

Individualization: Plant a Tree, Buy a Bike, Save the World?

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"But now," says the Once-ler, "now that you're here, the word of the Lorax seems perfectly clear. UNLESS someone like you cares a whole awful lot, nothing is going to get better. It's not. SO . . . catch!" calls the Once-ler. He lets something fall. "It's a Truffula seed. It's the last one of all! You're in charge of the last of the Truffula seeds. And Truffula Trees are what everyone needs. Plant a new Truffula. Treat it with care. Give it clean water. And feed it fresh air. Grow a forest. Protect it from axes that hack. Then the Lorax and all of his friends may come back."

Dr. Seuss¹

Most people are eagerly groping for some medium, some way in which they can bridge the gap between their morals and their practices.

Saul Alinsky²

One of the most successful modern-day children's stories is *The Lorax*, Dr. Seuss's tale of a shortsighted and voracious industrialist who clear-cuts vast tracks of Truffula trees to produce "Thneeds" for unquenchable consumer markets. The Lorax, who "speaks for the trees" and the many animals who make the Truffula forest their home, politely but persistently challenges the industrialist, a Mr. Once-ler, by pointing out again and again the terrible toll his business practices are taking on the natural landscape. The Once-ler remains largely deaf to the Lorax's protestations. "I'm just meeting consumer demand," says the Once-ler; "if I didn't, someone else would." When, finally, the last Truffula tree is cut and the landscape is reduced to rubble, the Once-ler—now out of business and apparently penniless—realizes the error of his ways. Years later, holed up in the ruins of his factory amidst a desolate landscape, he recounts his foolishness to a passing boy and charges him with replanting the forest.

The Lorax is fabulously popular. Most of the college students with whom I work—and not just the ones who think of themselves as environmentalists—know it well and speak of it fondly. My children read it in school. There is a 30-

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1. Geisel 1971.

2. Alinsky 1969, 94.

minute animated version of the book, which often finds its way onto television. The tale has become a beloved organizing touchstone for environmentalists. In years past, for example, the EcoHouse on my campus has aired it as part of its Earth Day observances, as did the local television station. A casual search through the standard library databases reveals over 80 essays or articles in the past decade that bear upon or draw from the book. A more determined search of popular newspapers and magazines would no doubt reveal additional examples of shared affection for the story.

All this for a tale that is, well, both dismal and depressing. The Once-ler is a stereotypical rapacious businessman. He succeeds in enriching himself by laying ruin to the landscape. The Lorax fails miserably in his efforts to challenge the interlocking processes of industrial capitalism and consumerism that turn his Eden into a wasteland. The animals of the story are forced to flee to uncertain futures. At the end of the day the Lorax's only satisfaction is the privilege of being able to say "I told you so," but this—and the Once-ler's slide into poverty—has got to be small consolation. The conclusion sees a small boy with no evident training in forestry or community organizing unpromisingly entrusted with the last seed of a critical species. He's told to "Plant a new Truffula. Treat it with care. Give it clean water. And feed it fresh air. Grow a forest. Protect it from axes that hack. Then the Lorax and all of his friends may come back." His chances of success are by no means high.

So why the amazing popularity of *The Lorax*? Why do so many find it to be "the environmental book for children"—and, seemingly, for grown-ups too—"by which all others must be judged"?³ One reason is its overarching message of environmental stewardship and faith in the restorative powers of the young. The book recounts a foolish tragedy that can be reversed only by a new and, one hopes, more enlightened generation. Surely another reason is the comfortable way in which the book—which adults can easily trivialize as *children's* literature—permits us to look squarely at a set of profoundly uncomfortable dynamics we know to be operating but find difficult to confront: consumerism, the concentration of economic power, the mindless degradation of the environment, the seeming inability of science (represented by the fact-spouting Lorax himself) and objective fact to slow the damage. The systematic undermining of environmental systems fundamental to human well-being is scary stuff, though no more so than one's own sense of personal impotence in the face of such destruction. Seuss's clever rhyming schemes and engaging illustrations, wrapped around the 20th century tale of economic expansion and environmental degradation, provide safe passage through a topic we know is out there but would rather avoid.

There's another reason, though, why the book is so loved. By ending with the charge to plant a tree, *The Lorax* both echoes and amplifies an increasingly dominant, largely American response to the contemporary environmental crisis. This response half-consciously understands environmental degradation as

3. Larsen 1998, 39.

the product of *individual* shortcomings (the Once-ler's greed, for example), best countered by action that is staunchly *individual* and typically *consumer-based* (buy a tree and plant it!) It embraces the notion that knotty issues of consumption, consumerism, power and responsibility can be resolved neatly and cleanly through enlightened, uncoordinated consumer choice. Education is a critical ingredient in this view—smart consumers will make choices, it's thought, with the larger public good in mind. Accordingly, this dominant response emphasizes (like the Lorax himself) the need to speak politely, and individually, armed only with facts.

For the lack of a better term, call this response the *individualization of responsibility*. When responsibility for environmental problems is individualized, there is little room to ponder institutions, the nature and exercise of political power, or ways of collectively changing the distribution of power and influence in society—to, in other words, "think institutionally."⁴ Instead, the serious work of confronting the threatening socio-environmental processes that *The Lorax* so ably illuminates falls to individuals, acting alone, usually as consumers. We are individualizing responsibility when we agonize over the "paper or plastic" choice at the checkout counter, knowing somehow that neither is right given larger institutions and social structures. We think aloud with the neighbor over the back fence about whether we should buy the new Honda or Toyota hybrid-engine automobile now or wait a few years until they work the kinks out, when really what we wish for is clean, efficient, and effective public transportation of the sort we read about in science fiction novels when we were young—but which we can't vote for with our consumer dollars since, for reasons rooted in power and politics, it's not for sale. So we ponder the "energy stickers" on the ultra-efficient appliances at Sears, we diligently compost our kitchen waste, we try to ignore the high initial cost and buy a few compact-fluorescent lightbulbs. We read spirited reports in the *New York Times Magazine* on the pros and cons of recycling while sipping our coffee,⁵ study carefully the merits of this and that environmental group so as to properly decide upon the destination of our small annual donation, and meticulously sort our recyclables. And now an increasing number of us are confronted by opportunistic green-power providers who urge us to "save the planet" by buying their "green electricity"—while doing little to actually increase the quantity of electricity generated from renewable resources.

