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Draft

RISING TEMPERATURES AND DECLINING EMPIRE:
THE MORALITY AND POLITICS OF GREENHOUSE GASES

A central question of justice in controlling climate change is whether people in the United States have a moral duty to support an arrangement that avoids substantial constraints on developing countries. Might it, instead, be reasonable for them to respond to costs of emissions reduction by supporting truly global constraints, extending, at least, to the strongest developing economies? Only politeness would keep some people I know from labelling this claim "Republican stupidity." Late in the movie, *An Inconvenient Truth*, when the hero, Al Gore, very briefly confronts the question of costs to Americans of containing greenhouse gas emissions, he finally flashes the smirk that helped him lose the presidency, declares that production will actually be invigorated by the pursuit of new technology, and quickly moves on to more inspiring topics.

I will argue that the truth about global climate change does not justify smug dismissal of American support for truly global constraints based on anxiety about costs. It would not be ill-informed or obviously unreasonable for a representative of the American people (citizenry, nation, what have you) to make the following case. "Large developing countries, especially China, make a large and growing contribution to the problem of global climate change, whose solution will benefit developing countries much more than it benefits us. Of course, common decency requires us to take on trivial costs to avoid severe burdens on people in countries with meager resources for coping with the

problem, which we, too, help to create. But the costs to us of giving large developing countries a virtually free ride are not trivial and their resources for coping are not meager. So we reject arrangements in which developing countries contributing a lot to global emissions do not take on responsibilities for substantial emission reduction." George W. Bush put this argument in a nutshell: "I oppose the Kyoto Protocol because it exempts 80% of the world, including major population centers such as China and India ..."¹ This was the insistent theme in U.S. Senate deliberations over the Byrd-Hagel Resolution against the Kyoto Protocol, which passed 95-0.

An argument that deserves serious attention may also deserve rejection in the end. I will describe how this one might be rejected on either of two grounds. It might be seen as shameful for a contemporary American not to embrace a duty of ecological trusteeship, identifying with avoidance of floods in Bangladesh through late-twenty-first-century climate change as part of her own good. Also, the costs to the United States of severe concentration of emission-reductions on developed countries might be seen as the best feasible way of discharging a debt of justice owed on account of domination and exploitation of people in developing countries in which the U.S. takes the lead. Either consequence of entertaining the argument for global restraints without a smirk is an important departure from standard liberal discourse (in the North American sense): the first because it appeals to mandatory, demanding goals beyond the standard sphere of liberal political values, the second because it bases a solution to an ecological problem on a critique of exploitation and hegemony.

Admittedly, these ways of coping with inconvenient truths might seem politically unimportant, making no difference at all to strategies for achieving the desired regimes of

greenhouse gas reduction. Certainly, calls to sacrifice American employment for Bangladeshi flood control are unutterable in U.S. Presidential debates. However, I will argue in the end, the reasons why developed countries, and the U.S. in particular, have a moral duty to bear the brunt of containing global climate change are also a source of fundamentally important political advocacy.

Unequal Climate Costs

International justice in controlling climate change depends on the distributions of costs of climate change and costs of its mitigation. I will rely on three assessments of these costs. Together, they lead to the central worry of this paper, namely, that reasonable self-interest in the mightiest developed country might create a collision between desperately needed containment of climate change and desperately needed development.

---First, the costs of climate change, if Business As Usual continues, are likely to be much more severe for developing countries than for developed countries, especially the United States.

---Second, if adequate global goals for limiting climate change were achieved through uniform proportionate reductions in greenhouse gas emissions, people in developing countries would suffer the highly disproportionate human cost of confinement to destitution from which they could have escaped.

---Third, the avoidance of this drag on desperately needed development in an adequate climate regime would have serious costs for people in the United States (and some other developed countries), including morally significant costs for vulnerable people.

First, consider the climate costs of Business As Usual (the flip side of the benefits of altering BAU through policies reducing emissions.) These costs will be severely

concentrated on people in developing countries. In part, this is an outcome of the terrain in which people live. For example, huge numbers of people in east and south Asia live in vast coastal lowlands; in sub-Saharan Africa, the rate of run-off of rainwater is especially high; the melting of glaciers is especially important for the water-needs of people in India and South America. Mostly, the greater impact reflects, not mere terrain, but the economic, social and political situations of people in developing countries, engaged in ways of life more sensitive to climate change with fewer resources for adjustment. The most important consequences of Business As Usual are likely to be greater severity at the extremes of local climate variation, for example, more severe storms and drier droughts. These are the bane of farmers and a special burden for rural communities. In developing countries of Africa and Asia (including China and India), about two-thirds of the population lives outside of urban areas. Despite the export-driven rise of manufacturing, agriculture still contributes about one-sixth of their total GDP. In contrast, in high income countries, only a fifth live outside of urban areas and the economic contribution of agriculture is about 2%.²

Of course, as New Orleanians learned, severe weather conditions can wreck the lives of many people in a developed country. But the devastation of New Orleans by Hurricane Katrina was a disgrace because the need for higher levees, long foreseen, could readily have been met. If Business As Usual continues and the average estimate turns out to be right, Bangladesh will need resources for coping with the threat of inundation of a tenth of its land, where five million people live, resources that it can ill afford.³

Because of this combination of natural and social differences, the description of likely impacts of Business as Usual in the most recent survey by the recognized authority,

the Intergovernmental Panel on Climate Change, is rather dull in the sections on North America and Europe, but exciting in the sections on developing regions. For example, the Asian assessment posits large increases in flooding and salinization in coastal zones in Asia where 1.7 billion people live, including such great cities as Shanghai and Mumbai,⁴ and much more malaria and dengue fever.⁵ The African prediction includes much more cholera⁶ and devastating drought in the Sahel.⁷

The IPCC predicts severe costs of Business As Usual for developing countries in the twenty-first century with high confidence (more specifically, a probability of over two thirds.) Other possible consequences of Business As Usual would be dramatic for developed as well as developing countries. The disappearance of the Greenland or the West Antarctic ice sheet would dramatically affect both developed and developing countries, raising sea levels by several meters.⁸ Extremely rapid melting of the Greenland ice sheet could stop the current that warms western Europe, chilling Paris to the temperatures of Montreal. However, the IPCC currently takes these to be very unlikely outcomes of Business As Usual in the course of the twenty-first century, citing, for example, a finding of 99% probability that sea level will rise no more than 104 cm in this century.⁹ New data may significantly up the odds of dramatic change in (now) temperate latitudes. The expected harms of Business As Usual will still, quite disproportionately, be suffered by people not yet born who will live in developing countries.

