, high transaction costs and lack of political commitment and adequate policies. The growing experience in PV project organization, combined with reforms in the energy sector, have opened the possibility of a new type of rural electrification project, which could perhaps help solve the problems mentioned. Several “integrated PV electrification programmes” try to simultaneously address energy (electricity) needs in different sectors of rural society (for example, households, education, agriculture) by offering different PV systems tailored to the different needs. Such integrated projects promise to deliver synergies in terms of infrastructure, promotion and familiarity of the technology by combining PV markets to create a critical mass, thereby contributing to overcome barriers and creating sustainable markets. Examples discussed earlier in this publication are the Municipal Solar Infrastructure Project in the Philippines (paragraph 3.3.4), the Indian PV programme (paragraph 3.5.1) and the **M**exico **R**enewable **E**nergy **P**rogramme (paragraph 3.5.2). While creating critical mass, such projects have the potential to maintain the flexibility and modularity of individual PV installations tailored to different (local) needs. This creates the opportunity for a gradual and participatory approach to rural electrification projects and allows such projects to focus on prioritized energy needs of communities, for instance water pumping, improved health care, street lighting or household electrification. As a result of the focus on individual, prioritized installations, the development impact of such installations are much easier to evaluate. Furthermore, initial installations (including local capacity-building and infrastructure development) can provide a base for future expansion according to needs and demands, either through projects or private acquisition by individuals. PV therefore allows rural electrification that is able to follow and support the rural development process. As described in previous sections, the diversity of PV applications also results in a range of impacts on rural development, which combined, might add up to a more significant and sustainable impact - or, as a respondent to the survey carried out in preparing this study pointed out: "We need to have reasonable concentration of systems in a given area, stimulating the establishment of local technical support. Social applications can highly improve impact of PV systems but use in the households can help to establish significant clusters." Many of the projects reviewed also note that the impact of PV systems is greatly improved if the PV systems themselves are delivered in combination with training programmes for effective use of appliances, for example, training for improved irrigation techniques (India, paragraph 3.5.1), livestock extension (Mexico, paragraph 3.5.2), integration in health care centres (Colombia, paragraph 3.3.1), microenterprise support and microcredit (Section 3.4) and educational programmes (Honduras, paragraph 3.3.3). “Packages” can be developed for each sector, including the energy component (PV system, installation training and servicing) and the application component (appliance, training in use). The institutional arrangements for implementing such integrated approaches can differ from country to country and sector to sector. The provision of PV systems for basic services would logically appear to be a government prerogative, where energy organizations can work together with organizations from the education, health and other sectors to develop “social service packages”. The installation and servicing can be contracted to public or private energy companies. The electrification of households can be included in such contracts (for example, concessionary approach), including government subsidies, but could also be left to the free market where individual companies compete at the level of the end-user. Similar arrangements can be made for the provision of PV systems for agricultural and other productive uses in cooperation between energy and agricultural organizations. PV systems adapt easily to these different types of institutional arrangements.

**Multiple mechanisms ensure that the plan solves – it spills over**

**ASES, 99** leads national efforts to increase the use of solar energy, energy efficiency and other sustainable technologies in the U.S. (American Solar Energy Society – Elizabeth Richards, Charles Hanley (Sandia National Laboratories) Robert Foster, Gabriela Cisneros (New Mexico State University/Southwest Technology Development Institute) Christopher Rovero, Lisa Büttner, Lilia Ojinaga (Winrock International) Shannon Graham (Enersol Associates) Claudio Estrada (Gasca Universidad Nacional Autonoma de México and Asociación Nacional de Energía Solar) Octavio Montufar Avilez Fideicomiso de Riesgo Compartido “Photovoltaics in Mexico: A Model for Increasing the Use of Renewable Energy Systems” 1999 solar.nmsu.edu/publications/mexicopaper.pdf)//NKG

Many of the principles on which the Mexico Renewable Energy Program are based stem from Sandia's experience with the Photovoltaic Systems Assistance Center (PVSAC) (Stevens et al., 1986). For more than 10 years, Sandia's PVSAC has been working with a wide variety of organizations and individuals to increase the use of photovoltaics and, as a result, has established some reliable guidelines to help ensure the success of photovoltaic projects and increase the likelihood that sustainable markets are developed. The philosophies of Sandia’s PVSAC are inherently practical, beginning first with advice not to start programs from scratch if possible. That is, build on existing capabilities by partnering with established organizations and work within established and funded programs. It is also advisable to work with a champion for the project, someone within a partner organization who takes on the program or project as a personal cause. Then provide technical assistance, training, and hands-on experience to build within the partner organizations the institutional capacity to make use of renewable energy technologies. Second, one-of-a-kind applications should be avoided and only proven commercially available hardware used to ensure a high degree of replicability for the project. Third, it is important to focus program activities and resources on the most promising partners, applications, technologies, geographic areas so that a critical mass of business activity can be established and maintained around a given market. Once the level of business activity in a particular application and location can sustain itself, new applications or locations can be tried more easily by building on the infrastructure thus established. The model for the Mexico Renewable Energy Program combines the general guidelines from the PVSAC with the experience of working in Mexico for the last five or so years. Its fundamental aspects are:

• Partnerships

• Capacity Building

• Technical Assistance

• Implementation of Pilot Projects

• Replication, and

• Monitoring.

Partnerships

**Partnerships**, especially with in-country organizations and individuals, are critical to progress and success in an undertaking such as the Mexico Renewable Energy Program. It would be unrealistic to think that a U.S.-based organization could accomplish anything significant and long-lasting in another country without working closely with local organizations. Furthermore, because mixing technology with the diverse issues of social and economic development, environment, and business results in a very complex situation, it is unlikely that any one organization will have all the needed expertise. The Sandia program partners with well-established project-implementing organizations in Mexico, including federal, state, and local government agencies and international and local non-government organizations, and works to incorporate the use of renewable energy into their ongoing development programs. The program also works closely with U.S. and Mexican businesses, as well as with Mexico's Solar Energy Association (Asociación Nacional de Energía Solar [ANES]). These partnerships have been key to the success of the program. Ultimately, the intent is for management and implementation of the program to be transferred to one or more of the partnering country’s institutions. The diverse nature of the objectives and activities in the program requires a diverse set of competencies in the implementation team. Therefore, partnering among a variety of organizations and individuals from both the U.S. and Mexico is also essential in assembling the program team. So, in addition to the approximately 25 contracts that have been placed with partner organizations in Mexico for specific project activities, Sandia's core program implementation team involves about 30 people either from Sandia or from one of eight or so organizations under contract with Sandia. 1 Maintaining trust and cooperation among the partners in such a complex partnering arrangement is critical to success because the integration of various issues associated with energy, technology, development, and the environment into a coherent set of activities would be impossible without it.

Capacity Building

**Building in**-country institutional and/or **community capacity** to deploy, use, and maintain renewable energy technologies is another fundamental requirement for program success. The failure of many technology projects around the world can be blamed on neglecting to address this issue. Capacity-building takes different forms and involves different disciplines depending on the situation. Targeted training workshops and seminars are effective and efficient means of reaching relatively large numbers of people and organizations. Formal training alone, though, is usually insufficient, so it must be tied to ongoing projects where hands-on experience can be gained and more focused individual assistance can be provided as needed. The implementation of pilot projects has proven to be an outstanding way to build capacity, as discussed in more detail below. Capacity-building needs vary depending on the role of the organization or individual in a project. Project-implementing organizations, such as government agencies or non-profit groups, need to know how to define needs for energy service, evaluate options for meeting the needs (including the economics), develop and prepare specifications to procure systems, evaluate and select bids, conduct acceptance testing, and inspect and monitor installed systems. Users may need to deal with any or all of these tasks, and also with how to operate, maintain, and obtain service for the system . Local suppliers of renewable energy technologies need to know how to size and design a system properly, prepare bids that meet specifications, install systems properly and assure their proper and safe operation, handle warranties and maintenance, and partner with equipment distributors and/or manufacturers. Financial institutions need to know how to evaluate the viability of projects, the life-cycle costs, and the payback times, and what the inherent risks are. And sometimes, U.S. industry may need a little capacity-building of its own in order to do business internationally.

Technical Assistance

**Technical assistance** contributes to, but is different from, capacity building. It involves ensuring that projects are technically, economically, and environmentally sound, and it provides information or expertise that may not be available in-country, such as resource assessment data. If carried out in partnership with capacity building, the need for technical assistance with any one group, organization, or individual, will generally diminish over time. Although the program is limited to using proven, commercially available hardware, and specific system design is the responsibility of the suppliers, a considerable amount of technical analysis is still required to ensure successful projects. Potential project sites and their associated energy needs must be analyzed to see if they are suitable for renewable energy systems, available renewable energy resources must be assessed, the appropriate technology must be selected, system specifications must be prepared and enforced, bids must be analyzed, installations must be done properly, acceptance testing must be performed, and systems must be properly maintained. Economic and financial analyses are also necessary, as is environmental impact assessment. The program team does not take all this on themselves, but rather works with the in-country partner organizations to ensure that these things are handled properly. In addition to ensuring that renewable energy systems installed under the program are sound, the Mexico program team has given particular attention to providing assistance with assessing the solar and wind resources. Experts from the National Renewable Energy Laboratory analyzed available weather and resource data from in-country sources and satellite information, in combination with new resource information collected from data acquisition systems set up through the program, to develop solar and wind resource maps for the country as a whole in the case of solar, and for individual areas of interest in the case of wind, as shown in Figure 3. The program team also worked with the in-country partners to develop and incorporate a process for ensuring the environmental impacts of projects were properly addressed. As the partner organizations increase their experience through a few rounds of pilot-project implementation, they need less and less assistance and eventually are able to handle everything themselves.

**Implementation of Pilot Projects**

A key feature of the Mexico Renewable Energy Program is that it uses pilot projects to institutionalize the use of renewable energy. As mentioned before, hands-on experience is a necessary ingredient in capacity building. Pilot projects provide that opportunity, as well as serve to publicize, promote, and establish the credibility of the technology. They are fundamentally different from traditional demonstration projects in that they are generally commercially replicable and, with few exceptions, are actually implemented by the partner organizations rather than by the program team. The current program in Mexico implements three basic types of pilot projects: fast-track training projects (for example as shown in Figure 4), cost-shared projects, and non-cost-shared projects. Fast-track training projects install systems early in a partnership as part of a formal training workshop to jump-start capacity-building, generate enthusiasm for the program, and establish the credibility of the technology in a particular area and/or with a particular partner. In these cases, the program provides the renewable energy hardware including installation by industry, while the partner organization generally covers logistical costs and the beneficiaries provide in-kind support for balance-of-system components, such as water tanks, distribution systems, fencing, etc. In cost-shared pilot projects, the Sandia program provides funding to share the cost of pilot system installations implemented by in-country partner organizations. The intent is to buy down the costs of doing something for the first time. While the partner organization is coming up the learning curve on renewable energy projects, the overhead costs are larger than for the more familiar traditional options. Having some funds to help offset these extra costs is helpful in getting the process going. This facilitates a key feature of the Mexico program model, which is that partner organizations become involved in system procurement early in the program, rather than depending on the program team to supply hardware. This can slow pilot projects down and cost a bit more, but it is an essential step in the capacity-building process. It should be noted that, because this program is federally funded, the program model needs to account for the logistics of moving U.S. government funds into another country for the purchase of hardware, not a trivial matter if the proper contracting mechanisms are not set up. The Mexico Renewable Energy program, in partnership with USDOE, USAID, and the Mexican partner organizations, set up a contracting mechanism that served both requirements for programmatic and fiscal accountability. More information on this is given in the section on lessons learned. Non-cost-shared pilot projects are implemented by the partner organizations with technical assistance and capacity building from a technical program, such as Sandia’s, but with no funds provided for cost-sharing the hardware. As a program progresses and the word spreads about the success of systems installed so far, having funds to cost-share pilot projects becomes less critical to the success of the program. Typically the Sandia program will work with a specific partner organization through two or three rounds of pilot project implementations, each with a diminishing percentage of hardware cost share (where cost sharing is used). At the beginning, considerable assistance and training for the implementation organization, the local suppliers, and the users is needed, but once the partner has been through the process a couple of times, very little assistance is needed from the program team. At that point, the program enters the project replication phase, which is described below.

