



Individual Responsibility for Environmental Degradation: The Moral and Practical Route to Change

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In environmental ethics a debate has arisen over the extent to which the individual should make changes in personal lifestyle in a long-term program of ameliorating environmental degradation, as opposed to directing energies toward public-policy change. In opposition are the facts that an individual's contribution to environmental degradation can only have a negligible effect. Public policy offers the only real hope for such massive coordinated effort, and environmental degradation is only one of many global problems to which ethically oriented people must focus their attentions and energies. So far, the pro-personal responsibility side has urged that personal lifestyle changes are necessary for moral coherence, thus in turn for integrity of character, and lifestyle changes can affect others in a kind of chain reaction because humans are socially submerged beings. The stalemate here can only stymie the needed coordinated effort toward ameliorating environmental degradation. Further, moral concerns need to be brought into this issue; namely, the ramifications of pursuing a policy-only approach, emphasizing policy as the sole (or even primary) means of ameliorating environmental degradation, implicitly undercuts the role of individual agents in morality in general, in terms of (1) individual responsibility, (2) autonomy, and (3) creativity in solving problems. All these problems not only bear on the program to reverse environmental degradation, but undermine other widely held moral values. Emphasizing personal lifestyle responsibility is not only the most moral alternative but is also the most assured way to affect long-term changes and the better way to make policy changes credible and sufficiently substantive for change.

INTRODUCTION

An ongoing debate concerns the optimal means by which agents should pursue solutions to anthropocentric global warming. One side maintains that individuals can make no or little difference in ameliorating the problem; they should promote policies that have the reach to effect real change.¹ The other side holds that individuals can make, and have made, a difference in environmental improvements.

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¹ Examples of this side include Baylor L. Johnston, "Ethical Obligations in a Tragedy of the Commons," *Environmental Values* 12 (2003): 271–87; Baylor L. Johnston, "The Possibility of a Joint Communiqué: My Response to Hourdequin," *Environmental Values* 20 (2011): 147–56; Walter Sinnott-Armstrong, "It's Not My Fault: Global Warming and Individual Moral Obligations," in Walter Sinnott-Armstrong and Richard B. Howarth, eds., *Perspectives on Climate Change: Science, Economics, Politics, Ethics* (Amsterdam: Elsevier, 2005), pp. 285–307; and Dan Shahar, "Treading Lightly on Climate in a Problem-Ridden World," presented at the American Philosophical Association Eastern Division Annual Meeting, 29 December 2013.

Morality is often said to start at home; why should environmental ethics be an exception?²

The debate is worrisome. Disunity among those who seem to share the goal of improving the environment can stymie efforts. While this debate has focused mostly on global warming, a comparable fissure among activists and theoreticians can plague any of many areas of concern in environmental degradation. I thus frame the following discussion in the broader context of all kinds of environmental degradation. Many of the same principles and worries should apply to them all: they all feed into one another, and they all need amelioration soon.

Furthermore, they share the distinction of being continued and exacerbated by the agglomerated actions of individual agents. Global warming, being caused by quantifiable greenhouse gas (GHG) emissions, seems especially traceable to such massed actions: we all, whether foragers seeking firewood or ranchers cultivating the highly GHG-potent methane, contribute a share of GHG. A forager gathering just as much fruit and fish needed to survive seems not to contribute to habitat loss. However, in much of the industrialized world, where many of these environmental worries are being debated, agent actions may feed as powerfully into other kinds of environmental degradation as they do to global warming. As ecology teaches us, such actions can tightly interrelate. Building low population-density exurbs not only increases habitat destruction and biodiversity loss but demands more use of vehicles with high GHG emissions. In this light, considering who should take care of global warming—a problem which has absorbed much of the debate—evidently becomes a subset of the broader question of who is responsible for taking care of environmental degradation tout court.

In this article, I argue that individuals' reliance solely upon industrial and governmental policy will be inadequate to handle the increasing threats of environmental degradation. Furthermore, such reliance contravenes widely held moral values. Individuals instead must undertake all efforts they can in their own lives as well as in their political activities to bring about due changes in human behaviors, if any changes are going to solve environmental degradation. I point out three areas to which the literature still needs to speak and which can support the need for the role of individuals' actions in their personal lives to counter environmental degradation: (1) the broad moral concern I alluded to; (2) a "convergence" or synergy problem in which personal and social goals do not converge or even operate against each other; and (3) the practical political problem, in which policymaking generally does not plan for outcomes far enough into the future for what is needed in environmental degradation amelioration. In the end, of course, new policies

² Examples of this side include Marion Hourdequin, "Climate, Collective Action, and Individual Ethical Obligations," *Environmental Values* 19 (2010): 443–64; Marion Hourdequin, "Climate Change and Individual Responsibility," *Environmental Values* 20 (2011): 157–162; Carol Booth, "Bystanding and Climate Change," *Environmental Values* 21 (2012): 397–419; and Trevor Hedberg, "Climate Change, Moral Integrity, and Obligations to Reduce Individual Emissions," presented at the American Philosophical Association Eastern Division Annual Meeting, 29 December 2013.

are essential—but these are more likely to happen if individuals start by cleaning up their own acts.

THE DEBATE

The following literature review partly overlaps with those of Hourdequin³ and Baatz,⁴ but I bring up more recent work and keep the review brief, in order to cover the material that my article brings to the conversation. But at least some review is needed to help readers not steeped in it and to clarify the article's context.

