

ASSUMING PERSONAL RESPONSIBILITY FOR IMPROVING THE ENVIRONMENT: MOVING TOWARD A NEW ENVIRONMENTAL NORM

*Hope M. Babcock**

“Congress recognizes . . . that each person has a responsibility to contribute to the preservation and enhancement of the environment.”¹

This is the second in a series of three articles about the need to make individuals behave more environmentally responsibly because of the aggregate impact of their activities on the environment, and how that might be done. The Article uses as a springboard the dissonance between continuing strong public support for environmental protection and individual actions that contradict that support. The Article argues that norms, once activated and internalized, can overcome some of the barriers to reforming individual behavior. However, for norms to influence individual behavior there must be an effective public education campaign accompanied by carefully tailored supplemental measures, such as sanctions and market-based incentives. Although not as specifically developed in this Article as in the other two, I argue that the phenomenon of global climate change has created a window of opportunity within which environmental norm change can occur.

I. INTRODUCTION

There is general agreement that we are nearing the end of achieving major gains in pollution abatement from traditional sources, that a significant portion of the remaining environmental problems facing this country is caused by individual behavior, and that efforts to control that behavior have either failed or not even been made.²

The thousands or millions of potential individual regulatory targets for any given environmental problem, the widespread belief that individuals are not significant pollution sources, and the cognitive barriers to changing that belief all make individual behavior extremely difficult to regulate through command and control instruments, particularly at the federal level.³

The phenomenon of individuals as irresponsible environmental actors seems counterintuitive when polls show that people consistently rate protecting the

* Professor of Law, Georgetown University Law Center. I thank Georgetown for its generous support of my scholarship and my research assistant Angela Navarro for her invaluable assistance.

¹ National Environmental Policy Act of 1969 § 101(c), 42 U.S.C. § 4331(c) (2000).

² See Michael P. Vandenbergh, *From Smokestack to SUV: The Individual as Regulated Entity in the New Era of Environmental Law*, 57 VAND. L. REV. 515, 520 (2004); see also Lior Jacob Strahilevitz, *How Changes in Property Regimes Influence Social Norms: Commodifying California's Carpool Lanes*, 75 IND. L.J. 1231, 1276 (2000).

³ Vandenbergh, *supra* note 2, at 598; see also Craig N. Oren, *Getting Commuters out of Their Cars: What Went Wrong?*, 17 STAN. ENVTL. L.J. 141, 197-201 (1998) (explaining how opposition to federal initiatives to reduce driving led to the repeal of the Clean Air Act's employee trip reduction directive).

environment among their highest priorities, contribute to environmental causes, and are willing to pay more to protect environmental resources.⁴

This Article is my second effort at understanding why people who consider themselves to be “environmentalists” or support environmental causes behave in environmentally destructive ways, and what, if anything, can be done to change that behavior.⁵ The first article endorsed expansion of the abstract environmental protection norm to include individual environmental responsibility⁶ and concluded that doing this is the most promising approach to overcoming barriers to behavioral change. That article also identified environmental groups as the most effective “norm entrepreneurs” that can bring about widespread change in personal environmental conduct through carefully tailored information campaigns.⁷ This Article expands on the earlier article’s discussion of the role norms play in influencing personal behavior and why changing them is a critical part of any campaign to make individuals more environmentally responsible.

The best way to change norms is through education, as the first article acknowledged, but supplemental measures may be necessary. This Article identifies what those additional measures might be and assesses their effectiveness. A third article will explore how republican theory supports the critical role that education performs in altering public behavior through changing norms.⁸ All three articles rest on the premise that the global climate change crisis has created circumstances in which norm change can take place, namely the occurrence of a second environmental republican moment, in which people are open to being educated about their civic responsibilities, including those pertaining to the environment.

⁴ See Michael P. Vandenbergh, *Order Without Social Norms: How Personal Norm Activation Can Protect the Environment*, 99 NW. U. L. REV. 1101, 1117-18 (2005) (noting that despite “widespread support” for the environmental protection norm, individual action is often inconsistent with it). But see András Takács-Sánta, *Barriers to Environmental Concern*, 14 HUM. ECOLOGY REV. 26 (2007) (“[The] high level of environmental concern measured in polls may in part reflect social expectations rather than real concern . . .”).

⁵ Defining “correct” environmental behavior is problematic. Sometimes all possible behaviors will result in some type of environmental harm, especially if the indirect effects of that behavior are included. Additionally, when the effects of the behavior are not easy to compare, what may seem like intuitively correct behavior — using reusable coffee mugs instead of paper cups — may actually be incorrect when the water supply is limited and landfill space is not.

⁶ See Hope M. Babcock, *Global Climate Change: A Civic Republican Moment for Achieving Broader Changes in Environmental Behavior*, 26 PACE L. REV. (forthcoming 2009).

⁷ Cass R. Sunstein, *Social Norms and Social Roles*, 96 COLUM. L. REV. 903, 909 (1996) (defining “norm entrepreneurs” as “people interested in changing social norms,” who when successful, produce “norm bandwagons,” which are created when small changes in behavior result in large ones, and “norm cascades,” which happen when there are “rapid shifts in norms”).

⁸ See Hope M. Babcock, *Civic Republicanism Provides Theoretical Support for Making Individuals More Environmentally Responsible*, 23 NOTRE DAME J.L. ETHICS & PUB. POL’Y (forthcoming 2009).