Project Replication

**Project replication**, or growing sustainable markets, is the program’s ultimate measure of success or failure. For example, the budget over the six-year life of the USAID/USDOE Mexico Renewable Energy Program to date is approximately $10M, an amount that could have bought a much larger quantity of renewable energy product than has been installed to date. However, the program is about avoiding the results that would be produced by doing that: significant short-term sales but few or no follow-on sales, followed by widespread system failures, leading to a furthering of the negative reputation of renewable energy systems. By investing most of the program cost into in-country capacity building within the partner organizations, the user community, and the suppliers and maintainers, it is expected that sustainable markets many times larger than the cost of the program itself will be realized through replication. Project replication takes place in a number of ways. As successful pilot projects are implemented and internal capacity to implement renewable energy projects is established, institutions begin to implement other projects on their own

in accordance with their programmatic objectives, say, agricultural infrastructure improvement in the case of Mexico’s agricultural development agency. This generally takes place first at the local level, such as within a state office of this agency, then spreads to other regions as one state office works with another state office. In the case of the protected-areas management sector, replication can occur from one reserve to another or one country to another as the use of renewable energy becomes recognized as a good means to accomplish organizational objectives. The potential for project replication within an institution such as a development organization can be huge, given that overall development project implementation bud gets can be in the millions, even billions of dollars. Replication can also occur from one institution to another. Private-sector spin-off replication occurs as a result of successful pilot projects implemented in a particular area. Necessary ingredients for this type of replication are a recognized need for the services the technology can provide, a local awareness of the technology, credibility of the technology in meeting the need reliably and economically, local availability of quality products and services (i.e., local renewable energy businesses), and the ability to pay for the technology. The availability of financing can greatly affect the pace of replication. Even when renewable energy technologies are the most economical choice on a life-cycle-cost basis, their relatively high initial capital costs often require access to financing in order for markets to expand. Accordingly, facilitating financing mechanisms, both for projects implemented in the course of large development programs and for private-sector sales, is a key part of project replication efforts. Some project replication can occur without financing, especially for cases in which renewable energy technology is the only or the cheapest option. In some cases this may be enough to sustain the critical mass of sales needed to get local supply businesses going, a necessary requisite to growing a market and establishing the technology's commercial credibility sufficiently for financing entities to become interested. It should be noted that to be successful, this model does not have to be implemented on such a large scale as the Sandia program in Mexico. In the case of the Mexico Renewable Energy Program, a number of activities are being undertaken with multiple partners in several regions, all in parallel, in accordance with the priorities of the program sponsors. Although there are some synergies involved in doing this and larger markets will be created faster as a result, the various activities could also be undertaken separately or in sequence.

Monitoring

**Monitoring** the results of the program is necessary to evaluate its effectiveness, to learn from it, and to apply the lessons to future work. The program tracks technical performance of the systems installed under the program and sustainability issues such as user training, operation and maintenance provisions, and customer satisfaction. The information is stored in an electronic database which can be used to conduct a wide variety of analyses. Monitoring must be designed into the program from the beginning and sufficient resources allocated to ensure the information collected provides accurate and meaningful information with which to assess and manage the program.

**Limited deliberative forums like debate which discuss Latin American specific policies prevent elite domination, develops agency, and promotes epistemological equality**

**Baxter 10** (Jorge, Education Specialist, Department of Education and Culture in the Organization of American States, Former Coordinator of the Inter-American Program on Education for Democratic Values and Practices at the OAS, PHD in International Comparative Education and Policy from University of Maryland College Park, “Towards a Deliberative and Democratic Model of International Cooperation in Education in Latin America”, Inter-American Journal of Education for Democracy, 3(2), 224-254, <https://scholarworks.iu.edu/journals/index.php/ried/article/viewFile/1016/1307>, Accessed: 7/30/13)OG

In the context of international¶ education cooperation and international¶ development **in Latin America, where¶ there are great asymmetries in power and**¶ **resources**, it seems that this critique could¶ have some validity. However, **rather than¶ concluding that deliberation and participation¶ should be reduced**, one could conclude (as¶ is argued in this paper) that **they should¶ be enhanced and expanded**. Those that¶ advocate for a “thicker” democratization in¶ the region would likely advocate for **a more¶ substantive approach to deliberation in policy**¶ which **establishes certain parameters** such¶ as “education is an intrinsic human right,”¶ and which would place an emphasis on¶ achieving quality education outcomes¶ for all as the goal. This does not mean that¶ they would not advocate for deliberation but¶ rather would set parameters for deliberation¶ in order **to ensure that the outcomes do not**¶ **lead to “unjust” policy** (e.g., a policy that¶ might promote more inequity in education).¶ Those that advocate for a “thinner” approach¶ to democratization would tend to advocate¶ for a procedural approach to deliberation in¶ education policy and would most likely place¶ emphasis on equal opportunity of access¶ to quality education.¶ Instability critique: Education in Latin¶ America suffers from too much instability and¶ is too politicized. Increasing participation and¶ deliberation would only further politicize the¶ situation and polarize those who advocate for¶ educational reform and those who block it.¶ The average term of a minister of education¶ is one-and-a-half years; each time a new¶ minister comes to office, new policies are¶ passed which, according to deliberative¶ democratic theory, would need to be reasoned¶ and debated with citizens. Deliberation in this¶ context would promote even more instability¶ and would lead to further politicization of¶ education reform.¶ Response: Political instability and¶ lack of continuity in policy reform are serious¶ limitations that to some degree are inherent¶ in democratic institutions and processes. The¶ reality is that if any education reform is to¶ succeed in the long term, it needs more than¶ the efforts of governments or international¶ organizations. It needs the sustained support¶ of stakeholders across sectors (public,¶ private, and civil society) and over time. It¶ has been argued that the main problem in¶ basic education in Latin America is the lack¶ of a broad social consensus, recognizing¶ that there is a problem of equity and quality¶ in the provision of education (Schiefelbein,¶ 1997). This lack of broad social consensus¶ is especially challenging where there is, as¶ noted in the critique, a lack of continuity¶ in education reform. **Reform** in education¶ **takes time, sometimes decades**. Ensuring¶ continuity in education reform policies is¶ therefore crucial, and this requires public¶ consensus. **Deliberative forums convening¶ government, private sector, and civil society¶ groups can contribute to developing this public¶ consensus and to providing more continuity¶ in policy. Deliberative forums combined¶ with collaborative projects can help promote¶ learning, distribute institutional memory,¶ support capacity-building efforts, and bring¶ more resources to bear on the education¶ reform process.** Creating a space for citizens¶ to deliberate on the role of education is¶ fundamental for promoting broad social¶ consensus around education reforms. **In Latin¶ America, the most innovative and successful¶ reforms have all created multiple and¶ continuous opportunities for diverse groups¶** across the education sector and society to¶ provide input and to have opportunities for¶ meaningful collaborative action. International¶ organizations, leveraging their regional and¶ international position, can contribute by¶ promoting policy dialogue and collaborative¶ actions among ministries and also with key¶ stakeholders across sectors. The challenge¶ is to develop a better understanding of how¶ deliberation can be used to promote more¶ collaborative as opposed to more adversarial¶ and partisan forms of politics. This is perhaps¶ one area which deliberative theorists need to¶ explore more.¶ 5. Power critique: The final critique relates¶ the possibility that increasing deliberation¶ and participation can lead to increased¶ inequality. Fung and Wright (2003) note¶ that deliberation can turn into domination¶ in a context where “participants in these¶ processes usually face each other from¶ unequal positions of power.” **Every reform¶** in education **creates winners and losers, and¶ very few create “win-win” situations.** Those¶ in power would have to submit to the rules of¶ deliberation and relinquish “control” over the¶ various dimensions of democratic decisionmaking.¶ This is naïve and not politically¶ feasible.¶ Response: **This is a valid critique**¶ **worth considering.** **Structural inequalities¶ and asymmetries of power in governments¶ and international institutions in Latin America¶ have facilitated domination by elites in terms¶ of authority, power, and control in politics.¶** Asymmetries of power in international¶ cooperation in education are also clear,¶ especially when powerful financial (World¶ Bank, IDB, IMF) or political (OAS, UNESCO)¶ organizations engage with local stakeholders¶ and condition policy options with funding¶ or political support. What this paper has¶ argued is relevant again here: that **instead of¶ rejecting further democratization in the face¶ of these challenges, including the challenge¶ of elite “domination,” what is needed is more¶ and better democracy, defined in terms of its¶ breadth, depth, range, and control.** Finally,¶ **dealing with elite domination in international¶ deliberative forums will require conscious and**¶ **skilled facilitation** on the part of international¶ organizations, which themselves are often¶ elitist and hegemonic.¶ Final Thoughts: So What?¶ Perhaps the most critical question¶ that emerges in the argument for increased¶ democratization and deliberation is simply:¶ So what? Does increased democratization and¶ deliberation actually lead to better outcomes¶ in education? More empirical research on this¶ critical question is needed. However, **experiments¶ in deliberative democracy** in education **reform**¶ **in Brazil** through the UNESCO and Ministry of¶ Education Coordinated Action Plan and Porto¶ Alegre‘s Citizen School, and also to some degree¶ at the international level with the OAS pilot¶ experiment in developing a more democratic¶ model of international cooperation from 2001-¶ 2005, **have shown that deliberative processes¶ can enhance learning on the part of those¶ participating**. Fung and Wright (2003) refer to¶ these experiments in deliberation as “schools¶ of democracy” because **participants exercise¶ their capacities of argument, planning, and**¶ **evaluation. Deliberation promotes joint reflection¶ and consideration of others’ views.** **Citizens¶ who participate in deliberative forums develop¶ competencies that are important not only for¶ active citizenship (listening, communication,**¶ **problem-solving, conflict resolution, selfregulation skills) but also crucial for managing¶ change and school reform. Many of the same¶ skills that are developed through citizen¶ deliberation and participation are also essential¶ for transforming school cultures, promoting¶ “learning organizations”** (Senge, 2000), **fostering¶ communities of reflective practitioners** (Schon,¶ 1991) **and developing communities of practice¶** (Wenger, 2001). There is evidence from some¶ research that **democratic interactions can create¶ knowledge that is more rigorous, precise, and¶ relevant than that produced in authoritarian¶ environments** (Jaramillo, 2005). Another¶ important aspect of enhancing deliberative¶ democracy and democratization is that it moves¶ from a focus on individuals and their own¶ preferences towards more collective forms of¶ learning and collaboration.¶ Up to now, international organizations¶ have endorsed a “thin” version of democratization¶ that is content with formal and centralized¶ mechanisms of “representation” and “policy¶ dialogue.” If a new, more deliberative and¶ democratic model of cooperation in education in¶ the region were to emerge, what would it look¶ like?¶ First of all, **a more deliberative and**¶ **democratic model of international cooperation** in¶ education **would involve more direct and deeper¶ forms of participation from everyday citizens,¶ including teachers**, school directors, families,¶ school communities, **students, and mesolevel¶ actors such as civil society organizations.¶ This participation would move beyond simple¶ consultation to more authentic forms of joint¶ decision-making and deliberation.** **The model**¶ would involve more accountability on the¶ part of international organizations in terms¶ of transparency, and **would require injecting¶ ethical reasoning into policies and programming.**¶ In addition, **a new more democratic model of¶ international cooperation would expand the¶ range of policy options available to countries¶** through devolution of authority, power, and¶ control, combined with oversight and horizontal¶ accountability mechanisms. **A more democratic¶ model of international cooperation would stress¶ valuing, systematizing, and disseminating¶ local knowledge and innovation. Finally,¶ democratization and deliberation in international¶ cooperation in education would lead to enhanced¶ learning and agency on the part of participating¶ countries, groups, and individuals, and thus¶ contribute to better outcomes in terms of quality¶ and equity** in education at national and local¶ levels.