The Lorax is not why the individualization of responsibility dominates the contours of contemporary American environmentalism. Several forces, described later in this article, are to blame. They include the historical baggage of mainstream environmentalism, the core tenets of liberalism, the dynamic ability of capitalism to commodify dissent, and the relatively recent rise of global environmental threats to human prosperity. Seuss's book simply has been swept up by these forces and adopted by them. Seuss himself would probably be sur-

4. Bellah et al. 1991.

5. See, for example, John Tierney, "Recycling is Garbage," *New York Times Magazine*, 30 June 1996, 24–30; 48–53.

prised by the near deification of his little book; and his central character, a Lorax who politely sought to hold a corporate CEO accountable, surely would be appalled that his story is being used to justify individual acts of planting trees as the primary response to the threat of global climate change.⁶

Mark Dowie, a journalist and sometimes historian of the American environmental movement, writes about our "environmental imagination," by which he means our collective ability to imagine and pursue a variety of productive responses (from individual action to community organization to whole-scale institutional change) to the environmental problems before us.⁷ My claim in this is that an accelerating individualization of responsibility in the United States is narrowing, in dangerous ways, our "environmental imagination" and undermining our capacity to react effectively to environmental threats to human well-being. Those troubled by overconsumption, consumerism and commodification should not and cannot ignore this narrowing. Confronting the consumption problem demands, after all, the sort of institutional thinking that the individualization of responsibility patently undermines. It calls too for individuals to understand themselves as citizens in a participatory democracy first, working together to change broader policy and larger social institutions, and as consumers second. By contrast, the individualization of responsibility, because it characterizes environmental problems as the consequence of destructive consumer choice, asks that individuals imagine themselves as consumers first and citizens second. Grappling with the consumption problem, moreover, means engaging in conversation both broad and deep about consumerism and frugality and ways of fostering the capacity for restraint. But when responsibility for environmental ills is individualized, space for such conversation disappears: the individually responsible consumer is encouraged to purchase a vast array of "green" or "eco-friendly" products on the promise that the more such products are purchased and consumed, the healthier the planet's ecological processes will become. "Living lightly on the planet" and "reducing your environmental impact" becomes, paradoxically, a consumer-product growth industry.

Skeptics may reasonably question if the individualization of responsibility is so omnipresent as to warrant such concern. As I argue in the next section of this article, it is: the depoliticization of environmental degradation is in full swing across a variety of fronts and shows little sign of abating. I continue with a review of the forces driving this individualization; it in particular implicates the rise of global environmental problems and the construction of an individualized politics around them. How might these forces be countered? How can the politics of individualization be transcended? How might our environmental imagination be expanded? I wrestle with these questions in the final section of this article by focusing on the IPAT formula—a dominant conceptual lens

6. See for example, "Plant Trees in Dr. Seuss's Honor," *Instructor*. Primary Edition vol. 108, no. 1, August 1998, 9.

7. Dowie 1996.

within the field of environmental policy and politics, which argues that "environmental impact" = "population" x "affluence" x "technology."

A Dangerous Narrowing?

A few years back Peter Montague, editor of the internet-distributed *Rachel's Environmental and Health Weekly*, took the Environmental Defense Fund (EDF) to task for its annual calendar, which this powerful and effective organization widely distributes to its more than 300,000 members and many non-members too. What drew Montague's ire was the final page of EDF's 1996 calendar, which details a 10-point program to "save the Earth" (EDF's phrase): 1. Visit and help support our national parks; 2. Recycle newspapers, glass, plastic and aluminum; 3. Conserve energy and use energy-efficient lighting; 4. Keep tires properly inflated to improve gas mileage and extend tire life; 5. Plant trees; 6. Organize a Christmas tree recycling program in your community; 7. Find an alternative to chemical pesticides for your lawn; 8. Purchase only those brands of tuna marked "dolphin-safe;" 9. Organize a community group to clean up a local stream, highway, park, or beach; and 10. Become a member of EDF. Montague's reaction was terse and pointed:

What I notice here is the complete absence of any ideas commensurate with the size and nature of the problems faced by the world's environment. I'm not against recycling Christmas trees—if you MUST have one—but who can believe that recycling Christmas trees—or supporting EDF as it works overtime to amend and re-amend the Clean Air Act—is part of any serious effort to "save the Earth?" I am forced to conclude once again that the mainstream environmental movement in the U.S. has run out of ideas and has no worthy vision.⁸

Shortly after reading Montague's disturbing and, for me, surprising rejection of 10 very sensible measures to protect the environment, I walked into an introductory course on environmental problems that I often team-teach with colleagues in the environmental science department. The course challenges students to consider not only the physical cause-and-effect relationships that manifest themselves as environmental degradation, but also to think critically about the struggles for power and influence that underlie most environmental problems. That day, near the end of a very productive semester, my colleague divided the class of about 45 students into smaller "issue groups" (energy, water, agriculture, etc.) and asked each group to develop a rank-order list of "responses" or "solutions" to environmental threats specific to that issue. He then brought the class back together, had each group report, and tabulated their varied "solutions." From this group of 45, the fourth most recommended solution to mounting environmental degradation was to ride a bike rather than drive a car. Number three on the list was to recycle. The second most preferred action was

8. Montague 1996.

"plant a tree" and the top response was, again, "plant a tree" (the mechanics of tabulating student preference across the issue groups permitted a singularly strong preference to occupy two slots).

When we asked our students—who were among the brightest and best-prepared of the many with whom we'd worked over the years—why, after thirteen weeks of intensive study of environmental problems, they were so reluctant to consider as "solutions" broader changes in policy and institutions, they shrugged. Sure, we remember studying these kinds of approaches in class, they said, but such measures were, well, fuzzy, mysterious, messy, and "idealistic."

Five p.m. came soon enough, and I began my walk home, a pleasant half-mile stroll. The next day was "garbage day" and my neighbors were dutifully placing their recyclables, carefully washed and sorted, on the curbside. I waved hello and we chatted about the weird weather and all that talk about "global climate change." I made my way through my own front door to find my daughters camped out in front of the television, absorbed in a rare pre-dinner video. The evening's selection, a gift from a doting aunt, was from the popular "Wee Sing" series. Entitled "Under the Sea," the production chronicles the adventures of a small boy and his grandmother as they interact with a variety of sea creatures on the ocean floor. Dramatic tension is provided by the mysterious sickness of Ottie, a baby otter meant to tug at the heartstrings of all but the most jaded of viewers. The story's climax comes when the entire cast discovers a large pile of garbage on the coral reef, a favorite playground of Ottie, and then engages in a group clean-up of the site while singing a song (called "The Pollution Solution") extolling the virtues of recycling and condemning the lazy, shortsighted tendencies of "those humans." My daughters were enthralled by the video: Its message about the need to take personal responsibility for the environment resonates clearly with all that they were then learning about the environment, in pre-school and kindergarten respectively.

