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### plan

#### The United States federal government should substantially ease its impediments to oil technology sharing toward Cuba.

### Spills

#### Advantage 1 is spills.

#### Drilling is inevitable in Cuba --- multiple reasons:

#### Russia is going to drill

**Vostok 4/9**

(“US concerned about intensification of Russian oil activities near Cuban coast” Dmitry Vostok, The Voice of Russia, 9 April 2014, http://voiceofrussia.com/2014\_04\_09/US-concerned-about-intensification-of-Russian-oil-activities-near-Cuban-coast-9748/)

The US is fearing Russian oil companies near the Cuban coast. According to the Houston Chronicle, the West sanctions against Russia may prompt Russia to accelerate ongoing oil and gas exploration in Cuban waters not far from Florida. The current tension in Russia-US and US-Cuban relations will also complicate a timely response to a possible environmental disaster. The Voice of Russia talked to Malcolm Graham-Wood, Founding Partner at Hydrocarbon Capital Limited. According to the Houston Chronicle, drilling in Cuban waters may pose risk for the environmental safety of the American coastline from Texas to the Florida Keys. In 2010, the Deepwater Horizon disaster killed 11 workers and caused catastrophic environmental damage in the Gulf of Mexico. BP that owned Deepwater Horizon oil rig paid $40 billion in fines and compensations. When earlier this month, the US Environmental Protection Agency approved the resumption of BP’s activities in the area, this already raised public concerns. But while BP remains under strict supervision of the US, Russian oil companies are drilling offshore in Cuban waters with no US oversight. In case of an oil spill, Cuba has only 5% of technical resources needed to respond to the disaster. Considering the US-Cuba trade embargo it will be impossible for the US to supply the needed resources in time to avert disaster. In fast-moving Cuban waters it will take the spilled oil only 10 days to reach the American coast. Russia and the giant oil companies it controls are key players in offshore exploratory drilling in Cuban waters. In particular, Russia is carrying out enhanced oil recovery operations at the at the Cuban oil field of Boca de Jaruco as part of the 25 year agreement with Cuba. Also last year, Russia’s Rosneft company signed a memo on cooperation with Cuba’s Cupet company.

#### Even if Russia doesn’t come back – several other companies will drill.

**Reuters ’13** (Jeff Franks, “Cuban oil hopes sputter as Russians give up for now on well,” 5/29/13, http://www.reuters.com/article/2013/05/29/cuba-oil-idUSL2N0EA00W20130529)//CT

Repsol, which also drilled an unsuccessful well in deep water near Havana in 2004, pulled out of Cuba, but some of the other oil partners are still around.

Petronas is continuing to conduct seismic studies in the four blocks it leases with Russian partner Gazprom and is considering another well, as is Venezuela's PDVSA, which has four blocks at Cuba's western tip, industry and diplomatic sources said.

A unit of India's Oil and Natural Gas Corp, which had a share of the Repsol wells, has two offshore blocks of its own and has been looking for a partner to drill a well.

#### Additionally, there is accessible Cuban offshore oil --- multiple surveys prove

**Piñón and Benjamin-Alvarado, 10** – Associate Director of UT at Austin Jackson School of Geoscience’s Center for International Energy and Environmental Policy (CIEEP) AND Ph. D of Political Science, University of Nebraska (Jorge R. & Jonathan, Cuba's Energy Future Strategic Approaches to Cooperation, p. 31)

Cuba will probably have little choice but to develop an energy policy that relies heavily on clean-burning natural gas as its fuel of choice for electrical power generation. Drivers of this necessity are the inevitable rationalization of the oil-refining industry in Cuba (because of its outdated technology, which is unable to process heavy crude oil), and the country’s environmentally sensitive tourist industry. Cuba’s future natural gas needs could be filled by importing liquefied natural gas (LNG) from Trinidad and Tobago, which Puerto Rico and the Dominican Republic are currently doing, or by future Venezuelan production. A regasification facility to receive Venezuelan sourced liquid natural gas is currently being planned for the southern-coast port city of Cienfuegos by Venezuela’s PDVSA and Cupet. Two one-millionton regasification trains are planned for 2012, at a cost of over $400 million. The natural gas is destined as fuel for that city’s thermoelectric power plant, local industry, and future petrochemical plants. 20 Cuba’s Deep Water: The Exclusive Economic Zone The future of Cuba’s oil and gas exploration and production sector could very well be in the deep offshore Gulf of Mexico waters along the western approaches to the Florida Strait and the eastern extension of Mexico’s Yucatán Peninsula. Cuba’s Exclusive Economic Zone (EEZ) in the Gulf of Mexico is a 46,000-square-mile area that Cupet has divided into fifty-nine exploration blocks of approximately 772 square miles each. The average ocean depth is 6,500 feet, but some blocks are as deep as 13,000 feet. 21 Geography of Oil in the Gulf of Mexico The EEZ lies between Mexico, Cuba, and the United States, within demarcation boundaries agreed to in 1977. The northernmost of the blocks lies south of the Dry Tortugas, off Florida’s southwest coast. The northwesternmost blocks are situated next to the Gulf of Mexico’s eastern gap, a sizable portion of the eastern Gulf, west of the Florida EEZ and north of the Cuban EEZ, for which economic exclusivity rights have not been negotiated, and 100 kilometers from the southernmost limit of acreage, offered as lease 181 by the U.S. Mineral Management Services, on the outer continental shelf off Florida’s west coast. Although the maritime boundary agreement between Cuba and the United States has been submitted to the U.S. Senate, for political reasons— not because of any objection in the boundary itself— it has not been ratified by that body. Cuba and the United States have since agreed to provisional application of the agreement, pending ratification, by exchanging agreement notes every two years that extend the provisional application of the agreement. The demarcation of the Gulf of Mexico’s eastern gap itself, which will include Cuba, Mexico, and the United States, is still open for negotiation, and awaits improvements in the diplomatic relations between Washington and Havana. A February 2005 U.S. Geological Survey report, “Assessment of Undiscovered Oil and Gas Resources of the North Cuba Basin 2004,” estimates a mean of 4.6 billion barrels of undiscovered oil and a mean of 9.8 trillion cubic feet of undiscovered natural gas along Cuba’s North Belt Thrust. The high-end potential of the North Cuba Basin could be 9.3 billion barrels of undiscovered oil and of 21.8 trillion cubic feet of undiscovered natural gas, according to the report. 23 If these undiscovered reserves are certified as recoverable, they will rank Cuba among major Latin American oil producers and exporters such as Colombia and Ecuador. Industry experts have categorized Cuba’s EEZ as high risk from the technical geosciences standpoint— there might not be any oil or gas there— but some reports indicate that some hydrocarbon potential might exist. Meanwhile, Cuban government sources estimate the potential of the whole EEZ at an optimistic 20 billion barrels of undiscovered reserves. 24 This figure includes the 5 billion barrels that the U.S. Geological Survey estimates in the Cuba North Belt Thrust, and an additional 15 billion barrels of undiscovered reserves in the North Cuba Foreland Basin, the Florida and Campeche escarpments, on the shelf margin of the Florida Platform, and in the Gulf of Mexico Sigsbee Basin. Very little seismic work and exploratory drilling have been done outside of North Cuba’s Fold and Thrust Belt, the North Cuba Foreland Basin, and the U.S. Geological Survey’s Florida Platform Margin Carbonate assessments units (AUs). 25 This can be interpreted as meaning that there is a high likelihood of oil and gas in Cuba’s offshore reserves. Moreover, a basic analysis of the geological formations by Cuban analysts suggest that the potential for additional reserves is likely. In most experts’ opinion, a lot of exploratory work has yet to be done to substantiate the high-end estimates put forth by Cuban geologists, regardless of the technical soundness of the data presented in support of their estimate.

#### Likelihood of a devastating oil spill is high in the status quo -

#### First, prevention severely weakened because companies operating in Cuba cannot use the US capping equipment, which is key to prevent a spill -- US tech is the ONLY way to safely drill --- all countries rely on the tech and will default to second-tier parts absent the plan.

**Davenport 11** (Coral, National Journal, “Drill, Bebe, Drill,” 7/28, [http://www.nationaljournal.com/magazine/will-sloppy-drilling-off-the-coast-of-cuba-threaten-florida-gulf-beaches--20110728)//HA](http://www.nationaljournal.com/magazine/will-sloppy-drilling-off-the-coast-of-cuba-threaten-florida-gulf-beaches--20110728%29//HA)

Cuba is about to drill for offshore oil with “second-tier parts” because of the trade embargo. That’s not good news for U.S. beaches. Sometime over the next three months, if all goes according to plan, Cuban workers on a Chinese-built, Spanish-owned rig will start drilling for oil in the mile-deep waters just off the north coast of Cuba, 70 miles from the Florida Keys. If the drill hits a major oil deposit—and all geologic signs indicate it will—the discovery will unleash a cascade of developments with profound political, environmental, and economic consequences. From National Journal: Activists Call for a Fair Debt Deal DeMint Wants to Change Business as Usual Debt Showdown is Damaging the Economy GRAPHIC: GOPers on Hot-Button Issues The Cuban government has long wanted to extract the rich reserves of oil and natural gas believed to lie off its shores. Estimates for oil range from 5 billion to 20 billion barrels, while the estimate for natural gas is 8.6 billion cubic feet. Unlocking that oil could jump-start a nascent Cuban offshore-oil industry—and free the island nation from its energy and political dependence on Venezuela, from which it imports 60 percent of its oil today. A newfound independence from its socialist neighbor and its mercurial president, Hugo Chavez—coming at a time when the Cuban leadership is facing change with the eventual demise of Fidel Castro—is an appealing prospect to the United States. But the potential of a closer relationship with Cuba comes with a terrifying specter: An oil blowout in Cuban waters could reprise the nightmare that was last year’s Gulf of Mexico oil spill, and send crude spewing to the beaches of Florida, Georgia, and South Carolina. And the likelihood for such a disaster is very real, say oil industry experts, thanks in part to Washington’s 49-year-old embargo on Cuba. Because of the embargo, U.S. companies cannot drill in Cuba, supply equipment to Cuba, have any say over safety regulations in Cuba, or even take part in helping control a blowout and spill in Cuba. As the island prepares to begin offshore drilling, it has signed contracts with oil companies from Brazil, India, Italy, Russia, and Spain—and is in talks to lease major portions of its coastal water to Chinese companies (continuing China’s pattern of pursuing oil exploration in countries where U.S. drillers aren’t welcome). Under the embargo’s terms, the oil drilling and safety equipment used by those companies must be less than 10 percent U.S.-made. But all of the most technologically advanced equipment for drilling and preventing or stopping oil spills is made in the United States or by U.S. companies. “There are not international suppliers of this level of equipment. They will have to buy copycat or second-tier parts,” Lee Hunter, president of the Houston-based International Association of Drilling Contractors, told National Journal. Hunter and other experts say that, to date, it appears that the Cuban government, fearful of the devastation an oil spill could wreak on its economy, wants to use the lessons learned from the BP oil disaster to develop a rigorous safety and oversight program. But it will be nearly impossible for drillers in Cuba’s waters to legally use the safest equipment. “The Cubans want to use good technology; they want to drill safely,” Hunter said. “But … their ability to drill safely is extremely compromised.” Also deeply compromised is their ability to respond to a disaster should it occur. Even if oil from a Cuban spill laps at Florida’s shores, the U.S. agencies and oil companies that have all-too-hard-won expertise in wrestling a spill—the Coast Guard, the Federal Emergency Management Agency, and the Interior Department—would be banned from crossing into Cuban waters to help. And experts say that the Cuban oil industry and government don’t yet have a fraction of the resources and expertise they would need to deal with such an event on their own.

#### Second, current impediments to US-Cuban oil cooperation destroy spill response – two reasons:

#### a) Technology - Absent changes in US policy the Coast Guard and US Companies can’t use expertise and specially designed equipment --- existing licenses don’t solve

(booms, skimming equipment and vessels, and dispersants), well-capping stacks and submersibles

**Bert and Clayton** ’12 – Captain of the US Coast Guard/military fellow (U.S. Coast Guard) at the Council on Foreign Relations and a fellow for energy and national security at the Council on Foreign Relations (Captain Melissa and Blake, “Addressing the Risk of a Cuban Oil Spill,” Policy Innovation Memo 15, *Council on Foreign Relations*, http://www.cfr.org/cuba/addressing-risk-cuban-oil-spill/p27515)//CT

An oil well blowout in Cuban waters would almost certainly require a U.S. response. Without changes in current U.S. law, however, that response would undoubtedly come far more slowly than is desirable. The Coast Guard would be barred from deploying highly experienced manpower, specially designed booms, skimming equipment and vessels, and dispersants. U.S. offshore gas and oil companies would also be barred from using well-capping stacks, remotely operated submersibles, and other vital technologies. Although a handful of U.S. spill responders hold licenses to work with Repsol, their licenses do not extend to well capping or relief drilling. The result of a slow response to a Cuban oil spill would be greater, perhaps catastrophic, economic and environmental damage to Florida and the Southeast.