**2AC**

**t-Gov2Gov**

**Economic engagement can be non-governmental**

**Haass and O’Sullivan, 2k** - \*Vice President and Director of Foreign Policy Studies at the Brookings Institution AND \*\*a Fellow with the Foreign Policy Studies Program at the Brookings Institution (Richard and Meghan, “Terms of Engagement: Alternatives to Punitive Policies” Survival,, vol. 42, no. 2, Summer 2000, <http://www.brookings.edu/~/media/research/files/articles/2000/6/summer%20haass/2000survival.pdf>

**The provision of economic incentives to the private sector of a target country can be an effective mode of ‘unconditional’ engagement**, particularly when the economy is not state dominated. In these more open economic climates, those nourished by the exchanges made possible under economic engagement will often be agents for change and natural allies in some Western causes. **To the extent that economic engagement builds the private sector and other non-state actors, it is likely to widen the base of support for engagement with America** specifically and the promotion of international norms more generally. Certainly, US engagement with China has nurtured sympathetic pockets, if not to American ideals per se, then at least to trade and open economic markets and the maintenance of good relations to secure them. The only constraint on the scope and development of ‘unconditional’ engagement is the range of available collaborators in civil society or the private sector. Fortunately, globalisation and **the explosion of economic entities** that has accompanied it – while making economic isolation more difficult to achieve – **presents a multitude of possible partners for unconditional engagement with non-state actors**.

**Its means belonging to or associated with**

**Dictionary.com, 9** (based on Collins English Dictionary, <http://dictionary.reference.com/browse/its?s=t>)

its (ɪts)

— determiner

a. **of, belonging to, or associated in some way with it**: its left rear wheel

b. ( as pronoun ): each town claims its is the best

**AT: Iranian Sanctions**

**The neg’s understanding of Iran is part of a larger neoconservative agenda that seeks global imperial domination.**

**Adib-Moghaddam 2007** Arshin. Department of Politics and International Relations at the University of Oxford. “Manufacturing War: Iran in the neo-conservative imagination.” Third World Quarterly. 28.3.

Although this brief sketch may make the ideas of both thinkers appear commonsensical enough to accept, we too often continue to assume that facts are somehow detached from a manufactured context, that they exist on their own without a historical background and ontological present signifying them.6 Notions of unchangeable laws of nature or a-historical continuity constrain our capacity for understanding that facts are socially engineered, that they are elastic, relative, differentiated.7 To some ‘postmodern’ and ‘critical theorists’, this may seem unchallengeable. But if we switch our focus away from these approaches to the reality of contemporary international relations studies in general, and to analyses of West Asia in particular, we see that **the majority of scholars take ‘facts’ for granted, that they fail to focus on the social engineering of world politics**.8 One serious consequence of the absence of critical approaches in my empirical field of study is that **the image of Iran as a country in the grip of enigmatic, hostile revolutionaries led by intransigent, retroactive Mullahs is surprisingly salient**. Part of the problem, I will argue in the following paragraphs, is that **the Islamic Republic has occupied a prominent place in the imagination of influential neo-conservative strategists with direct links to the decision-making process in Washington and immense resources to influence the public discourse** in the USA.9 Together with their allies in the Likud party in Israel (some of them are now members of Kadima), **that neo-conservative coterie has manufactured an image of Iran which has made the country’s ‘irrational nature’ an established fact among influential strata of international society**.10 The missing link in that cause – effect relationship is the role of a specific context (in our case neo-conservatism) in the production of reality (in our case the image of Iran as an international pariah governed by irrational religious zealots), a dialectic which both Farabi and Gadamer well understood. It would be a mistake to underestimate that dialectic, especially with regard to Iran’s nuclear file. **For is the ideological representation of Iran not governed by the strategy to expel from competing realities the notion of a Third World country that is attempting to exercise its right to national development; to contain the view that Iranians are as rational as the Japanese, Germans or other nations who have developed a nuclear energy programme**? The answer is yes, in my opinion, which explains my focus on the neo-conservative habitat of producing the image of Iran as an ‘international pariah’ in the following paragraphs. I am not so much interested in quantifying the proliferation of anti-Iranian discourses in neoconservative circles. It is rather more central, I think, to account for the way Iran is spoken about, to analyse who does the speaking, to explore the institutions which codify people to speak about the country, and to understand the political culture that signifies and legitimates the things that are said. **What is at issue** in this article, in short, **is the overall discursive representation of Iran by neo-conservative ideology, the way in which Iran is ‘translated’ to us by an exalted, cumbersome, coterie of activists with an overtly and self-consciously anti-Iranian agenda**.11 Institutions and processes: narrating the war script **No manufacturing of consent, no engineering of facts, no ideological effort to ‘produce’ reality, no campaign to transform a specific political consciousness can function if, through a pattern of institutions, functionaries and media outlets, it does not constitute an overall strategy**. And, inversely, no such strategy can achieve lasting effects if it is not based on a consensus serving, not as a headquarters, conspiracy or a predetermined, static outcome, but as the smallest common denominator among its adherents. With regard to Iran that consensus is constituted by influential, idea-producing conglomerates established by neo-conservative functionaries and activists with close links to Jewish lobbying organisations and likeminded parties in Israel. These all adhere to a common interest: to subvert the Iranian state and, by extension, to recode Iranian behaviour in accordance with US and Israeli interests in West Asia and beyond.12 Let me start exploring some of the strategies pursued to that end from a comparative perspective by sketching the involvement of neo-conservative functionaries in the build-up to the invasion of Iraq in 2003.13

[CONTINUES]

**Ultimately**, then, **neoconservative functionaries inscribe the narrative of war in international relations; they inscribe it in institutions** (eg the Committee on the Present Danger), **language** (eg the ‘axis of evil), **mindsets** (eg ‘Why do they hate us?’), **and policies** (eg the doctrine of pre-emption). **This strategy transforms other countries into replaceable variables. To be more precise, pre-emption and the ‘war on terror’ are made into versatile ideological agents that can be employed to legitimate military aggression globally—not only in the Iraqi, Iranian, Venezuelan or Syrian context, but also with regard to other conflict scenarios (China – Taiwan, Russia – Chechnya, etc). Thus, from the neo-coservative perspective, Lebanon, Palestine, Afghanistan, Iraq, Iran and others are just episodes in the same neo-conservative project, namely the ‘Fourth World War**’ invented by Eliot Cohen and popularised by ex-CIA director James Woolsey. **Even if we sucessfully avert one crisis, neoconservatives are always busy planning the next**. In essence **that political strategy is reassuringly mimetic**: once a specific war project has bedded in, its supposed chivalry is loudly trumpeted, bundled up in a morally righteous and infallible narrative—in essence **the legitimation of US neo-imperialism—and stitched into the political fabric of contemporary America. It is in this sense that neo-conservatism reveals itself as** war—**a war continued by other means**. The perverse irony of this malicious ideology is that it makes us think that it serves the liberation of mankind.

**Obama Won’t push Sanctions Bill—waiting till next Month**

**Klapper 11-21-13(**BRADLEY KLAPPER, “Senate Dems to Push Iran Sanctions Next Month”, <http://abcnews.go.com/Politics/wireStory/senate-dems-push-iran-sanctions-month-20967058>, November 21, 2013**)**//RM

The Democratic-led **Senate signaled Thursday it would only give President Barack Obama until next month before pressing ahead with new Iran sanctions**, and a key Republican introduced legislation designed to limit the president's future negotiating ability with Tehran.¶ Senate Majority Leader Harry **Reid said he backed the negotiations to curb Iran's nuclear program, but warned the Iranians could prevent any successful deal from emerging without the threat of new oil** and financial penalties. He said the Senate must move forward with new sanctions after returning from a two-week recess next month.¶ "I will support a bill that would broaden the scope of our current petroleum sanctions, place limitations on trade with strategic sectors of the Iranian economy that support its nuclear ambitions, as well as pursue those who divert goods to Iran," Reid told fellow senators. "While I support the administration's diplomatic effort, I believe **we need to leave our legislative options open to act on a new, bipartisan sanctions bill in December, shortly after we return**."¶ The GOP-led House passed additional sanctions against Iran in July and has been waiting for the Senate to act. **But Obama up to now has convinced Reid and many other senators to hold off on new sanctions while world powers try to conclude an interim** agreement with Iran.

**Iran sanctions only hurt the population of Iran and further enforce the ruling elite**

**New York Times 11/20/13**

[<http://www.nytimes.com/roomfordebate/2013/11/19/sanctions-successes-and-failures/in-iran-sanctions-hurt-the-wrong-people>, Beheshteh Farshneshani is an Iranian-American filmmaker and writer. She is also a former associate of the National Iranian American Council and is on Twitter, Updated November 20, 2013, 6:23 PM] //duffee

**Sanctions on Iran are severely weakening the middle class, breaking the collective will and marginalizing democratic voices while solidifying the power of the ruling elite**.¶ This is based on the assumption that sanctions do not take a toll on human life, but empirical evidence suggests otherwise. In fact, **the civilian death toll of the Iraq war from 2003 to 2011,** [**has been estimated as high as 450,000**](http://www.juancole.com/2013/10/american-population-sanctions.html)**, is less than the death toll attributed to the sanctions regime** between 1990 and 2000, which has been estimated **at about** [**500,000 deaths in children under five**](http://www.nytimes.com/1995/12/01/world/iraq-sanctions-kill-children-un-reports.html)**.¶ In Iran the impact of sanctions has been devastating.** Over the last year and a half, **families living in poverty rose from 22 percent** [**to more than 40 percent**](http://www.ft.com/cms/s/4d017b7a-3cc2-11e3-86ef-00144feab7de,Authorised=false.html?_i_location=http%3A%2F%2Fwww.ft.com%2Fcms%2Fs%2F0%2F4d017b7a-3cc2-11e3-86ef-00144feab7de.html%3Fsiteedition%3Duk&siteedition=uk&_i_referer=), the Rial plummeted at least [40 percent](http://www.nytimes.com/2012/10/02/world/middleeast/irans-rial-plummets-against-the-dollar.html), and the price of food regularly consumed by Iranians — for example, milk, tea, fruits and vegetables — skyrocketed. Moreover, **the health of millions of Iranians has been compromised due to the shortage of western medical drugs and supplies**.Asian replacements have proved ineffective and often result in severe side effects.¶ In the summer of 2012, I personally witnessed some of these effects. **My uncle, diagnosed with cancer, was undergoing chemotherapy when his original prescription was replaced by an Indian version.** The side effects were so daunting and unbearable for him that his wife was forced to drive three hours north of Tehran every week to purchase the European version through a black market at almost four times the price. But my uncle was fortunate. **Given the crippling economic circumstances, most ordinary Iranians cannot track, let alone afford, the necessary resources.¶ Despite the desperate circumstances, proponents of Iran sanctions adhere to the myth that sanctions are targeted at the regime and do not affect the lives of ordinary people. They argue that economic pressure will weaken the Islamic Republic and bring it to revise its nuclear and democratic calculus**. Still others assert, quite audaciously, that the calamitous conditions engendered by the sanctions are naturally necessary to provoke a ground-up revolution that will ultimately result in regime change. **But sanctions on Iran are only severely weakening the middle class, breaking the collective will and marginalizing democratic voices while solidifying the power of the ruling elite.**

**AT: Baudrillard**

**It’s easy to say politics is dead from their authors perspective – grounding politics in experience is key**

**Bordo ’94** [Susan, Professor of English and Gender and Women's Studies and holds the Otis A. Singletary Chair in the Humanities at the University of Kentucky, “Are Mothers Persons?” in Unbearable Weight, pp.96-97]

And, finally, there is the currently problematic status of concepts such as authority and the subject, concepts which have played a crucial role in Western modernity but are now in various philosophical and literary quarters being declared decentered, dying, or dead. This is not the place to detail those arguments. But it is easy, I believe, to call for the wholesale deconstruction of concepts such as subjectivity, authority, and identity only so long as we remain on the plane of high theory, where they function as abstractions. Once we begin to examine the role played by such concepts as they are institutionally and socially embodied in contexts such as law and medicine, in which the philosophical blueprint is transformed into real social architecture, a different agenda may suggest itself. This is what I have argued in this essay with regard to the politics and rhetoric of subjectivity as they are played out in the arena of the current legal and social battle over reproductive control.