Hardin's rendition of the tragedy of the commons laid a milestone.⁵ Nordhaus⁶ turned to it vis-à-vis global-warming economics, and Ostrom⁷ and Vollan and Ostrom⁸ broadened it into further economic considerations. This concept has recently been resuscitated in considering anthropogenic global warming, as in Johnson's article in 2003 on the commons,⁹ specifically that of Earth's atmosphere. Johnson assumes Hardin's interpretation whereby no individual (or corporation) has the incentive to change behavior because, paradoxically, one must await for the other to make the step first; otherwise, one thwarts one's goals. Only collective action can overcome this paradox. However, individual humans, while perhaps more willing, can make no detectable difference in the tragedy of the commons and should focus on political action. Individual actions at the expense of collective action "are at best misguided, at worst immoral," Johnson writes.¹⁰ The Clean Air and Clean Water Acts of 1970 could corroborate Johnson's case: collective action has reportedly improved air and water quality.¹¹

Sinnott-Armstrong¹² argues that it is unclear whether the individual's adjusting lifestyle toward cooling the atmosphere is moral or whether neglect thereof is immoral. Despite individual intuitions, "we seem to need a moral principle, but have

³ See Hourdequin, "Climate, Collective Action."

⁴ Christian Baatz, "Climate Change and Individual Responsibility to Reduce GHG Emissions," *Ethics, Policy and Environment* 17 (2014): 1–19.

⁵ Garret Hardin, *Exploring New Ethics for Survival: The Voyage of the Spaceship Beagle* (New York: Viking, 1972).

⁶ William D. Nordhaus, *Managing the Global Commons: The Economics of Climate Change* (Cambridge, Mass.: MIT Press, 1994).

⁷ Elinor Ostrom, "Polycentric Systems for Coping with Collective Action and Global Environmental Change," *Global Environmental Change* 20 (2010): 550–57; and E. Ostrom, "Nested Externalities and Polycentric Institutions: Must We Wait for Global Solutions to Climate Change before Taking Action at Other Scales?" *Economic Theory* 49 (2012): 353–69.

⁸ Björn Vollan and Elinor Ostrom, "Cooperation and the Commons," *Science* 330 (2010): 923–24.

⁹ Johnson, "Ethical Obligations."

¹⁰ *Ibid.*, p. 266.

¹¹ Robyn Kenney, "Clean Water Act, United States," *The Encyclopedia of Earth* (2008), <http://www.eoearth.org/view/article151133>; and Robyn Kenney and Alexander Gastman, "Clean Air Act, United States," *The Encyclopedia of Earth* (2010), <http://www.eoearth.org/view/article151129>.

¹² Sinnott-Armstrong, "It's Not My Fault."

none.”¹³ However, in terms of policy making, there is an obligation because governments have the power to make a difference in global warming. Environmentalists believing they do their duty by simplifying their lifestyle are mistaken. Hourdequin¹⁴ challenges Johnson and Sinnott-Armstrong: although morally obligated to halt global warming collectively, we are also obligated to reduce our individual GHG emissions. This obligation has two bases: (1) moral integrity and (2) the relational concept of a person that does not readily divide the individual from society. Focusing on Johnson’s tragedy of the commons, Hourdequin asserts that moral integrity calls for individual “unilateral” action. Being morally well-integrated requires the agent to avoid conflict with one’s commitments.

Hourdequin’s second basis for obligation—the proposal that humans are relational—derives from Confucius’ observation that the individual is defined relationally to others.¹⁵ It makes little sense to bifurcate self from public, as though the individual and one’s actions could be in complete isolation from others. An individual’s actions communicate to others, who react to the act’s social meaning. Unilateral behavior vis-à-vis GHG burden does have a positive effect on the social whole. Hourdequin thereby cites empirical research by Turrentine and Kurani¹⁶ indicating that perceptions of vehicle use can affect impressions of its environmental impact:

. . . people rarely purchase hybrid vehicles based on the kind of decision-making process described by the rational economic actor model. . . . [W]hen considering a hybrid purchase, they rarely calculate how long it would take for the fuel efficiency payback to compensate for the premium in the purchase price. Instead, people choose hybrid cars to make a statement, to express their commitment to the environment, and to discuss with others their choice. . . . [I]t seems that one individual’s environmentally conscious decision can spur another’s. . . . [S]o-called “unilateral” actions by individuals can influence other individuals not to take advantage of the ‘excess resources’ remaining in the commons, but to see the restraint of others as a model for their own exercise of restraint.¹⁷

One may thereby persuade others through one’s actions.

Johnson’s reply¹⁸ to Hourdequin’s analysis attempts to reconcile his view with hers, observing that both agree there is some obligation to reduce personal GHG emissions. The major difference between them, he says, is he maintains that personal obligations apply only if they work toward positive collective action;

¹³ *Ibid.*, p. 311.

¹⁴ Hourdequin, “Climate, Collective Action,” pp. 455–56.

¹⁵ See also Marion Hourdequin, “Engagement, Withdrawal, and Social Reform: Confucian and Contemporary Perspectives,” *Philosophy East and West* 60 (2010): 369–90.

¹⁶ Thomas S. Turrentine and Kenneth S. Kurani, “Car Buyers and Fuel Economy?” *Energy Policy* 35 (2007): 1213–23.

¹⁷ Hourdequin, “Climate, Collective Action.”

¹⁸ Baylor L. Johnson, “The Possibility of a Joint Communiqué: My Response to Hourdequin,” *Environmental Values* 20 (2011): 147–56.

whereas she sees that these obligations are indifferent toward collective outcome. Hourdequin¹⁹ observes that she and he differ as to the degree of this obligation. Because one's actions communicate, individual reduction in GHGs is integral in instigating worldwide collective actions. Individual initiative alters norms.

Shahar²⁰ adds a new angle on the debate by viewing campaigns to diminish GHG emissions—individually or collectively—in a broader moral context of efforts “toward fixing our problem-ridden world.”²¹ Some people fight poverty or ease animal suffering. Limited by time and resources, one cannot pursue all such causes because one's “‘activist budget’ becomes fully allocated.”²² A chosen cause may even call on using high GHG-emissions means (as Al Gore uses intensive air travel to deliver speeches on cutting down personal GHG usage). Calling on everyone to make GHG-emissions sacrifices may undercut moral efforts and thus be immoral. Shahar attacks Broome's²³ idea that traffic congestion is a reciprocal problem caused by those participating. The problem is not city dwellers' “choice to move from place to place through main thoroughfares” but infrastructure that does not manage traffic properly.²⁴ Similarly for global warming: since individuals are morally obligated to pursue those duties that their activist budget can handle, they have no obligation to diminish their carbon footprint.