#### b) Transparency - Even if limited licenses already granted, lack of transparency thwarts fast response.

**Peterson, Whittle, and Rader, ’12** – Assoc. at California Environmental Associates, Environmental Defense Fund's Cuba program director, and (Emily A., Daniel J., and Douglas N., “Bridging the Gulf Finding Common Ground on Environmental and Safety Preparedness for Offshore Oil and Gas in Cuba,” Environmental Defense Fund, http://www.macfound.org/media/article\_pdfs/Bridging\_the\_Gulf.pdf)//HA/CT

Under current U.S. law, American companies must obtain licenses and approvals from the U.S. Treasury Department and the U.S. Commerce Department in order to provide assistance in Cuba with equipment or personnel during a spill in Cuban waters. How many companies are licensed is not a public record, but many observers believe that licensed capacity is not yet sufficient to independently respond to a major spill in Cuban waters. In the case of the Deepwater Horizon spill, for instance, 52 contractors were involved in incident response and 7,278 contract personnel provided services at the peak of the response effort. 56 In a Senate testimony in October 2011, Paul Schuler, president of Clean Caribbean and Americas—which is one of the contractors authorized by the Department of Treasury to supply pre-approved equipment for a spill in Cuba—stated that “loosening up” the licensing process could make more U.S. companies and resources available if needed for a significant spill in Cuba. 57 Without immediate access to a full range of U.S. resources and technology, international oil companies operating in Cuba might have to rely on supplies and expertise from Europe or Asia, which could cost precious time during an event in which time is of paramount urgency. 58 Thus, there is a real need to guarantee that sufficient resources are at the ready in order to ensure response is carried out in a timely and effective manner. Estimates indicate that the fastest timeframe in which response equipment could be mobilized from U.S. sources in the Gulf of Mexico is approximately 14 days. 59 A more efficient and proactive federal licensing process might help condense this timeframe and expedite response efforts. The Coast Guard notes that it holds general licenses from the Department of the Treasury and the Department of Commerce that would permit the agency to marshal private U.S. resources and personnel needed for mounting a full-scale response to an oil disaster that threatens the U.S. EEZ. 60 These licenses—which have not been made available for public review—apparently would allow the Coast Guard to take action in the Cuban EEZ if necessary and to bring non-licensed U.S. companies to operate under the agency’s direction in Cuban waters. While these licenses represent a positive step forward, the precise nature and scope of authority granted to the Coast Guard and to the private companies it chooses to deploy in the event of an emergency remain unclear.

It also bears emphasizing here that this general license notwithstanding, the U.S. Coast Guard and any private companies it recruits would not be authorized to enter into or operate in Cuban waters without permission from the Cuban government. Thus, as discussed below, an explicit agreement between the United States and Cuba is needed to provide this authority and to set forth the terms of any joint U.S.-Cuban oil spill response in Cuban waters. 61 Given their broad nature, the Coast Guard’s licenses would be applicable during a catastrophic spill—i.e. on the magnitude of the Deepwater Horizon incident—for which the limited list of pre-approved U.S. private contractors is insufficient to combat the spill and protect U.S. resources. The Coast Guard has used inter-agency tabletop exercises to coordinate broadly with contractors on general spill preparedness throughout the Western Caribbean. 62 Although the Coast Guard holds access to a database of resources that U.S. contractors could provide in the event of an international spill, it has not specifically collaborated with licensed and nonlicensed contractors to codify a communications and resource mobilization protocol for a potential spill in Cuban waters.

#### It will destroy Cuban AND US ecosystems.

**Peterson, Whittle, and Rader, ’12** – Assoc. at California Environmental Associates, Environmental Defense Fund's Cuba program director, and (Emily A., Daniel J., and Douglas N., “Bridging the Gulf Finding Common Ground on Environmental and Safety Preparedness for Offshore Oil and Gas in Cuba,” Environmental Defense Fund, http://www.macfound.org/media/article\_pdfs/Bridging\_the\_Gulf.pdf

Shared environmental resources at risk If a spill were to occur in Cuban waters, marine and coastal resources of the United States, Cuba, and the Bahamas could be placed at significant risk. Fisheries, coastal tourism, recreation, and other natural resources-based enterprises and activities in the region could experience adverse impacts on the scale of weeks to years, or even decades. Multiple factors—including the type and amount of oil spilled, the environment in which the oil spilled, and prevailing weather and ocean current conditions—would play key factors in determining the extent and gravity of a spill’s impact.45 In Cuba, marine and coastal habitats could suffer substantial long-term harm which could degrade, in turn, entire populations and habitats downstream in the U.S. Gulf of Mexico. According to Dr. John W. Tunnell, Jr., associate director of the Harte Research Institute and an expert on the Gulf of Mexico marine environment, the primary three habitats at risk on Cuba’s North Coast near the area where exploration is occurring are coral reefs, seagrass beds, and lush mangrove forests.46 These habitats are found throughout the region, but in greatest abundance in the Archipelago Sabana-Camaguey and the Archipelago Los Colorados, where they provide breeding, nursery, and feeding habitats for commercial fish species, including grouper, snapper, and grunts. If chemical dispersants were used as part of the clean-up effort, they could reduce impacts on fauna for which oiling per se is the greatest threat (e.g. birds) but also add additional toxicity, as well as alter the transport and ecological fate of oil constituents moving through the water column and then into the air or back towards the bottom. Dispersed oil could have greater deleterious effect on Cuba’s coral reefs, which are fragile, slow-growing, and have low resilience to physical and chemical stresses.47 Like salt marshes, coastal mangrove swamps are also difficult to clean up in the aftermath of an oil spill, and mangroves can die within a week to several months as a result of oil exposure.48 Reduced from their formerly healthy, vibrant state, such important habitats could lose their ability to support the fisheries and marine life that depend on them. Oil toxicity and physical contamination can also have profound effects on individual organisms. The news media often draw attention to charismatic marine life, such as dolphins and sea turtles, which are closer to shore and can experience heavy oil coating during a spill. However, less visible organisms such as surface-floating larvae, mid-depth “scattering layer” organisms, and benthic organisms- including coral reefs, but also soft-sediment communities- are equally, if not more, vulnerable. A significant spill in Cuba’s waters could impact larval populations of lobster, grouper, snapper, and other reef fishes that traditionally mature in the waters of the U.S. Gulf of Mexico and south Atlantic, as well as those that have key spawning grounds in the Gulf itself (including Atlantic Bluefin tuna). The ecological linkages between Cuba and the United States are brought into clear focus when considering the environmental resources that would be at stake in those two countries in the event of a spill. In the same way that Cuban officials expressed serious concern about potential impacts to Cuban waters from the BP Deepwater Horizon spill, Floridians are deeply worried about potential damages to their communities and natural environment. Migratory species that normally travel freely between Cuban and U.S. territory — including bluefin tuna, whale sharks, and birds along the East Coast flyaway — could suffer from oil exposure during a significant spill incident. One problematic limitation in evaluating natural resources at risk in Cuba’s waters—and the subsequent risk to the U.S. environment—is the lack of sufficient baseline scientific knowledge. Detailed geological and environmental conditions are not fully understood in many parts of the Caribbean. 49 For example, petroleum-eating microbes exist in high concentrations in the U.S. Gulf of Mexico and may help mitigate environmental damages during spills and natural seepages, although the ecological cascades unleashed by altered biomass, dissolved oxygen, and acidification patterns remain unknown. It is not known if such oil-eating bacteria also exist in substantial numbers in Cuban waters and would possibly modulate damages to natural resources there.

#### AND, dispersants must be used within 4 days to be effective – key to technical response.

**Bert and Clayton ’12** – Captain of the US Coast Guard/military fellow (U.S. Coast Guard) at the Council on Foreign Relations and a fellow for energy and national security at the Council on Foreign Relations (Captain Melissa and Blake, “Addressing the Risk of a Cuban Oil Spill,” Policy Innovation Memo 15, *Council on Foreign Relations*, http://www.cfr.org/cuba/addressing-risk-cuban-oil-spill/p27515)//CT

Deepwater drilling off the Cuban coast also poses a threat to the United States. The exploratory well is seventy miles off the Florida coast and lies at a depth of 5,800 feet. The failed Macondo well that triggered the calamitous Deepwater Horizon oil spill in April 2010 had broadly similar features, situated forty-eight miles from shore and approximately five thousand feet below sea level. A spill off Florida's coast could ravage the state's $57 billion per year tourism industry. Washington cannot count on the technical know-how of Cuba's unseasoned oil industry to address a spill on its own. Oil industry experts doubt that it has a strong understanding of how to prevent an offshore oil spill or stem a deep-water well blowout. Moreover, the site where the first wells will be drilled is a tough one for even seasoned response teams to operate in. Unlike the calm Gulf of Mexico, the surface currents in the area where Repsol will be drilling move at a brisk three to four knots, which would bring oil from Cuba's offshore wells to the Florida coast within six to ten days. Skimming or burning the oil may not be feasible in such fast-moving water. The most, and possibly only, effective method to respond to a spill would be surface and subsurface dispersants. If dispersants are not applied close to the source within four days after a spill, uncontained oil cannot be dispersed, burnt, or skimmed, which would render standard response technologies like containment booms ineffective.

#### Cuba is key to regional marine biodiversity – a collapse spills over

**Almeida ‘12**

Rob Almeida is Partner/CMO at gCaptain. He graduated from the US Naval Academy in 1999 with a B.S in Naval Architecture and spent 6.5 years on active duty as a Surface Warfare Officer. He worked for a year as a Roughneck/Rig Manager trainee on board the drillship Discoverer Americas. May 18th – http://gcaptain.com/drilling-cuba-embargo-badly/

In short however, Cuba’s access to containment systems, offshore technology, and spill response equipment is severely restricted by the US embargo, yet if a disaster occurs offshore, not only will Cuban ecosystems be severely impacted, but those of the Florida Keys, and US East Coast.¶ If disaster strikes offshore Cuba, US citizens will have nobody else to blame except the US Government because outdated policies are impacting the ability to prepare sufficiently for real-life environmental threats. Considering Cuba waters are home to the highest concentration of biodiversity in the region and is a spawning ground for fish populations that migrate north into US waters, a Cuban oil spill could inflict unprecedented environmental devastation if not planned for in advance.

#### Marine biodiversity hotspots key

**Mittermeier ‘11**

(et al, Dr. Russell Alan Mittermeier is a primatologist, herpetologist and biological anthropologist. He holds Ph.D. from Harvard in Biological Anthropology and serves as an Adjunct Professor at the State University of New York at Stony Brook. He has conducted fieldwork for over 30 years on three continents and in more than 20 countries in mainly tropical locations. He is the President of Conservation International and he is considered an expert on biological diversity. Mittermeier has formally discovered several monkey species. From Chapter One of the book Biodiversity Hotspots – F.E. Zachos and J.C. Habel (eds.), DOI 10.1007/978-3-642-20992-5\_1, # Springer-Verlag Berlin Heidelberg 2011. This evidence also internally references Norman Myers, a very famous British environmentalist specialising in biodiversity. available at: http://www.academia.edu/1536096/Global\_biodiversity\_conservation\_the\_critical\_role\_of\_hotspots)