Within this battle, we cannot afford, whether in the interests of theoretical avant­gardism or political correctness, to abandon conceptions such as subjectivity, authority, embodied consciousness, and personal integrity. But this does not mean that we will be reproducing them in precisely the form in which we have inherited them. We need to remember that when poststructuralist writers declare that the "author" or "man" (or "metaphysics" or "philosophy") is dead, they refer to conceptions that were historically developed by European men, under conditions of their cultural dominance. Under those conditions, subjectivity took a very particular form by virtue of the experiences excluded from it. Iris Young's study of pregnant embodiment, for example, suggests that pregnancy makes uniquely available (although it does not guarantee) a very different experience of the relationship between mind and body, inner and outer, self and other than that presumed by Descartes, Hobbes, Locke, and other architects of the modernist subject. The conception of autonomy assumed by that model, for example, is challenged by an embodiment that literally houses ''otherness" within the self.

Young's argument makes us aware of the fact that invoking the authority of marginalized subjects may ultimately result in a reconstruction of subjectivity itself. This is not to say that the (historical) subjectivities of subordinate groups have developed fully outside of or unaffected by dominant constructions of the subject. (Itis not as though, for example, women have not sought autonomy or cherished possibilities for individuation and self­development.) But our relation to these values has been different: more ambivalent, less purely identified; one could even say, less oppressed. 7 7 Historically excluded from participation in the making of philosophy, law, and politics, we have nonetheless created culture in our own assigned "spheres," and these cultures now provide a valuable resource for us as we begin to make philosophy, law, and politics in the public arena

**They claim to question everything, but then demonstrate a naïve faith in the links and impacts to the kritik.  Like all conspiracy theorists, they are radically skeptical about everything but their own bizarre claims.**  
  
Bruno **Latour 2004**  
[*Critical Inquiry* 30.2]  
     In which case the danger would no longer be coming from an excessive confidence in ideological arguments posturing as matters of factas we have learned to combat so efficiently in the pastbut from an excessive distrust of good matters of fact disguised as bad ideological biases! While we spent years trying to detect the real prejudices hidden behind the appearance of objective statements, do we now have to reveal the real objective and incontrovertible facts hidden behind the illusion of prejudices? And yet entire Ph.D. programs are still running to make sure that good American kids are learning the hard way that facts are made up, that there is no such thing as natural, unmediated, unbiased access to truth, that we are always prisoners of language, that we always speak from a particular standpoint, and so on, while dangerous extremists are using the very same argument of social construction to destroy hard-won evidence that could save our lives. Was I wrong to participate in the invention of this field known as science studies? Is it enough to say that we did not really mean what we said? Why does it burn my tongue to say that global warming is a fact whether you like it or not? Why can't I simply say that the argument is closed for good?      Should I reassure myself by simply saying that bad guys can use any weapon at hand, naturalized facts when it suits them and social construction when it suits them? Should we apologize for having been wrong all along? Or should we rather bring the sword of criticism to criticism itself and do a bit of soul-searching here: what were we really after when we were so intent on showing the social construction of scientific facts? Nothing guarantees, after all, that we should be right all the time. There is no sure ground even for criticism.4 Isn't this what criticism intended to say: that there is no sure ground anywhere? But what does it mean when this lack of sure ground is taken away from us by the worst possible fellows as an argument against the things we cherish?      Artificially maintained controversies are not the only worrying sign. What has critique become when a French general, no, a marshal of critique, namely, Jean Baudrillard, claims in a published book that the Twin Towers destroyed themselves under their own weight, so to speak, undermined by the utter nihilism inherent in capitalism itselfas if the terrorist planes were pulled to suicide by the powerful attraction of this black hole of nothingness?5 What has become of critique when a book that claims that no plane ever crashed into the Pentagon can be a bestseller? I am ashamed to say that the author was French, too.6 Remember the good old days when revisionism arrived very late, after the facts had been thoroughly established, decades after bodies of evidence had accumulated? Now we have the benefit of what can be called instant revisionism. The smoke of the event has not yet finished settling before dozens of conspiracy theories begin revising the official account, adding even more ruins to the ruins, adding even more smoke to the smoke. What has become of critique when my neighbor in the little Bourbonnais village where I live looks down on me as someone hopelessly naïve because I believe that the United States had been attacked by terrorists? Remember the good old days when university professors could look down on unsophisticated folks because those hillbillies naïvely believed in church, motherhood, and apple pie? Things have changed a lot, at least in my village. I am now the one who naïvely believes in some facts because I am educated, while the other guys are too unsophisticated to be gullible: "Where have you been? Don't you know that the Mossad and the CIA did it?" What has become of critique when someone as eminent as Stanley Fish, the "enemy of promises" as Lindsay Waters calls him, believes he defends science studies, my field, by comparing the laws of physics to the rules of baseball?7 What has become of critique when there is a whole industry denying that the Apollo program landed on the moon? What has become of critique when DARPA uses for its Total Information Awareness project the Baconian slogan Scientia est potentia? Didn't I read that somewhere in Michel Foucault? Has knowledge-slash-power been co-opted of late by the National Security Agency? Has Discipline and Punish become the bedtime reading of Mr. Ridge (fig. 1)? Let me be mean for a second. What's the real difference between conspiracists and a popularized, that is a teachable version of social critique inspired by a too quick reading of, let's say, a sociologist as eminent as Pierre Bourdieu (to be polite I will stick with the French field commanders)? In both cases, you have to learn to become suspicious of everything people say because of course we all know that they live in the thralls of a complete illusion of their real motives. Then, after disbelief has struck and an explanation is requested for what is really going on, in both cases again it is the same appeal to powerful agents hidden in the dark acting always consistently, continuously, relentlessly. Of course, we in the academy like to use more elevated causessociety, discourse, knowledge-slash-power, fields of forces, empires, capitalismwhile conspiracists like to portray a miserable bunch of greedy people with dark intents, but I find something troublingly similar in the structure of the explanation, in the first movement of disbelief and, then, in the wheeling of causal explanations coming out of the deep dark below. What if explanations resorting automatically to power, society, discourse had outlived their usefulness and deteriorated to the point of now feeding the most gullible sort of critique?8 Maybe I am taking conspiracy theories too seriously, but it worries me to detect, in those mad mixtures of knee-jerk disbelief, punctilious demands for proofs, and free use of powerful explanation from the social neverland many of the weapons of social critique. Of course conspiracy theories are an absurd deformation of our own arguments, but, like weapons smuggled through a fuzzy border to the wrong party, these are our weapons nonetheless. In spite of all the deformations, it is easy to recognize, still burnt in the steel, our trademark: Made in Criticalland.

**. Our politics is necessary to celebrating life. The alternative denies our potential to affirm life and condemns others to unnecessary suffering.**

**May 05** Todd May, prof at Clemson. “To change the world, to celebrate life,” Philosophy & Social Criticism 2005 Vol 31 nos 5–6