Other arguments include Hedberg's,²⁵ who builds on Hourdequin's argument that anyone maintaining that GHG emissions are a harm and should be curtailed must, for moral integrity, make individual initiatives. Broome,²⁶ building on Stern et al.,²⁷ uses a cost/benefit economic analysis to assess how to counter global warming. He observes that any economic proposal still must be preceded by ethical decisions as to which assumptions to make in devising that proposal. Individual lifestyle choices come into play as much as long-term policymaking does, but it is not clear that lifestyle choices should have any priority over policy or vice versa. Nolt²⁸ also looks to future generations and how our current choices can translate into our domination of future persons' existences. Again, it is not obvious whether policy or individual choices have primacy. Baatz²⁹ views the problem in terms of fair share of carbon usage in a socially partitioned context; that is, the society's operations currently depend upon a certain usage of GHG emissions: merely to survive, individuals

¹⁹ Hourdequin, “Climate Change and Individual Responsibility.”

²⁰ Shahar, “Treading Lightly.”

²¹ *Ibid.*, p. 4.

²² *Ibid.*, p. 5.

²³ John Broome, *Climate Matters: Ethics in a Warming World* (New York: Norton, 2012).

²⁴ Shahar, “Treading Lightly,” p. 10.

²⁵ Hedberg, “Climate Change, Moral Integrity.”

²⁶ John Broome, “The Ethics of Climate Change,” *Scientific American* 298 (2008): 69–74; Broome, *Climate Matters*.

²⁷ Nicholas Stern, *The Economics of Climate Change: The Stern Review* (Cambridge, UK: Cambridge University Press, 2007).

²⁸ John Nolt, “Greenhouse Gas Emission and the Domination of Posterity,” in Denis G. Arnold, ed., *The Ethics of Global Climate Change* (Cambridge: Cambridge University Press, 2011), pp. 60–76.

²⁹ Baatz, “Climate Change and Individual Responsibility.”

have some claim to a fair share of these and so have no perfect duty to adjust their lifestyles to minimize emissions. Yet, they have a Kantian imperfect duty to make such lifestyle changes while encouraging policy changes.

THE SORITES PROBLEM

Before I move on to new specific reasons why emphasizing individual initiative is morally important in environmental degradation amelioration, I should point out a certain sorites problem in criticisms of individual initiative. Those works criticizing the role of individual initiatives—Johnson's,³⁰ Sinnott-Armstrong's,³¹ and Shahar's³²—lack attention to such an underlying sorites problem crucial to the moral problem at hand. Specifically, the question of whether one's mere lifestyle change makes a real difference is comparable to the discussion in political and moral philosophy as to whether "I should vote," especially if polls show one candidate's trampling the other. After all, in such a case, my mere vote is extremely unlikely to make any difference. The problem in such thinking is made evident through a Kantian universalization of the underlying maxim: "Since one vote makes veritably no difference in the outcome of an election, one need not vote." Universalize it, and no citizen votes, making nonsense of the democracy (and even of the very idea one should not vote). From this fact, one may well maintain that one has a perfect duty to vote in a democracy.³³

The sorites problem is that, if no one votes, the democracy is not functioning; yet if all voting-age citizens vote, one has at least a functioning democracy. Like the sand-pile problem in which no one sand grain suddenly makes a set of grains a sand hill, there is no one vote/one sand-grain, somewhere along the spectrum between extremes, at which one can say the democracy shifts from functioning to non-functioning, or the sand-pile becomes just sand-grains—but this fact does not mean that voting is thus not a moral duty to the state. Whether one concurs there is a perfect duty to the state to vote (perhaps there is an imperfect duty), the anti-individual-responsibility position in environmental issues should at least acknowledge the sorites problem. Just because one person's "vote" to cut back on GHG emissions by using less GHG-emitting energy or nourishment will make little difference on climate change³⁴ does not mean that one need not make that vote.

³⁰ Johnson, "Ethical Obligations," and Johnston, "Possibility."

³¹ Sinnott-Armstrong, "It's Not My Fault."

³² Shahar, "Treading Lightly."

³³ If voting is seen as a perfect duty in a democracy, a law such as Australia's controversial one requiring voting-age citizens to vote is not as undemocratic as some may argue. If one has such a perfect duty to the state, such as the duty to avoid perjury in court, then it is not so undemocratic to have a law enforcing that duty.

³⁴ Though, see Johnson, "Possibility," and Hourdequin, "Climate Change and Individual Responsibility," on this issue.

NEEDS FOR INDIVIDUAL INITIATIVE AND
PROBLEMS OF RELYING SOLELY OR PRIMARILY
ON POLICY FOR ENVIRONMENTAL IMPROVEMENT

I should note at once that I do not criticize the need for public and institutional policy, such as the Clean Air and Water Acts of 1970 and policies the world over which have increased wildlands and wildlife protection.³⁵ My argument in this section is that, contrary to much of the literature, policy should not be the primary or sole route of change for environmental improvement. In this section's argument I look to the three mentioned areas of concern: (1) the moral problem vis-à-vis individual agency; (2) the "convergence" problem; and (3) the practical political problem. In the process I focus on using policy as the sole route to environmental degradation-amelioration, although its use as the primary route also arises.

In this section, I emphasize again that in discussing moral responsibility it is best to consider global warming as only one facet of environmental degradation problems which are interrelated for most agents in industrialized societies. While global warming is important, it does come in a set of other environmental concerns, even if sometimes these seem less relevant to discussion about every individual's lifestyle choices. The prevalence of GHG-increasing devices in daily life, such as cars, may seem to render individuals' actions especially relevant in the debate about responsibility, but other environmental concerns pertain to individual agent-lifestyle choices as well. These concerns include massive species extinction and biodiversity loss, habitat destruction, and air and water pollution.