Extinction is the gravest consequence of the biodiversity crisis, since it is¶ irreversible. Human activities have elevated the rate of species extinctions to a¶ thousand or more times the natural background rate (Pimm et al. 1995). What are the¶ consequences of this loss? Most obvious among them may be the lost opportunity¶ for future resource use. Scientists have discovered a mere fraction of Earth’s species¶ (perhaps fewer than 10%, or even 1%) and understood the biology of even fewer¶ (Novotny et al. 2002). As species vanish, so too does the health security of every¶ human. Earth’s species are a vast genetic storehouse that may harbor a cure for¶ cancer, malaria, or the next new pathogen – cures waiting to be discovered.¶ Compounds initially derived from wild species account for more than half of all¶ commercial medicines – even more in developing nations (Chivian and Bernstein¶ 2008). Natural forms, processes, and ecosystems provide blueprints and inspiration¶ for a growing array of new materials, energy sources, hi-tech devices, and¶ other innovations (Benyus 2009). The current loss of species has been compared¶ to burning down the world’s libraries without knowing the content of 90% or¶ more of the books. With loss of species, we lose the ultimate source of our crops¶ and the genes we use to improve agricultural resilience, the inspiration for¶ manufactured products, and the basis of the structure and function of the ecosystems¶ that support humans and all life on Earth (McNeely et al. 2009). Above and beyond¶ material welfare and livelihoods, biodiversity contributes to security, resiliency,¶ and freedom of choices and actions (Millennium Ecosystem Assessment 2005).¶ Less tangible, but no less important, are the cultural, spiritual, and moral costs¶ inflicted by species extinctions. All societies value species for their own sake,¶ and wild plants and animals are integral to the fabric of all the world’s cultures¶ (Wilson 1984). The road to extinction is made even more perilous to people by the loss of the broader ecosystems that underpin our livelihoods, communities, and economies(McNeely et al.2009). The loss of coastal wetlands and mangrove forests, for example, greatly exacerbates both human mortality and economic damage from tropical cyclones (Costanza et al.2008; Das and Vincent2009), while disease outbreaks such as the 2003 emergence of Severe Acute Respiratory Syndrome in East Asia have been directly connected to trade in wildlife for human consumption(Guan et al.2003). Other consequences of biodiversity loss, more subtle but equally damaging, include the deterioration of Earth’s natural capital. Loss of biodiversity on land in the past decade alone is estimated to be costing the global economy $500 billion annually (TEEB2009). Reduced diversity may also reduce resilience of ecosystems and the human communities that depend on them. For example, more diverse coral reef communities have been found to suffer less from the diseases that plague degraded reefs elsewhere (Raymundo et al.2009). As Earth’s climate changes, the roles of species and ecosystems will only increase in their importance to humanity (Turner et al.2009).¶ In many respects, conservation is local. People generally care more about the biodiversity in the place in which they live. They also depend upon these ecosystems the most – and, broadly speaking, it is these areas over which they have the most control. Furthermore, we believe that all biodiversity is important and that every nation, every region, and every community should do everything possible to conserve their living resources. So, what is the importance of setting global priorities? Extinction is a global phenomenon, with impacts far beyond nearby administrative borders. More practically, biodiversity, the threats to it, and the ability of countries to pay for its conservation vary around the world. The vast majority of the global conservation budget – perhaps 90% – originates in and is spent in economically wealthy countries (James et al.1999). It is thus critical that those globally ﬂexible funds available – in the hundreds of millions annually – be guided by systematic priorities if we are to move deliberately toward a global goal of reducing biodiversity loss.¶ The establishment of priorities for biodiversity conservation is complex, but can be framed as a single question. Given the choice, where should action toward reducing the loss of biodiversity be implemented ﬁrst? The ﬁeld of conservation planning addresses this question and revolves around a framework of vulnerability and irreplaceability (Margules and Pressey2000). Vulnerability measures the risk to the species present in a region – if the species and ecosystems that are highly threatened are not protected now, we will not get another chance in the future. Irreplaceability measures the extent to which spatial substitutes exist for securing biodiversity. The number of species alone is an inadequate indication of conserva-tion priority because several areas can share the same species. In contrast, areas with high levels of endemism are irreplaceable. We must conserve these places because the unique species they contain cannot be saved elsewhere. Put another way, biodiversity is not evenly distributed on our planet. It is heavily concentrated in certain areas, these areas have exceptionally high concentrations of endemic species found nowhere else, and many (but not all) of these areas are the areas at greatest risk of disappearing because of heavy human impact.¶ Myers’ seminal paper (Myers1988) was the ﬁrst application of the principles of irreplaceability and vulnerability to guide conservation planning on a global scale. Myers described ten tropical forest “hotspots” on the basis of extraordinary plant endemism and high levels of habitat loss, albeit without quantitative criteria for the designation of “hotspot” status. A subsequent analysis added eight additional hotspots, including four from Mediterranean-type ecosystems (Myers 1990).After adopting hotspots as an institutional blueprint in 1989, Conservation Interna-tional worked with Myers in a ﬁrst systematic update of the hotspots. It introduced two strict quantitative criteria: to qualify as a hotspot, a region had to contain at least 1,500 vascular plants as endemics (¶ >¶ 0.5% of the world’s total), and it had to have 30% or less of its original vegetation (extent of historical habitat cover)remaining. These efforts culminated in an extensive global review (Mittermeier et al.1999) and scientiﬁc publication (Myers et al.2000) that introduced seven new hotspots on the basis of both the better-deﬁned criteria and new data. A second systematic update (Mittermeier et al.2004) did not change the criteria, but revisited the set of hotspots based on new data on the distribution of species and threats, as well as genuine changes in the threat status of these regions. That update redeﬁned several hotspots, such as the Eastern Afromontane region, and added several others that were suspected hotspots but for which sufﬁcient data either did not exist or were not accessible to conservation scientists outside of those regions. Sadly, it uncovered another region – the East Melanesian Islands – which rapid habitat destruction had in a short period of time transformed from a biodiverse region that failed to meet the “less than 30% of original vegetation remaining” criterion to a genuine hotspot.

#### Biodiversity loss causes extinction

**Coyne and Hoekstra, 07 -** \*professor in the Department of Ecology and Evolution at the University of Chicago AND \*\* Associate Professor in the Department of Organismic and Evolutionary Biology at Harvard University (Jerry and Hopi, The New Republic, “The Greatest Dying,” 9/24, http://www.truthout.org/article/jerry-coyne-and-hopi-e-hoekstra-the-greatest-dying)

Aside from the Great Dying, there have been four other mass extinctions, all of which severely pruned life's diversity. Scientists agree that we're now in the midst of a sixth such episode. This new one, however, is different - and, in many ways, much worse. For, unlike earlier extinctions, this one results from the work of a single species, Homo sapiens.We are relentlessly taking over the planet, laying it to waste and eliminating most of our fellow species. Moreover, we're doing it much faster than the mass extinctions that came before. Every year, up to 30,000 species disappear due to human activity alone. At this rate, we could lose half of Earth's species in this century. And, unlike with previous extinctions, there's no hope that biodiversity will ever recover, since the cause of the decimation - us - is here to stay.     To scientists, this is an unparalleled calamity, far more severe than global warming, which is, after all, only one of many threats to biodiversity. Yet global warming gets far more press. Why? One reason is that, while the increase in temperature is easy to document, the decrease of species is not. Biologists don't know, for example, exactly how many species exist on Earth. Estimates range widely, from three million to more than 50 million, and that doesn't count microbes, critical (albeit invisible) components of ecosystems. We're not certain about the rate of extinction, either; how could we be, since the vast majority of species have yet to be described? We're even less sure how the loss of some species will affect the ecosystems in which they're embedded, since the intricate connection between organisms means that the loss of a single species can ramify unpredictably.     But we do know some things. Tropical rainforests are disappearing at a rate of 2 percent per year. Populations of most large fish are down to only 10 percent of what they were in 1950. Many primates and all the great apes - our closest relatives - are nearly gone from the wild.     And we know that extinction and global warming act synergistically. Extinction exacerbates global warming: By burning rainforests, we're not only polluting the atmosphere with carbon dioxide (a major greenhouse gas) but destroying the very plants that can remove this gas from the air. Conversely, global warming increases extinction, both directly (killing corals) and indirectly (destroying the habitats of Arctic and Antarctic animals). As extinction increases, then, so does global warming, which in turn causes more extinction - and so on, into a downward spiral of destruction.     Why, exactly, should we care? Let's start with the most celebrated case: the rainforests. Their loss will worsen global warming - raising temperatures, melting icecaps, and flooding coastal cities. And, as the forest habitat shrinks, so begins the inevitable contact between organisms that have not evolved together, a scenario played out many times, and one that is never good. Dreadful diseases have successfully jumped species boundaries, with humans as prime recipients. We have gotten aids from apes, sars from civets, and Ebola from fruit bats. Additional worldwide plagues from unknown microbes are a very real possibility.     But it isn't just the destruction of the rainforests that should trouble us. Healthy ecosystems the world over provide hidden services like waste disposal, nutrient cycling, soil formation, water purification, and oxygen production. Such services are best rendered by ecosystems that are diverse. Yet, through both intention and accident, humans have introduced exotic species that turn biodiversity into monoculture. Fast-growing zebra mussels, for example, have outcompeted more than 15 species of native mussels in North America's Great Lakes and have damaged harbors and water-treatment plants. Native prairies are becoming dominated by single species (often genetically homogenous) of corn or wheat. Thanks to these developments, soils will erode and become unproductive - which, along with temperature change, will diminish agricultural yields. Meanwhile,with increased pollution and runoff, as well as reduced forest cover, ecosystems will no longer be able to purify water; and a shortage of clean water spells disaster.     In many ways, oceans are the most vulnerable areas of all. As overfishing eliminates major predators, while polluted and warming waters kill off phytoplankton, the intricate aquatic food web could collapse from both sides. Fish, on which so many humans depend, will be a fond memory. As phytoplankton vanish, so does the ability of the oceans to absorb carbon dioxide and produce oxygen. (Half of the oxygen we breathe is made by phytoplankton, with the rest coming from land plants.) Species extinction is also imperiling coral reefs - a major problem since these reefs have far more than recreational value: They provide tremendous amounts of food for human populations and buffer coastlines against erosion.     In fact, the global value of "hidden" services provided by ecosystems - those services, like waste disposal, that aren't bought and sold in the marketplace - has been estimated to be as much as $50 trillion per year, roughly equal to the gross domestic product of all countries combined. And that doesn't include tangible goods like fish and timber. Life as we know it would be impossible if ecosystems collapsed. Yet that is where we're heading if species extinction continues at its current pace.     Extinction also has a huge impact on medicine. Who really cares if, say, a worm in the remote swamps of French Guiana goes extinct? Well, those who suffer from cardiovascular disease. The recent discovery of a rare South American leech has led to the isolation of a powerful enzyme that, unlike other anticoagulants, not only prevents blood from clotting but also dissolves existing clots. And it's not just this one species of worm: Its wriggly relatives have evolved other biomedically valuable proteins, including antistatin (a potential anticancer agent), decorsin and ornatin (platelet aggregation inhibitors), and hirudin (another anticoagulant).     Plants, too, are pharmaceutical gold mines. The bark of trees, for example, has given us quinine (the first cure for malaria), taxol (a drug highly effective against ovarian and breast cancer), and aspirin. More than a quarter of the medicines on our pharmacy shelves were originally derived from plants. The sap of the Madagascar periwinkle contains more than 70 useful alkaloids, including vincristine, a powerful anticancer drug that saved the life of one of our friends.     Of the roughly 250,000 plant species on Earth, fewer than 5 percent have been screened for pharmaceutical properties. Who knows what life-saving drugs remain to be discovered? Given current extinction rates, it's estimated that we're losing one valuable drug every two years.     Our arguments so far have tacitly assumed that species are worth saving only in proportion to their economic value and their effects on our quality of life, an attitude that is strongly ingrained, especially in Americans. That is why conservationists always base their case on an economic calculus. But we biologists know in our hearts that there are deeper and equally compelling reasons to worry about the loss of biodiversity: namely, simple morality and intellectual values that transcend pecuniary interests. What, for example, gives us the right to destroy other creatures? And what could be more thrilling than looking around us, seeing that we are surrounded by our evolutionary cousins, and realizing that we all got here by the same simple process of natural selection? To biologists, and potentially everyone else, apprehending the genetic kinship and common origin of all species is a spiritual experience - not necessarily religious, but spiritual nonetheless, for it stirs the soul.     But, whether or not one is moved by such concerns, it is certain that our future is bleak if we do nothing to stem this sixth extinction. We are creating a world in which exotic diseases flourish but natural medicinal cures are lost; a world in which carbon waste accumulates while food sources dwindle; a world of sweltering heat, failing crops, and impure water. In the end, we must accept the possibility that we ourselves are not immune to extinction. Or, if we survive, perhaps only a few of us will remain, scratching out a grubby existence on a devastated planet. Global warming will seem like a secondary problem when humanity finally faces the consequences of what we have done to nature: not just another Great Dying, but perhaps the greatest dying of them all.

#### Academic debate over energy policy in the face of environmental destruction is critical to shape the direction of change and create a public consciousness shift---action now is key

**Crist 4** (Eileen, Professor at Virginia Tech in the Department of Science and Technology, “Against the social construction of nature and wilderness”, Environmental Ethics 26;1, p 13-6, http://www.sts.vt.edu/faculty/crist/againstsocialconstruction.pdf)

Yet, constructivist analyses of "nature" favor remaining in the comfort zone of **zestless agnosticism** and **noncommittal meta-discourse**. As David Kidner suggests, this intellectual stance may function as a mechanism against facing the devastation of the biosphere—an undertaking long underway but gathering momentum with the imminent bottlenecking of a triumphant global consumerism and unprecedented population levels. Human-driven extinction—in the ballpark of Wilson's estimated 27,000 species per year—is so unthinkable a fact that choosing to ignore it may well be the psychologically risk-free option.¶ **Nevertheless, this is the** opportune **historical** moment **for** intellectuals in the humanities and social sciences **to join forces with** conservation **scientists** in order **to** help **create the consciousness shift and** policy changes **to stop this irreversible destruction. Given this outlook, how** students in the human sciences **are** trained **to regard scientific knowledge, and what kind of** messages percolate to the public from the academy **about the nature of scientific findings,** matter immensely. The "agnostic stance" of constructivism toward "scientific claims" about the environment—a stance supposedly mandatory for discerning how scientific knowledge is "socially assembled"[32]—is, to borrow a legendary one-liner, **striving to interpret the world at an hour that is pressingly calling us to change it.**

#### The state is inevitable and an indispensable part of the solution to ecological damage

**Eckersley 4** Robyn, Reader/Associate Professor in the Department of Political Science at the University of Melbourne, “The Green State: Rethinking Democracy and Sovereignty”, MIT Press, 2004, Google Books, pp. 3-8