As I reflect now on these past events, I wonder if they're getting the wrong message, ubiquitous as it has become. Consider the following:

- Despite repeated and often highly public criticism of the "10 simple things to save the planet" focus of its calendars, the EDF pushes forward undaunted. Its 2000–2001 calendar again offers "10 tips to help our planet," which again revolve around individual consumer action: recycle, use energy-efficient lighting, avoid the purchase of products that come from endangered species.
- A colleague recently received a small box in the mail with an attached sticker that read "Environmental Solutions—Not Just Problems." Inside was a peat pot filled with soil in which was growing a pine-tree seedling, together with a piece of paper about 2" square that said "Rather than sensationalize the problems in our world, *Environmental Science* provides your students with the tools to develop their own opinions and focus on solutions. Keeping with this theme, you and your students can decide

where to best plant the enclosed seedling and watch it grow throughout the year." The seedling and associated materials was a promotion for one of the most widely used environmental-science textbooks at the undergraduate level.

- These days, my students argue that the best way to reverse environmental degradation is to educate the young children now in school. When pressed, they explain that only a sea-change in the choices individual consumers are making will staunch the ecological bleeding we're now facing—and it's too late to make much of dent in the consumer preferences of young adults like themselves.
- The biggest environmental issue to hit our community in the last decade has been the threatened demise, for lack of funding, of "drop off" centers for recycled products. Primary-school students have distributed their art work around the theme of "Save the Planet—Recycle" and letters to the editor speak gravely of myriad assaults on the planet and the importance of "buying green" and recycling if we're to stop the destruction. And this is not a phenomenon limited to small-town America; a friend visiting Harvard University recently sent me a copy of a flyer, posted over one of the student copy machines, with a line drawing of planet earth and the slogan "Recycle and Do Your Part to Save the Planet." Recycling is a prime example of the individualization of responsibility.
- Despite the criticism by some academics of the mega-hit *50 Simple Things You Can Do To Save the Earth* (a small book outlining 50 "easy" lifestyle changes in service of sustainability), publications sounding the same theme proliferate.⁹
- My daughters (now in first and fourth grade), like so many children their age, remain alert to environmental issues. A favorite book of the younger one is *The Berenstain Bears Don't Pollute*, which speaks to the need to recycle and consume environmentally friendly products. The older one has been drawn to computer games, books, and movies (e.g. *Free Willy*) that pin the blame for degraded habitat, the loss of biodiversity, and the spread of environmental toxins on Once-ler-like failings—shortsightedness and greed, in particular—of humans in general.

In our struggle to bridge the gap between our morals and our practices, we stay busy—but busy doing that with which we're most familiar and comfortable: consuming our way (we hope) to a better America and a better world. When confronted by environmental ills—ills many confess to caring deeply about—Americans seem capable of understanding themselves only as consumers who must buy "environmentally sound" products (and then recycle them), rather than as citizens who might come together and develop political muscle sufficient to alter institutional arrangements that drive a pervasive consumer-

9. See The Earthworks Group 1989; and Getis 1999. A dissection of this approach to social change is provided by Hunter 1997.

ism.¹⁰ The relentless ability of contemporary capitalism to commodify dissent and sell it back to dissenters is surely one explanation for the elevation of consumer over citizen.¹¹ But another factor, no doubt, is the growing suspicion of and unfamiliarity with processes of citizen-based political action among masses of North Americans. The interplay of State and Market after World War II has whittled the obligations of citizenship down to the singular and highly individualized act of voting in important elections. The increasing fragmentation and mobility of everyday life undermines our sense of neighborhood and community, separating us from the small arenas in which we might practice and refine our abilities as citizens. We build shopping malls but let community playgrounds deteriorate and migrate to sales but ignore school-board meetings. Modern-day advances in entertainment and communication increasingly find us sitting alone in front of a screen, making it all seem fine. We do our political bit in the election booth, then get back to "normal."¹²

Given our deepening alienation from traditional understandings of active citizenship, together with the growing allure of consumption-as-social-action, it's little wonder that at a time when our capacity to imagine an array of ways to build a just and ecologically resilient future must expand, it is in fact narrowing. At a moment when we should be vigorously exploring multiple paths to sustainability, we are obsessing over the cobblestones of but one path. This collective obsessing over an array of "green consumption" choices and opportunities to recycle is noisy and vigorous, and thus comes to resemble the foundations of meaningful social action. But it isn't, not in any real and lasting way that might alter institutional arrangements and make possible radically new ways of living that seem required.

Environmentalism and the Flight From Politics

The individualization of responsibility for environmental ills and the piecemeal, counterproductive actions it produces have not gone unnoticed by analysts of contemporary environmental politics. Over a decade ago, for example, social ecologist Murray Bookchin vigorously argued that:

It is inaccurate and unfair to coerce people into believing that they are *personally* responsible for present-day ecological disasters because they consume too much or proliferate too readily. This privatization of the environmental crisis, like the New Age cults that focus on personal problems rather than on social dislocations, has reduced many environmental movements to utter ineffectiveness and threatens to diminish their credibility with the public. If "simple living" and militant recycling are the main solutions to the environmental crisis, the crisis will certainly continue and intensify.¹³

10. Coleman 1994; and Smith 1998.
11. Frank 1997; and Frank and Weiland 1997.
12. Freie 1998; Lasch 1995; Norgaard 1994; Putnam 2000; and Sandel 1996.
13. Bookchin 1989, 19–23. Emphasis in the original.

More recently, Paul Hawken, the co-founder of the environmentally conscious Smith and Hawken garden-supply company and widely published analyst of "eco-commerce," confessed that:

. . . it [is] clear to me . . . that there [is] no way to "there" from here, that all companies are essentially proscribed from becoming ecologically sound, and that awards to institutions that had ventured to the environmental margins only underlined the fact that commerce and sustainability were antithetical by design, not by intention. Management is being told that if it wakes up and genuflects, pronouncing its amends honorable, substituting paper for polystyrene, we will be on the path to an environmentally sound world. *Nothing could be farther from the truth. The problem isn't with half measures, but the illusion they foster that subtle course corrections can guide us to the good life that will include a "conserved nature" and cozy shopping malls.*¹⁴

Bookchin and Hawken are reacting, in large measure, to the notable transformation in how Americans understand and attack environmental problems that occurred in the 1980s. The '80s was a decade in which re-energized, politically conservative forces in the US promoted the rhetoric of returning power and responsibility to the individual, while simultaneously curtailing the role of government in an economy that was increasingly characterized as innately self-regulating and efficient. Within this context, responsibility for creating and fixing environmental problems was radically reassigned, from government, corporations, and the environmentally shortsighted policies they were thought to have together fostered, to individual consumers and their decisions in the marketplace.

This shift was altogether consistent with then US President Reagan's doctrine of personal responsibility, corporate initiative, and limited government. The new conventional wisdom rejected environmental regulations that would coerce the powerful to behave responsibly towards the environment and slap them hard if they didn't. It instead embraced an alternative environmental politics of "win-win," zero-coercion scenarios, in which a technological innovation here or an innocuous change in policy there would, it was argued, produce real reductions in environmental degradation *and* higher corporate profits. This "win-win" approach continues to dominate American environmental politics, and a vast range of environmentally friendly, economically attractive technologies, from compact fluorescent lights to ultra fuel-efficient automobiles, are showcased as political-economic means towards a conflict-free transition to a future that works. These kinds of technologies make environmental sense, to be sure, and they typically make economic sense as well, once one accounts for the full range of costs and benefits involved. However, they often fail to make "political sense," insofar as their wide diffusion would redistribute political or economic power.