Furthermore, upcoming technical developments could alter details in the global-warming debate but not necessarily affect the urgency of environmental concerns or morality of lifestyle choices. For example, it is conceivable—despite a rocky track record so far—that thermonuclear (fusion-powered) electricity-generating plants could become commercially available in a few decades.³⁶ Even then, substantial usage changes in widespread and intensive GHG-emitting technologies such as automobiles, trucks, intensive animal agriculture, and conventional generating plants would take years, if not decades. There could be a strong economic incentive to change; policy to lower GHG-emissions may then be minimized simply in deference to (moral?) peer pressure.

Even if such a development eased GHG-emissions, other environmental problems would persist or be exacerbated. For one, nuclear fusion still introduces more

³⁵ Some conservationists, such as Peter Kareiva, Michelle Marvier, and Robert Lalasz, "Conservation in the Anthropocene: Beyond Solitude and Fragility," *Breakthrough Journal* 2 (2002), <http://thebreakthroughjournal.org/index.php/journal/past-issues/issue-2/conservation-in-the-anthropocene>, question the need to preserve wild lands in pristine condition and even doubt if biodiversity is a worthwhile goal. We cannot digress into this very interesting and pressing debate. See also D. T. Max, "Green is Good," *The New Yorker*, 12 May 2014, pp. 54–63.

³⁶ Raffi Khatchadourian, "A Star in a Bottle," *The New Yorker*, 3 March 2014, pp. 42–57.

heat into the atmosphere than the average solar influx,³⁷ so the atmosphere could keep warming. Second, as fusion still creates some radioactive waste, it does not solve the nuclear storage problem, which is far from solved. Third, introducing what could be relatively cheap energy could well heighten the kinds of activities that contribute not only to global warming, such as animal agriculture, but also to other environmental degradation, such as increased road building, resource depletion, and habitat destruction for subdivisions all across Africa and Asia, thereby increasing species extinction and biodiversity reduction. Although these problems have drawn some public attention, if less than that for global warming, scientists have issued warnings that these problems could be as threatening to human life as climate change.³⁸ In sum, individual lifestyle choices' effects on the climate are best extended to the broad range of environmental degradation.

THE MORAL CONCERN

The moral concern is threefold: emphasizing policy as the sole (or even primary) means of ameliorating anthropogenic environmental problems implicitly undercuts the role of individual agents in morality in general, in terms of (1) individual responsibility, (2) autonomy, and (3) creativity in solving problems. First, individual responsibility is undermined because, in environmental action, the problem that policy is to affect—environmental degradation—depends upon the agglomeration of individual actions. Climate change is traceable to a mass of individuals making decisions to, for example, have enough offspring to keep the population large, opt for grocery-bought foods instead of gardening their own plots and thus minimizing truck usage, and buying automobiles instead of walking. Other citizen needs which may require policy are not so apparently contingent on individual action and responsibility. If a foreign invader sends an air force into the country, one cannot reasonably expect citizens to step outdoors and defend the nation. Policy to build a deterrent air force is needed; individual responsibility is not morally undercut.

By contrast, insisting that individuals neither can do anything about nor are responsible for the activities that, en masse, create a problem is peculiarly patronizing, sending a signal that they cannot exercise significant self-control in their lives. They are not responsible for their own consumer and lifestyle choices, the signal says. Instead, in a grand wheel that someone or other (a master?) constructs they are mere cogs, perhaps not sufficiently educated, intelligent, diligent, or creative to be a part of the master scheme. Importantly, this signal may resound in other aspects of their lives, indicating that they are not morally responsible for these as well, such as for the kinds of foods they chose, because the masters offer them only a certain amount of choices: the condition in which they keep their bodies;

³⁷ G. Tyler Miller, *Energy and the Environment: Four Energy Crises* (Belmont, Calif.: Wadsworth, 1975).

³⁸ Edward O. Wilson, *Consilience: The Unity of Knowledge* (New York: Knopf, 1975).

their choice not to learn about the world beyond their county or national borders; their choice in entertainment that substitutes for more globally integrated lives. By contrast, by assuring citizens that they are individually responsible for their contribution to environmental degradation, even if they choose not to don less environmentally degrading lifestyles, their individual responsibility in their lives is at least affirmed as being theirs, not somebody else's problem.³⁹

It may be objected that any possible patronizing effect that allegedly arises from emphasizing policy at the expense of individual responsibility has been exaggerated or off-track. It has been implied that the anti-individual-responsibility position says in effect that "We are transferring the responsibility to the collective effort because you cannot be trusted to do so. You are in turn not responsible for your own consumer and lifestyle choices." However, it is possible the anti-individual-responsibility view is saying not that you cannot be trusted but that you are not responsible for what your fellow citizens decide to do. Thus, while it is all right for you to act on your own, it is not required of you—that is, you are not responsible—and so we are not patronizing anyone for lack of self-control.

However, the problem with this objection is that it will have a hard time explaining just why any act you may do on your own in this arena can be other than supererogatory. That is, in this outlook's light, it is hard to decipher just why such acts on your own can be good. It is like a so-called "good" that actually has no good content beyond how the agent is pleased by acting. From this angle, it appears that the anti-individual-responsibility view cannot get around the patronizing problem. It says in effect to the agent, "Play all you want with your environmental degradation-ameliorating toys; the real and only work will be done by us adult policymakers."