While acknowledging the basis for this antipathy toward the nation- state, and the limitations of state-centric analyses of global ecological degradation, I seek to draw attention to the positive role that states have played, and might increasingly play, in global and domestic politics. Writing more than twenty years ago, Hedley Bull (a proto-constructivist and leading writer in the English school) outlined the state's positive role in world affairs, and his arguments continue to provide a powerful challenge to those who somehow seek to "get beyond the state," as if such a move would provide a more lasting solution to the threat of armed conflict or nuclear war, social and economic injustice, or environmental degradation.10 As Bull argued, **given that the state is here to stay whether we like it or not**, then the call to get "beyond the state is a counsel of despair, at all events if it means that we have to begin by abolishing or subverting the state, rather than that there is a need to build upon it.""¶ In any event, rejecting the "statist frame" of world politics ought not prohibit an inquiry into the emancipatory potential of the **state as a crucial "node" in any future network of global ecological governance**. This is especially so, given that one can expect states to persist as major sites of social and political power for at least the foreseeable future and that **any green transformations of the present political order will, short of revolution, necessarily be state-dependent**. Thus, like it or not, those concerned about **ecological destruction must contend with existing institutions** and, where possible, seek to "rebuild the ship while still at sea." And if states are so implicated in ecological destruction, then an inquiry into the potential for their transformation even their modest reform into something that is at least more conducive to ecological sustainability would seem to be compelling.¶ Of course, it would be unhelpful to become singularly fixated on the redesign of the state at the expense of other institutions of governance. States are not the only institutions that limit, condition, shape, and direct political power, and it is necessary to keep in view the broader spectrum of formal and informal institutions of governance (e.g., local, national, regional, and international) that are implicated in global environmental change. Nonetheless, while the state constitutes only one modality of political power, it is an especially significant one because of its historical claims to exclusive rule over territory and peoples—as expressed in the principle of state sovereignty. As Gianfranco Poggi explains, the political power concentrated in the state "is a momentous, pervasive, critical phenomenon. **Together with other forms of social power, it constitutes an indispensable medium for constructing and shaping larger social realities**, for establishing, shaping and maintaining all broader and more durable collectivities."12 States play, in varying degrees, significant roles in structuring life chances, in distributing wealth, privilege, information, and risks, in upholding civil and political rights, and in securing private property rights and providing the legal/regulatory framework for capitalism**. Every one of these dimensions of state activity has, for good or ill, a significant bearing on the global environmental crisis**. Given that the green political project is one that demands far-reaching changes to both economies and societies, it is difficult to imagine how such changes might occur on the kind of scale that is needed **without the active support of states**. While it is often observed that states are too big to deal with local ecological problems and too small to deal with global ones, the state nonetheless holds, as Lennart Lundqvist puts it, "a unique position in the constitutive hierarchy from individuals through villages, regions and nations all the way to global organizations. The state is inclusive of lower political and administrative levels, and exclusive in speaking for its whole territory and population in relation to the outside world."13 In short, it seems to me inconceivable to advance ecological emancipation without also engaging with and seeking to transform state power.¶ Of course, not all states are democratic states, and the green movement has long been wary of the coercive powers that all states reputedly enjoy. Coercion (and not democracy) is also central to Max Weber's classic sociological understanding of the state as "a human community that (successfully) claims the monopoly of the legitimate use of physical force within a given territory."14 Weber believed that the state could not be defined sociologically in terms of its ends\* only formally as an organization in terms of the particular means that are peculiar to it.15 Moreover his concept of legitimacy was merely concerned with whether rules were accepted by subjects as valid (for whatever reason); he did not offer a normative theory as to the circumstances when particular rules ought to be accepted or whether beliefs about the validity of rules were justified. Legitimacy was a contingent fact, and in view of his understanding of politics as a struggle for power in the context of an increasingly disenchanted world, likely to become an increasingly unstable achievement.16¶ In contrast to Weber, my approach to the state is explicitly normative and explicitly concerned with the purpose of states, and the democratic basis of their legitimacy. It focuses on the limitations of liberal normative theories of the state (and associated ideals of a just constitutional arrangement), and it proposes instead an alternative green theory that seeks to redress the deficiencies in liberal theory. Nor is my account as bleak as Weber's. The fact that states possess a monopoly of control over the means of coercion is a most serious matter, but it does not necessarily imply that they must have frequent recourse to that power. In any event, whether the use of the state's coercive powers is to be deplored or welcomed turns on the purposes for which that power is exercised, the manner in which it is exercised, and whether it is managed in public, transparent, and accountable ways—a judgment that must be made against a background of changing problems, practices, and under- standings. The coercive arm of the state can be used to "bust" political demonstrations and invade privacy. **It can also be used to prevent human rights abuses, curb the excesses of corporate power, and protect the environment.**¶ In short, although the political autonomy of states is widely believed to be in decline, **there are still few social institution that can match the** same degree of capacity and potential legitimacy that **states have to redirect societies and economies along more ecologically sustainable lines to address ecological problems** such as global warming and pollution, the buildup of toxic and nuclear wastes and the rapid erosion of the earth's biodiversity. States—particularly when they act collectively—have the capacity to curb the socially and ecologically harmful consequences of capitalism. They are also more amenable to democratization than cor- porations, notwithstanding the ascendancy of the neoliberal state in the increasingly competitive global economy. There are therefore many good reasons why green political theorists need to think not only critically but also constructively about the state and the state system. While the state is certainly not "healthy" at the present historical juncture, in this book I nonetheless join Poggi by offering "a timid two cheers for the old beast," at least as a potentially more significant ally in the green cause.17

#### National policies are critical to solving environmental problems--individual alternatives fails due to lack of scale and institutional support

**Kibert et al 12** (Charles J, Professor and Director of the Powell Center for Construction and Environment at the University of Florida, co-founder and President of the Cross Creek Initiative, a non-profit industry/university joint venture seeking to implement sustainability principles into construction, Leslie Thiele (teaches political theory and serves as Director of Sustainability Studies at the University of Florida. His interdisciplinary research focuses on sustainability issues and the intersection of political philosophy and the natural sciences. His central concerns are the responsibilities of citizenship and the opportunities for leadership in a world of rapid technological, social, and ecological change), Anna Peterson, (Department of Religion at the University of Florida. She received her PhD from the University of Chicago Divinity School. Her main research and teaching areas are environmental and social ethics, religion and politics, and religion in Latin America.), and Martha Monroe (Professor of Environmental Education and Extension, at the School of Forest Resources and Conservation of the University of Florida), “The Ethics of Sustainability”, <http://www.cce.ufl.edu/current/ethics/Ethics%20of%20Sustainability%20Textbook.pdf>)

Another helpful category from environmental studies scholarship on consumption is individualization, which refers to the tendency to think of social problems, including environmental harm, as essentially individual in both their causes and potential solution (Princen, Maniates, and Conca, 2002b: 15). Individualization means, in practical terms, that people often believe that small scale actions – such as planting a tree or riding a bike – can make enough difference to “save the world” (Maniates 2002: 43). **When we individualize responsibility for environmental problems, we ignore the ways that large scale patterns and institutions, including economic systems and the nature and exercise of political power affect individual consumption patterns** (Maniates 2002: 45). We think that the decision about, for example, whether or not to drive to work alone reflects only private factors, such as personal preferences, family lifestyle, and economic circumstances. Further analysis, however, quickly reveals that such decisions are also heavily influenced by structural factors such as the availability of public transportation, the safety and accessibility of pedestrian and bicycle routes, and the location of businesses and other public and private facilities.¶ **The failure to take seriously the larger social forces** that shape purchasers’ decisions often **leads to wrong diagnoses** of causes **and ineffective** efforts at **solutions**. We may think that educating people about the consequences of a particular action is all that is necessary to achieve lasting change. This is wrong for at least two reasons. First, individual behavior is heavily shaped by social and institutional factors, including ease of access, peer support and pressure, and the presence of good examples. Individual factors such as the amount of information or education that a person receives, or even personal values and convictions, do not by themselves motivate changed behavior (McKenzie- Mohr and Smith 1999). **When we individualize responsibility**, in other words, **we misunderstand what motivates, facilitates, and sometimes obstructs practices.** Further, and perhaps more important, **even when individual behavior does change, the scale is not adequate to address the major environmental** (or social or economic) **problems** that we face. Thus in addition to changed individual behaviors, such as using public transportation or eating locally, environmental and social problems require changes in regional and national policies and institutions. Such changes might include increased miles per gallon standards for cars, greater funding for public transportation, and an end to the perverse subsidies that encourage environmentally damaging agricultural production, among many others. This is not to say that individual behavioral changes are not necessary and important – they are, as we will discuss at more length later in this chapter. However, we cannot make our personal practices matter unless we understand them in larger contexts.¶ Like distancing, individualization is a problem not only in relation to the environmental impacts of consumption but also for sustainability more broadly**. There are no purely individual solutions** to social problems such as racial and gender inequality or homelessness, nor to economic problems, including the banking, housing, and employment crises that appeared in 2008. While individual practices can contribute to these problems or to their solutions, individuals as individuals can neither cause them nor end them. This is true for all the social, economic, and environmental dimensions of sustainability, which is a collective goal that can be achieved only by collective efforts**. Such efforts must include large-scale changes in** public policy, infrastructure, land use, and economic institutions, among other factors. If we think about these problems as distant from us, or as merely personal issues, we fail to understand their causes and potential solutions.

#### **Scientific knowledge subjects itself to constant refinement based on empirical evidence**

**Hutcheon** **93**—former prof of sociology of education at U Regina and U British Columbia. Former research advisor to the Health Promotion Branch of the Canadian Department of Health and Welfare and as a director of the Vanier Institute of the Family. Phd in sociology, began at Yale and finished at U Queensland. (Pat, A Critique of "Biology as Ideology: The Doctrine of DNA", http://www.humanists.net/pdhutcheon/humanist%20articles/lewontn.htm)

The introductory lecture in this series articulated the increasingly popular "postmodernist" claim that all science is ideology. Lewontin then proceeded to justify this by stating the obvious: that scientists are human like the rest of us and subject to the same biases and socio-cultural imperatives. Although he did not actually say it, his comments seemed to imply that the enterprise of scientific research and knowledge building could therefore be no different and no more reliable as a guide to action than any other set of opinions. The trouble is that, in order to reach such an conclusion, one would have to ignore all those aspects of the scientific endeavor that do in fact distinguish it from other types and sources of belief formation.¶ Indeed, if the integrity of the scientific endeavor depended only on the wisdom and objectivity of the individuals engaged in it we would be in trouble. North American agriculture would today be in the state of that in Russia today. In fact it would be much worse, for the Soviets threw out Lysenko's ideology-masquerading-as-science decades ago. Precisely because an alternative scientific model was available (thanks to the disparaged Darwinian theory) the former Eastern bloc countries have been partially successful in overcoming the destructive chain of consequences which blind faith in ideology had set in motion. This is what Lewontin's old Russian dissident professor meant when he said that the truth must be spoken, even at great personal cost. How sad that Lewontin has apparently failed to understand the fact that while scientific knowledge -- with the power it gives us -- can and does allow humanity to change the world, ideological beliefs have consequences too. By rendering their proponents politically powerful but rationally and instrumentally impotent, they throw up insurmountable barriers to reasoned and value-guided social change.¶ What are the crucial differences between ideology and science that Lewonton has ignored? Both Karl Popper and Thomas Kuhn have spelled these out with great care -- the former throughout a long lifetime of scholarship devoted to that precise objective. Stephen Jay Gould has also done a sound job in this area. How strange that someone with the status of Lewontin, in a series of lectures supposedly covering the same subject, would not at least have dealt with their arguments!¶ Science has to do with the search for regularities in what humans experience of their physical and social environments, beginning with the most simple units discernible, and gradually moving towards the more complex. It has to do with expressing these regularities in the clearest and most precise language possible, so that cause-and-effect relations among the parts of the system under study can be publicly and rigorously tested. And it has to do with devising explanations of those empirical regularities which have survived all attempts to falsify them. These explanations, once phrased in the form of testable hypotheses, become predictors of future events. In other words, they lead to further conjectures of additional relationships which, in their turn, must survive repeated public attempts to prove them wanting -- if the set of related explanations (or theory) is to continue to operate as a fruitful guide for subsequent research.¶ This means that science, unlike mythology and ideology, has a self-correcting mechanism at its very heart. A conjecture, to be classed as scientific, must be amenable to empirical test. It must, above all, be open to refutation by experience. There is a rigorous set of rules according to which hypotheses are formulated and research findings are arrived at, reported and replicated. It is this process -- not the lack of prejudice of the particular scientist, or his negotiating ability, or even his political power within the relevant university department -- that ensures the reliability of scientific knowledge. The conditions established by the community of science is one of precisely defined and regulated "intersubjectivity". Under these conditions the theory that wins out, and subsequently prevails, does so not because of its agreement with conventional wisdom or because of the political power of its proponents, as is often the case with ideology. The survival of a scientific theory such as Darwin's is due, instead, to its power to explain and predict observable regularities in human experience, while withstanding worldwide attempts to refute it -- and proving itself open to elaboration and expansion in the process. In this sense only is scientific knowledge objective and universal. All this has little relationship to the claim of an absolute universality of objective "truth" apart from human strivings that Lewontin has attributed to scientists.¶ Because ideologies, on the other hand, do claim to represent truth, they are incapable of generating a means by which they can be corrected as circumstances change. Legitimate science makes no such claims. Scientific tests are not tests of verisimilitude. Science does not aim for "true" theories purporting to reflect an accurate picture of the "essence" of reality. It leaves such claims of infallibility to ideology. The tests of science, therefore, are in terms of workability and falsifiability, and its propositions are accordingly tentative in nature. A successful scientific theory is one which, while guiding the research in a particular problem area, is continuously elaborated, revised and refined, until it is eventually superseded by that very hypothesis-making and testing process that it helped to define and sharpen. An ideology, on the other hand, would be considered to have failed under those conditions, for the "truth" must be for all time. More than anything, it is this difference that confuses those ideological thinkers who are compelled to attack Darwin's theory of evolution precisely because of its success as a scientific theory. For them, and the world of desired and imagined certainty in which they live, that very success in contributing to a continuously evolving body of increasingly reliable -- albeit inevitably tentative -- knowledge can only mean failure, in that the theory itself has altered in the process.