14. Hawken 1993, xii. Emphasis added.

Of course, as cleaner and leaner (i.e. more efficient) technologies emerged in the 1980s as *the* solution to pressing environmental ills, responsibility for the environmental crisis became increasingly individualized. The new technologies, it was thought, would take root and flourish *only if* consumers purchased them directly or sought out products produced by them. A theory of social change that embraced the image of consumers voting with their pocketbook soon took root. Almost overnight, the responsibility for fundamental change in American consumption and production landed squarely on the backs of individual consumers—not on government (which was to be trimmed) or corporations (which were cast as victims of government meddling, and willing servants to consumer sovereignty).

Scholars of environmentalism, however, caution us against fixing complete blame for the individualization of responsibility on the Reagan years. Tendencies towards individualization run deep in American environmentalism; Ronald Reagan merely was adept at tapping into them. Some analysts, for instance, note that mainstream environmentalism has technocratic, managerial roots and thus has always been a polite movement more interested in fine-tuning industrial society than in challenging its core tenets.¹⁵ Environmentalism's essential brand of social change—that which can be had by tinkering at the margins and not hurting anyone's feelings—makes it a movement that tends naturally towards easy, personalized "solutions."

Others pin the blame for the individualization of responsibility on the bureaucratic calcification of mainstream, "inside the beltway" environmental groups.¹⁶ Buffeted by backlash in the 1980s, laboring hard to fend off challenges to existing environmental regulations in the 1990s, and unsure about how to react to widespread voter apathy in the 2000s, mainstream environmental groups in the US have consolidated and "hunkered down." To survive as non-profit organizations without government financing (as is common in other countries), these US NGOs have had to avoid any costly confrontation with real power while simultaneously appearing to the public as if they are vigorously attacking environmental ills. The result: 10 easy steps to save the planet of the sort professed each year by the Environmental Defense Fund.

Other scholars draw attention to the classical liberal underpinnings of environmentalism that bias environmentalism towards timid calls for personal responsibility and green consumerism.¹⁷ As Paul Wapner, a professor at American University notes,

Liberal environmentalism is *so* compatible with contemporary material and cultural currents that it implicitly supports the very things that it should be criticizing. Its technocratic, scientific, and even economicistic character gives credence to a society that measures the quality of life fundamentally in

15. See Dowie 1996; and Gottlieb 1995.

16. Sale 1993; and Mitchell, Mertig, and Dunlap 1992, 11–26.

17. Cahn 1995.

terms of economic growth, control over nature, and the maximization of sheer efficiency in everything we do. By working to show that environmental protection need not compromise these maxims, liberal environmentalism fails to raise deeper issues that more fundamentally engage the dynamics of environmental degradation.¹⁸

And yet mainstream environmentalism has not always advanced an individualized consumeristic strategy for redressing environmental ills. Even during the turn of the last century, a time of zealous rediscovery of the wonders of efficiency and scientific management, "the dynamics of conservation," observes famed environmental historian Samuel P. Hays, "with its tension between the centralizing tendencies of system and expertise on the one hand and the decentralization of localism on the other . . ." fueled healthy debate over the causes of and cures for environmental ills.¹⁹ Throughout the 20th century, in fact, mainstream environmentalism has demonstrated an ability to foster multiple and simultaneous interpretations on where we are and where we are heading.

But that ability has, today, clearly become impaired. Although public support for things environmental has never been greater, it is so because the public increasingly understands environmentalism as an individual, rational, cleanly apolitical process that can deliver a future that works without raising voices or mobilizing constituencies. As individual consumers and recyclers we are supplied with ample and easy means of "doing our bit." The result, though, is often dissonant and sometimes bizarre: consumers wearing "save the earth" T-shirts, for example, speak passionately against recent rises in gasoline prices when approached by television news crews; shoppers drive all over town in their gasoline-guzzling SUVs in search of organic lettuce or shade-grown coffee; and diligent recyclers expend far more fossil-fuel energy on the hot water spent to meticulously clean a tin can than is saved by its recycling.

Despite these jarring contradictions, the technocratic, sanitary and individualized framing of environmentalism prevails, largely because it is continually reinforced. Consider, for example, recent millennial issues of *Time* and *Newsweek* that look to life in the future.²⁰ They paint a picture of smart appliances, computer-guided automobiles, clean neighborhoods, eco-friendly energy systems, and happy citizens. How do we get to this future? Not through bold political leadership or citizen-based debate within enabling democratic institutions—but rather via consumer choice: informed, decentralized, apolitical, individualized. Corporations will build a better mousetrap, consumers will buy it, and society will be transformed for the better. A struggle-free eco-revolution

18. Wapner 1996, 21–22. Emphasis in the original.

19. Hays 1980.

20. *Time*, for example, has run a five-part "Visions of the 21st Century" series covering the following topics: Health and the Environment (vol. 154, no. 19, November 8, 1999); How We Will Live (vol. 155, no. 7, February 21, 2000); Science (vol. 155, no. 14, April 10, 2000); Our World, Our Work (vol. 155, no. 21, May 22, 2000); and Technology (vol. 155, no. 25, June 19, 2000). Each special issue provides a large dose of technological utopianism.

awaits, one made possible by the combination of technological innovation and consumer choice with a conscience.

The “better mousetrap theory of social change” so prevalent in these popular news magazines was coined by Langdon Winner, a political-science professor and expert on technological politics, who first introduced the term in an essay on the demise of the appropriate technology movement of the 1970s.²¹ Like the militant recyclers and dead-serious green consumers of today, appropriate technologists of the 1970s were the standard bearers for the individualization of responsibility. The difference between then and now is that appropriate technology lurked at the fringes of a 1970s American environmental politics more worried about corporate accountability than consumer choice. Today, green consumption, recycling and Cuisinart-social-change occupy the heart of US eco-politics. Both then and now, such individualization is alarming, for as Winner notes:

The inadequacies of such ideas are obvious. Appropriate technologists were unwilling to face squarely the facts of organized social and political power. Fascinated by dreams of a spontaneous, grass-roots revolution, they avoided any deep-seeking analysis of the institutions that control the direction of technological and economic development. In this happy self-confidence they did not bother to devise strategies that might have helped them overcome obvious sources of resistance. The same judgment that Marx and Engels passed on the utopians of the nineteenth century apply just as well to the appropriate technologists of the 1970s: they were lovely visionaries, naive about the forces that confronted them.²²