Costs of Saving the Climate

The currently likely consequences of Business As Usual are terrible enough for humanity as a whole. The costs of avoiding them depend on what atmospheric concentration of greenhouse gases is safe and what emissions level will stabilize this

concentration. The main IPCC scenarios of Business As Usual involve a midrange carbon dioxide concentration of around 700 parts per million by volume in 2100, with large variation due to the vagaries of economic and technological prediction. While the IPCC has not explicitly recommended stabilization at any specific level, its most recent (2001) assessment is full of indications that any atmospheric concentration of carbon dioxide above 550 parts per million by volume by 2100 is too dangerous. Above this level, likely severe consequences rapidly become much more extensive, and the severest consequences, such as the disappearance of the Greenland or West Antarctic ice sheet, are non-negligible risks.¹⁰ More recent observations, including findings of accelerated Arctic melting and unexpected large deposits of frozen methane in Siberia, suggest that even this level may be too high for safety.¹¹

At this point, atmospheric science imposes some harsh arithmetic on the earth's inhabitants. Currently, annual global emissions average about a ton of carbon (the standard measure) per person. Given the likely population of the world in 2100, stabilization at 550 ppmv would require a decline to about .6 tC per person.¹² A 40% reduction in per capita emissions in current developed countries would be quite inadequate to meet this target, both because per capita emissions there are much higher than the global rate and because of the large and growing contribution of developing countries. Under Business As Usual, developing countries will overtake developed countries in total emissions by 2010. Their emissions already constitute 48% of the global total. By 2030, China will emit 24% more carbon than the United States, while India, Africa and Central and South America will, together, exceed the European Union by a similar margin.¹³ In order to converge on equal global per capita emissions in 2100

compatible with stabilization at 550 ppmv, there would have to be a decline of four fifths in per capita emissions in current developed countries, two fifths in developing countries. To achieve a 450 ppmv target, which may turn out to be the minimal safe goal, developed countries' per capita emissions would have to decline by nine tenths, developing countries' by half.¹⁴

This is especially harsh arithmetic for developing countries because of the intimate connection between greenhouse gas emissions and useful economic activity. Growth in per capita GDP, not growth in carbon promiscuity, has been the great generator of greenhouse gases. For example, in the last decade of the twentieth century, energy intensity in China (the energy used in generating a unit of GDP) declined, largely on account of the elimination of fuel subsidies. The independent effect of this substantial decline together with the small increase in the average tendency of fuel to generate carbon dioxide would have been a three-fourths cut in emissions. The actual 39% increase was due to growth in per capita GDP (which would have boosted emissions 102% if all else stayed the same) plus population growth (13%.) India's 64% increase in emissions was mostly due to growth in per capita GDP, contributing a boost of 45%, while reduced energy intensity would have made for a 25% decline, all else being equal. (In the United States, too, GDP per capita was the big booster, even though energy intensity declined. The fuel mix became slightly less carbon dioxide generating, as well.)¹⁵

Even though the carbon emissions of current developing countries will overtake developed countries by about 2010 under Business As Usual, they will remain places where people are typically poor. In 2010, per capita GDP at purchasing power parity (in

2000 U.S. dollars) will be about \$5500 among current developing countries as a whole, \$7500 in China, \$4400 in India.¹⁶ Even in 2050, current developing countries will still contain very high proportions of poor people. According to one projection to 2050 (by the Global Scenario Group of the Stockholm Environment Institute, including significant participants in the IPCC team), per capita income, in 1995 U.S. dollars at PPP, will be about \$11,000 among current developing countries as a whole, \$13,000 in "China+" (China, North Korea, Laos, Mongolia and Vietnam), and \$7,000 in "South Asia" (the countries of the Indian sub-continent), with a typical ratio of income of the lowest fifth to the highest fifth of about 7%.¹⁷

Through the first half of the century, a period in which the battle for the global climate can be lost, substantial reductions from current emissions in developing countries, including the strongest and most carbon prolific developing economies, would trap people in destitution. Even apart from basic material wellbeing, billions of people in these countries need more carbon emissions to overcome rural isolation. In China, there are fifteen motor vehicles per thousand people, and fewer than 1 per cent have access to personal computers (often running on electricity generated in a carbon-dioxide-spewing way.) In India, there are 9 motor vehicles per thousand, 12 per thousand have access to personal computers and a third of households lack television. The U.S. figures are 808 motor vehicles per thousand, 599 per thousand with access to personal computers, and 99% with television.¹⁸

Any decent person contemplating the costs to the world's poor of strenuous emissions constraints on developing economies will be strongly drawn to some system of commitments that concentrates strenuous constraints on current developed countries, at

least until mid-century. The costs of such a regime to people in these countries will vary considerably, especially as measured by differences from Business As Usual. They will be especially high in the United States. For reasons having nothing to do with responsiveness to dangers of climate change, the economies of Western Europe use about 40% less BTU of energy for every dollar of GDP, while emitting slightly less carbon dioxide per BTU. Differences from Japan are even greater.¹⁹ Above all, the United States economy is growing more rapidly. The expected average annual increase in GDP from 2003 through 2030 is 3.0% in the United States, 2.2% in OECD Europe and 1.4% in Japan.²⁰ The basic economic equation of global climate change, that increased emissions equal GDP growth times energy intensity times carbon intensity, makes the United States quite susceptible to counterfactual economic loss. Since it is also the sole super-power, the economic hegemon, the biggest carbon-dioxide spewer, and the major rejector of the Kyoto Protocol, I will concentrate on costs within its borders, in discussing costs to developed countries.