The flipside advantage in heightening individual responsibility is the potential for a concomitant increase in autonomy. Kant,⁴⁰ among others, has observed the connection between autonomy, free will or freedom, and individual moral responsibility. To be self-governed, one cannot be entirely determined by external social forces; solitary confinement is a good example of minimized autonomy. The autonomous agent needs not only such "freedom from" but also "freedom to,"⁴¹ to pursue projects. If the agent is entirely delimited by external social forces, such as a powerful industry, one's potential to pursue projects is constrained. Kant considers the will that operates in this optimal condition is free, and autonomy must be ensured to entail such freedom. The will that operates freely (in this optimal freedom) is one responsible for and answerable to its actions. The level of individual responsibility

³⁹ By the anti-individual-responsibility route, when agents may choose between two options, each of which are comparable in convenience and practicality, but one of which is more environmentally friendly, they would have little incentive to choose the latter.

⁴⁰ Immanuel Kant, *Groundwork for the Metaphysics of Morals*, trans. James Ellington (Indianapolis: Hackett, 1993).

⁴¹ Carol Gould, *Rethinking Democracy: Freedom and Social Cooperation in Politics, Economy, and Society* (Cambridge: Cambridge University Press, 1983).

for agents' actions reflects the level of freedom. Conversely, a will that attempts to operate without this freedom struggles to be truly autonomous.

If policy instead of the agent is taking care of many of the agent's actions, particularly those that the agent could be doing as well as an external social power could be doing (if most other agents did so, too), the agent's autonomy is undercut. Although some commentators may not view autonomy as a central moral concern, for those who do—many agents and moral philosophers would rate it highly—telling agents that they need not undertake an entire region of moral actions which is within their capacity, but that policy will handle for them is a good way to abbreviate their autonomy. In general, adding yet another region of action to those in which the individual is not to contribute (beyond a possible vote) further encourages agents to defer to institutions instead of governing their own lives.

A third area of moral concern operates primarily at the sociopolitical level, although individuals may feel the effects. This moral concern is that of creativity. Is a society in which policy discourages citizens from creativity morally esteemed? By having policy take care of an entire region of moral action for the citizenry, citizens' thoughts are likely to veer from that region and focus on other matters. If only policy is prescribed for ameliorating environmental degradation and citizens are discouraged (even by implicit signals as discussed above) from participating in amelioration by making lifestyle changes, they are unlikely to give much daily thought to changes they can make in their lives for amelioration. If some vague agency out there is taking care of habitat destruction, an individual has little incentive to manage one's own five acres so as to encourage biodiversity, especially as any such supposedly won't really help (because species' ranges are often larger than five acres). If somebody out there is taking care of anthropocentric radioactivity, then an agent need not seek ways to minimize use of *other people's* electrical use—even when the agent doesn't pay the bill, such as a contract office-cleaner's turning off lights upon finishing. If someone out there is taking care of everything for you, one loses significant incentive to discover new devices, methods, and procedures or entirely different ways of ordering one's life. There is no necessity mothering creativity. Perhaps creativity would then be channeled elsewhere (as if one has only so much daily allotment of creativity), but it could also readily be channeled into concocting new ways to *degrade* the environment because someone else, not the agent, is taking care of that region of action. If children are allowed to do anything because the parents will always clean up, spoiled thoughtless offspring may result.

One may object that this concern that policy will subvert creativity rests upon an odd assumption about policy: that public policy cannot foster creativity as one strives to meet its stipulations. Just why couldn't policy for reducing GHGs promote or incentivize creative responses? Proposed carbon taxes hold promise for prompting creativity in innovations among persons and companies, as in the use of tax credits. The implication is that policy would dictate that one undertake predetermined steps *X*, *Y*, and *Z*, but such need not be the case.

The objection overlooks the thrust of my criticism vis-à-vis creativity. do not deny that policy could be developed that does indeed incentivize and that fosters creativity. The problem lies in a society *that initially discourages individual creativity and initiative* in a realm of moral activity by saying, as does the anti-individual-responsibility view, that policy must come first and—by the extension of patronizing—individual efforts without such policy in place are supererogatory. Such a social atmosphere could tend to disincentivize citizens from applying their creativity to a region of activity. In general, policy with purported incentives for creativity can backfire, at least partly due to patronizing of those purportedly to be protected or to be motivated.

I look to two case examples of how a policy introduced to serve as incentive to creative action actually creates disincentives. One drastic example is that of tax policy leading to the notorious economic one-percent. Kearny and Levine⁴² argue that as a result of such economic distribution disparities, those at the lower end, instead of being inspired to work creatively toward reaching the higher levels as such policy inspires, in fact end up in “economic despair”⁴³ that acts as creativity disincentive. As a second example, China’s notorious one-child policy—whether or not it actually succeeded in reducing population as some observers argue⁴⁴—can also be viewed as a stop-gap forestalling not just overpopulation-induced environmental degradation but other economic problems, instead of fostering individual innovation in these areas. While China can be accused of having an overall patronizing attitude toward its constituency and thereby inducing disincentives, that fact would only corroborate how patronizing policies in democracies would also act as disincentives to individuals’ creative solution-seeking for environmental degradation.

As Shakespeare quite succinctly observed of such predicament caused by patronizing, “. . . art made tongue-tied by authority.” Furthermore, from the individual agent’s perspective, why is individual action that—years before policy was passed—was written off as supererogatory suddenly now become core and critical? Even then, the point of my present concern for creativity is pertinent at least during that period until adequate policy is passed. This period could be substantial and critically long. Thus, if adequate, viable environmental degradation policy were finally enacted with incentives in place, creative attention would have long strayed from this region and would need retraining and inducing in order to return to good working order.

I respond to further objections to the moral concern after covering the convergence and the practical problems.

⁴² Melissa S. Kearny and Phillip B. Levine, “Income Inequality, Social Mobility, and the Decision to Drop Out of High School,” *Brookings Papers of Economic Activity* 2016, BPEA Conference Draft, 10–11 March 2016.

⁴³ Kearny and Levine, “Income Inequality,” p. 2.

⁴⁴ For a full discussion of the controversy over the effectiveness and ethics of China’s former policy, see Sarah Conly, *One Child: Do We Have a Right to More?* (Oxford: Oxford University Press, 2016).