Though the inadequacies of these ideas is clear to Winner, they remain obscure to the millions of American environmentalists who would plant a tree, ride a bike or recycle a jar in the hope of saving the world. The newfound public awareness of global environmental problems may be largely to blame. Shocking images of a “hole” in the ozone layer in the late 1980s, ubiquitous video on rainforest destruction, media coverage of global climate change and the warming of the poles: all this and more have brought the public to a new state of awareness and concern about the “health of the planet.” What, though, is the public to do with this concern? Academic discussion and debate about global environmental threats focuses on distant international negotiations, complicated science fraught with uncertainty that seems to bedevil even the scientists, and nasty global politics. This is no place for the “normal” citizen. Environmental groups often encourage people to act, but recommended action on global environmental ills is limited to making a donation, writing a letter, or—yes—buying an environmentally friendly product. The message on all fronts seems to be “Act . . . but don’t get in the way.” Confronted by a set of global problems that clearly matter and seeing no clear way to attack them, it is easy to

21. Winner 1986.

22. Ibid, 79–80.

imagine the lay public gravitating to individualistic, consumer-oriented measures. And it's easy to understand how environmental groups would promote such measures; they do, after all, meet the public's need for some way to feel as if it's making a difference, and they sell.

Ironically, those laboring to highlight global environmental ills, in the hope that an aroused public would organize and embark upon collective, political action, aided and abetted this process of individualization. They paved the way for the likes of Rainforest Crunch ice cream ("buy it and a portion of the proceeds will go to save the rainforests") because they were insufficiently attentive to a fundamental social arithmetic: heightened concern about any social ill, erupting at a time of erosion of public confidence in political institutions *and* citizen capacities to effect change, will prompt masses of people to act, but in that one arena of their lives where they command the most power and feel the most competent—the sphere of consumption.

Of course, the public has had some help working through this particular arithmetic. A privatization and individualization of responsibility for environmental problems shifts blame from State elites and powerful producer groups to more amorphous culprits like "human nature" or "all of us." State elites and the core corporations upon which they depend to drive economic growth stand to benefit from spreading the blame and cranking the rotary of consumption.²³ And crank they will. One example of this dynamic, though not one rooted per se in global ecology, is found in a reading of the history of efforts in the United States in the 1970s to implement a nationwide system of beverage and food container reuse, a policy that would have located the responsibility for resolving the "solid waste crisis" on the container industry. The container industry spent tens of millions of dollars to defeat key "bottle bill" referendums in California and Colorado, and then vigorously advanced recycling—not reuse—as a more practical alternative. Recycling, by stressing the individual's act of disposal, not producer's acts of packaging, processing and distributing, fixes primary responsibility upon individuals and local governments. It gives life to a "Wee Sing" diagnosis of environmental ills that places human laziness and ignorance center-stage. The bottling industry was successful in holding out its "solution" as the most practical and realistic, and the State went along.²⁴

The same dynamic is now at work in mainstream discussions about global environmental ills. Chatterjee and Finger, seasoned observers of global environmental politics, highlight the rise of a "New Age Environmentalism" that fixes responsibility upon all of us equally and, in the process, cloaks important dimensions of power and culpability.²⁵ They point, for example, to international

23. See, for example, Reich 1991.

24. From 1997 interviews by the author with individuals who worked as "bottle bill" activists in Colorado and California during the late 1970s and early 1980s (Ross Pumfrey and William Shireman, who led the California initiative process at different times; and Terrence Bensel, an activist in Colorado). Fairlie 1992 provides a similar account for the United Kingdom.

25. Chatterjee and Finger 1994.

meetings like the 1992 Earth Summit that cultivate a power-obscur ing language of “all of us needing to work together to solve global problems.” In the same vein, academics like Esteva and Prakash lament how the slogan “think globally, act locally” has been shaped by global environmentalism to support a consumer-driven, privatized response to transboundary environmental ills: in practice, thinking globally and acting locally means feeling bad and guilty about far-off and mega-environmental destruction, and then traveling down to the corner store to find a “green” product whose purchase will somehow empower somebody, somewhere, to do good.²⁶ Mainstream conversations about global sustainability advance the “international conference” as the most meaningful venue for global environmental problem-solving. It is here that those interests best able to organize at the international level—States and transnational corporations—hold the advantage in the battle to shape the conversation of sustainability and craft the rules of the game. And it is *precisely* these actors who benefit by moving mass publics toward private, individual, well-intentioned consumer choice as *the* vehicle for achieving “sustainability.”

It’s more than coincidental that as our collective perception of environmental problems has become more global, our prevailing way of framing environmental problem-solving has become more individualized. In the end, individualizing responsibility does not work—you can’t plant a tree to save the world—and as citizens and consumers slowly come to discover this fact their cynicism about social change will only grow: “you mean after fifteen years of washing out these crummy jars and recycling them, environmental problems are still getting worse—geesh, what’s the use?” Individualization, by implying that any action beyond the private and the consumptive is irrelevant, insulates people from the empowering experiences and political lessons of *collective* struggle for social change and reinforces corrosive myths about the difficulties of public life.²⁷ By legitimating notions of consumer sovereignty and a self-balancing and autonomous market, it also diverts attention from political arenas that matter. In this way, individualization is both a symptom and a source of waning citizen capacities to participate meaningfully in processes of social change. If consumption, in all its complexity, is to be confronted, the forces that systematically individualize responsibility for environmental degradation must be challenged.

IPAT, and Beyond

But how? One approach would focus on undermining the dominant frameworks of thinking and talking that make the individualization of responsibility appear so natural and “common sense.” Among other things, this means taking on “IPAT.”

26. Esteva and Prakash 1994, 162–163.

27. See Lappé and DuBois 1994 for a discussion of the “ten myths of power” that dominate US public life.

At first glance it would seem that advocates of a consumption angle on environmental degradation should naturally embrace IPAT (impact = population \times affluence \times technology). The "formula" argues, after all, that one cannot make sense of, much less tackle, environmental problems unless one takes into account all three of the proximate causes of environmental degradation. Population growth, resource-intensive and highly polluting technologies, *and* affluence (that is, levels of consumption) together conspire to undermine critical ecological processes upon which human well-being depends. Focusing on one or two of these three factors, IPAT tells us, will ultimately disappoint.

IPAT is a powerful conceptual framework, and those who would argue the importance of including consumption in the environmental-degradation equation have not been reluctant to invoke it. They note, correctly so, that the "A" in IPAT has for too long been neglected in environmental debates and policy action.²⁸ However, although IPAT provides intellectual justification for positioning consumption center-stage, it also comes with an underlying set of assumptions—assumptions that reinforce an ineffectual Loraxian flight from politics.

A closer look at IPAT shows that the formula distributes widely all culpability for the environmental crisis (akin to the earlier mentioned "New Age Environmentalism"). Population size, consumption levels, and technology choice *are all* to blame. Responsibility for environmental degradation nicely splits, moreover, between the so-called developed and developing world: if only the developing world could get its population under control and the developed world could tame its overconsumption and each could adopt green technologies, then all would be well. Such a formulation is, on its face, eminently reasonable, which explains why IPAT stands as such a tempting platform from which advocates of a consumption perspective might press their case.