The most relevant studies estimate the costs of U.S. compliance with Kyoto constraints. These studies do not tell us what the costs of conformity to an adequate greenhouse gas regime would have been, since Kyoto is grossly inadequate. In part because of inflated emissions caps offered as a bribe to former Eastern bloc countries ("hot air," as they say in the climate change trade,) full ratification of the Protocol, whose constraints are limited to industrialized countries, would only have lowered their emissions at its conclusion in 2012 by about 5% below 1990 levels. Worldwide, if Kyoto had been fully implemented, an increase of about a third in carbon dioxide emissions would have occurred (about 7% less than Business As Usual.)²¹ In any case, Kyoto is not

just a small but an early step, in which the easiest options can be exploited, such as the closing of the gas mileage loophole through which American SUVs pass -- "No regrets" options as they say in the trade. Still, although quantitatively feeble, Kyoto does have the structural feature that must be explored: exemption of developing countries from emissions constraints

Suppose that Business As Usual in the U.S. economy in 2010 is compared with business as it would be if the economy smoothly adjusted to the emission targets of the Kyoto Protocol. This gap only measures the cost of reduced efficiency on account of less than optimal energy sources. The difference would be a loss of about 1% of the GDP to be expected. However, accommodation would not, in fact, be smooth. Workers in carbon-promiscuous processes that are made more expensive to drive emissions down will lose their jobs and rising energy prices will threaten inflation, setting in motion macroeconomic disturbances. The U.S. Energy Information Agency estimates that the total effect of reduced efficiency and macroeconomic disruption would be a reduction of GDP of about 4%.²² This is the difference between the highest growth rate that the U.S. economy can sustain and stagnation (i.e. a per capita decline of about 1% per year.)²³

The difference in goods and services purchased by the average American would not amount to a significant difference in quality of life. But engagement in valued and productive work, job security and a reasonably successful lifetime job trajectory are important. The loss of a job held for a substantial period (three years or more, in the official definition of "displaced worker") is typically painful in the United States: often the start of long unemployment, usually the prelude to a significantly worse job.²⁴ Retraining programs have not been much help.²⁵ So vulnerable Americans would lose

something significant. Gore's televised inane assurance to workers in a West Virginia factory that they would get good new jobs in new industries if their carbon-spewing factories were closed down may well have done more to poison his chances than smirks and sighs in the first presidential debate. Nor would this be a transient misfortune in a few years of painful transition. Industrial equipment, the most important source of emissions, has an expected lifespan of about twenty years.

Macroeconomic instability would in fact be the least of the worries of a U.S. President contemplating an atmospherically adequate greenhouse gas regime that would not impose severe constraints on developing countries. Far more important is the consequent international political-economic instability. Unrestrained emissions in developing countries would combine with the constraints on U.S. emissions to hasten the end of U.S. hegemony.

IPCC projections suggest that the introduction of such a regime would advance the point at which per capita carbon dioxide emissions in current developing countries equal those of current developed countries by twenty to forty years.²⁶ That's as disaggregated as the IPCC gets. The Stockholm group offers further insight, in their comparisons between Business As Usual and trajectories due to humane and environment-friendly reforms in which the achievement of 450 ppmv without imposing emission constraints on developing countries plays a prominent role. Aggregating less than the IPCC, they estimate trends in "China+" and "North America" (the United States, Canada and the Bahamas.) In their BAU projection, China+'s GDP at foreign exchange rates (a better measure of global economic power than purchasing power parity) is about a fourth of the GDP of "North America" in 2050. But under the reform regime, China+

catches up by then. China+'s energy consumption (on the basis of about the same energy intensity) does not quite overtake "North America"'s by 2050 under Business As Usual. But it is a third greater by 2025 under the reform regime. While "South Asia" does not approach "North America" as closely, its approach is similarly accelerated.²⁷

Given the identification of U.S. leaders with American power, a much quicker end to American economic dominance -- which finances and sustains military and political dominance -- is the most important political barrier to an adequate greenhouse gas regime that does not impose severe costs on people in developing countries. This obstacle has no standing as a morally significant cost. But it is associated with genuinely regrettable costs. The loss of the financial prerogatives that come with having the dominant currency and the most important financial markets and the loss of what is left of the U.S. technological lead would displace American workers. Of course, the problems of imperial senescence will be suffered eventually, but their coming much sooner will add to the difficulties in life of Americans alive today. Moreover, a quicker transition is apt to be more tumultuous and costly, and not only for Americans.

The human costs of protecting the atmosphere without a horrendous drag on global development would be considerably reduced by a change in the American way of life. A developed country in which the economy does not grow very quickly, people are protected from economic disruption, carbon-emitting transportation is economized through public facilities, production is substantially reduced in favor of leisure, the social safety net is fairly high and the stigma of using it is fairly low, and people tolerate high taxes (e.g., carbon taxes) to shape their conduct in pursuit of national goals is more like France, at present, than the United States.

Low growth developed economies are hardly human disasters, as Americans discovered on visiting long-stagnant Japan. But they are different. The churning of the U.S. economy makes it much easier for young Americans to leave home. Reliance on automobiles gives Americans a great variety of options in residence, while both cars and thunderously carbon-dioxide-emitting jet planes convey them around a continental nation, with much more effective individual discretion than an environmentally friendly economy would allow. Americans tend to be attached to demanding goals of material improvement for themselves or their children as measures of individual success. These may not be inherently admirable goals, but neither are they to be despised. The restless striving that they motivate even has its admirable features, such as the absence of snobbishness and ease with new acquaintances.