THE CONVERGENCE PROBLEM: LOSS IN SYNERGY

The policy-only approach leads to a setback related to the creativity problem and is somewhat reminiscent of Hourdequin's⁴⁵ and Hedberg's⁴⁶ integrity issue, although with a different focus. I call this "the convergence problem" because it concerns how individual goals converge with the social.⁴⁷ If one's own actions at the personal level do not cohere with public-policy actions, there is a loss in synergy for both. This is a practicability problem. Looking out for ways in one's personal life to cut environmental degradation points to what to look for on the larger scale, and vice versa. Ignoring the personal as a moral issue then undermines the program at the public level.

First, examples of convergence and its fueling of synergy may help clarify its importance in environmental degradation amelioration. Consider a case of habitat destruction that Kenneth Brower reports⁴⁸ concerning eliminating feral pigs from Hawai'i Volcanoes National Park. These animals root out native plant species, eat seeds of exotics, and defecate these seeds, which then further choke natives. De facto policy on-and-off over the years has been to eliminate feral pigs by fencing or shooting.⁴⁹ Creatively, park rangers attempted an informal experiment to see just how bad damage was by enclosing 900 square meters of land. But once the feral pigs were cleared out, surprisingly, the threatened native species *made a comeback* despite the exotics. Whatever one may uphold about the morality of eradicating feral pigs, such creative initiative converges with policy needed to help solidify a policy direction.

Given this case it is plausible that a wholly private citizen *A*, owning a ranch which feral goats have devastated, threatening native species, may be encouraged by the park rangers' example and act. *A* is concerned about the caprine environmental degradation and so votes for local, state, and federal politicians who promise biodiversity preservation policies. If *A* as well takes initiative to usher the goats off the ranch humanely and, perhaps with help of scientists, reintroduce threatened species, then *A* increases the probability of discovering new facts about the species and their recuperative capacities, all of which can help inform how to shape policies.⁵⁰ Hence, creativity converges with political action: the action that *A* undertakes personally can synergize with the policy pursuit. Morally discouraging people such as *A* to

⁴⁵ Hourdequin, "Climate, Collective Action," pp. 443–64; Hourdequin, "Climate Change," pp. 157–62.

⁴⁶ Hedberg, "Climate Change, Moral Integrity."

⁴⁷ While this issue is similar to the integrity issue in Hourdequin, "Climate Change," it is descriptive, whereas hers is prescriptive.

⁴⁸ Kenneth Brower, "The Pig War," *Atlantic Monthly* 256 (1985): 44–58.

⁴⁹ Piseth Tep and Katrina Gaines, "Reversing the Impacts of Feral Pig on the Hawaiian Tropical Rainforest Ecosystem," *Restoration and Reclamation Review* 8 (2003): 1–8.

⁵⁰ Allowing for convergence and synergy may also help individuals realize what their environmental concerns are in the first place, so that they then may be more conscious of what they seek in a policy or politician. (Arguably, the reverse of this may also hold: fingering politicians' platforms may help one to realize one's environmental concerns.)

make personal lifestyle adjustments can only diminish the potential for productive synergy.

Another example of synergy, this concerning GHG emissions and resource depletion, shows citizens in Victoria, British Columbia, working together to promote municipal policy for developing bicycle and pedestrian paths to encourage these highly efficient, little or non-polluting forms of transportation.⁵¹ At a hypothetical individual level, citizen *B*, encouraged by such an example of convergence and stirred by problems of resource depletion, votes for politicians who promise solutions. *B* also has an option to exhort a group of neighbors to walk with their two-wheeler carts and backpacks along a four-lane road without a pedestrian path to do their grocery shopping instead of taking their cars. In the scenario where *B* pursues this effort, enough people take to hoofing it, that local policy is shaped to allow a lane for pedestrians. Personal creative and policy initiatives work in synergy. In an alternate scenario where *B* takes no such initiative, no policy is shaped either; no synergy has developed.

The convergence problem may vary somewhat according to the type of policy-only approach. That of Shahar⁵² appears to leave the entire brunt of cutting environmental degradation to moral entrepreneurs who influence policy, but who comprise only a small fraction of the population (as do other moral entrepreneurs such as those who fight poverty or AIDS). Sinnott-Armstrong⁵³ emphasizes moral agents' focusing their environmental degradation-reduction efforts so as to vote for candidates who will cut environmental degradation. Thus, by Shahar's and Sinnott-Armstrong's approaches, there would be no convergence between moral-entrepreneurs' policy activities and their personal activities, and thus no synergy. More moderately, Johnson⁵⁴ allows individuals who so desire to undertake their own programs of personal lifestyle changes to cut environmental degradation, only subserviently to policy-affecting efforts. Although Johnson's approach seems to allow some convergence, insofar as policy-affecting activity takes precedence, it may be hobbled because of this priority requirement. By putting the brunt of the work directly on policy, the individual's initiative could be discouraged.

It may be objected that lack of synergy may not always be detrimental to environmental degradation amelioration. There may be cases in which synergy actually wastes an agent's time in such a way as to diminish collective efforts. For example, one may be campaigning for the collective but making personal changes that work against that campaign, if the personal changes involve cutting out use of

⁵¹ For a substantial list of citizen groups internationally that are pursuing at the local or state level, as well as a detailed plan for how citizens of Victoria, British Columbia are developing to promote policy, see Todd Litman, Robin Blair, Bill Demopoulos, Nils Eddy, Anne Fritzel, Danelle Laidlaw, Heath Maddox, and Katherine Forster, "Pedestrian and Bicycle Planning: A Guide to Best Practices," Victoria Transport Policy Institute, 11 October 2002.

⁵² Shahar, "Treading Lightly."

⁵³ Sinnott-Armstrong, "It's Not My Fault."