In practice, however, IPAT amplifies and privileges an "everything is connected to everything else" biophysical, ecosystem-management understanding of environmental problems, one that obscures the exercise of power while systematically disempowering citizen actors. When everything is connected to everything else, knowing how or when or even why to intervene becomes difficult; such "system complexity" seems to overwhelm any possibility of planned, coordinated, effective intervention.²⁹ Additionally, there is not much room in IPAT's calculus for questions of agency, institutions, political power, or collective action. Donella Meadows, co-author of *The Limits to Growth*, the 1972 study that drew the world's attention to the social and environmental threats posed by exponential growth, had long advocated IPAT. But the more her work incorporated the human dimension, including issues of domination and distribution, the more she questioned the formulation. After a 1995 conference on global environmental policy, she had a revelation:

I didn't realize how politically correct [IPAT] had become, until a few months ago when I watched a panel of five women challenge it and enrage

28. Kates 2000, 10–19; and Holdren 2000, 4–5.
 29. Costanza and Cornwell 1992, 12–20, 42.

an auditorium full of environmentalists, including me. IPAT is a bloodless, misleading, cop-out explanation for the world's ills, they said. It points the finger of blame at all the wrong places. It leads one to hold poor women responsible for population growth without asking who is putting what pressures on those women to cause them to have so many babies. It lays a guilt trip on Western consumers, while ignoring the forces that whip up their desire for ever more consumption. It implies that the people of the East, who were oppressed by totalitarian leaders for generations, now somehow have to clean up those leaders' messes.³⁰

And then, in ways that echo Langdon Winner's assessment of the better mousetrap theory of social change, Meadows concludes that while IPAT may be hard to dispute in physical terms, it is "politically naive" because it ignores economic and political power, factors that are not easily measured with numbers.³¹

One need go no further than the 1998 *Human Development Report* to witness the corrosive effect of such political naiveté, especially with respect to the consumption problem. The report marks the first time a major institutional actor in the struggle for global environmental sustainability has made consumption a top policy priority. A glance at the summary language on the report's back cover is encouraging: "These consumption trends," it reads, "are undermining the prospects for human development. *Human Development Report 1998* reviews the challenges that all people and countries face—to forge consumption patterns that are more environmentally friendly, more socially equitable, that meet basic needs for all and that protect consumer health and safety." The report begins promisingly enough, with a stirring foreword by Gus Speth, a former director of the US Council on Environmental Quality and, later, of The World Resources Institute, on the need to look consumption squarely in the face:

When consumption erodes renewable resources, pollutes the local and global environment, panders to manufactured needs for conspicuous display and detracts from the legitimate needs of life in modern society, there is justifiable cause for concern. [Yet] those who call for changes in consumption, for environmental or other reasons, are often seen as hair-shirt ascetics wishing to impose an austere way of life on billions who must pay for the waste of generations of big consumers. Advocates of strict consumption limits are also confronted with the dilemma that for more than one billion of the world's poor people increased consumption is a vital necessity and a vital right—a right to freedom from poverty and want. And there is the ethical issue of choice: how can consumption choices be made on behalf of others and not be seen as a restriction on their freedom to choose?³²

But then the tone changes. Having introduced ideas of "consumption limits" and "manufactured needs," Speth dispenses with them. It is better to reflect upon *the patterns* of consumption, he says—that is, the mix of products made in

30. Meadows 1995, 1.

31. *Ibid.* 8.

32. United Nations Development Programme 1998.

environmentally destructive ways compared to those that are manufactured in environmentally "sustainable" ways—than on *absolute levels* of consumption itself. For those troubled by consumption, he argues, the best mix of policies are those that expand the economic production of the poor and maintain it for the rich while reducing overall environmental impact through the dissemination of environmentally benign technologies. One solves the consumption problem, in other words, by getting rich consumers and poor alike to demand eco-technologies.

Remarkably, after promising to help forge "consumption patterns that are more environmentally friendly," it takes the *Human Development Report* just five paragraphs to establish its disdain for any discussion of overall limits to consumption, paths to more fulfilling, lower-consuming lifestyles, or the insidious dynamics of consumerism and manufactured needs. Indeed, the critical importance of challenging consumerism, which Speth alludes to in his forward, is never again broached in the remaining 228 pages of the document.

The *Human Development Report* can be a splendid resource for those wrestling with the complexities of international economic development. I criticize it to show how inquiry into consumption quickly bumps up against tough issues: consumerism, "manufactured needs," limits, global inequity, the specter of coercion, competing and sometimes conflicting understandings of human happiness. Dealing with these topics demands a practiced capacity to talk about power, privilege, prosperity, and larger possibilities. IPAT, despite its usefulness, at best fails to foster this ability; at worst, it actively undermines it. When accomplished anthropologist Clifford Geertz remarked that we are still "far more comfortable talking about technology than talking about power,"³³ he likely had conceptual frameworks like IPAT squarely in mind.

Proponents of a consumption angle on environmental degradation must cultivate alternatives to IPAT and conventional development models that focus on, rather than divert attention from, politically charged elements of commercial relations. Formulas like IPAT are handy in that they focus attention on key elements of a problem. In that spirit, then, I propose a variation: "IWAC," which is environmental Impact = quality of Work X meaningful consumption Alternatives X political Creativity. If ideas have power, and if acronyms package ideas, then alternative formulations like IWAC could prove useful in shaking the environmentally-inclined out of their slumber of individualization. And this could only be good for those who worry about consumption.

Take "work" for example. IPAT systematically ignores work while IWAC embraces it. As *The Atlantic Monthly* senior editor Jack Beatty notes, "radical talk" about work—questions about job security, worker satisfaction, downsizing, overtime, and corporate responsibility—is coming back strong into public discourse.³⁴ People who might otherwise imagine themselves as apolitical care about the state of work, and they do talk about it. IWAC taps into this concern,

33. Geertz 1989, 238.

34. Beatty 1996, 20.

linking it to larger concerns about environmental degradation by suggesting that consumeristic impulses are linked to the routinization of work and, more generally, to the degree of worker powerlessness within the workplace. The more powerless one feels at work, the more one is inclined to assert power as a consumer. The “W” in IWAC provides a conceptual space for asking difficult questions about consumption and affluence. It holds out the possibility of going beyond a critique of the “cultivation of needs” by advertisers to ask about social forces (like the deadening quality of the workplace) that make citizens so susceptible to this “cultivation.”³⁵ Tying together two issues that matter to mass publics—the nature of work and the quality of the environment—via something like IWAC could help revitalize public debate and challenge the political timidity of mainstream environmentalism.