When critics of globalization contemplate the loss of a traditional way of life in the course of IMF-induced structural adjustment, they take it to be a loss even if they would not themselves dream of participating. (Indeed, many of them would probably be bored to tears by the slow pace and rurality of ways of life they lament.) An adequate response to global climate change might well require undermining the American way of life if much worse costs to people in developing countries are to be avoided. This, too, should be acknowledged as a loss, regardless of whether one is drawn to what is threatened. This is the truth behind the vulgarity of George H. W. Bush's protest, in the face of early calls for greenhouse gas restraint: "The American way of life is not for sale."

A number of wands are waved in an effort to make all these costs largely disappear. The most popular is the appeal to international trading of permits to emit carbon dioxide, to insure that emissions are reduced where reduction is least costly. (The

estimates of U.S. costs that I provided did not take these savings into account, in part because the obstacles to implementation have been very high, in part because Kyoto-based trading would depend on East European hot air that severely undermines Kyoto goals.) Celebrations of trading are rarely accompanied by descriptions of how the permits are to be allocated. If developing countries are not part of the permit system, there is much less room for improvement by trading, especially when the East European bribe is spent. But allocations to developing countries below the level of current emissions would be an intolerable drag on development. Instead, the allocations would, presumably, amount to a reduction of future emissions below Business As Usual as projected to some fairly distant future date. But Business As Usual is a speculation concerning a highly uncertain future. No responsible government of a developing country will be prepared to sacrifice well-being on the altar of a conservative estimate of the future vigor of the economy. So good faith deliberations will result in high estimates and consequent hot air.

Further pressures of self-interest, which any plausible scheme must take into account, will strengthen the emission generating tendencies of the trading scheme. A developing country with a high quota had better not emit much less by the end of the current accord, since this will be taken as an indication that the next quota should be less permissive. In trading regimes, developed countries with strict quotas have reason to support permissive quotas for the developing countries, since they will generate permits sold at a lower price. Like other hypothetical markets, the trading regime works miracles in a wonder world of perfect foresight and automatic compliance, but cures few ills in our own world.

In any case, full global trading would exacerbate political-economic risks to the United States (which proponents routinely neglect.) The outward flood of hundreds of billions of dollars to buy permits might substantially contribute to the end of the role of the dollar as world reserve currency and the role of U.S. financial markets as the world's safest haven.²⁸

In Search of a Rebuttal

I hope it is clear that the reasonableness of American insistence on substantial reductions by developing countries should only be denied with a serious rebuttal, not a dismissive smirk. One rebuttal appeals to the overwhelming preponderance of now-developed countries in creating the mess we are now in. The United States and the countries of the European Union were the launching sites for 57% of the carbon dioxide emitted from 1850 until 2000. Adding emission from Russia, Japan, the Ukraine, Canada and Australia yields 76% of cumulative emissions, from countries that now include less than 15% of the world's people. China's contribution was 7%, India's 2%.²⁹

However, nearly all of these emissions were relevantly innocent. Whatever their other faults may have been, the owners of the satanic mills of Victorian Manchester had no idea that they might be contributing to flooding in the Indian sub-continent in the twenty-first century. People are not responsible for unforeseeable, remote side-effects. So the argument that would lead to responsibilities of people living in Manchester now does not even get started. Looking at emissions since the problem of global warming became clear: from 1990 through 2000, China emitted nearly as much as the European Union and more than half as much as the United States. In the first half of this century, under Business As Usual, developing countries' emissions will exceed developed countries' and

their cumulative emissions will exceed contributions from prior centuries, even without considering land use changes that further shift the balance; starting around 2020, the growth of emissions from China will accelerate, while world emissions start to decelerate and developed countries' start to decline in absolute terms (outside the former Soviet bloc.)³⁰ An appeal to responsibilities to avoid harm is an extremely unpromising source of reasons why developing countries should not commit themselves to a very substantial share of emissions constraints.

In contrast to reflections on harm, a perspective of impartial concern is a source of utterly compelling reasons to exempt developing countries from substantial constraints -- once such a perspective is adopted. Either utilitarianism or self-interested choice behind a veil of ignorance of where one lives or a general commitment to favor the interests of the neediest who can be helped the most, in proportion to their numbers, will lead to such a regime, to avoid the horrendous drag on development, favoring it all the more strongly because its greatest climate benefits help those who are neediest to begin with. But grounding moral obligation on impartial concern has other consequences as well. If Oxfam's descriptions of what it can do are even approximately right, Peggy and I are condemned as wrong for having sent our daughter to NYU with money that could have saved many kids in poor countries from premature death. I would be wrong to refuse to sacrifice both my arms, if this is needed to save your neck from a buzz saw. Moral commonsense observes a different principle, something like this: one's underlying responsiveness to neediness as such must be sufficiently demanding that greater concern would pose a significant risk of worsening one's life when other responsibilities have been met; but it does not have to be any more demanding or exclusively focussed on

maximal relief of the severest needs. The defense of this principle against philosophers' arguments for more severe requirements is not quick work, as I know from trying. Appealing to this past work,³¹ I will have to assume, for present purposes, that common sense is right. If it is, the argument from the duty of general beneficence is blocked by significant risks that lives in developed countries will be worsened, responsibilities to disadvantaged compatriots and legitimate special concerns for local needs.