⁵⁴ Johnson, "Ethical Obligations," and Johnston, "Possibility."

high GHG-emitting means, such as cars, airplanes, or bovine agriculture, thereby preventing one from flying to do important lobbies or speeches. Effect on the collective campaign would be markedly diminished. If one's moral commitments drive both the collective and personal actions, these commitments could be compromised by such undercutting of one's impact on the collective.

This objection is highly germane to the issue of synergy; however, it does not provide sufficient concern to deflate the argument for synergy but does provide an important warning about conflicts to watch for when one is vying to coordinate one's collective and personal actions. It evokes the problem Shahar⁵⁵ eloquently pointed out, which is that some people's moral duties may require them to use relatively intensive environment-destroying means, such as an SUV to reach remote African villages needing vaccines. The argument against the anti-individual-responsibility view—that personal-life initiatives have only negligible or counteractive effect on environmental degradation amelioration and so should give way, perhaps fully, to collective-change efforts—only held that such a view could diminish synergy, and synergy can often be effective. It was not that synergy in all cases will be maximally effective. Most people are likely not undertaking large campaigns for policy change. Those who do should be able readily to look to how their personal efforts at environmental degradation—amelioration can synergize with their collective efforts, which are often little more than voting (still important). Those who do undertake great collective-change efforts may be unable to eradicate all the airplane flights and steaks and still have impact commensurate with their commitments, but encouraged by aspirations to synergy and creativity, they may look for methods whereby they may maintain impact and maximize synergy.

THE PRACTICAL POLITICAL PROBLEM: POLICY IN GENERAL IS OFTEN TOO SHORTSIGHTED

The practical political problem arises from the fact that policymaking must appeal to so many different and often opposing group interests that planning for the distant future is often beyond the means of compromise. Yet, environmental-degradation amelioration requires anticipating sometimes very distant futures, such as the hundreds of thousands of years needed for spent nuclear rods to become safe. Individual action can help fill in for such time gaps.

Policies passed and enacted may simply fall short of adequate environmental goals. Policy in particularly complex industrial democracies is formed through appeasing a great amount of interests, many non-overlapping.⁵⁶ *Pace* some political libertarian arguments, policies may not always be formed by appealing to long-term, broad-based interests. Scientists who have at least the best scientifically based reasons for

⁵⁵ Shahar, "Treading Lightly."

⁵⁶ Amy Gutman and Dennis Thompson, *The Spirit of Compromise* (Princeton: Princeton University Press, 2012).

certain environmental policies have often found that enacted policies fall short of the goals needed to secure the environmental protection for optimal long-term insurance of preservation of both human habitat and that of life in general.⁵⁷ Competing interests may be mining industries, real-estate development in subdivisions, ranching, and lumbering. The United States has long shirked ratifying the Kyoto and Rio climate-change treaty protocols,⁵⁸ despite widespread popularity in their favor. One may reasonably ask whether any electable politician would risk the drastic changes needed, especially in face of strong industry interests that a politician must mollify to get elected, as well as guide citizens to rethink their lifestyles.

One may hold that policies, forged through such compromises among competing interests, realistically reflect changes that citizens are actually willing to undertake, not what they wished they could force themselves to do. If they really wanted to pass up their car trunks and buy groceries by foot, they would elect politicians who would force them to do so. If they really cared about resource depletion and biodiversity and be willing to buy fewer mechanisms and not live forty miles from their workplace, they would elect candidates who promised to reshape infrastructures. This objection diverges into theory about political will and media influence which this article cannot properly cover, but the main concern here is that again autonomy is undermined.

The final angle of the political problem, and perhaps for the entire discussion of the drawbacks of a policy-first approach, has received insufficient attention in the environmental-responsibility debates. From this angle, consumer demand is presumed to be, even if not explicitly, the indomitable basis of this issue. Consumer choice is the valve regulating all environmental degradation: viz., consumer demand for the products whose fabrication and provision underlie all activities that generate environmental degradation. If somehow consumer demand were abruptly to diminish tomorrow by a high percentage (by sudden changes of mind, not by deaths) and stay that way indefinitely, many environmental degradation problems stemming from that demand would start to fade. There is one certain way to diminish environmental degradation, and that is for consumer demand to diminish dramatically. This fact does not mean there is a likely scenario by which such diminishing will occur, but merely underscores how the ultimate cause of environmental degradation is demand, and a policy-only approach under-utilizes this fact. Ignoring this fact sends a strong moral message: *Consumer choice cannot be morally questioned. By whatever means you came to your choice, it is morally correct. Never question a single desire as a consumer.*

There is another serious, practical problem behind this fact: the possibility that because of technological constraints, policy absolutely cannot offer a solution to

⁵⁷ Edward O. Wilson, *The Future of Life* (New York: Knopf, 2002); Edward O. Wilson, *The Creation: An Appeal To Save Life on Earth* (New York: Norton, 2006).

⁵⁸ Suraje Dessai, "The Climate Regime from The Hague to Marrakech: Saving or Sinking the Kyoto Protocol," Tyndall Centre Working Paper 12 (Norwich, UK: Tyndall Centre, 2001).

environmental degradation. For example, at present rates of demand, energy supplies may simply run out in one to two hundred years because of limited oil, coal, and uranium deposits and the capacity to extract and refine them efficiently.⁵⁹ Breeder reactors currently pose too large of a security threat to become major sources of energy, and fusion may not come to the rescue. Despite some political libertarian ideology professing faith that human messes will always get solved on time, realistically, this faith in *deus ex machina* may not play out. Without change in demand, policy can do little to remedy this supply problem. While changed demand can guarantee a solution to the supply problem, supply cannot guarantee a solution to unchanged demand. Overall demand is composed of individuals making choices; those individuals can shift their demands. Humans, though, have very limited say-so over supply.

Because policy can offer no indisputable solution to supply demands, while demand has the potential for an indisputable solution, insisting that only policy can solve environmental degradation sends a dubious signal to the world's consumers.