## 2ac

### 2ac drill fails

#### Failed wells don’t disprove the need for the aff --- tech equipment key

**Peterson et. Al 12**

(Emily A. Peterson, Master of Public Policy Candidate at Duke University, Daniel J. Whittle, Senior Attorney and Cuba Program Director at the Environmental Defense Fund, former Adjunct Law Professor of Environmental Law at Wake Forest University Law School, holds a J.D. from the University of Colorado, and Douglas N. Rader, Chief Oceans Scientist for the Environmental Defense Fund, holds a Ph.D. in Biology from the University of North Carolina and an M.S. in Zoology from the University of Washington,. 2012, “Bridging the Gulf Finding Common Ground on Environmental and Safety Preparedness for Offshore Oil and Gas in Cuba, Environmental Defense Fund http://www.macfound.org/media/article\_pdfs/Bridging\_the\_Gulf.pdf)//HA

In May 2012, the Spanish oil company Repsol announced it had drilled a dry hole during its deepwater exploration in Cuba. After having spent roughly $150 million on two failed wells in Cuba’s waters (the first being in 2004), the company revealed it would likely exit the island and explore more profitable fields such as those in Angola and Brazil. In August 2012, Cuba’s state oil company announced that the latest offshore exploration project—a well drilled by Malaysia’s state-owned Petronas on Cuba’s northwest coast—was also unsuccessful. To some, the outcome of three failed wells out of three attempts in Cuban waters may suggest that the threat of a catastrophic offshore spill impacting U.S. waters and the shared ecosystems of the Gulf of Mexico is now moot. To the contrary, the issue is salient now more than ever. Cuba has an existing near-coastal oil industry on its north coast near Matanzas, a near- single-source dependency on imported petroleum from Venezuela, and has exhibited continued strong interest in developing its own offshore capacity. Several additional foreign oil companies are slated to conduct exploratory deepwater drilling in Cuba at least through 2013. Current U.S. foreign policy on Cuba creates a conspicuous blind spot that is detrimental to the interests of both countries. The United States government enacted stricter regulations governing deepwater drilling in U.S. waters in the aftermath of the Deepwater Horizon oil spill, and has publicly acknowledged a need to better prepare for a potential major spill in neighboring Cuban waters of the Gulf of Mexico. Yet U.S. policy still does not do enough to lessen the likelihood of such a spill or to ensure that sufficient resources will be at the ready to respond to a spill in a timely and effective manner. Beyond their geographical proximity, Cuba and the United States are tightly interconnected by ocean currents and share ecosystems such that a spill in either country could have profound impacts on fisheries, tourism, and recreation in the entire region. Yet, due to longstanding U.S. economic sanctions, international operators working in Cuba are unable to turn northward to the United States to freely access equipment and expertise in the event of an oil disaster.

### 2ac apoc reht

#### We’re impact turning their environmental security argument - Apocalyptic representations of environmental destruction are necessary to motivate change – serves as a key cite for coalition-building

-must be accompanied by a *solution* – not as an inevitable fact

Buell 10 – Professor @ Queens

Frederick Buell, professor of English at Queens College and also a member of the World Studies, American Studies and Environmental Studies programmes, Future Ethics, pg. 30-32

To fully understand these changes, I argue, we need not to discard but reinvent apocalypse. To this end, I have proposed seeing apocalypse as turning paradoxically into way of life (Buell, 2003). Its magnitudes are all about us as we experience and in fact dwell in present risk. This metaphor is in fact a multifaceted one. It does not just underwrite a program for progressive action today; it also provides a tough description of the challenges we face. More complexly still, it indicates a crucial direction that contemporary anti-environmental discourse is already taking. Both description and source of prescriptions, the metaphor is crucial to understanding and also shaping our environmental circumstances today. It indicates vividly just how the discourse of environmental apocalypse is being, once again, successfully reinvented, and how influential it still is to our environmental-social analysis and activism today. To say that apocalypse has become today a way of life is. of course, to suggest an attitude that undergirds much environmental passivity and quiet desperation today. The metaphor is. in short, a central expression of our current environmental dilemmas. It also is something that, strange as it may seem, can and already is being used to help escort us further and further into catastrophe. The most recent addition to anti-environmental discourse on global warming, for example, is a claim that global warming has already happened; that we cannot slop it; and that we must face facts and adapt to it. Already this wisdom has resulted in (shockingly ironic) attempts by nations to claim likely places for future oil development, in preparation for the time they will emerge from under melting ice-sheets, Geo-engineering - a source of hitherto scary fringe-solutions to climate change is gaining respectability (Tierney. 2009). A pathway for developments like these has already been cleared by this popular culture's fascination with environmental apocalypse, something that began as early as the 1980s. Today, speculative visions of the future in film almost obligatorily present a dystopian vision of environmental-social apocalypse, one as extreme and multifactoral as that of the early environmental prophets. But this vision is not meant to shock us into our senses and make us seek alternatives. Instead it is something audiences are meant to and indeed do consume: sci-fi’s obsession with wrecked, militarized, post-natural environments of social meltdown and perpetual high-tech combat (and its invention of special effects to present these scenes and wow audiences) is directed at transforming apocalypse into exciting entertainment for the multitudes. The original Terminator (1984) movie excited many viewers to fantasize their bodies as roboti-cally invulnerable and to go around repeating the famous phrase 'Hasta la vista, Baby' on all sorts of inappropriate occasions. The original Matrix (1999) movie, while making recovery of the human also its official theme, stylized cyberworld violence so vividly as to make that what moviegoers dreamed most of taking part in. not seeking alternatives to. Homologous with this phenomenon in popular culture is thus, I believe, an expansion of what Naomi Klein (2007) has described as 'disaster capitalism' -capitalism that welcomes environmental and social disaster as a source of profit. But the metaphor of apocalypse as way of life can also authorize action more informed, open-eyed and responsive to recent change than before. The creeping spread of crisis into more physical, social and psychological places, and the intimacy with which we feel it, opens up new sites for action and coalitions for change. Risk represents a much more sustainable sense of urgency, and uncertainty fosters experiment, small and large. Perception that the global environment is as sensitively dependent on us as we are on it extends sensitivities and interests in ways difficult to anticipate in advance. Nowhere is the dissemination of such sentiment so important today as in the emergence of concern about global warming, something that has become todays foremost environmental concern and thus site for reinventing apocalypse.

### 2AC --- pyscho

#### -- Lacanian theory is wrong: it’s a circular and non-falsifiable – don’t trust their claims

Robinson 4 (Andrew, Early Career Fellow in the School of Politics – University of Nottingham, “The Politics of Lack”, British Journal of Politics and International Relations, 6)

As should by now be clear, the central claims of Lacanian theory are ontological rather than political. Indeed, since Lacan’s work deals with politics only very occasionally, the entire project of using Lacan politically is fraught with hazards. With rare exceptions, Lacanian theorists put ontology in the driving seat, allowing it to guide their political theorising. Political discourse and events are subsumed into a prior theoretical framework in a manner more reminiscent of an attempt to confirm already-accepted assumptions than of an attempt to assess the theory itself. Among the authors discussed here, Zizek takes this the furthest: the stuff of theory is ‘notions’, which have a reality above and beyond any referent, so that, if reality does not conform to the notions, it is ‘so much the worse for reality’ (in Butler, Laclau and Zizek 2000, 244). The selection and interpretation of examples, whether in concrete analysis of political discourse or in theoretical exegesis, is often selective in a way which appears to confirm the general theory only because inconvenient counterexamples are ignored. The entire edifice often appears wholly a priori and non-falsifiable, and the case for its acceptance is extremely vague. Most often, the imperative to adopt a Lacanian as opposed to (say) a Rawlsian or an orthodox Marxist approach is couched in terms of dogmatically-posited demands that one accept the idea of constitutive lack. A failure to do so is simply denounced as ‘shirking’, ‘blindness’, ‘inability to accept’ and so on. In this way, Lacanian theory renders itself almost immune to analytical critique on terms it would find acceptable. Furthermore, a slippage frequently emerges between the external ‘acceptance’ of antagonism and its subjective encouragement. For instance, Ernesto Laclau calls for a ‘symbolisation of impossibility as such as a positive value’ (in Butler, Laclau and Zizek 2000, 1999, original emphasis).

#### -- Lacanian theory’s renunciation of any attempt to solve problems forecloses the possibility of political transformation and reinforces the worst aspects of the status quo.

Robinson 5 (Andrew, Early Career Fellow in the School of Politics – University of Nottingham, “The Political Theory of Constitutive Lack: A Critique”, Theory & Event, 8(1))

There is more than an accidental relationship between the mythical operation of the concept of "constitutive lack" and Lacanians' conservative and pragmatist politics. Myth is a way of reducing thought to the present: the isolated signs which are included in the mythical gesture are thereby attached to extra-historical abstractions. On an analytical level, Lacanian theory can be very "radical", unscrupulously exposing the underlying relations and assumptions concealed beneath officially-sanctioned discourse. This radicalism, however, never translates into political conclusions: as shown above, a radical rejection of anti-"crime" rhetoric turns into an endorsement of punishment, and a radical critique of neo-liberalism turns into a pragmatist endorsement of structural adjustment. It is as if there is a magical barrier between theory and politics which insulates the latter from the former. One should recall a remark once made by Wilhelm Reich: 'You plead for happiness in life, but security means more to you'133. Lacanians have a "radical" theory oriented towards happiness, but politically, their primary concern is security. As long as they are engaged in politically ineffectual critique, Lacanians will denounce and criticize the social system, but once it comes to practical problems, the "order not to think" becomes operative.  This "magic" barrier is the alibi function of myth. The short-circuit between specific instances and high-level abstractions is politically consequential. A present evil can be denounced and overthrown if located in an analysis with a "middle level", but Lacanian theory tends in practice to add an "always" which prevents change. At the very most, such change cannot affect the basic matrix posited by Lacanian theory, because this is assumed to operate above history. In this way, Lacanian theory operates as an alibi: it offers a little bit of theoretical radicalism to inoculate the system against the threat posed by a lot of politicized radicalism 134. In Laclau and Mouffe's version, this takes the classic Barthesian form: "yes, liberal democracy involves violent exclusions, but what is this compared to the desert of the real outside it?" The Zizekian version is more complex: "yes, there can be a revolution, but after the revolution, one must return to the pragmatic tasks of the present". A good example is provided in one of Zizek's texts. The author presents an excellent analysis of a Kafkaesque incident in the former Yugoslavia where the state gives a soldier a direct, compulsory order to take a voluntary oath - in other words, attempts to compel consent. He then ruins the impact of this example by insisting that there is always such a moment of "forced choice", and that one should not attempt to escape it lest one end up in psychosis or totalitarianism135. The political function of Lacanian theory is to preclude critique by encoding the present as myth.  There is a danger of a stultifying conservatism arising from within Lacanian political theory, echoing the 'terrifying conservatism' Deleuze suggests is active in any reduction of history to negativity136. The addition of an "always" to contemporary evils amounts to a "pessimism of the will", or a "repressive reduction of thought to the present". Stavrakakis, for instance, claims that attempts to find causes and thereby to solve problems are always fantasmatic 137, while Zizek states that an object which is perceived as blocking something does nothing but materialize the already-operative constitutive lack138. While this does not strictly entail the necessity of a conservative attitude to the possibility of any specific reform, it creates a danger of discursive slippage and hostility to "utopianism" which could have conservative consequences. Even if Lacanians believe in surplus/contingent as well as constitutive lack, there are no standards for distinguishing the two. If one cannot tell which social blockages result from constitutive lack and which are contingent, how can one know they are not all of the latter type? And even if constitutive lack exists, Lacanian theory runs a risk of "misdiagnoses" which have a neophobe or even reactionary effect. To take an imagined example, a Lacanian living in France in 1788 would probably conclude that democracy is a utopian fantasmatic ideal and would settle for a pragmatic reinterpretation of the regime. Laclau and Mouffe's hostility to workers' councils and Zizek's insistence on the need for a state and a Party139 exemplify this neophobe tendency. The pervasive negativity and cynicism of Lacanian theory offers little basis for constructive activity. Instead of radical transformation, one is left with a pragmatics of "containment" which involves a conservative de-problematization of the worst aspects of the status quo. The inactivity it counsels would make its claims a self-fulfilling prophecy by acting as a barrier to transformative activity.