Still, common sense tells us that those who would otherwise contribute to terrible calamities must seek to avoid these harms through arrangements that none could reasonably reject.³² The rejection of a joint arrangement can be unreasonable because the alternatives distribute benefits and burdens unfairly. But familiar considerations of fairness count in favor of the reasonableness of President Bush's and the U.S. Senate's stance. Because the expected harms of Business As Usual are concentrated on developing countries, substantial and burdensome constraints on their emissions are compatible with a regime with equal net benefits. Indeed, putting extremely unlikely outcomes to one side, it is not clear that interests of those now alive in the United States would be advanced on balance in a climatically adequate (550 or 450 ppmv) regime that exempts developing countries from such constraints. Granted, mutual respect requires a non-arbitrary basis for imposing constraints. ("Don't walk on the grass unless you are me" works fine as a grass-preserving measure, and makes no one worse-off than "Don't walk on the grass," but others would have grounds to object.) However, there is an obvious non-arbitrary criterion: restraint in proportion to the harm of unrestrained activity. This particular standard may not be a dictate of fairness, but against the background I have sketched, it seems to qualify the American rejection as not unfair.

Two Solutions

Despite these difficulties, I think a rebuttal is available. But it will require changes in the terms in which self-described "liberals" are apt to approach political problems in the United States: less individualism in the assessment of relevant interests and more attention to transnational facts of power.

In the first place, the arguments so far have accepted an individualist premise of most liberal political philosophy: people's political duties are determined by reasonable responses to the strength of complaints that they could make on the basis of their actual interests, so long as those interests are not inherently illegitimate. Interests inherently in conflict with liberal political values of liberty, toleration and cooperation on fair terms are not counted as legitimate; i.e., complaints based on their violation have no moral standing. For example, the thwarted interests in domination of deposed tyrants, feudal overlords and slave-owners are morally irrelevant. But otherwise, political duties depend on reasonableness in response to people's interests as they are; what we owe to one another politically is based on reasonable accommodation to consequent complaints. Here, an interest in pious contemplation of divinity has no greater standing than an interest in tasting complex but well-knit wines or in prolonged sexual excitement.

From this perspective, the flooding, circa 2040, of Bangladesh, accompanied by cholera epidemics in Ethiopia and a terrible heat wave in Nanjing, are not a relevantly serious cost to an American who does not happen to deeply care about these consequences of the greenhouse warming in which he participates. It may be disgraceful, shameful for him not to take on ecological trusteeship as a centrally important personal goal, regarding avoidance of these catastrophes as an important part of his own good.

Willingness to countenance these foreign catastrophes to avoid risks of U.S.-style job loss may show that his personal values are disordered, like the values of someone who willingly leads an unproductive life, devoted to savoring wine and sex. Because its flourishing requires shameful neglect of relevant ecological goods, the American way of life may be misguided. Still, says the traditional liberal, in identifying political duties we must not discount complaints about net effects of methods for achieving 550 ppmv by substituting for actual complaint the welcome that the consequences *would* receive from an American whose interests *were* as they should be.

These limitations do not, remotely, preclude support for pollution control on the part of a traditional liberal. Continued engagement in an otherwise innocent activity with foreseeable harmful side-effects relevantly interferes with the liberty of those harmed (as even most libertarians concede.) But the fair arrangement to reduce these harms is supposed to respond to individuals' benefits and burdens due to personal interests. The interest in avoiding death by heatstroke is a relevant input into the larger machinery of fairness, but input from other-regarding interests, such as an interest in others' avoiding death by heatstroke, would be a kind of "double counting," as Ronald Dworkin put it in an incisive critique of classical utilitarianism as insufficiently individualist. Looking only at the impacts on personal interests of successful mitigation, on the one hand (strongly tilted toward people in developing countries), and genuinely global emissions constraints, on the other (especially burdensome for people in developing countries), it is by no means clear that an adequate globally constraining regime is unfair on balance.

By the same token, if judgments of what interests should be embraced *are* relevant at the first stage of reasoning about political duties -- the stage of assessing the

seriousness of complaints -- and interests in ecological trusteeship are strongly favored, then the justification for rejecting climate-adequate measures that virtually exempt developing countries disappears. If someone in a developed country takes those foreign catastrophes after she is dead as tokens of failure in her own important life projects, the benefits to her of containing global climate change will not be substantially inferior to benefits to others -- in any case, not inferior in a way that would generate a complaint of unfair treatment. So the concentration of emission restrictions on developed countries, which equalizes burdens of mitigation and substantially advances her own, worthy interests, would not be a source of complaint. Given the severe costs to people in developing countries, her rejection of the developing-country-permissive regimes would be downright unreasonable.

I think that this rebuttal is sound. Even traditional liberals insist that some informed complaints of frustrated interests should be dismissed out of hand, for example, the complaints of threatened oppressive elites at no longer being able to lord it over others. Insisting on recalibration to the standard of someone who cares deeply about others' democratic participation but not recalibration to the standard of someone who cares deeply about avoiding contribution to the catastrophes of global climate change converts a due regard for the special moral demands of political life into an obsession with the purely political.

Still, one should hope that this first rebuttal is dispensable. For traditional liberals respond to real dangers when they seek to base political impositions on political values of liberty, fairness and toleration, putting further criticism of personal interests to one side. In many countries now and in every country in the not-too-distant past, the majority have

been strongly drawn to imposing laws on the basis of the view that religious or sexual interests of some minority of fellow-citizens are shameful and disgraceful. One can oppose these justifications directly, by arguing that those interests are not shameful and disgraceful or that legal discrimination will, in any case, do nothing to improve lives. But a further, strong shared political inclination to seek justifications based on values of liberty and fairness helps to protect vulnerable minorities and affirms mutual respect among fellow-citizens. This political inclination should not be indulged no matter what the cost in injury to other values. But even someone willing, as a last resort, to impose serious costs on fellow-citizens without a basis in liberal values should hope that she does not have to and should seek a way of avoiding this last resort.

There is a way out, in the case at hand. A climate regime that disproportionately benefits people in developing countries is an essential means of removing defects of transnational relations that are defects of unjust domination and unfair terms of cooperation.