**To change the world and to celebrate life. This**, as the theologian Harvey Cox saw, **is the struggle** within us. **It is a struggle in which** one cannot choose sides; or better, a struggle in which **one must choose both sides. The abandonment of one for the** sake of the **other can lead only to disaster or callousness. Forsaking the celebration of life for** the sake of **changing the world is the path of the sad revolutionary.** In his preface to Anti-Oedipus, Foucault writes that one does not have to be sad in order to he revolutionarv. The matter is more urgent than that, however. **One cannot** be both sad and revolutionary lacking a sense of the wondrous that is already here, among us, one who is bent upon changing the world can only become solemn or bitter. He or she is **focus**ed **only on the future; the present is** what is **to be overcome. The vision of what** is not but **must come to be overwhelms all** else, **and the point of change** itself **becomes lost**. The history of the left in the 20th century offers numerous examples of this, and the disaster that attends to it should be evident to all of us by now. **The alternative is surely not to shift one’s allegiance to the pure celebration of life**, although there are many who have chosen this path. **It is** at best **blindness not to see the misery that envelops so many** of our fellow humans, **to say nothing of what happens to** sentient **nonhuman creatures. The attempt to jettison world-changing for an uncritical assent to the world as it is requires** a **self-deception** that I assume would be anathema for those of us who have studied Foucault. Indeed, **it is anathema for all** of us **who awaken each day to an America whose expansive boldness is** matched **only by** an equally expansive **disregard for those we place in harm’s way. This is the struggle, then. The one between the desire for life celebration and** the **desire for world-changing. The struggle between reveling in the contingent and fragile joys that constitute our world and wresting it from its intolerability**. I am sure it is a struggle that is not foreign to anyone who is reading this. I am sure as well that the stakes for choosing one side over another that I have recalled here are obvious to everyone. **The question** then **becomes one of how to choose both sides at once.** III Maybe it happens this way. You walk into a small meeting room at the back of a local bookstore. There are eight or ten people milling about. They’re dressed in dark clothes, nothing fancy, and one or two of them have earrings or dreadlocks. They vary in age. You don’t know any of them. You’ve never seen them before. Several of them seem to know one another. They are affectionate, hugging, letting a hand linger on a shoulder or an elbow. A younger man, tall and thin, with an open face and a blue baseball cap bearing no logo, glides into the room. Two others, a man and a woman, shout, ‘Tim!’ and he glides over to them and hugs them, one at a time. They tell him how glad they are that he could make it, and he says that he just got back into town and heard about the meeting. You stand a little off to the side. Nobody has taken a seat at the rectangle of folding tables yet. You don’t want to be the first to sit down. Tim looks around the room and smiles. Several other people filter in. You’re not quite sure where to put your hands so you slide them into your jean pockets. You hunch your shoulders. Tim’s arrival has made you feel more of an outsider. But then he sees you. He edges his way around several others and walks up to you and introduces himself. You respond. Tim asks and you tell him that this is your first time at a meeting like this. He doesn’t ask about politics but about where you’re from. He tells you he has a friend in that neighborhood and do you know . . . ? Then several things happen that you only vaguely notice because you’re talking with Tim. People start to sit down at the rectangle of tables. One of them pulls out a legal pad with notes on it. She sits at the head of the rectangle; or rather, when she sits down there, it becomes the head. And there’s something you don’t notice at all. You are more relaxed, your shoulders have stopped hunching, and when you sit down the seat feels familiar. The woman at the head of the table looks around. She smiles; her eyes linger over you and a couple of others that you take to be new faces, like yours. She says, ‘Maybe we should begin.’ IV **I can offer only a suggestion of an answer** here today. It is a suggestion that brings together some thoughts from the late writings of Maurice Merleau-Ponty with those of Foucault, in order to sketch not even a framework for thought, but the mere outlines of a framework. It is not a framework that would seek to find the unconscious of each in the writings of the other. Neither thinker finishes or accomplishes the other. (Often, for example regarding methodology, they do not even agree.) Rather, it is a framework that requires both of them, from their very different angles, in order to be able to think it. My goal in constructing the outlines of this framework is largely philosophical. That is to say, **the suggestion I would like to make** here **is not one for resolving for each of us the struggle of life-celebration and world-changing, but of offering a way to conceive ourselves that allows us to embrace both sides** of this battle **at the same time**. Given the thinkers I have chosen as reference points, it will be no surprise when I say that that conception runs through the body. Let me start with Merleau-Ponty. In his last writings, particularly in The Visible and the Invisible, he offers a conception of the body that is neither at odds nor even entangled with the world, but is of the very world itself. His concept of the flesh introduces a point of contact that is also a point of undifferentiation. The flesh, Merleau-Ponty writes, ‘is the coiling over of the visible upon the seeing body, of the tangible upon the touching body, which is attested in particular when the body sees itself, touches itself seeing and touching the things, such that, as tangible it descends among them’.2 We must recall this economy of the flesh before we turn to Foucault. There is, for Merleau-Ponty, a single Being. Our world is of that Being, and we are of our world. We are not something that confronts the world from outside, but are born into it and do not leave it. This does not mean that we cannot remove ourselves from the immediacy of its grasp. What it means is that to remove ourselves from that immediacy is neither the breaking of a bond nor the discovery of an original dichotomy or dualism. What is remarkable about human beings is precisely our capacity to confront the world, to reflect upon it, understand it, and change it, while still being of a piece with it. To grasp this remarkable character, it is perhaps worth recalling Gilles Deleuze’s concept of the fold. The world is not composed of different parts; there is no transcendent, whether of God or of subjectivity. The world is one. As Deleuze sometimes says, being is univocal. This oneness is not, however, inert or inanimate. Among other things, it can fold over on itself, creating spaces that are at once insides and outsides, at once different from and continuous with one another. The flesh is a fold of Being in this sense. It is of the world, and yet encounters it as if from a perceptual or cognitive distance. It is a visibility that sees, a tangible that touches, an audible that hears. Merleau- Ponty writes: There is vision, touch when a certain visible, a certain tangible, turns back upon the whole of the visible, the whole of the tangible, of which it is a part, or when suddenly it finds itself surrounded by them, or when between it and them, and through their commerce, is formed a Visibility, a Tangible in itself, which belong properly neither to the body qua fact nor to the world qua fact . . . and which therefore form a couple, a couple more real than either of them.3 For Merleau-Ponty, thought and reflection do not attach themselves to this flesh from beyond it, but arise through it. As our body is of this world, our thought is of our bodies, its language of a piece with the world it addresses. ‘[I]f we were to make completely explicit the architectonics of the human body, its ontological framework, and how it sees itself and hears itself, we would see the possibilities of language already given in it.’4 This conception of the body as flesh of the world is not foreign to Foucault, although of course the terms Merleau-Ponty uses are not his. We might read Foucault’s politics as starting from here, inaugurated at the point of undifferentiation between body and world. The crucial addition he would make is that that point of undifferentiation is not historically inert. The body/world nexus is inscribed in a history that leaves its traces on both at the same time, and that crosses the border of the flesh and reaches the language that arises from it, and the thought that language expresses. How does this work?V Maybe it doesn’t happen that way. Maybe it happens another way. Maybe you walk into a room at a local community center. The room is large, but there aren’t many people, at least yet. There’s a rectangular table in the center, and everyone is sitting around it. A couple of people look up as you walk in. They nod slightly. You nod back, even more slightly. At the head of the table is someone with a legal pad. She does not look up. She is reading the notes on the pad, making occasional marks with the pen in her right hand. Other people come in and take places at the table. One or two of them open laptop computers and look for an outlet. Eventually, the table fills up and people start sitting in chairs behind the table. Your feel as though you’re in an inner circle where you don’t belong. You wonder whether you should give up your chair and go sit on the outside with the others who are just coming in now. Maybe people notice you, think you don’t belong there. At this moment you’d like to leave. You begin to feel at once large and small, visually intrusive and an object of scrutiny. You don’t move because maybe this is OK after all. You just don’t know. The room is quiet. A couple of people cough. Then the woman seated at the head of the table looks up. She scans the room as if taking attendance. She says, ‘Maybe we should begin.’ VI Merleau-Ponty’s discussion of the body as flesh is an ontological one. Although he does not see the body as remote from its historical inscription, his discussion does not incorporate the role such inscription plays. **For a body to be of the world is** also **for it to be temporal**, to be **encrusted in the continuous emerging of the world** over time. And **this** emerging **is not abstract;** rather, **it is concrete. The body/world nexus evolves during particular historical periods.** This fold of the flesh, this body, is not nowhere and at any time. It is there, then; or it is here, now. **A body is entangled within a web of specific events and relations that, precisely because it is of this world, are inescapably a part of that body’s destiny.** As Merleau-Ponty tells us in Phenomenology of Perception, ‘our open and personal existence rests on an initial foundation of acquired and stabilized existence. But it could not be otherwise, if we are temporality, since the dialectic of acquisition and future is what constitutes time.’5 **The medium for the body’s insertion into a particular net of events** and relations **is that of social practices. Our bodies are not first and foremost creatures of the state** or the economy, **no more than they are atomized** wholes **distinct from the world they inhabit.** Or better, **they are creatures of the state** and the economy **inasmuch as those appear through social practices, through** the **everyday practices** that are the ether of our lives. Social practices are the sedimentation of history at the level of the body. When I teach, when I write this article, when I run a race or teach one of my children how to ride a bicycle, my body is oriented in particular ways, conforming to or rejecting particular norms, responding to the constraints and restraints of those practices as they have evolved in interaction with other practices over time. Through its engagement in these practices, my body has taken on a history that is not of my making but is nevertheless part of my inheritance. It is precisely because, as Merleau-Ponty has written, the body and the world are not separate things but rather in a chiasmic relation that we can think this inheritance. And it is because of Foucault’s histories that we can recognize that this inheritance is granted through specific social practices. And of course, as Foucault has taught us, social practices are where the power is. It is not, or not simply, at the level of the state or the modes of production where power arises. It is, as he sometimes puts it, at the capillaries. One of the lessons of Discipline and Punish is that, if the soul is the prison of the body, this is because the body is inserted into a set of practices that create for it a soul. These practices are not merely the choices of an individual whose thought surveys the world from above, but instead the fate of a body that is of a particular world at a particular time and place. Moreover, these practices are not merely in service to a power that exists outside of them; they are mechanisms of power in their own right. It is not because Jeremy Bentham disliked the prison population that the Panopticon became a grid for thinking about penal institutions. It is instead because the evolution of penal practices at that time created an opening for the economy of visibility that the Panopticon represented. When Foucault writes that . . . the soul has a reality, it is produced permanently around, on, within the body by the functioning of a power that is exercised on those punished – and, in a more general way, on those one supervises, trains and corrects, over madmen, children at home and at school, the colonized, over those who are stuck at a machine and supervised for the rest of their lives6 his claim is informed by four other ones that lie behind it: that bodies are of a piece with the world, that the body/world nexus is a temporal one, that the medium of that corporeal temporality is the practices a body is engaged in, and that that medium is political as well as social. The last three claims are, of course, of the framework of Foucault’s thought. The first one is the ontological scaffolding provided by Merleau-Ponty. And it is by means of all four that we can begin to conceive things so as to be able to choose both world-changing and lifecelebrating at the same time. VII It could happen yet another way. Increasingly, it does. There is no meeting. There are no tables and no legal pads. Nobody sits down in a room together, at least nobody sits down at a place you know about. There may not even be a leaflet. Maybe you just got an email that was forwarded by someone you know slightly and who thought you might be interested. At the bottom there’s a link, in case you want to unsubscribe. If you don’t unsubscribe you get more notices, with petitions to sign or times and places for rallies or teach-ins or marches. Maybe there’s also a link for feedback or a list for virtual conversations or suggestions. If you show up, it’s not to something you put together but to something that was already in place before you arrived. How did you decide on this rally or teach-in? You sat in front of your computer screen, stared at it, pondering. Maybe you emailed somebody you know, asking for their advice. Is it worth going? If it’s on campus you probably did. It matters who will see you, whether you have tenure, how much you’ve published. There are no Tims here. You’ve decided to go. If it’s a teach-in, you’ve got plausible deniability; you’re just there as an observer. If it’s a rally, you can stand to the side. But maybe you won’t do that. The issue is too important. You don’t know the people who will be there, but you will stand among them, walk among them. You will be with them, in some way. Bodies at the same time and place. You agree on the issue, but it’s a virtual agreement, one that does not come through gestures or words but through sharing the same values and the same internet connections. As you march, as you stand there, nearly shoulder to shoulder with others of like mind, you’re already somewhere else, telling this story to someone you know, trying to get them to understand the feeling of solidarity that you are projecting back into this moment. You say to yourself that maybe you should have brought a friend along. **There are many ways to conceive the bond between world-changing and life-celebrating.