FURTHER OBJECTIONS

One objection to this article's support for individual moral responsibility in environmental degradation amelioration is the potential threat to the economy. If—however unlikely—the citizenry of industrialized nations indeed become conscientious stewards and begin questioning their purchases' value and thereby heavily reducing their acquisitions, global economy would suffer. Economies of industrialized societies are based on continued growth in demand, as are pension accounts. It would create widespread harm in lost jobs and economic security and so be immoral to cut back on demand for the sake of reducing environmental degradation.

This objection depends upon a complex technical issue in economics that is far beyond this article's scope. I leave to economists whether they have established as scientific law that all human economies must rely on continual growth in productivity. However, it could be only a contingent historical fact about the way industrialized societies grew that their economies became so dependent upon growth. Through rational reorganization, they conceivably could be restructured so that they attain flat growth in productivity and remain stable with little harm to workers and retirees. Until such rational reorganization is shown to be unattainable, the objection has scant foundation for maintaining that individuals' attempts to be good stewards are detrimental to their fellow humans and thereby immoral.⁶⁰

An objection in the spirit of Shahar⁶¹ might hold that it is fine for some people

⁵⁹ Khatchadourian, "A Star in a Bottle."

⁶⁰ There is, of course, a strong global movement in economics and environmental science and ethics for sustainable development, which in many instances offers an alternative to unrestrained growth economies. *The Journal of Sustainable Development* is one organ on this movement.

⁶¹ Shahar, "Treading Lightly."

to make lifestyles changes, set an example for neighbors, and edify them about conservation. Such a person is just another moral entrepreneur, such as a person fighting AIDS or poverty. However, this objection exhibits a kind of rhetorical reductionism. Saying we who seek improvement are all just moral entrepreneurs attempts to reduce every such agent's scope of moral influence. It would mean, as well, that those who promote this reductive view are also just moral entrepreneurs (or perhaps "metaethical entrepreneurs"). The reduction, or leveling, still does not speak to the problem I discussed: some moral causes, such as that for ensuring a livable global habitat, may take precedence. Thus, some moral entrepreneurship, such as environmental-degradation amelioration, may plausibly be one which most people would have an interest to invest themselves in, so that the rest of human concerns can have a shot at being met.

A third objection is that the emphasis on the primacy of individuals' taking responsibility for their actions overlooks some nuances in the relation between the collectivity and individual autonomy. One nuance is that the tragedy of the commons means that each and every member of the society is caught in a system of incentives, whereby one's own contribution has some value V , which the collective assigns, but the individual is then motivated to maximize that V to the point it reaches beyond the collective's interest. Another nuance is that, given this de facto, if not necessary, primacy of the collective, then the precise moral action taken must boil down to a matter of collective information gathering, decision making, and norms, as well-formed law reflects. In short, the idea in this article that the individual has the degree of autonomy presumably attainable is overstated.

This potent objection would undermine much of this article's proposal, except for two matters. One is that in human society, the collective depends upon some degree of individual autonomy, as much as human individuals are not as amply defined as such without the collective (language being one such definitional social property). Even if the collective formulates (unconsciously?) the fourteen-line form of the sonnet, it is the sonneteer whose creative autonomy and initiative give that form distinctive life that then pleases the many. Without that autonomous creativity, the sonnet form would be lifeless and of no use to the many. Similarly, if Smith's baker does not take the initiative to bake the bread, the many have no bread—and even more to their delight does the baker autonomously experiment and bake a tastier loaf. (Picture a collective in which no members took autonomous initiatives but instead only lay watching the same cable shows because even the producers stopped producing, until finally all the televisions wore out and no one had anything left.) The second matter is that this article does not isolate individual autonomy from the whole, as if that were possible. It merely brings out how the collective can better flourish when individuals do take the initiative and add their input that the collective had no means to realize. Certainly, the sonneteer would have no sonnets to write if the collective had not helped to evolve the form itself—perhaps by one individual's insight altering an earlier form. Individuals and the collective each have different, if sometimes overlapping, goals.

A final objection questions the basis for emphasizing individual initiative as the

only, or the best, way to foster creativity. Is it obvious that even a big-brother policy that absorbs all responsibility for reducing environmental degradation undermines individual creativity in this domain? We have two responses, one common sense and one potentially empirical. As for common sense, one can expect that when all concerns in some domain *D* are taken care of for you, you will generally be less motivated to seek new measures in that domain. If all your meals are taken care of so all you need to do is sit and the food appears, so that you have never cooked in your life or know what such an activity is, you will be less inclined to devise new recipes. As for an empirical response, it may be possible to devise studies to test this common-sense notion that necessity indeed breeds invention. Certainly, as psychologists have long observed,⁶² some leisure time may be helpful in incubating ideas for creative solution. But without a problem being detected, which detection is expedited by exposure to the problem, a solution is less likely to emerge.

CONCLUSION

To assemble the pieces of this article's argument, individual agents' actions in lowering environmental degradation can be directed both at making lifestyle and public policy changes. In fact, pursuing both directions can lead to a synergy further benefiting improvements available through both. However, contentions that channeling one's environmental-degradation reduction efforts primarily or solely through public policymaking exhibit shortcomings: such efforts risk moral problems of undermining individual responsibility, creativity, and autonomy; the convergence problem in diminishing or eliminating the helpful synergy that can occur when agents pursue both private and public changes; and the practical problem of whether policy and politicians can bring about the policies in the needed timeframe. Purported agents are made passive, and passive agents are more like patients than actors. Individual responsibility in the arena of preserving the global habitat from severe degradation may not alone reverse that degradation in the time needed, but it can only help—not hinder—and is likely necessary for this reversal. By contrast, pursuing a policy-only approach has the potential to lead to nothing necessarily happening in this domain.

⁶² Graham Wallas, *The Art of Thought* (New York: Harcourt, Brace and World, 1926).