Within sovereign borders, those who take part in the use of political power to shape the terms of self-advancement of compatriots have a responsibility to sustain their compatriots' pursuit of basic needs. If violent uses of state power devastate innocent people, these people should be helped to get back on their feet. Those who benefit from a shared cooperative framework in which parties put legitimate prerogatives to one side to advance common interests have a duty to help those who suffer special burdens in the common enterprise. One has a duty to avoid taking advantage of others' desperate neediness, which provides a strong reason to return benefits of their consequent bargaining weakness.

The processes generating these duties of political justice and economic fairness within sovereign borders also connect developed countries, above all, the United States, with developing countries, for reasons having nothing to do with greenhouse gas emissions. Through processes epitomized by structural adjustment, the United States has taken the lead in shaping terms of self-advancement in many developing countries. U.S. foreign policy has been pursued through vastly violent exercises of destructive power throughout the developing world. The stresses and disruptions of trade-liberalization are concentrated in developing countries, without proportionate benefit. Through cheaper goods and higher returns on investments, people in developed countries benefit from the desperation that makes people in developing countries glad to earn low wages for stultifying work in order to escape even worse misery.

The role of China, India and Brazil in the creation of foreseeable harms through greenhouse gas Business As Usual is large. But the role of China, India and Brazil in forcing structural adjustment on developing countries, conducting and sponsoring violent foreign exercises of destructive power, prying open the economies of developing countries in destructive ways and exploiting the desperation of the rural unemployed in foreign countries is not large. Transnational power rather than transnational carbon dioxide concentrates transnational responsibilities on developed countries, above all, the United States.

Foreign aid is philosophers' favorite fix for the failure to live up to the responsibilities these processes create. Recent work by Hansen and Tarp and Clemens, Radelet and Bhavnani offers strong evidence that increases in aid somewhat above the current, low norm would increase growth a bit.³³ But studies establishing positive effects

of some increase also establish a daunting tendency for marginal benefits to diminish. If the flow of aid to low income countries were doubled, about half would cross the 25% threshold which Hansen and Tarp estimate to typically mark the onset of negative returns, while about two thirds would be above the 15% threshold at which Clemens, Radelet and Bhavnani think marginal returns may disappear in typical countries.³⁴ Factors depressing the marginal returns that go by the bland, hydraulic label, "limited absorptive capacity," have been described in vivid detail in work by Ravi Kanbur, Nicolas van de Walle, and others. As Ravi Kanbur puts it, "[T]he real cost to Africa of the current aid system is ... the fact that it wastes much national energy and political capital in interacting with aid agencies, and diverts attention from domestic debate and consensus building."³⁵

Beyond the apparent limits of foreign aid efficacy, reform of the current trade and foreign exchange regime would help some, but the gains would be limited and would often be concentrated on the least needy victims of global inequity. Ending the hypocrisy in which the most important factor in production, human labor, is the least liberalized, would certainly help desperately needy people in very poor countries. But the human costs of this self-uprooting to emigrants, their communities and their families, especially the young, are enormous, as Lourdes Beneria, Rhacel Salazar Parrenas and others have noted.³⁶

These limited means do not fill the vast bill for moral repairs on any accurate accounting. So an informed and politically responsible person in the United States should be eager to find another means of relieving burdens on needy people in developing countries, because of a commitment to liberal values, not because of further aspirations or the general duty of beneficence toward the needy. The containment of global climate

change without demanding constraints on developing countries helps to fill the bill, because of, not despite the fact that developing countries benefit the most. When countries are ranked by difficulty in coping with climate effects of Business As Usual, the last are first, with Ethiopia and Burkina Faso on top, Bangladesh near the top, India and China ranked high, and developed countries lowest, especially the United States.³⁷

Toward Politics

It might seem that this analysis of why Americans should let developing countries off the hook is best treated as a secret doctrine, in the United States. The hope would be that vivid descriptions of the consequences of Business As Usual would lead the electorate to support climatically adequate arrangements whose burdens for developing countries are not excessive. The fear would be that recognition of the threat of such an arrangement to American growth and power, criticism of the American way of life as shamefully negligent, and appeals to unmet responsibilities due to American domination, destruction and exploitation will alienate the electorate and awake anxieties about the equitable way of containing climate change. Best to let these sleeping dogs lie.

Far from offending mortal integrity, this tip-toeing around the sleeping dogs might seem an expression of moral integrity. In the face of looming human disaster, it can be unconscionable to be inhibited by the quest for fairness. It is the lifeguard's job to save people in his stretch of water. If he won't budge from his weight-lifting and I have to devote my flab and rusty aquatic skills to saving someone, this is quite unfair, but if I can help without serious risk and it is clear than no fairer rescue is in the offing, I must not let the victim drown by holding out for fairness. Similarly in the climate case, keeping quiet about fairness might be conscientious.

However, as general advice to the movement to save the atmosphere, the strategy of silence is, in fact, naive. It neglects driving forces in U.S. foreign policy and vital means of moderating their excesses.

Political leaders and policy planners in all factions of both major American parties will be guided by the fact that a climatically adequate regime that does not seriously constrain developing countries would reduce the power and wealth of the United States, especially in competition with China. The Clinton administration made no significant effort to get the Senate to ratify the pathetically limited Kyoto Protocol. The vote for Byrd-Hagel was 95-0. U.S. political elites have never willingly sacrificed American power or wealth. Their choices are steered by the same geopolitical interests as elites in all great powers.