** Let me isolate two: one that runs from Merleau-Ponty to Foucault, from the body’s chiasmic relation with the world to the politics of its practices; and the other one running back in the opposite direction. **The ontology Merleau-Ponty offers** in his late work **is one of wonder. Abandoning** the **sterile philosophical debates** about the relation of mind and body, subject and object, about the relation of reason to that which is not reason, or the problem of other minds, **his ontology forges a unity of body and world that puts us in immediate contact with all** of **its aspects.** No longer are we to be thought the self-enclosed creatures of the philosophical tradition. **We are now in touch with the world, because we are of it.** Art, for example, does not appeal solely to our minds; its beauty is not merely a matter of the convergence of our faculties. We are moved by art, often literally moved, because our bodies and the work of art share the same world. As Merleau-Ponty says, ‘I would be at great pains to say where is the painting I am looking at. For I do not look at it as I do a thing; I do not fix it in its place. My gaze wanders in it as in the halos of Being. It is more accurate to say that I see according to it, or with it, than that I see it.’7 It is only because my body is a fold of this world that art can affect me so. But this affection is also a vulnerability. As my look can happen according to a work of art, so it can happen according to a social practice. And even more so in proportion as that social practice and its effects are suffused through the world in which I carry on my life, the world my body navigates throughout the day, every day. I do not have a chance to look according to a painting by Cezanne very often; but I do encounter the effects of normalization as it has filtered through the practices of my employment, of my students’ upbringing, and of my family’s expectations of themselves and one another. **The vulnerability of the body**, then, **is at once its exposure to beauty and its opening to what is intolerable.** We might also see things from the other end, starting from politics and ending at the body. I take it that this is what Foucault suggests when he talks about bodies and pleasures at the end of the first volume of the History of Sexuality. **If we are a product of our practices and** the **conception of ourselves and the world that those practices have fostered,** so **to change our practices is to experiment in new possibilities both for living and**, inseparably, for **conceiving the world**. To experiment in sexuality is not to see where the desire that lies at the core of our being may lead us; that is simply the continuation of our oppression by other means. Rather, it is to construct practices where what is at issue is no longer desire but something else, something that might go by the name of bodies and pleasures. In doing so, we not only act differently, we think differently, both about ourselves and about the world those selves are inseparable from. And **because these experiments are practices of our bodies, and because our bodies are encrusted in the world, these experiments become not merely acts of political resistance but new folds in the body/ world nexus. To construct new practices is to appeal to aspects or possibilities of the world that have been previously closed to us. It is to offer novel, and perhaps more tolerable, engagements in the chiasm of body and world.** Thus we might say of politics what Merleau-Ponty has said of painting, that we see according to it. **Here**, I take it, **is where** the idea of **freedom** in Foucault **lies**. For Foucault, freedom is not a metaphysical condition. It does not lie in the nature of being human, nor is it a warping, an atomic swerve, in the web of causal relations in which we find ourselves. **To seek** our **freedom** in a space **apart from our encrustation in the world is not** so much **to liberate ourselves from its influence as to build our own private prison.** Foucault once said: There’s an optimism that consists in saying that things couldn’t be better. **My optimism would consist** rather **in saying that so many things can be changed**, fragile as they are, bound up more with circumstances than with necessities, more arbitrary than self-evident, **more a matter of complex, but temporary, historical circumstances than with inevitable anthropological constraints . . .8 That is where to discover our freedom.** And what happens from there? From the meetings, from the rallies, from the petitions and the teach-ins? What happens next? **There is**, after all, **always a next.** If you win this time – end aid to the contras, divest from apartheid South Africa, force debt-forgiveness by technologically advanced countries – **there is always more to do**. There is the de-unionization of workers, there are gay rights, there is Burma, there are the Palestinians, the Tibetans. There will always be Tibetans, even if they aren’t in Tibet, even if they aren’t Asian. But is that the only question: Next? Or is that just the question we focus on? What’s the next move in this campaign, what’s the next campaign? **Isn’t there more going on than that?** After all, **engaging in political organizing is a practice, or a group of practices. It contributes to making you who you are. It’s where the power is, and where your life is, and where the intersection of your life and those of others** (many of whom you will never meet, even if it’s for their sake that you’re involved) and the buildings and streets of your town **is. This moment when you are seeking to change the world, whether by making a suggestion** in a meeting **or** singing at a rally or **marching** in silence or asking for a signature on a petition, **is not a moment in which you don’t exist. It’s not a moment of yours that you sacrifice for others so that it no longer belongs to you. It remains a moment of your life**, sedimenting in you to make you what you will become, emerging out of a past that is yours as well. What will you make of it, this moment? How will you be with others, those others around you who also do not cease to exist when they begin to organize or to protest or to resist? **The illusion is to think that this has nothing to do with you. You’ve made a decision to participate in world-changing.** Will that be all there is to it? Will it seem to you a simple sacrifice, for this small period of time, of who you are for the sake of others? Are you, for this moment, a political ascetic? Asceticism like that is dangerous. **Freedom lies not in our distance from the world but in the** historically fragile and contingent **ways we are folded into it, just as we ourselves are folds of it.** If we take Merleau-Ponty’s Being not as a rigid foundation or a truth behind appearances but as the historical folding and refolding of a univocity, then **our freedom lies in the possibility of other foldings.** Merleau-Ponty is not insensitive to this point. His elusive concept of the invisible seems to gesture in this direction. Of painting, he writes: the proper essence of the visible is to have a layer of invisibility in the strict sense, which it makes present as a certain absence . . . There is that which reaches the eye directly, the frontal properties of the visible; but there is also that which reaches it from below . . . and that which reaches it from above . . . where it no longer participates in the heaviness of origins but in free accomplishments.9 Elsewhere, in The Visible and the Invisible, he says: if . . . the surface of the visible, is doubled up over its whole extension with an invisible reserve; and if, finally, in our flesh as the flesh of things, the actual, empirical, ontic visible, by a sort of folding back, invagination, or padding, exhibits a visibility, a possibility that is not the shadow of the actual but its principle . . . an interior horizon and an exterior horizon between which the actual visible is a partitioning and which, nonetheless, open indefinitely only upon other visibles . . .10 What are we to make of these references? We can, to be sure, see the hand of Heidegger in them. But we may also, and for present purposes more relevantly, see an intersection with Foucault’s work on freedom. **There is an ontology of freedom at work here,** one **that situates freedom not in the private reserve of an individual but in the unfinished character of any historical situation. There is more to our historical juncture,** as there is to a painting, **than appears to us on the surface** of its visibility. **The trick is to recognize this, and to take advantage of it, not only with our thoughts but with our lives.** And **that is why,** in the end, **there can be no such thing as a sad revolutionary. To seek to change the world is to offer a new form of life-celebration. It is to articulate a fresh way of being, which is at once a way of seeing, thinking, acting, and being acted upon. It is to fold Being once again upon itself,** this time at a new point, **to see what that might yield. There is,** as Foucault often reminds us, **no guarantee** that **this fold will not** itself **turn out to contain the intolerable. In a complex world** with which we are inescapably entwined, a world we cannot view from above or outside, **there is no certainty about the results of our experiments.** Our politics are constructed from the same vulnerability that is the stuff of our art and our daily practices. **But to refuse to experiment is to resign oneself to the intolerable; it is to abandon both the struggle to change the world and the opportunity to celebrate living within it.** And **to seek one aspect without the other – life-celebration without world-changing, world-changing without life-celebration – is to refuse to acknowledge the chiasm of body and world that is the wellspring of both.**  **If we are to celebrate our lives, if we are to change our world,** then perhaps **the best place to begin** to think **is our bodies, which are the openings to celebration and to change**, and perhaps the point at which the war within us that I spoke of earlier can be both waged and resolved. That is the fragile beauty that, in their different ways, both Merleau- Ponty and Foucault have placed before us. The question before us is whether, in our lives and in our politics, we can be worthy of it. **So how might you be a political body, woven into the fabric of the world as a celebrator and as a changer?** **You went to the meeting, and then to the demonstration. How was it there?** Were the bodies in harmony or in counterpoint? Did you sing with your feet, did your voice soar? Did your mind come alive? Did you see possibilities you had not seen before? Were there people whose words or clothes, or even the way they walked hand in hand (how long has it been since you’ve walked hand in hand with someone out in public?) offer you a possibility, or make you feel alive as well as righteous? And how about those people off to the side, the ones on the sidewalk watching? Maybe they just stared, or maybe nodded as you went past. Or maybe some of them shouted at you to stop blocking the streets with your nonsense. Did you recoil within yourself, see yourself as in a mirror, or as the person at Sartre’s keyhole who’s just been caught? Did you feel superior to them, smug in your knowledge? Or did they, too, show you something you might learn from? Are they you at another moment, a moment in the past or in the future? Are they your parents that you have not explained to, sat down beside, or just shared a meal with? That one over there, the old man slightly stooped in the long overcoat: whom does he remind you of? What message might he have unwittingly brought for you? And why does it have to be a demonstration? **You go to a few meetings, a few more demonstrations**. You write some letters to legislators. You send an email to the President. And then more meetings. The next thing you know, you’re involved in a political campaign. **By then you may have stopped asking why**. This is how it goes: demonstrations, meetings with legislators, internet contacts. Does it have to be like this? Are demonstrations and meetings your only means? **Do they become, sooner or later, not only means but ends?** And what kinds of ends? In some sense they should always be ends: a meeting is a celebration, after all. But there are other ends as well. You go to the meeting because that fulfills your obligation to your political conscience**. Does it come to that? There are other means, other ends**. Other means/ends. **Some people ride bicycles, en masse**, slowly through crowded urban streets. You want environmentalism? Then have it. The streets are beautiful with their tall corniced buildings and wide avenues. To ride a bike through these streets instead of hiding in the armor of a car would be exhilarating. If enough of you do it together it would make for a pleasant ride, as well as a little lived environmentalism. Would you want to call it a demonstration? Would it matter? There are others as well who do other things with their bodies, more dangerous things. **Some people** have gone to Palestine in order to **put their bodies between** the **Palestinians and** the **Israeli soldiers** and settlers who attack them. They lie down next to Palestinians in front of the bulldozers that would destroy homes or build a wall through a family’s olive orchard. They feel the bodies of those they are in solidarity with. They smell the soil of Palestine as they lay there. Sometimes, they are harmed by it. A young woman, Rachel Corrie, was deliberately crushed by a US bulldozer operated by an Israeli soldier as she kneeled in front of a Palestinian home, hoping to stop its demolition. To do politics with one’s body can be like this. **To resist, to celebrate, is** also **to be vulnerable.** The world that you embrace, the world of which you are a part, can kill you too. And **so you experiment. You try this and you try that.** You are a phenomenologist and a genealogist. You sense what is around you, attend to the way your body is encrusted in your political involvements. And you know that that sensing has its own history, a history that often escapes you even as it envelops you. **There is always more to what you are, and to what you are involved in, than you can know. So you try to** keep vigilant, **seek**ing **the possibilities without scorning the realities.** **It’s a difficult balance. You can neglect it** if you like. Many do. **But your body is there, woven into the fabric of all the other bodies**, animate and inanimate. **Whether you like it or not**, whether you **recognize it or not. The only question is whether you will take up the world that you are of, or leave it to others, to those others who would be more than willing to take your world up for you.**