### 2ac --- Consumption

#### Governments’ obey institutional logics that exist independently of individuals and constrain decisionmaking – that’s true regardless of this debate

Wight – Professor of IR @ University of Sydney – 6

(Colin, Agents, Structures and International Relations: Politics as Ontology, pgs. 48-50

One important aspect of this relational ontology is that these relations constitute our identity as social actors. According to this relational model of societies, one is what one is, by virtue of the relations within which one is embedded. A worker is only a worker by virtue of his/her relationship to his/her employer and vice versa. ‘Our social being is constituted by relations and our social acts presuppose them.’ At any particular moment in time an individual may be implicated in all manner of relations, each exerting its own peculiar causal effects. This ‘lattice-work’ of relations constitutes the structure of particular societies and endures despite changes in the individuals occupying them. Thus, the relations, the structures, are ontologically distinct from the individuals who enter into them. At a minimum, the social sciences are concerned with two distinct, although mutually interdependent, strata. There is an ontological difference between people and structures: ‘people are not relations, societies are not conscious agents’. Any attempt to explain one in terms of the other should be rejected. If there is an ontological difference between society and people, however, we need to elaborate on the relationship between them. Bhaskar argues that we need a system of mediating concepts, encompassing both aspects of the duality of praxis into which active subjects must fit in order to reproduce it: that is, a system of concepts designating the ‘point of contact’ between human agency and social structures. This is known as a ‘positioned practice’ system. In many respects, the idea of ‘positioned practice’ is very similar to Pierre Bourdieu’s notion of *habitus*. Bourdieu is primarily concerned with what individuals do in their daily lives. He is keen to refute the idea that social activity can be understood solely in terms of individual decision-making, or as determined by surpa-individual objective structures. Bourdieu’s notion of the *habitus* can be viewed as a bridge-building exercise across the explanatory gap between two extremes. Importantly, the notion of a habitus can only be understood in relation to the concept of a ‘social field’. According to Bourdieu, a social field is ‘a network, or a configuration, of objective relations between positions objectively defined’. A social field, then, refers to a structured system of social positions occupied by individuals and/or institutions – the nature of which defines the situation for their occupants. This is a social field whose form is constituted in terms of the relations which define it as a field of a certain type. A *habitus* (positioned practices) is a mediating link between individuals’ subjective worlds and the socio-cultural world into which they are born and which they share with others. The power of the habitus derives from the thoughtlessness of habit and habituation, rather than consciously learned rules. The habitus is imprinted and encoded in a socializing process that commences during early childhood. It is inculcated more by experience than by explicit teaching. Socially competent performances are produced as a matter of routine, without explicit reference to a body of codified knowledge, and without the actors necessarily knowing what they are doing (in the sense of being able adequately to explain what they are doing). As such, the *habitus* can be seen as the site of ‘internalization of reality and the externalization of internality.’ Thus social practices are produced in, and by, the encounter between: (1) the *habitus* and its dispositions; (2) the constraints and demands of the socio-cultural field to which the habitus is appropriate or within; and (3) the dispositions of the individual agents located within both the socio-cultural field and the *habitus*. When placed within Bhaskar’s stratified complex social ontology the model we have is as depicted in Figure 1. The explanation of practices will require all three levels. Society, as field of relations, exists prior to, and is independent of, individual and collective understandings at any particular moment in time; that is, social action requires the conditions for action. Likewise, given that behavior is seemingly recurrent, patterned, ordered, institutionalised, and displays a degree of stability over time, there must be sets of relations and rules that govern it. Contrary to individualist theory, these relations, rules and roles are not dependent upon either knowledge of them by particular individuals, or the existence of actions by particular individuals; that is, their explanation cannot be reduced to consciousness or to the attributes of individuals. These emergent social forms must possess emergent powers. This leads on to arguments for the reality of society based on a causal criterion. Society, as opposed to the individuals that constitute it, is, as Foucault has put it, ‘a complex and independent reality that has its own laws and mechanisms of reaction, its regulations as well as its possibility of disturbance. This new reality is society…It becomes necessary to reflect upon it, upon its specific characteristics, its constants and its variables’.

#### **Permutation do both --- institutional practices and reforms must occur while we shift consumptive mindset, but its necessary to use those institutions to solve short term environmental exploitation like drilling**

#### Government action necessary to break out of the consumerist drive – only government signals like the plan legitimizing sustainability make a widespread psychic break with consumerism possible

Jackson, 2012 (Tim, Fairly bright guy, *Prosperity Without Growth: Economics for a Finite Planet*, Kindle Locations 2803-2854)

The downshifting movement now has a surprising allegiance across a number of developed economies. A recent survey on downshifting in Australia found that 23 per cent of respondents had engaged in some form of downshifting in the five years prior to the study. A staggering 83 per cent felt that Australians are too materialistic. An earlier study in the US found that 28 per cent had taken some steps to simplify and 62 per cent expressed a willingness to do so. Very similar results have been found in Europe.23 Research on the success of these initiatives is quite limited. But the findings from studies that do exist are interesting. In the first place, the evidence confirms that ‘simplifiers’ appear to be happier. Consuming less, voluntarily, can improve subjective well-being – completely contrary to the conventional model.24 At the same time, intentional communities remain marginal. The spiritual basis for them doesn’t appeal to everyone, and the secular versions seem less resistant to the incursions of consumerism. Some of these initiatives depend heavily on having sufficient personal assets to provide the economic security needed to pursue a simpler lifestyle. More importantly, even those in the vanguard of social change turn out to be haunted by conflict – internal and external.25 These conflicts arise because people find themselves at odds with their own social world. Participation in the life of society becomes a challenge in its own right. People are trying to live, quite literally, in opposition to the structures and values that dominate society. In the normal course of events, these structures and values shape and constrain how people behave. They have a profound influence on how easy or hard it is to behave sustainably.26 The Role of Structural Change Examples of the perverse effect of dominant structures are legion: private transport is incentivized over public transport; motorists are prioritized over pedestrians; energy supply is subsidized and protected, while demand management is often chaotic and expensive; waste disposal is cheap, economically and behaviourally; recycling demands time and effort: ‘bring centres’ are few and far between and often overflowing with waste. Equally important are the subtle but damaging signals sent by government, regulatory frameworks, financial institutions, the media and our education systems: business salaries are higher than those in the public sector, particularly at the top; nurses and those in the caring professions are consistently less well paid; private investment is written down at high discount rates making longterm costs invisible; success is counted in terms of material status (salary, house size and so on); children are brought up as a ‘shopping generation’ – hooked on brand, celebrity and status.27 Policy and media messages about the recession underline this point. Opening a huge new shopping centre at the height of the financial crisis in October 2008, Mayor of London Boris Johnson spoke of persuading people to come out and spend their money, despite the credit crunch. Londoners had made a ‘prudent decision to give Thursday morning a miss and come shopping’, he said of the huge crowds who attended the opening.28 George W. Bush’s infamous call for people to ‘go out shopping’ in the wake of the 9/11 disaster is one of the most staggering examples of the same phenomenon. Little wonder that people trying to live more sustainably find themselves in conflict with the social world around them. These kinds of asymmetry represent a culture of consumption that sends all the wrong signals, penalizing pro-environmental behaviour, and making it all but impossible even for highly motivated people to act sustainably without personal sacrifice. It’s important to take this evidence seriously. As laboratories for social change, intentional households and communities are vital in pointing to the possibilities for flourishing within ecological limits. But they are also critical in highlighting the limits of voluntarism. Simplistic exhortations for people to resist consumerism are destined to failure. Particularly when the messages flowing from government are so painfully inconsistent. People readily identify this inconsistency and perceive it as hypocrisy. Or something worse. Under current conditions, it’s tantamount to asking people to give up key capabilities and freedoms as social beings. Far from being irrational to resist these demands, it would be irrational not to, in our society. Several lessons flow from this. The first is the obvious need for government to get its message straight. Urging people to Act on CO2, to insulate their homes, turn down their thermostat, put on a jumper, drive a little less, walk a little more, holiday at home, buy locally produced goods (and so on) will either go unheard or be rejected as manipulation for as long as all the messages about high-street consumption point in the opposite direction.29 Equally, it’s clear that changing the social logic of consumption cannot simply be relegated to the realm of individual choice. In spite of a growing desire for change, it’s almost impossible for people to simply choose sustainable lifestyles, however much they’d like to. Even highly-motivated individuals experience conflict as they attempt to escape consumerism. And the chances of extending this behaviour across society are negligible without changes in the social structure.

#### The alternative can’t overcome the public’s desire to consume

Douglas 10 – Peer-reviewed climate scholar

Richard Douglas, published essays on the philosophy and politics of climate change denial, Future Ethics, pg. 206

In the case of environmentalism the need for a readymade replacement paradigm to be available before the existing dominant paradigm is abandoned would seem to be especially important. This is because the core principle of environmentalism, that there are limits to growth, implies certain lessons, regarding the limitations of technological power and ultimately human mortality, such that it naturally provokes a strong response of denial and wishful thinking. **Without a**n adequate **replacement world-view which is able** to successfully address such concerns, **to make sense** of and offer consolation for them, **it is** simply **inconceivable that society** as a whole **will reject the paradigm of unending** economic **growth** which environmentalism attacks. So it is that, while in the last four decades **environmentalism** has won a significant popular acceptance for the idea that there are severe problems with this paradigm, it **has made relatively slow progress in transforming political and economic organization: the replacement ideas it offers are not adequate** for the job they have to do.

#### Alt doesn’t solve – relying on value shift can’t prevent environmental harm – others will consume if a large population adopts a sufficiency lifestyle

Alcott 8 - Ecological Economist Masters from Cambridge in Land Economy

Blake, The sufficiency strategy: Would rich-world frugality lower environmental impact? Ecological Economics 64 (4) p. Science Direct

The environmental sufficiency strategy of greater consumer frugality has become popular in ecological economics, its attractiveness increasing along with awareness that not much can be done to stem population growth and that energy-efficiency measures are either not enough or, due to backfire, part of the problem. Concerning the strategy's feasibility, effectiveness, and common rationale, several conclusions can be drawn. • The consequences of the strategy's frugality demand shift – price reduction and the ensuing consumption rebound – are not yet part of mainstream discussion. • Contrary to what is implied by the strategy's advocates, the frugality shift cannot achieve a one-to-one reduction in world aggregate consumption or impact: Poorer marginal consumers increase their consumption. • The size of the sufficiency rebound is an open question. • The concepts of ‘North’ and ‘South’ are not relevant to the consumption discussion. • Even if the voluntary material consumption cuts by the rich would effect some lowering of total world consumption, changing human behaviour through argument and exhortation is exceedingly difficult. • While our moral concern for present others is stronger than that for future others, this intragenerational equity is in no way incompatible with non-sustainable impact. • Since savings effected by any one country or individual can be (more than) compensated by other countries and individuals, the relevant scale of any strategy is the world. • No single strategy to change any given right-side factor in I = f(P,A,T) guarantees any effect on impact whatsoever. • Right-side strategies in combination are conceptually complicated and perhaps more costly than explicitly political left-side strategies directly lowering impact. • Research emphasis should be shifted towards measures to directly lower impact both in terms of depletion and emissions. Lower consumption may have advantages on the individual, community, or regional level. There is for instance some truth in the view of Diogenes that happiness and quantity of consumption do not necessarily rise proportionally. Living lightly can offer not only less stress and more free time but also the personal boon of a better sense of integrity, fulfilling the Kantian criterion that one’s acts should be possible universally (worldwide). Locally it could mean cleaner air, less acid rain, less noise, less garbage, and more free space. And in the form of explicit, guaranteed shifts of purchasing power to poorer people it would enable others to eat better or to buy goods such as petrol and cars. However, given global markets and marginal consumers, one person’s doing without enables another to ‘do with’: In the near run the former consumption of a newly sufficient person can get fully replaced. And given the extent of poverty and the temptations of luxury and prestige consumption, this near run is likely to be longer than the time horizon required for a relevant strategy to stem climate change and the loss of vital species and natural resources.