This is not to deny that moral outrage constrains U.S. foreign-policy-making at second hand. Fears of outrage can themselves be fears of lessened power. Moral outrage abroad at American policies makes it harder to sustain secure foreign alliances. Moral outrage at home makes it harder to motivate support for sacrifices that the most urgent foreign policies may require (for example, the deaths of young Americans) and threatens the perceived legitimacy of the established order as a whole. The Pentagon Papers, the Nixon tapes and the Johnson tapes offer no evidence of any force of foreigners' deaths as a dissuasive reason. But fear of strategic costs of moral outrage joined fears of provoking Chinese or Russian intervention as the sole reasons to moderate devastation in Vietnam that might otherwise have promoted American power.³⁸ At the great crossroads of the Vietnam War, when Johnson's Senior Advisory Group turned dovish and told him to

deescalate, the cost they sought to avoid was controversy "demoralizing the country"³⁹ and "poisoning ... the minds of some Americans toward their own government."⁴⁰

Indignation at the global costs of greenhouse gas emissions is certainly an indispensable ingredient in a social movement that moves the U.S. closer to engagement in an equitable and adequate emissions regime. This progress will depend on the decisions of some President or other, whose public arguments will, no doubt, evade the inconvenient truths that Al Gore evaded. But there is a division of labor, here, in which others must publicly confront these truths, in a part of the movement which goes beyond the Business As Usual of U.S. institutions and elites.

The conflict between American power and wealth and equitable containment of global climate change will continue to lead prominent public figures to instill fears of job loss, loss of the America way of life, and loss to China, in order to defeat the measures that climate justice requires. These dogs will not sleep. Accepting and confronting the truths about costs in a morally principled argument will improve the outcome of the total political process, which established institutions dominate but do not wholly control. More people -- a minority but a growing minority -- will be led from worries about the climate to recognition of the immoral excesses of the pursuit of American power by both political parties. People in the movement to contain global climate change will be more apt to recognize threats to the security of American workers, turning negligent detachment to respectful, concerned alliance. Hostility toward China will be confronted as a menace to humanity. The outcome of the total political process will be a hodgepodge of half-measures, mostly made less inadequate by alarms at catastrophe, mostly made less inequitable by pressure from the strongest developing countries and their passive-

aggressive option of simply refusing to constrain their own greenhouse gases. Still, principled moral argument about all the inconvenient truths can improve climate justice by threatening increased costs of lost legitimacy if more justice is not done.

Will Americans isolate themselves from compatriots by these arguments? Perhaps not, since they will have no need to regard climate-recalcitrant compatriots as fools. In any case, this route to support for climate equity is a way of taking part in a large, growing and vital global movement for equity that opposes excesses of destruction, domination and exploitation in other realms as well. The greenhouse gas effect is one of many reasons why people in developed countries should make this global movement their primary political affiliation.

¹ "Letter from the President to Senators Hagel, Helms, Craig, and Roberts," March 13, 2001, www.whitehouse.gov.

² See World Bank, *World Development Indicators 2006* (Washington: World Bank, 2006), Tables 3.1, 4.2.

³ Intergovernmental Panel on Climate Change (Working Group II), *Climate Change 2001: Impacts, Adaptation, and Vulnerability* (Cambridge: Cambridge University Press, 2001), p. 569.

⁴ *Ibid.*, p. 567.

⁵ *Ibid.*, p. 571.

⁶ *Ibid.*, p. 513.

⁷ *Ibid.*, pp. 517-20.

⁸ *Ibid.*, p. 951.

⁹ *Ibid.*, pp. 24, 93, 171.

¹⁰ See, for example, *ibid.*, p. 958; Intergovernmental Panel on Climate Change (Working Group III), *Climate Change 2001: Mitigation* (Cambridge: Cambridge University Press, 2001), p. 124.

¹¹ See, for example, Julian Dowdeswell, "The Greenland Ice-Sheet and Global Sea-Level Rise," *Science* 311 (February 17, 2006): 963-4; Richard Alley et al., "Ice-Sheet and Sea-Level Changes," *Science* 310 (October 21, 2006): 456-60; K.M. Walter et al., "Methane bubbling from Siberian thaw lakes as a positive feedback to global warming," *Nature* 443 (September 7, 2006): 71-5.

¹² IPCC, *Climate Change 2001: Mitigation*, pp. 89, 97.

¹³ Energy Information Administration, *International Energy Outlook 2006* (Washington, D.C.: U.S. Energy Information Administration, 2006), p. 93.

¹⁴ IPCC, *Climate Change 2001: Mitigation*, pp. 89, 97.

¹⁵ Kevin Baumert, Jonathon Pershing et al., *Climate Data: Insights and Observations* (Arlington: Pew Center on Global Climate Change, 2004), p. 22.

¹⁶ Energy Information Agency, *International Energy Outlook 2006*, pp. 86f.

¹⁷ See Eric Kemp-Benedict, Charles Heaps and Paul Raskin, *Global Scenario Group Futures* (Stockholm: Stockholm Environmental Institute, 2002), Global Scenario Tables (online.)

¹⁸ 2003 and 2004 estimates in World Bank, *World Development Indicators 2006*, Tables 3.12, 5.10. Since the start of concerns to contain greenhouse gas emissions, Henry Shue has trenchantly described the different costs of reduction for developing and developed countries and their moral significance. See, for example, "Subsistence Emissions and Luxury Emissions," *Law & Policy* 15/1 (1993): 39-51.

¹⁹ Energy Information Administration, *International Energy Outlook 1999* (Washington, D.C.: U.S. Energy Information Administration, 1999) pp. 134f.

²⁰ See Energy Information Administration, *International Energy Outlook 2006*, p. 86.

²¹ Energy Information Administration, *International Energy Outlook 1999*, p. 130.

²² *Ibid.*, p. 137.