**AT: Cap K**

**The permutation is what the alt is supposed to be - Our localized renewable energy solutions create a synthesis between indigenous understandings of planetary flows and western solar knowledge as forms of Buen Vivir – living well – and degrowth, this creates a transition to alternative development paradigms**

**Thomson 2010** [Bob, degrowth activist and writer for Climate and Capitalism, “Pachakuti: Indigenous perspectives, degrowth and ecosocialism” Oct 8th 2010 <http://www.resilience.org/stories/2010-10-08/pachakuti-indigenous-perspectives-degrowth-and-ecosocialism>]

In its efforts to exert some political influence on solutions to the current world financial and climate crises the nascent international ecosocialist movement should direct some attention to a synthesis of the western ecosocialist discourse with the growing Latin American indigenous discourse that is making exciting progress, albeit in fits and starts, toward an international charter for the protection of the planet, Mother Earth, and all forms of life on it.¶ Put less academically, **we have to talk to, learn from and support the indigenous movements which have inserted ecosocialist and degrowth like concepts into the formal constitutions of the Bolivian and Ecuadorian states**, who convened the “Peoples World Conference on Climate Change and Mother Earth’s Rights” held in Cochabamba, Bolivia from April 19-22, 2010 and who presented numerous workshops and proposals at the Fourth Americas Social Forum in Asuncion, Paraguay from August 11-15, 2010.¶ To enter this dialogue with respect, we need an introduction to this movement, which some call the “**Pachakuti”, a term taken from the Quechua “pacha”, meaning time and space or the world, and “kuti”, meaning upheaval or revolution.[1] Put together, Pachakuti can be interpreted to symbolize a re-balancing of the world through a tumultuous turn of events that could be a catastrophe or a renovation.[**2] **The main form that this indigenous perspective seems to be taking is the presentation of a “model” called “Live well, but not better”: Vivir Bien or Buen Vivir** in Spanish, Sumak Kawsay in Quechua and Suma Qamaña in Aymara.¶ The following necessarily sketchy overview of some indigenous perspectives on “buen vivir” is my modest contribution to this dialogue. I hope this may encourage others to read the texts synthesized here.¶ **Pre-colonial indigenous societies were in part organized with relationships of reciprocity and complementarity, and a respect for plurality, coexistence and equality**. To be sure, there were and still are elements of inter and intra ethnic conflict, conquest and differences over tactics, and it would be dangerous to romanticize the “noble savage” and some forms of indigenous fundamentalism[3]. Nevertheless, **indigenous societies offer us much to learn from, as they contain elements central to the degrowth** and ecosocialist movements’ **calls for a new economic, cultural, environmental and political paradigm**.¶ Following a distinct historical path from “modern” anti-capitalist struggles, **indigenous anti-colonial rebellions and victories managed to achieve certain degrees of legal, land tenure and cultural rights and autonomy in the face of exceptionally brutal colonial conquest and latterly capitalist exploitation**. Today Victor Wallis notes, it is amongst the peasants and indigenous peoples of the global South that “the most radical expressions of environmental awareness” has arisen.[4]¶ Andean and other **amerindian indigenous peoples have navigated a complex historic path as both subjects and objects**, a path in which both negotiations and armed rebellion have played a role. **Their still incomplete and inadequate victories have nevertheless preserved a historical “memory**” which Cusicanqui notes **could nourish the struggles for a new equilibrium** in Bolivia and elsewhere today.[5]¶ One of the results of these struggles, Sumak Kawsay, has been defined as “**a complex concept, non linear, historically developed and constantly under revision, which identifies as goals the satisfaction of needs, the achievement of a dignified quality of life and death, to love and be loved, the healthy flourishing of all in peace and harmony with nature, the indefinite prolongation of cultures, free time for contemplation and emancipation, and the expansion and flourishing of liberties, opportunities, capacities and potentials**.”[6]¶ **Racist western ideas,** including those of some parts of the “traditional” left, **have often portrayed indigenous cultures and their sophisticated cyclical appreciations of time, as “turning back the clock” or even barbaric**. **Yet the time has clearly come when humanity and the planet, to survive, must return to a balance based on current solar energy flows.** **We have depleted some three hundred million years of accumulated solar energy flows in the form of plant based fossil fuel stocks in less than 300 years of the industrial era. Indigenous culture and knowledge of and respect for planetary flows and cycles could be crucial to our survival. This does not mean a return to the cave as some have argued. Democratically negotiated syntheses with elements of western knowledge and science can complement indigenous knowledge in new pluralist paradigms which stop destructive western over consumption and accumulation while redistributing sustainable “income” to the heretofore exploited global south**.[7]¶ The western discourses on degrowth, steady-state economics, deep ecology, ecosocialism, climate change and others, based on an analysis of energy, entropy and economics, and to a lesser degree on their social and cultural manifestations, has generated a large volume of scientific work on historical energy flows in the development of modern capitalism and globalization which is crucial to understanding the old paradigm. Appendix C to this paper provides a sample of works which clearly show that the past several hundred years of homo industrialis, but a blip in our 200,000 year sojourn on the planet, has brought us to the brink of an environmental precipice.¶ However, **convincing northern consumers of the need for a new paradigm and new lifestyles, given the impossibility of endless growth on a limited planet, will not be an easy task.**[8] **A synthesis, of elements of sometimes overly holistic indigenous wisdom and of excessively compartmentalized western science, seems to me the a fruitful combination to provide guidance for a way out of the current crises which threaten the planet, our Mother Earth.¶** Appendix B provides a sample of references to indigenous perspectives on ecosocialism and degrowth. Below is my synthesis of a few examples of these contributions.¶ Xavier Albó , Catalan-Bolivian Jesuit and founder of CIPCA, a peasant research and education centre, looks at the Aymara roots of Good Living (Suma Qamaña) in order to help us understand it’s full meaning and potential to guide us to “the good life”.[9**] Living well but not better (than others), now a central element of Bolivia’s national development plan,[10] outlines the virtues the new Bolivia should have – respect, equality between all, solidarity, harmony, fairness, etc. – “where the search for living well predominates”.** Albó’s review of the Aymara semantic origins of “Suma Qamaña” parallels the degrowth movement’s debate over the terms “decroissance” vs “degrowth” as to their adequacy in describing the new paradigm we seek.[11]¶ Indeed, the phrase “to live well but not better” (than others, or at the cost of others) is potentially confusing in English since “well” and “better” are similar if used to denote qualitative vs quantitative meaning**. Language and culture are crucial elements if we are to convince others to understand and then follow this “dictum”**. For example, English is a language based largely on nouns, while Anishinabe languages are dominated by verbs, resulting in cultures which focus respectively on objects versus process[12], with a resultant tendency to objectivize or integrate nature.[13] This may in part explain the domination of the planet today by English dominated cultures and may make the task of undoing this domination extra difficult.¶ Bolivian historian Silvia Rivera Cusicanqui notes that, **what a western linear perception of history condemns as a “turning back of the clock”, is viewed in the Andes as the redemption of the future, a past that can yet turn the tables**.[14] **Analysing the history of indigenous rebellions and struggles over the paternalistic yet protective colonial Leyes de Indias, as well as conflicts with the traditional left earlier this century, Cusicanqui shows how indigenous autonomy is the starting point for building a new egalitarian, multi-ethnic nation**. She asks: “In a complex, multi-ethnic ‘nation’ composed of diverse societies, who should constitute the umbrella authority that would link its many segments?” and speculates on whether the coming Pachacuti will lead to catastrophe or renovation.¶ Ecuadorian ex-legislator Monica Chuji[15] contrasts the trillions of dollars allocated last year to save the world banking system to the “mere” $100 billion that would be needed to meet the UN’s millenium development goals to overcome world-wide poverty, to highlight the distance between the speeches and the realities of power. She notes how **the discourse on globalization has been constructed in a way which has narrowed the horizon of human possibilities to the coordination of markets and economic agents and points to Sumak Kawsay as the alternative to progress, development, modernity – a notion that wants to recover the harmonious relation between human beings and their surroundings, between humanity and its fellows.¶** Ecuadorian economist Pablo Davalos[16] provides a brief survey of the evolution of dependency, Marxist, world system and neo-liberal classical economics to show how we have arrived at a state of economic autism. He concludes that “**Of the alternative concepts that have been proposed, the one that presents more options within its theoretical and epistemological framework to replace the old notions of development and economic growth, is Sumak Kawsay, good living**.”¶ Ediciones MASAS provides us with a Marxist [Trotskyist?] critique of indigenous post-modernism in Bolivia’s ruling party, theMAS (Movement toward Socialism).[17] MASAS claims that post-modern proponents downplay capitalist exploitation as the central configuration of society and pose “an infinite number of identities with no socio-economic structure” over the working class and other “standard” Marxist class identities, thus weakening the class struggle (and challenging left-wing leadership of that struggle).[18]¶ The Chavez and ALBA proposal for a Fifth International[19] has been presented as an effort to bring together a wider spectrum of traditional left political parties and social movements, including indigenous movements. Miguel D’Escoto, former Sandinista Foreign Minister and President of the UN General Assembly in 2008-2009, and Brazilian liberation theologian Leonard Boff, appear to support this call, relating it to their own proposal for a Universal Declaration on the Common Good of the Earth and Humanity[20] following the UN General Assembly’s acceptance of Bolivia’s resolution on the declaration of April 22 as International Mother Earth Day.[21]¶ **The Zapatista indigenous “model” has had successes and difficulties.** It is difficult however, to find evaluations of the Zapatista’s impact on health, agriculture, education and nutrition in Chiapas fifteen years after their January 1994 rebellion. **The creation of “autonomous” zones of power in Chiapas, with parallel institutions of governance are said to have brought significant political transformation,** **but** some say **they have not yet created a viable model of economic autonomy for poor peasants.**[22] Others cite civil – military tensions in the Juntas of Good Governance as reducing local autonomy.[23] Some feel that **internal political organization has taken priority over social and economic improvements and weakened earlier efforts to reform the broader Mexican state and guarantee indigenous rights of self-determination.[24] Nevertheless, the Zapatista carcoles are models of governance which include many elements implicit in** the ecosocialist and **degrowth** paradigms and further research on these experiences is sorely needed.¶ In this regard too, the Vivir Bien “model” is not unlike the ecosocialist “model”. Much has been written about the need to downshift in the face of the economic and environmental crises, and even about how to change relations of production from capitalist modes to collectivism, reciprocity and complementarity, or how to measure gross domestic happiness or define genuine progress indicators. Not enough however has been offered to-date on what and how to produce, or what a new dynamic “equilibrium” would look like. Without more concrete examples and basic research or macro-economic models, it remains a laudable and even logical goal, but with still inadequate road maps on how to get there.[25]¶ Recent New Economics Foundation books on Growth Isn’t Possible and The Great Transition are laudable western beginnings to this task.[26] Serge Latouche points briefly to a starting place in his recommendations to reduce or eliminate negative externalities of growth such as excessive transport, obsolescence, advertising, energy conservation, drugs, disposable gadgets, his 8 Rs, etc.[27] The Climate and Capitalism web site[28] and the Ecosocialist International Network group/list on Yahoo[29] are also good sources of discussion and debate on these issues.¶ But the ecosocialist and **degrowth** movements, **as well as** the proponents of **Vivir Bien, still have much work to do to show how our new paradigm(s) would work.**¶ Appendix A – Bolivia’s Living Well, Not Better¶ [My synthesis of an 8 page document on the website of Bolivia's UN Mission].¶ Bolivia’s Living Well proposal means living a sovereign and communal life in harmony with nature, working together for our families and for society, sharing, singing, dancing, producing for the community. It means living a modest life that reduces our addiction to consumption and maintains a balanced production.¶ **The protection and preservation of balance in the natural world, including all its living beings, is a primary goal and need of our proposal. Mother nature has inherent rights to exist on the Earth in an undiminished healthy condition.¶** Faced with so much disproportion and wealth concentration in the world, so many wars and famine, Bolivia proposes Living Well, not as a way to live better at the expense of others, but an idea of Living Well based on the experience of our peoples. In the words of President Evo Morales Ayma, Living Well means living within a community, a brotherhood, and particularly completing each other, without exploiters or exploited, without people being excluded or people who exclude, without people being segregated or people who segregate.¶ Living Well is not the same as living better – because in order to live better than others, it is necessary to exploit, to embark upon serious competition, concentrating wealth in few hands. Trying to live better is selfish, and shows apathy, individualism. Some want to live better, whilst others, the majority, continue living poorly. Not taking an interest in other people’s lives, means caring only for the individual’s own life, at most in the life of their family.¶ **Within the framework of Living Well, what matters the most is not the individual. What matters the most is the community, where all the families live together. We form part of the community as the leaf forms part of the plant**. Nobody says: I will just take care of myself; I don’t care about my community. It is as preposterous as if the leaf were to tell the plant: I do not care about you, I will only take care of myself.¶ **Development has proven to be a failure**, as evidenced by the crisis of nature and the severe effects of climate change. **It is now the leading cause of global crisis and the destroyer of planet Earth,** because of the exaggerated industrialization of some countries, addicted consumerism and irresponsible exploitation of human and natural resources.¶ **Thus Living Well means** redesigning urban and non-urban living environments, **the restitution of the local, regional and national communal goods, and a quick transition toward renewable energy at a small scale, that must be oriented to the locality and owned by the local community, without hampering the natural balance, and including wind, solar, small scale hydro and wave and local biofuels, not global agrofuels**. Living Well means reallocating the trillions destined for war in order to heal Mother Earth.