Likewise, the “A” in IWAC, “alternatives,” expands IPAT’s “T” in new directions by suggesting that the public’s failure to embrace sustainable technologies has more to do with institutional structures that restrict the aggressive development and wide dissemination of sustainable technologies than with errant consumer choice. The marketplace, for instance, presents us with red cars and blue ones, and calls this consumer choice, when what sustainability truly demands is a choice between automobiles and mass transit systems that enjoy a level of government support and subsidy that is presently showered upon the automotive industry.³⁶ With “alternatives,” spirited conversation can coalesce around questions like: Do consumers confront real, or merely cosmetic choice? Is absence of choice the consequence of an autonomous and distant set of market mechanisms? Or is the self-interested exercise of political and economic power at work? And how would one begin to find out? In raising these uncomfortable questions, IWAC focuses attention on claims that the direction and pace of technological development is far from autonomous and is almost always political.³⁷ Breaking down the widely held belief (which is reinforced by IPAT) that technical choice is “neutral” and “autonomous” could open the floodgates to full and vigorous debate over the nature and design of technological choice. Once the veil of neutrality is lifted, rich local discourse can, and sometimes does, follow.³⁸

And then there is the issue of public imagination and collective creativity, represented by the “C” in IWAC. “Imagination” is not a word one often sees in reflections on environmental politics; it lies among such terms as love, caring, kindness, and meaning that raise eyebrows when introduced into political discourse and policy analysis.³⁹ This despite the work of scholars like political scientist Karen Litfin that readily shows how ideas, images, categories, phrases and examples structure our collective imagination about what is proper and what is

35. Bookchin 1980; Gorz 1980; Princen 1997; Rifkin 1995; Schor 1999; Schor et al. 2000; and Durning 1992.

36. Roodman 1996.

37. Galbraith 1985; Noble 1986; and Winner 1977.

38. Sclove, Scammell and Holland 1998; and Winner 1995.

39. Wapner 1996, 21–24, 76.

possible. Ideas and images, in other words, and those who package and broker them, wield considerable power.⁴⁰ Susan Griffin, an environmental philosopher, argues the same point from a different disciplinary vantage point when she writes that:

Like artistic and literary movements, social movements are driven by imagination. . . . Every important social movement reconfigures the world in the imagination. What was obscure comes forward, lies are revealed, memory shaken, new delineations drawn over the old maps: it is from this new way of seeing the present that hope emerges for the future . . . Let us begin to imagine the worlds we would like to inhabit, the long lives we will share, and the many futures in our hands.⁴¹

Griffin is no new-age spiritualist. She is closer to rough-and-tumble neighborhood activist Saul Alinsky than ecopsychologists like Roszak, Gomes, and Kanner.⁴² She is concerned with the political implications of our collective sense of limited possibility and daunting complexity. She dismissed claims so prevalent in the environmental movement that a “healed mind” and “individual ecological living” will spawn an ecological revolution. Her argument, like Litfin’s, bears restating: ideas and the images that convey them have power; and though subtle, such can and is exercised to channel ideas into separate tracks labeled “realistic” and “idealistic.” Once labeled, what is taken to be impossible or impractical—“idealistic,” in other words—can no longer serve as a staging ground for struggle.

Conclusion

IWAC is more illustrative than prescriptive. It draws into sharp relief the fact that prevailing conceptualizations of the “environmental crisis” drive us towards an individualization of responsibility that legitimizes existing dynamics of consumption and production. The recent globalization of environmental problems—dominated by natural-science diagnoses of global environmental threats that ignore critical elements of power and institutions—accelerates this individualization, which has deep roots in American political culture. To the extent that common-place language and handy conceptual frameworks have power, in that they shape our view of the world and tag some policy measures as proper and others as far-fetched, IWAC stands as an example of how one might go about propagating an alternative understanding of why we have environmental ills, and what we ought to be doing about them.

A proverbial fork in the road looms large for those who would seek to cement consumption into the environmental agenda. One path of easy walking leads to a future where “consumption” in its environmentally undesirable

40. Litfin 1994.

41. Griffin 1996, 61–67.

42. Alinsky 1969; and Roszak, Gomes, and Kanner 1995.

forms—"overconsumption," "commodification," and "consumerism"—has found a place in environmental debates. Environmental groups will work hard to "educate" the citizenry about the need to buy green and consume less and, by accident or design, the pronounced asymmetry of responsibility for and power over environmental problems will remain obscure. Consumption, ironically, could continue to expand as the privatization of the environmental crisis encourages upwardly spiraling consumption, so long as this consumption is "green."⁴³ This is the path of business-as-usual.

The other road, a rocky one, winds towards a future where environmentally concerned citizens come to understand, by virtue of spirited debate and animated conversation, the "consumption problem." They would see that their individual consumption choices *are* environmentally important, but that their control over these choices is constrained, shaped, and framed by institutions and political forces that can be remade only through collective citizen action, as opposed to individual consumer behavior. This future world will not be easy to reach. Getting there means challenging the dominant view—the production, technological, efficiency-oriented perspective that infuses contemporary definitions of progress—and requires linking explorations of consumption to politically charged issues that challenge the political imagination. Walking this path means becoming attentive to the underlying forces that narrow our understanding of the possible.

To many, alas, an environmentalism of "plant a tree, save the world" appears to be apolitical and non-confrontational, and thus ripe for success. Such an approach is anything but, insofar as it works to constrain our imagination about what is possible and what is worth working towards. It is time for those who hope for renewed and rich discussion about "the consumption problem" to come to grips with this narrowing of the collective imagination and the growing individualization of responsibility that drives it, and to grapple intently with ways of reversing the tide.

References

Alinsky, Saul. 1969. *Reveille for Radicals*. New York: Vintage Books.

Beatty, Jack. 1996. The Year of Talking Radically. *The Atlantic Monthly* 277 (6): 20.

Bellah, Robert, et al. 1991. Introduction: We Live Through Institutions. In *The Good Society*. New York: Alfred A. Knopf.

Bookchin, Murray. 1980. *Toward an Ecological Society*. Montreal: Black Rose Books.

_____. 1989. Death of a Small Planet. *The Progressive* August: 19–23.

Cahn, Matthew. 1995. *Environmental Deceptions: The Tension Between Liberalism and Environmental Policymaking in the United States*. Albany, N.Y.: State University of New York Press.

Carson, Patrick, and Julia Moulden. 1991. *Green is Gold: Business Talking to Business About the Environmental Revolution*. New York: Harper Business.

43. Plant and Plant 1991; Smith 1998; Carson and Moulden 1991; Ottman 1997; and Coddington 1993.

Chatterjee, Pratap, and Matthias Finger. 1994. *The Earth Brokers*. New York: Routledge.

Coddington, Walter. 1993. *Environmental Marketing: Positive Strategies for Reaching the Green Consumer*. New York: McGraw-Hill.