²³ In an influential discussion of "action combating global climate change" as, "intended or not, a foreign aid program," Thomas Schelling identifies the cost to the United States of controlling climate change with a one-time loss of two percent of GNP, noting "if one plots the curve of U.S. per capita GNP over the coming century with and without two percent permanent loss, the difference is about the size of a line drawn with a number two pencil" ("The Cost of Combating Global Warming: Facing the Tradeoffs," *Foreign Affairs* 76/6 (1997), p. 3 [online].) Somewhat earlier work makes it clear that this is a simple extrapolation to the U.S. alone of an estimate of Gross World Product loss by Alan Manne and his Stanford group, which adjusts for worldwide gains in damage avoided, discounts post-1990 costs at two percent per year, and takes no account of macroeconomic or political-economic disruption (see Schelling, "Costs and Benefits of Greenhouse Gas Reduction, (Washington: American Council for Capital Formation [www.accf.org]), 1995.) In this work, Manne and his co-workers also assess costs to the

United States alone. Considering only reduced productivity through smooth adjustment, Manne takes the cost in the U.S. of lost GDP of a regime in which permits are not traded and developing countries are exempted from emissions constraints to amount to one percent in 2010 alone; he himself takes this to be a compelling reason not to institute this regime ("Economic Impacts of Alternative Emission Reduction Scenarios" (Washington: American Council for Capital Formation [www.accf.org], 1995.), see especially pp. 3f.)

²⁴ The most extensive data are the biennial Displaced Workers Surveys of the U.S Bureau of Labor Statistics. Analyzing recent surveys, Henry Farber notes that about 35% of job-losers in a typical three-year period have not found a job at the end of the period; among the reemployed, 13% of those losing a full-time job have only found a part-time job; full-time job losers who do find new full-time jobs earn 17% less on average than they would have if not displaced ("What do we know about job loss in the United States?", *Economic Perspectives* [Federal Reserve Bank of Chicago, on-line] 2005 (second quarter):13-27.) Workers displaced after twenty years' tenure tend to find work at pay about a third less than their old job (Louis Jacobson, Robert LaLonde and Daniel Sullivan, "Is retraining displaced workers a good investment?", *ibid.*, p. 48.)

²⁵ See Amit Dar and Indermit Gill, "Evaluating Retraining Programs in OECD Countries: Lessons Learned," *World Bank Research Observer* 13 (1998): 79-101.

²⁶ See IPCC, *Climate Change 2001: Mitigation*, p.154. The tendency of a dollar of GDP to generate carbon dioxide is presently the same in developed and developing countries; see Baumert et al., *Climate Data*, p. 8.

²⁷ See *Global Scenario Group Futures*, Global Scenario Tables, comparing the BAU Market Forces case with Policy Reform, and "Technical Notes," p. 26..

²⁸ David Victor estimates that the asset value of emissions permits of industrialized countries under fully-ratified Kyoto would have been \$2.345 trillion, and notes that the Clinton administration's estimate that the cost of compliance would be low assumed that three quarters of the nominal U.S. abatement would consist of permits purchased overseas. See *The Collapse of the Kyoto Protocol* (Princeton: Princeton University Press, 2001), pp. 28f.

²⁹ See Baumert et al., *Climate Data*, p. 13.

³⁰ M. Kainuma, Y. Matsuoka, T. Morita et al., "Cost Analysis of Mitigation Policies" in Kainuma, Matsuoka and Morita, eds., *Climate Policy Assessment* (Tokyo: Springer, 2003), pp. 64, presenting results of a leading predictive instrument, the Asia-Pacific Integrated Model.

³¹ Richard W. Miller, "Beneficence, Duty and Distance," *Philosophy & Public Affairs* 32 (2004): 357-83.

³² This statement derives from a principle of moral obligation that T.M. Scanlon has elaborated and explored in rich detail in such writings as "Contractualism and Utilitarianism" in Amartya Sen and Bernard Williams, eds., *Utilitarianism and Beyond* (Cambridge: Cambridge University Press, 1982), pp. 103-28 and *What We Owe to Each Other* (Harvard: Harvard University Press, 1998): "An act is wrong if its performance under the circumstances would be disallowed by any system of rules for the general regulation of behavior which no one could reasonably reject as a basis for informed, unforced general agreement" ("Contractualism and Utilitarianism, p. 110.)

³³ Henrik Hansen and Finn Tarp, "Aid effectiveness disputed" in Tarp, ed., *Foreign Aid and Development* (London: Routledge, 2000), pp. 103-128; Michael Clemens, Steven

Radelet and Rikhil Bhavnani, "Counting chickens when they hatch: The short term effect of aid on growth," (internet: Center for Global Development, 2004.).

³⁴ See Hansen and Tarp, "Aid effectiveness disputed," p. 125; Clemens, Radelet and Bhavnani, "Counting chickens," p. 40; Todd Moss and Arvind Subramanian, "After the Big Push?" (internet: Center for Global Development, 2005), p. 6.

³⁵ Ravi Kanbur, "Conditionality and debt in Africa" in Tarp, *Foreign Aid and Development*, p. 419. See also Nicolas van de Walle, *African Economies and the Politics of Permanent Crisis, 1979-1999* (Cambridge: Cambridge University Press, 2001.)

³⁶ See, for example, Lourdes Beneria, "Household Labor, the Capabilities Approach and Public Policy" (paper for this conference), Rhacel Salazar Parrenas, *Servants of Globalization: Women, Migration and Domestic Work* (Palo Alto: Stanford University Press, 2001.)

³⁷ See Baumert et al., *Climate Data*, p. 18.

³⁸ In U.S. Department of Defense, *The Pentagon Papers: The Senator Gravel Edition* (Boston: Beacon Press, n.d.), see, for example, vol. 3, p. 388; vol. 4, pp. 257f., 463, 479, 561, 603.

³⁹ George Ball's report of his emphasis in converting hawks to doves at the climactic meeting. See Ball, *The Past Has Another Pattern* (New York: W.W. Norton, 1982), p. 409.

⁴⁰ Ball's assessment, in retrospect, of the long-lasting damage of Vietnam, together with "the warped attitude of other governments toward America," *ibid.*, p. 433. In addition, Ball's biographer reports, "Ball privately questioned the war on moral grounds. He avoided discussing the conflict in these terms because his first priority was to change

what he considered to be a flawed U.S. policy" (James Bill, *George Ball: Behind the Scenes in U.S. Foreign Policy* (New Haven: Yale University Press, 1997), p. 174.)