**Perm Do Both**

**Degrowth solves the western development model – it is a rejection of economic rationality, creating new human identity**

**Demaria et al. 2013** [Federico Demaria is an economist working on ecological economics, political ecology and waste policy. He obtained a full scholarship and an IB certificate in the United World College of the Adriatic in 2003. François Schneider is an industrial ecologist and degrowth researcher Filka Sekulova is a PhD student at the Universitat Autònoma de Barcelona. She holds a Master's degree in Spatial, Transport and Environmental Economics from the Vrije Universiteit Amsterdam Joan Martinez Alier is a Catalan economist, Professor of Economics and Economic History and researcher at ICTA at the Autonomous University of Barcelona. “What is Degrowth? ¶ From an Activist Slogan to a Social Movement” Research & Degrowth (R&D) and Institut de Ciència i Tecnologia ¶ Ambientals (ICTA)¶ Universitat Autònoma de Barcelona (UAB) Environmental Values 22 (2013): 191–215]

This degrowth source derives from anthropology. **Authors within this current ¶ perceive degrowth as a ‘missile word’, which strikes down the hegemonic ¶ imaginary of both development and utilitarianism.** Latouche has been an important author in this stream of thought. Critics of development from the 1970s ¶ and 1980s include Arturo Escobar, Gilbert Rist, Helena Norberg-Hodge, Majid ¶ Rahnema, Wolfgang Sachs, Ashish Nandy, Shiv Visvanathan, Gustavo Esteva ¶ (Sachs 1992), François Partant, Bernard Charbonneau and Ivan Illich. **The essence of this source is the critique of the uniformisation of cultures due to the ¶ widespread adoption of particular technologies and consumption and production models experienced in the global North**. As Latouche (2009) puts it, **the ¶ western development model is a mental construct adopted by the rest of the ¶ world**. **Degrowth considers ‘sustainable development’ an oxymoron and calls for disentangling from the social imaginary that it entails, and beyond this, it ¶ criticises the notion of ‘development’ itself**. ¶ **The other face of this current in the degrowth movement is the critique of ¶ homo economicus, against utility-maximisation as the ultimate driving force ¶ of human behaviour**. This critique was inspired by Marcel Mauss in the 1920s ¶ (Mauss 2007[1924]), and Serge Latouche, Alain Caillé and other members of ¶ the MAUSS (Mouvement Anti-Utilitariste dans les Sciences Sociales) (Caillé ¶ 1989). Other authors often quoted are social and economic historian Karl ¶ Polanyi (1944) and anthropologist Marshall Sahlins (1972).¶ **The conception of human beings as economic agents driven by self-interest ¶ and utility maximisation is one representation of the world, or one historic ¶ social construct which has been meticulously nested in the minds of many generations of economics students**. **Degrowth in that sense calls for more ample ¶ visions giving importance to economic relations based on sharing, gifts and ¶ reciprocity, where social relations and conviviality are central**. **The focus here ¶ is on the change in the structure of values and the change in value-articulating ¶ institutions. Degrowth is thus a way to bring forward a new imaginary which ¶ implies a change of culture and a rediscovery of human identity which is disentangled from economic representations** (Bayon et al. 2010). Meaning of life and well-being¶ The essence of this source is the emerging need for more meaning in life (and ¶ of life) in modern societies. **It is a critique of life-styles based on the mantras ¶ of working more, earning more, selling more and buying more**. ¶ The ‘meaning of life’ source of degrowth also draws on findings in the literature on the economics of happiness. The disconnect between income increase ¶ and life satisfaction over time, a phenomenon known as the Easterlin Paradox ¶ (Easterlin 1974), as well as the association between the importance of material ¶ gains and emotional disorders (Kasser 2002), are two important references. ¶ **The movement for voluntary simplicity, reducing individual consumption ¶ while seeing simple life as liberating and profound rather than restraining and ¶ limiting is an important vision within this source**. Reference works here are ¶ Walden or Life in the Woods from Henry David Thoreau, Happy Sobriety by ¶ Pierre Rabhi, Voluntary Simplicity by Mongeau, Schumacher’s apology for ¶ enoughness and Kumarappa’s Economy of Permanence.

**The alt’s rejection of the states makes it seem stronger than it actually is. This dooms the alt to reproduce the hierarchal structures we critique.**

**Guattari and Rolnik, schitzoanalysts, revolutionaries, 1986**

**[Felix and Suely, Molecular Revolution in Brazil, p. 120-121]**

Comment: It's good that you mentioned those homosexuals who worked within the system as lawyers and succeeded in shaking it up. Here, everyone looks down on the institutional part.¶ Guattari: That's silly.¶ Comment: **They think that dealing with the institutional side is reformism, that it doesn't change anything.** As far as they're concerned, the institutions should be ignored because only one kind of thing is worthwhile, anarchism—which I question deeply**. I think it's very naive**, as you yourself say, **to ignore the state on the basis that "it's useless," or "it oppresses us," and therefore to leave it aside and try to do something totally from outside, as though it might be possible for us to destroy it like that.¶** Suely Rolnik: This malaise in relation to institutions is nothing new; on the contrary, **the feeling is particularly strong in our generation which, since the 1960s, has taken institutions as one of its main targets**. But it's true that the malaise has been especially pronounced in Brazil over the last few years, and in my view this must have to do with an absolutely objective (and obvious) fact, which is the hardness of the dictatorship to which we were subjected for so long. The rigidity of that regime is embodied in all the country's institutions, in one way or another; in fact, that constituted an important factor for the permanence of the dictatorship in power over so many years.¶ **But I think that this antiinstitutional malaise, whatever its cause, doesn't end there: the feeling that the institutions are contaminated territories, and the conclusion that nothing should be invested in them, is often the expression of a defensive role. This kind of sensation is,** in my view, **the flip side of the fascination with the institution that characterizes the "bureaucratic libido."** These two attitudes really satisfy the same need, which is to use the prevailing forms, the instituted, as the sole, exclusive parameter in the organization of oneself and of relations with the other, and thus avoid succumbing to the danger of collapse that might be brought about by any kind of change. **Those are two styles of symbiosis with the institution: either "gluey" adhesion and identification (**those who adopt this style base their identity on the "instituted"), **or else repulsion and counteridentification** (those who adopt this style base their **identity on negation of the "instituted," as if there were something "outside" the institutions, a supposed "alternative" space to this world**).¶ Seen in this light, both **"alternativism" and "bureaucratism" restrict themselves to approaching the world from the viewpoint of its forms and representations, from a molar viewpoint; they protect themselves against accessing the molecular plane, where new sensations are being produced and composed and ultimately force the creation of new forms of reality**,. They both reflect a blockage of instituting power, an impossibility of surrender to the processes of singularization, a need for conservation of the prevailing forms, a difficulty in gaining access to the molecular plane, where the new is engendered. I**t's more difficult, to perceive this in the case of "alternativism," because it involves the hallucination of a supposedly parallel world that ¶ emanates the illusion of unfettered autonomy and freedom of creation;** and just when we think we've got away from "squareness" we risk succumbing to it again, in a more disguised form. In this respect, I agree with you: the institutions aren't going to be changed by pretending that they don't exist. Nonetheless, it's necessary to add two reserves. In the first place, **it's obvious that not every social experimentation qualified by the name of "alternative" is marked by this defensive hallucination of a parallel world**. And secondly, x it's self-evident that in order to bear the harshness of an authoritarian regime there is a tendency to make believe that itdoesn't exist, so as not to have to enter into contact with sensations of frustration and powerlessness that go beyond the limit of tolerability (indeed, this is a general reaction before any traumatic experience). And in order to survive, people try in so far as possible to create other territories of life, which are often clandestine.

**Their links are a fantasy. Actual movements against Capitalism require pragmatic issues to organize around, not abstract revolutions.**

David **Harvey**, Professor of [Anthropology](http://en.wikipedia.org/wiki/Anthropology) at the Graduate Center of the City University of New York, **2010** (The Enigma of Capital, and the crises of capitalism 224-228)

The co-revolutionary theory laid out earlier would suggest **that there is no way that an anti -capitalist social order can be constructed without seizing state power, radically transforming it and reworking the constitutional and institutional framework that currently supports private property, the market system and endless capital accumulation**. Inter-state competition and geoeconomic and geopolitical struggles over everything from trade and money to questions of hegemony are also either far too significant to be left to local social movements or cast aside as too big to contemplate. How the architecture of the state-finance nexus is to be reworked, along with the pressing question of the common measure of value given by money, cannot be ignored in the quest to construct alternatives to capitalist political economy. To ignore the state and the dynamics of the inter-state system is therefore a ridiculous idea for any anti-capitalist revolutionary movement to accept. The fourth broad trend is constituted by **all the social movements that are not so much guided by any particular political philosophy or leanings but by the pragmatic need to resist displacement and dispossession (through gentrification, industrial development, dam construction, water privatisation, the dismantling of social services and public educational opportunities, or whatever). In this instance the focus on daily life in the city, town, village or wherever provides a material base for political organising against the threats that state policies and capitalist interests invariably pose to vulnerable populations.** Again, there is a vast array of social movements of this sort, some of which can become radicalised over time as they come to realise more and more that the problems are systemic rather than particular and local. The bringing-together of such social movements into alliances on the land (like the landless movement in Brazil or peasants mobilising against land and resource grabs by capitalist corporations in India) or in urban contexts (the right to the city movements in Brazil and now the United States) suggest the way may be open to create broader alliances to discuss and confront the systemic forces that underpin the particularities of gentrification, dam construction, privatisation or whatever. **Driven by pragmatism rather than by ideological preconceptions, these movements nevertheless can arrive at systemic understandings out of their own experience. To the degree that many of them exist in the same space, such as within the metropolis, they can (as supposedly happened with the factory workers in the early stages of the industrial revolution) make common cause and begin to forge, on the basis of their own experience, a consciousness of how capitalism works and what it is that might be done collectively.** This is the terrain where the figure of the 'organic intellectual' leader, made so much of in the early twentieth -century Marxist writer Antonio Gramsd's work, the autodidact who comes to understand the world first hand through bitter experiences, but shapes his or her understanding of capitalism more generally, has a great deal to say. To listen to the peasant leaders of the MST in Brazil or the leaders of the anticorporate land grab movement in India is a privileged education. **In this instance the task of the educated discontented is to magnify the subaltern voice so that attention can be paid to the circumstances of exploitation and repression and the answers that can be shaped into an anti-capitalist programme.**

**Total rejection fragments resistance –perm solves best**

J.K. **Gibson-Graham**, feminist economist, **96**, End of Capitalism

One of our goals as Marxists has been to produce a knowledge of capitalism. Yet as “that which is known,” **Capitalism has become the intimate enemy. We have uncloaked the ideologically-clothed, obscure monster, but we have installed a naked and visible monster in its place. In return for our labors of creation, the monster has robbed us of all force**. We hear – and find it easy to believe – that the left is in disarray. Part of what produces the disarray of the left is the vision of what the left is arrayed against. **When capitalism is represented as a unified system coextensive with the nation or even the world, when it is portrayed as crowding out all other economic forms, when it is allowed to define entire societies, it becomes something that can only be defeated and replaced by a mass collective movement**

(or by a process of systemic dissolution that such a movement might assist). **The revolutionary task of replacing capitalism now seems outmoded and unrealistic, yet we do not seem to have an alternative conception of class transformation to take its place.** The old political economic “systems” and “structures” that call forth a vision of revolution as systemic replacement still seem to be dominant in the Marxist political imagination. The New World Order is often represented as political fragmentation founded upon economic unification. In this vision the economy appears as the last stronghold of unity and singularity in a world of diversity and plurality. But why can’t the economy be fragmented too? If we theorized it as fragmented in the United States, we could being to see a huge state sector (incorporating a variety of forms of appropriation of surplus labor), a very large sector of self-employed and family-based producers (most noncapitalist), a huge household sector (again, quite various in terms of forms of exploitation, with some households moving towards communal or collective appropriation and others operating in a traditional mode in which one adult appropriates surplus labor from another). None of these things is easy to see. **If capitalism takes up the available social space, there’s no room for anything else. If capitalism cannot coexist, there’s no possibility of anything else. If capitalism functions as a unity, it cannot be partially or locally replaced. My intent is to help create the discursive conception under which socialist or other noncapitalist construction becomes “realistic” present activity rather than a ludicrous or utopian goal. To achieve this I must smash Capitalism and see it in a thousand pieces**. I must make its unity a fantasy, visible as a denial of diversity and change.