#### Epistemological debate is irrelevant and concrete action is inevitable – pragmatism is key to useful knowledge

**Friedrichs, 09** [Jorg, University Lecturer in Politics at the Oxford Department of International Development, “From Positivist Pretense to Pragmatic Practice Varieties of Pragmatic Methodology in IR Scholarship” Pragmatism and International Relations]

As Friedrich Nietzsche ([1887] 1994:1; cf. Wilson 2002) knew, the knower isstrangely unknown to himself. In fact, it is much more hazardous to contemplate the way how we gain knowledge than to gain such knowledge in the ﬁrst place.This is not to deny that intellectuals are a narcissistic Kratochwil lot, with a penchant for omphaloskepsis. The typical result of theirnavel-gazing, however, is not increased self-awareness. Scholars are more likely to come up with ex-post-facto rationalizations of how they would like to see their activity than with accurate descriptions of how they go about business. As a result, in science there is a paradoxical divide between positivist pretenseand pragmatic practice. Many prominent scholars proceed pragmatically in gen-erating their knowledge, only to vest it all in a positivist cloak when it comes topresenting results. In the wake of Karl Popper (1963), fantasies about ingeniousconjectures and inexorable refutations continue to hold sway despite the muchmore prosaic way most scholars grope around in the formulation of their theo-ries, and the much less rigorous way they assess the value of their hypotheses. In proposing pragmatism as a more realistic alternative to positivist idealiza-tions, I am not concerned with the original intentions of Charles Peirce. Theseare discussed and enhanced by Ryto¨ vuori-Apunen (this forum). Instead, Ipresent various attempts to make pragmatism work as a methodology for IR scholarship. This includes my own preferred methodology, the pragmaticresearch strategy of abduction. As Fritz Kratochwil and I argue elsewhere,abduction should be at the center of our efforts, while deduction and induction areimportant but auxiliary tools (Friedrichs and 2009).Of course, one does not need to be a pragmatist to proceed in a pragmatic way. Precisely because it is derived from practice, pragmatic commonsense is a sold as the hills. For example, James Rosenau (1988:164) declared many yearsago that he coveted ‘‘a long-held conviction that one advances knowledge most effectively by continuously moving back and forth between very abstract and very empirical levels of inquiry, allowing the insights of the former to exert pressurefor the latter even as the ﬁndings of the latter, in turn, exert pressure for the for-mer, thus sustaining an endless cycle in which theory and research feed on eachother.’’ This was shortly before Rosenau’s turn to postmodernism, while he wasstill touting the virtues of behaviorism and standard scientiﬁc requisites, such asindependent and dependent variables and theory testing. But if we take his state-ment at face value, it appears that Rosenau-the-positivist was guided by a sort of pragmatism for all but the name. While such practical commonsense is certainly valuable, in and by itself, it does not qualify as scientiﬁc methodology. Science requires a higher degree of methodological awareness. For this reason, I am not interested here in pragma-tism as unspoken commonsense, or as a pretext for doing empirical researchunencumbered by theoretical and methodological considerations. Nor am I con-cerned with pragmatism as an excuse for staging yet another epistemological debate. Instead, I am interested in pragmatism as an instrument to go about research with an appropriate degree of epistemological and methodologicalawareness. Taking this criterion as my yardstick, the following three varieties of pragmatist methodology in recent IR scholarship are worth mentioning: theory synthesis, analytic eclecticism (AE), and abduction.Theory synthesis is proposed by Andrew Moravcsik (2003), who claims that theories can be combined as long as they are compatible at some unspeciﬁedfundamental level, and that data will help to identify the right combination of theories. He does not explicitly invoke pragmatism but vests his pleading in apositivist cloak by using the language of theory testing. When looking closer,however, it becomes apparent that his theoretical and methodological noncha-lance is far more pragmatic than what his positivist rhetoric suggests. Moravcsiksees himself in good company, dropping the following names: Robert Keohane,Stephen Walt, Jack Snyder, Stephen Van Evera, Bary Buzan, Bruce Russett, John O’Neal, Martha Finnemore, and Kathryn Sikkink. With the partial excep-tion of Finnemore, however, none of these scholars explicitly links his or herscholarship to pragmatism. They employ pragmatic commonsense in theirresearch, but devoutly ignore pragmatism as a philosophical and methodologicalposition. As a result, it is fair to say that theory synthesis is only on a slightly higher level of intellectual awareness than Rosenau’s statement quoted above. Analytic eclecticism, as advertized by Peter Katzenstein and Rudra Sil, links acommonsensical approach to empirical research with a more explicit commit-ment to pragmatism (Sil and Katzenstein 2005; Katzenstein and Sil 2008).The 7 Even the dean of critical rationalism, Karl Popper, is ‘‘guilty’’ of lapses into pragmatism, for example when hestates that scientists, like hungry animals, classify objects according to needs and interests, although with the impor-tant difference that they are guided in their quest for ﬁnding regularities not so much by the stomach but ratherby empirical problems and epistemic interests (Popper 1963:61–62). 646 Pragmatism and International Relations idea is to combine existing research traditions in a pragmatic fashion and thusto enable the formulation and exploration of novel and more complex sets of problems. The constituent elements of different research traditions are trans-lated into mutually compatible vocabularies and then recombined in novel ways.This implies that most scholars must continue the laborious process of formulat-ing parochial research traditions so that a few cosmopolitan colleagues will beenabled to draw upon their work and construct syncretistic collages. 8 In additionto themselves, Katzenstein and Sil cite a number of like-minded scholars such asCharles Tilly, Sidney Tarrow, Paul Pierson, and Robert Jervis. 9 The ascription isprobably correct given the highly analytical and eclectic approach of these schol-ars. Nevertheless, apart from Katzenstein and Sil themselves none of these schol-ars has explicitly avowed himself to AE.My preferred research strategy is abduction, which is epistemologically asself-aware as AE but minimizes the dependence on existing research traditions.The typical situation for abduction is when we, both in everyday life and as socialscientists, become aware of a certain class of phenomena that interests us for somereason, but for which we lack applicable theories. We simply trust, although we donot know for certain, that the observed class of phenomena is not random. Wetherefore start collecting pertinent observations and, at the same time, applyingconcepts from existing ﬁelds of our knowledge. Instead of trying to impose anabstract theoretical template (deduction) or ‘‘simply’’ inferring propositions fromfacts (induction), we start reasoning at an intermediate level (abduction). Abduction follows the predicament that science is, or should be, above all amore conscious and systematic version of the way by which humans have learnedto solve problems and generate knowledge in their everyday lives. As it iscurrently practiced, science is often a poor emulator of what we are able toachieve in practice. This is unfortunate because human practice is the ultimatemiracle. In our own practice, most of us manage to deal with many challenging situations.The way we accomplish this is completely different from, and far moreefﬁcient than, the way knowledge is generated according to standard scientiﬁc methods. If it is true that in our own practice we proceed not so much by induction or deduction but rather by abduction, then science would do well tomimic this at least in some respects. 10 Abduction has been invoked by numerous scholars, including Alexander Wendt, John Ruggie, Jeffrey Checkel, Martin Shapiro, Alec Stone Sweet, andMartha Finnemore. While they all use the term abduction, none has ever thor-oughly speciﬁed its meaning. To make up for this omission, I have developedabduction into an explicit methodology and applied it in my own research oninternational police cooperation (Friedrichs 2008). Unfortunately, it is impossi-ble to go into further detail here. Readers interested in abduction as a way toadvance international research and methodology can also be referred to my recent article with Fritz Kratochwil (Friedrichs and Kratochwil 2009).On a ﬁnal note, we should be careful not to erect pragmatism as the ultimateepistemological fantasy to caress the vanity of Nietzschean knowers unknown tothemselves, namely that they are ingeniously ‘‘sorting out’’ problematic situa-tions. Scientiﬁc inquiry is not simply an intimate encounter between a researchproblem and a problem solver. It is a social activity taking place in communitiesof practice (Wenger 1998). Pragmatism must be neither reduced to the utility of results regardless of their social presuppositions and meaning, nor to the 8 Pace Rudra Sil (this forum), the whole point about eclecticism is that you rely on existing traditions to blendthem into something new. There is no eclecticism without something to be eclectic about. 9 One may further expand the list by including the international society approach of the English school (Ma-kinda 2000), as well as the early Kenneth Waltz (1959). 10 Precisely for this reason, abduction understood as ‘Inference to the Best Explanation’ plays a crucial role inthe ﬁeld of Artiﬁcial Intelligence. 647 The Forum fabrication of consensus among scientists. Pragmatism as the practice of dis-cursive communitiesand pragmatism as a device for the generation of useful knowledge are two sides of the same coin

#### Util inevitable and good

**Kymlicka, 90** (Will, Professor of Philosophy and Canada Research Chair in Political Philosophy, Queen's University at Kingston, Recurrent Visiting Professor, Central European University, “Contemporary Political Philosophy,” Clarendon Press, pg. 10-11, Tashma)

There are two features of utilitarianism that make it an attractive theory of political morality. Firstly, the goal which utilitarians seek to promote does not depend on the existence of God, or a soul, or any other dubious metaphysical entity. Some moral theories say that what matters is the condition of one`s soul, or that one should live according to God`s Divine Will, or that one’s life goes best by having everlasting life in another realm of being. Many people have thought that morality is incoherent without these religious notions. Without God, all we are left with is a set of rules——‘do this’, ‘don`t do that`—which lack any point or purpose. It is not clear why anyone would think this of utilitarianism. The good it seeks to promote—happiness, or welfare, or well-being—is something that we all pursue in our own lives, and in the lives of those we love, Utilitarians just demand that the pursuit of human welfare or utility (I will be using these terms interchangeably) be done impartially, for everyone in society. Whether or not we are God’s children, or have a soul, or free will, we can suffer or be happy, we can all be better or worse off. No matter how secular we are, we cannot deny that happiness is valuable, since it is something we value in our own lives. A distinct but related attraction is utilitarianism’s ‘consequentialism`. I will discuss what exactly that means later on, but for the moment its importance is that it requires that we check to see whether the act or policy in question actually does some identifiable good or not. We have all had to deal with people who say that something——homosexuality, for example (or gambling, dancing, drinking, swearing, etc.)-—is morally wrong, and yet are incapable of pointing to any bad consequences that arise from it. Consequentialism prohibits such apparently arbitrary moral prohibitions. It demands of anyone who condemns something as morally wrong that they show who is wronged, i.e. they must show how s0meone`s life is made worse off. Likewise, consequentialism says that something is morally good only if it makes someone’s life better off. Many other moral theories, even those motivated by a concern for human welfare, seem to consist in a set of rules to be followed, whatever the consequences. But utilitarianism is 110t just another set of rules, another set of ‘do’s’ and ‘don’ts’. Utilitarianism provides a test to ensure that such rules serve some useful function. Consequentialism is also attractive because it conforms to our intuitions about the difference between morality and other spheres. If someone calls certain kinds of consensual sexual activity morally wrong because they are `improper’, and yet cannot point to anyone who suffers from them, then we might respond that the idea of ‘proper` behaviour being employed is not a moral one. Such claims about proper behaviour are more like aesthetic claims, or an appeal to etiquette or convention. Someone might say that punk rock is ‘improper’, not legitimate music at all. But that would be an aesthetic criticism, not a moral one. To say that homosexual sex is ‘improper’, without being able to point to any bad consequences, is like saying that Bob Dylan sings inproperly—it may be true, but it is not a moral criticism. There are standards of propriety that are not consequentialist, but we think that morality is more important than mere etiquette, and consequentialism helps account for that difference. Consequentialism also seems to provide a straightforward method for resolving moral questions. Finding the morally right answer becomes a matter of measuring changes in human welfare, not of consulting spiritual leaders, or relying on obscure traditions. Utilitarianism, historically, was therefore quite progressive. It demanded that customs and authorities which had oppressed people for centuries be tested against the standard of human improvement (‘man is the measure of all things`). At its best, utilitarianism is a strong weapon against prejudice and superstition, providing a standard and a procedure that challenge those who claim authority over us in the name of morality.

#### Studies prove our securitization arguments – induces change

-several surveys

-case studies

-also indicts the fatalism argument

Veldman 12

(“Narrating the Environmental Apocalypse¶ How Imagining the End Facilitates Moral Reasoning Among Environmental Activists” Ethics & the Environment¶ Volume 17, Number 1, Spring 2012)