Cole, Nancy, and P.J. Skerrett. 1995. *Renewables are Ready*. White River Junction, Vermont: Chelsea Green Publishing Company.

Coleman, Daniel. 1994. *Ecopolitics: Building a Green Society*. New Brunswick: Rutgers University Press.

Costanza, Robert, and Laura Cornwell. 1992. The 4P Approach to Dealing with Scientific Uncertainty. *Environment* 34 (9): 12–20, 42.

Dowie, Mark. 1996. *Losing Ground: American Environmentalism at the Close of the Twentieth Century*. Cambridge, MA: MIT Press.

Durning, Alan. 1992. *How Much is Enough?* New York: W.W. Norton and Company.

Esteva, Gustavo, and Madhu Suri Prakash. 1994. From Global to Local Thinking. *The Ecologist* 24 (5): 162–163.

Fairlie, Simon. 1992. Long Distance, Short Life: Why Big Business Favours Recycling. *The Ecologist* 22 (5): 276–283.

Frank, Thomas. 1997. *The Conquest of Cool*. Chicago: The University of Chicago Press.

Frank, Thomas, and Matt Weiland, eds. 1997. *Commodify your Dissent: Salvos from the Baffler*. New York: W.W. Norton and Company.

Freie, John. 1998. *Counterfeit Community: The Exploitation of Our Longing for Connectedness*. Lanham, Md.: Rowman & Littlefield.

Galbraith, John K. 1985. *The New Industrial State*, 4th edition. Boston: Houghton Mifflin.

Geertz, Clifford. 1989. Plenary Session. *Daedalus (A World To Make: Development in Perspective)* 118 (1): 238.

Geisel, Theodore Seuss (Dr. Seuss). 1971. *The Lorax*. New York: Random House.

Getis, Judith. 1999. *You Can Make a Difference*. 2nd edition. Boston: WCB McGraw-Hill.

Gorz, Andre. 1980. *Ecology as Politics*. Boston: South End Press.

Gottlieb, Robert. 1995. *Forcing the Spring: The Transformation of the American Environmental Movement*. Washington D.C.: Island Press.

Griffin, Susan. 1996. To Love the Marigold: The Politics of Imagination. *Whole Earth Review* 89: 61–67.

Hawken, Paul. 1993. *The Ecology of Commerce*. New York: Harper Business.

Hays, Samuel P. 1980. *Conservation and the Gospel of Efficiency*. New York: Atheneum.

Holdren, John. 2000. Environmental Degradation: Population, Affluence, Technology, and Sociopolitical Factors. *Environment* 42 (6): 4–5.

Hunter, J. Robert. 1997. *Simple Things Won't Save the Earth*. Austin: The University of Texas Press.

Kates, Robert. 2000. Population and Consumption: What We Know, What We Need to Know. *Environment* 42 (3): 10–19.

Lappé, Frances Moore, and Paul DuBois. 1994. *The Quickenning of America*. San Francisco: Jossey-Bass Publishers.

Larsen, Jonathan. 1998. Holy Seuss! *Amicus Journal* 20 (2): 39.

Lasch, Christopher. 1995. *The Revolt of the Elites and the Betrayal of Democracy*. New York: W.W. Norton and Company.

Litfin, Karen. 1994. *Ozone Discourses*. New York: Columbia University Press.

Meadows, Donella. 1995. Who Causes Environmental Pollution? *International Society of Ecological Economics Newsletter* July: 1, 8.

Mitchell, Robert, Angela G. Mertig, and Riley E. Dunlap. 1992. Twenty Years of Environmental Mobilization: Trends Among National Environmental Organizations. In *American Environmentalism: The U.S. Environmental Movement, 1970–1990*, edited by R.E. Reily and A.G. Mertig, 11–26. Philadelphia: Taylor and Francis.

Montague, Peter. 1996. Review: More Straight Talk. *Rachel's Environmental and Health Weekly*. December 19, number 525. Available at <http://www.rachel.org>.

Noble, David. 1986. *Forces of Production: A Social History of Industrial Automation*. New York: Oxford University Press.

Norgaard, Richard. 1994. *Development Betrayed*. New York: Routledge Press.

Ottman, Jacquelyn. 1997. *Green Marketing: Opportunities for Innovation in the New Marketing Age*, 2nd edition. Lincolnwood, Illinois: NTC/Contemporary Publishing Company.

Plant, Christopher and Judith Plant, eds. 1991. *Green Business: Hope or Hoax?* Philadelphia: New Society Publishers.

Princen, Thomas. 1997. Consumption, Work, and Ecological Constraint. Paper prepared for the annual meeting of the International Studies Association.

Putnam, Robert. 2000. *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon and Schuster.

Reich, Robert. 1991. *The Work of Nations*. New York: Alfred A. Knopf.

Rifkin, Jeremy. 1995. *The End of Work*. New York: G.P. Putnam's Sons.

Roodman, David. 1996. *Paying the Piper: Subsidies, Politics, and the Environment*. Worldwatch Paper 133. Washington D.C.: The Worldwatch Institute.

Roszak, Theodore, Mary E. Gomes, and Allen D. Kanner. 1995. *Ecopsychology*. San Francisco: Sierra Club Books.

Sale, Kirkpatrick. 1993. *The Green Revolution: The American Environment Movement 1962–1992*. New York: Hill and Wang.

Sandel, Michael. 1996. *Democracy's Discontent*. Cambridge, MA: Belknap Press.

Schor, Juliet. 1999. *The Overspent American: Upscaling, Downshifting, and the New Consumer*. New York: HarperCollins.

Schor, Juliet, et al. 2000. *Do Americans Shop Too Much?* Boston: Beacon Press.

Sclove, Richard, Madeleine Scammell, and Breena Holland. 1998. *Community-Based Research in the United States: An Introductory Reconnaissance Including Twelve Organizational Case Studies and Comparison with the Dutch Science Shops and with the Mainstream American Research System*. Amherst, MA: The Loka Institute, July.

Smith, Toby. 1998. *The Myth of Green Marketing: Tending our Goats at the Edge of Apocalypse*. Toronto: University of Toronto Press.

The Earthworks Group. 1989. *50 Simple Things You Can Do To Save the Earth*. Berkeley: The Earthworks Press.

United Nations Development Programme. 1998. *Human Development Report 1998*. New York: Oxford University Press.

Wapner, Paul. 1996. Toward a Meaningful Ecological Politics. *Tikkum* 11 (3): 21–22.

Winner, Langdon. 1977. *Autonomous Technology: Technics-out-of-Control as a Theme in Political Thought*. Cambridge, MA: MIT Press.

_____. 1986. *The Whale and the Reactor*. Chicago: The University of Chicago Press.

_____. 1995. Citizen Virtues in a Technological Order. In *The Politics of Knowledge*, edited by Andrew Feenberg and Alastair Hannay. Bloomington: Univ. of Indiana Press.