As we saw in the introduction, critics often argue that apocalyptic rhetoric induces feelings of hopelessness or fatalism. While it certainly does for some people, in this section I will present evidence that apocalypticism also often goes hand in hand with activism.¶ Some of the strongest evidence of a connection between environmental apocalypticism and activism comes from a national survey that examined whether Americans perceived climate change to be dangerous. As part of his analysis, Anthony Leiserowitz identified several “interpretive communities,” which had consistent demographic characteristics but varied in their levels of risk perception. The group who perceived the risk to be the greatest, which he labeled “alarmists,” described climate change [End Page 5] using apocalyptic language, such as “Bad…bad…bad…like after nuclear war…no vegetation,” “Heat waves, it’s gonna kill the world,” and “Death of the planet” (2005, 1440). Given such language, this would seem to be a reasonable way to operationalize environmental apocalypticism. If such apocalypticism encouraged fatalism, we would expect alarmists to be less likely to have engaged in environmental behavior compared to groups with moderate or low levels of concern. To the contrary, however, Leiserowitz found that alarmists “were significantly more likely to have taken personal action to reduce greenhouse gas emissions” (ibid.) than respondents who perceived climate change to pose less of a threat. Interestingly, while one might expect such radical views to appeal only to a tiny minority, Leiserowitz found that a respectable eleven percent of Americans fell into this group (ibid).¶ Further supporting Leiserowitz’s findings, in a separate national survey conducted in 2008, Maibach, Roser-Renouf, and Leiserowitz found that a group they labeled “the Alarmed” (again, due to their high levels of concern about climate change) “are the segment most engaged in the issue of global warming. They are very convinced it is happening, human-caused, and a serious and urgent threat. The Alarmed are already making changes in their own lives and support an aggressive national response” (2009, 3, emphasis added). This group was far more likely than people with lower levels of concern over climate change to have engaged in consumer activism (by rewarding companies that support action to reduce global warming with their business, for example) or to have contacted elected officials to express their concern. Additionally, the authors found that “[w]hen asked which reason for action was most important to them personally, the Alarmed were most likely to select preventing the destruction of most life on the planet (31%)” (2009, 31)—a finding suggesting that for many in this group it is specifically the desire to avert catastrophe, rather than some other motivation, that encourages pro-environmental behavior. Taken together, these and other studies (cf. Semenza et al. 2008 and DerKarabetia, Stephenson, and Poggi 1996) provide important evidence that many of those who think environmental problems pose a severe threat practice some form of activism, rather than giving way to fatalistic resignation.¶ National surveys give a good overview of the association between apocalypticism and activism among the general public, but they do not [End Page 6] provide sufficient ethnographic detail. To complement this broader picture I now turn to case studies, which provide greater insight into how adherents themselves understand what motivates their environmental behavior.¶ When seeking a subset of environmentalists with apocalyptic beliefs, the radical wing is an obvious place to look. For example, many Earth First!ers believe that the collapse of industrial society is inevitable (Taylor 1994). At the same time, the majority are actively committed to preventing ecological disaster. As Earth First! co-founder Howie Wolke acknowledged, the two are directly connected: “As ecological calamity unravels the living fabric of the Earth, environmental radicalism has become both common and necessary” (1989, 29).3 This logic underlies efforts to preserve wilderness areas, which many radical environmentalists believe will serve as reservoirs of genetic diversity, helping to restore the planet after industrial society collapses (Taylor 1994). In addition to encouraging activism to preserve wilderness, apocalyptic beliefs also motivate practices such as “monkeywrenching,” or ecological sabotage, civil disobedience, and the more conventional “paper monkeywrenching” (lobbying, engaging in public information campaigns to shift legislative priorities, or using lawsuits when these tactics fail). Ultimately, while there are disagreements over what strategies will best achieve their desired goals, for most radical environmentalists, apocalypticism and activism are bound closely together.¶ The connection between belief in impending disaster and environmental activism holds true for Wiccans as well. During fieldwork in the southeastern United States, for example, Shawn Arthur reported meeting “dozens of Wiccans who professed their apocalyptic millenarian beliefs to anyone who expressed interest, yet many others only quietly agreed with them without any further elaboration” (2008, 201). For this group, the coming disaster was understood as divine retribution, the result of an angry Earth Goddess preparing to punish humans for squandering her ecological gifts (Arthur 2008, 203). In light of Gaia’s impending revenge, Arthur found that Wiccans advocated both spiritual and material forms of activism. For example, practices such as Goddess worship, the use of herbal remedies for healing, and awareness of the body and its energies were considered important for initiating a more harmonious relationship with the earth (Arthur 2008, 207). As for material activism, Arthur notes [End Page 7] that the notion of environmental apocalypse played a key role in encouraging pro-environmental behavior:¶ images of immanent [sic] ecological crisis and apocalyptic change often were utilized as motivating factors for developing an environmentally and ecologically conscious worldview; for stressing the importance of working for the Earth through a variety of practices, including environmental activism, garbage collecting, recycling, composting, and religious rituals; for learning sustainable living skills; and for developing a special relationship with the world as a divine entity.¶ (2008, 212)¶ What these studies and my own experiences in the environmentalist milieu4 suggest is that people who make a serious commitment to engaging in environmentally friendly behavior, people who move beyond making superficial changes to making substantial and permanent ones, are quite likely to subscribe to some form of the apocalyptic narrative.¶ All this is not to say that apocalypticism directly or inevitably causes activism, or that believing catastrophe is imminent is the only reason people become activists. However, it is to say that activism and apocalypticism are associated for some people, and that this association is not arbitrary, for there is something uniquely powerful and compelling about the apocalyptic narrative. Plenty of people will hear it and ignore it, or find it implausible, or simply decide that if the situation really is so dire there is nothing they can do to prevent it from continuing to deteriorate. Yet to focus only on the ability of apocalyptic rhetoric to induce apathy, indifference or reactance is to ignore the evidence that it also fuels quite the opposite—grave concern, activism, and sometimes even outrage. It is also to ignore the movement’s history. From Silent Spring (Carson [1962] 2002) to The Limits to Growth (Meadows et al 1972) to The End of Nature (McKibben 1989), apocalyptic arguments have held a prominent place within environmental literature, topping best-seller lists and spreading the message far and wide that protecting the environment should be a societal priority. Thus, while it is not a style of argument that will be effective in convincing everyone to commit to the environmental cause (see Feinberg and Willer 2011), there does appear to be a close relationship between apocalyptic belief and activism among a certain minority. The next section explores the implications of that relationship further. [End Page 8]

#### Vote aff despite prior questions—impact timeframe means you default to specific scenarios

Kratochwil 08, professor of international relations – European University Institute, 2008 (Friedrich, “The Puzzles of Politics,” pg. 200-213)

The lesson seems clear. Even at the danger of “fuzzy boundaries”, when we deal with “practice” ( just as with the “pragmatic turn”), we would be well advised to rely on the use of the term rather than on its reference (pointing to some property of the object under study), in order to draw the bounds of sense and understand the meaning of the concept. My argument for the fruitful character of a pragmatic approach in IR, therefore, does not depend on a comprehensive mapping of the varieties of research in this area, nor on an arbitrary appropriation or exegesis of any specific and self-absorbed theoretical orientation. For this reason, in what follows, I will not provide a rigidly specified definition, nor will I refer exclusively to some prepackaged theoretical approach. Instead, I will sketch out the reasons for which a pragmatic orientation in social analysis seems to hold particular promise. These reasons pertain both to the more general area of knowledge appropriate for praxis and to the more specific types of investigation in the field. The follow- ing ten points are – without a claim to completeness – intended to engender some critical reflection on both areas. Firstly, a pragmatic approach does not begin with objects or “things” (ontology), or with reason and method (epistemology), but with “acting” (prattein), thereby preventing some false starts. Since, **as historical beings placed in a** specific situations**, we do not have the luxury** of deferring decisions **until we have** found the “truth”, **we have to act and must do so always under time pressures and in the face of incomplete information.** Pre- cisely because the social world is characterised by strategic interactions, what a situation “is”, is hardly ever clear ex ante, because it is being “produced” by the actors and their interactions, and the multiple possibilities are rife with incentives for (dis)information. This puts a premium on quick diagnostic and cognitive shortcuts informing actors about the relevant features of the situ- ation, and on leaving an alternative open (“plan B”) in case of unexpected difficulties. Instead of relying on certainty and universal validity gained through abstraction and controlled experiments, we know that completeness and attentiveness to detail, rather than to generality, matter. To that extent, likening practical choices to simple “discoveries” of an already independently existing “reality” which discloses itself to an “observer” – or relying on optimal strategies – is somewhat heroic. These points have been made vividly by “realists” such as Clausewitz in his controversy with von Bülow, in which he criticised the latter’s obsession with a strategic “science” (Paret et al. 1986). While Clausewitz has become an icon for realists, only a few of them (usually dubbed “old” realists) have taken seriously his warnings against the misplaced belief in the reliability and use- fulness of a “scientific” study of strategy. Instead, most of them, especially “neorealists” of various stripes, have embraced the “theory”-building based on the epistemological project as the via regia to the creation of knowledge. A pragmatist orientation would most certainly not endorse such a position. Secondly, since acting in the social world often involves acting “for” someone, special responsibilities arise that aggravate both the incompleteness of knowledge as well as its generality problem. Since we owe special care to those entrusted to us, for example, as teachers, doctors or lawyers, we cannot just rely on what is generally true, but have to pay special attention to the particular case. Aside from avoiding the foreclosure of options, we cannot refuse to act on the basis of incomplete information or insufficient know- ledge, and the necessary diagnostic will involve typification and comparison, reasoning by analogy rather than generalization or deduction. Leaving out the particularities of a case, be it a legal or medical one, in a mistaken effort to become “scientific” would be a fatal flaw. Moreover, **there still remains the crucial element of “timing” –** of knowing when to act. Students of crises have always pointed out the importance of this factor but, in attempts at building a general “theory” of international politics analogously to the natural sci- ences, such elements are neglected on the basis of the “continuity of nature” and the “large number” assumptions. Besides, “timing” seems to be quite recalcitrant to analytical treatment.

#### Focus on individual consumption leads to socially regressive solutions – re-inscribe inequality

Martens and Spaargaren 5 - \* Researcher at the Environmental Policy Group at Wageningen University, \*\*Professor of Environmental Policy @ Wageningen

Martens, S. & Spaargaren, G. 2005. The politics of sustainable consumption: the case of the Netherlands. Sustainability: Science, Practice, & Policy 1(1):29-42. Proquest

We begin with a discussion of the possible weaknesses inherent in more consumption-oriented environmental policies, and consider the “individualization” of politics and political responsibilities as developed by Bauman (1993) and Princen et al. (2002). Many environmental problems are ultimately rooted in the conduct of institutional actors, such as companies and governments. Under these circumstances, there is little merit imposing obligations on citizen-consumers, who not only lack the power to influence the organization of production and consumption, but also cannot—and arguably should not—be held responsible for issues that arise out of the “treadmill of production and consumption” (Schnaiberg, 1980). It is likely to be unproductive, and above all illegitimate, to burden citizen-consumers with remedying such problems. If policy initiatives only advance individual solutions—and ignore institutional actors—**socially regressive** and **environmentally** **ineffectual** outcomes will be the result.

#### The alternative isn’t feasible – production-focus is net-better

Winter 3 – PhD in Psychology, Professor @ Whitman

Deborah, “The Psychology of Environmental Problems,” Google Book

Giving up comforts and conveniences may be more than we can fathom, and reverting to preindustrial culture is probably impossible anyway. Even if we could scale down consumption to preindustrial levels, most people **would not** want to. However, many preindustrial cultures have sustained themselves for centuries, demonstrating that sustainable culture is possible. While copying preindustrial cultures may not be feasible, selecting certain features might be useful. In addition, sustainable cultures may offer some benefits to human psychological needs that are not well provided for by industrialized cultures. The modern Western tradition of emphasizing the individual has given us both unsustainable technology and increasing social alienation. Embedded in the modern Western worldview, we try to use the former to mitigate the latter. It may not even be necessary to "give anything up" in order to ac-complish a reduction or reversal of environmental degradation. Improving efficiency or productivity is typically **much more effective** than significantly reducing overall use, and much relevant technology is **already available**. For example, it would be far easier to find an automobile with twice the fuel efficiency of our present cars than to cut our driving in half, and buying an efficient water heater is a lot easier than reducing our use of hot water (Stern, 2000).

#### Limiting consumption fails – we can make current consumption practices ecologically sustainable

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We argue that policymakers should not confront the issue of consumption from a one-sided perspective informed exclusively by environmental scientists and commitments to limit aggregate consumption. In this sense, we do not endorse efforts to “tame the treadmill of consumption” as a narrow objective (see also Princen et al. 2002). Policy programs that aim to lessen the environmental consequences of consumption by reducing (or radically restructuring) consumption will likely lead to questionable social and economic outcomes. These so-called de-modernization strategies tend to **underestimate** the potential to improve the environmental consequences of contemporary consumption by promoting more ecologically rational practices. Without taking a strong position on the desirability of limiting consumption in the absolute sense, we maintain the need to embed consumption in policy objectives developed by democratic environmental reform processes over the last several decades.

## 1ar

#### Other countries rely on US tech, but CAN NOT use it in Cuba --- plan is a prereq to use the tech their ev cites

**Benjamin-Alvarado, 10** – Ph. D of Political Science, University of Nebraska (Jonathan, Cuba's Energy Future Strategic Approaches to Cooperation, p. 117

U.S. Involvement in the Cuban Energy Sector The ability of U.S.-based actors to conduct business in Cuba is another critical factor. The presence of national and international oil companies from Spain, Venezuela, and Brazil, among others, does not necessarily imply that U.S. firms will be relegated to the sidelines. In fact, most if not all of these firms rely heavily on first-generation U.S. technology for their deepwater oil exploration, yet U.S. trade controls forbid the transfer of these technologies to Cuba. Thus, it stands to reason that the relaxation of these U.S. trade regulations— permitting the transfer of these technologies, and sales of oil and gas services— are an essential precondition for the creation and development of the Cuban energy sector.

#### Even exploratory drilling risks massive spills

**Peterson et al, ’12** – Assoc. at California Environmental Associates, Environmental Defense Fund's Cuba program director, and chief oceans scientist at the EDF (Emily A., Daniel J., and Douglas N., “Bridging the Gulf Finding Common Ground on Environmental and Safety Preparedness for Offshore Oil and Gas in Cuba,” Environmental Defense Fund, 2012, http://www.macfound.org/media/article\_pdfs/Bridging\_the\_Gulf.pdf)//HA/CT

Risks of a spill in Cuban waters

As demonstrated by the Deepwater Horizon Gulf of Mexico oil disaster of 2010, the Exxon Valdez spill in Alaska in 1989, and Mexico’s 1979 Ixtoc I well blowout, deepwater drilling is inherently risky. Even companies using the most sophisticated, cutting-edge technology with highly skilled personnel experience oil spills and accidents that threaten human lives, economies, and the environment. In fact, the Deepwater Horizon accident resulted in extensive oil pollution of roughly 200 miles along the edge of the Cuban EEZ, and very nearly led to U.S.-drilled oil befouling important and valuable Cuban beaches, reefs, seagrass beds, and mangrove swamps. 36 The only factor that prevented an international incident was the chance timing of the central Gulf Loop Current gyre formation, which interrupted the delivery of oil down current as far as the Florida Keys. As Cuba proceeds with plans to explore its deepwater offshore oil fields, the risk of a poten tial oil spill in Cuban waters impacting U.S. marine and coastal resources is similarly worrisome. Significant oil spills from exploratory wells are not without precedent: both the BP Deepwater Horizon and Ixtoc I spills resulted from exploratory well blowouts. Experience from past disasters highlights that oil spills do not adhere to political boundaries and that advanced planning and cross-border cooperation are pivotal for mounting a timely, coordinated response strategy.

#### Studies prove this – fear induces change

-several surveys

-case studies

-also indicts the fatalism argument

Veldman 12

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