To develop these ideas, Section II provides background information about individual contributions to environmental problems.⁹ Section III discusses various barriers to changing personal environmental behavior, such as the role federal laws play in perpetuating the myth that only industry is responsible for environmental harm. That Section also explores certain cognitive heuristics that influence how people process information and personal barriers to changing behavior such as habits, inconvenience, cost, unavailability of alternatives, and self-interest. The role of norms in influencing behavior and how norms are formed and changed are examined in Section IV. Next, Section V investigates how a new norm of environmental responsibility might arise and displace competing norms. However, that Section recognizes that the development of a new norm may not be an easy task because of some of the same barriers identified in Section III. In Section VI, acknowledging that neither norms nor the happenstance of an environmental republican moment will inexorably lead to changes in personal behavior, various norm- and behavior-changing tools, such as public education, shaming and other sanctions, and market-based incentives are identified. Section VI examines the inherent strengths and weaknesses of these tools, as well as particular problems with their application to individual behavior. Section VII concludes that no single approach will work, but a combination of any or all of the above, depending on the source and nature of the problem, is called for. However, any combination of tools must include public education if a permanent new environmental norm is to emerge and change individual behavior in the long term.

II. THE CONTRIBUTION OF INDIVIDUALS TO ENVIRONMENTAL POLLUTION

One of the serious challenges to changing behavior is the perception that individual contributions to environmental problems are small and, therefore, inconsequential. People's misapprehension of their role as a causative factor in environmental degradation leads them to resist changing their behavior, especially when behavior change is costly or inconvenient.¹⁰ Over a decade ago, former Environmental Protection Agency Administrator William Ruckelshaus recognized that fact:

⁹ I adopt Michael Vandenberg and Anne Steinemann's definition of individual behavior, "those behaviors that are under the direct, substantial control of the individual." Michael P. Vandenberg & Anne C. Steinemann, *The Carbon-Neutral Individual*, 82 N.Y.U. L. REV. 1673, 1690 (2007).

¹⁰ See Michael P. Vandenberg, *The Social Meaning of Environmental Command and Control*, 20 VA. ENVTL. L.J. 191, 198-99 (2001) ("[R]esistance to centralized automobile emissions testing programs has been strong in many states. Restrictions on non-point sources of water pollution have been no more popular."); see also Joel Connelly, *Earth Day 2000: Local Efforts Reflect Global Goals*, SEATTLE POST-INTELLIGENCER, Apr. 21, 2000, at A1 ("If you go into any city, 80% of the people would agree that the Clean Air Act should be strengthened But if you ask them to spend 20 minutes a year in a vehicle inspection program, 80% will resist." (quoting William Ruckelshaus)).

[T]he most significant threats to our environment now seem to lie, not with major industrial sites, but in the habits of ordinary Americans: we like to drive big powerful cars, use a lot of electricity, generate a lot of waste, enjoy cheap food, live in grassy suburbs, and collectively send pollution in massive amounts to often distant waterways and airsheds.¹¹

Each one of us pollutes “when we drive our cars, fertilize and mow our yards, pour household chemicals on the ground or down the drain, and engage in myriad other common activities. Although each activity contributes minute amounts of pollutants, when aggregated across millions of individuals, the total amounts are stunning.”¹² The result is that while industrial sources continue to be a major cause of pollution, individuals are now the largest remaining source of many pollutants.

Individuals release almost a third of the chemicals that form low-level ozone or smog.¹³ Households discharge as much mercury to wastewater as do all large industrial facilities combined.¹⁴ Common household products, like soft drinks, and toiletries, like shaving cream, deodorants, soap, shampoo, toothpaste, mouthwash, and detergents, are responsible for nearly 15% of mercury found in domestic wastewater.¹⁵ Individuals also release mercury when they dispose of household products, batteries, fluorescent lighting, thermometers, and electronic equipment like cell phones and computers in landfills or along the sides of roads.¹⁶ Individuals discharge “fifty times more benzene than all large industrial facilities combined and five times more formaldehyde.”¹⁷ In 1997, home and garden pesticide use was roughly 140 million pounds, which accounted for 11% of total pesticide use.¹⁸ Ninety-five percent of urban carbon monoxide emissions come from tailpipes and minor source emissions; lawn and garden equipment emits 62% of the carbon monoxide from non-road sources.¹⁹ Individuals directly generate approximately one-third of U.S. greenhouse gas emissions, and

¹¹ William D. Ruckelshaus, *Stopping the Pendulum*, ENVTL. F., Nov./Dec. 1995, at 25, 26-27.

¹² Vandenberg, *supra* note 2, at 518; *see also* Manik Roy, *Pollution Prevention, Organizational Culture, and Social Learning*, 22 ENVTL. L. 189, 192-93 (1992) (“We all waste. We all potentially pollute.”).

¹³ In the Los Angeles metropolitan area, these same sources release 80% of all smog-forming compounds. Vandenberg, *supra* note 4, at 1103.

¹⁴ Vandenberg, *supra* note 2, at 519.

¹⁵ *Id.* at 563.

¹⁶ *Id.* at 564. Of recent concern is the mercury in new compact fluorescent light bulbs (“CFLs”). Editorial *That Newfangled Light Bulb*, N.Y. TIMES, Feb. 17, 2008, at WK11 (discussing the five milligrams of mercury in each CFL and saying “the dangers are real and growing”). The total annual release of mercury to wastewater from all households in the United States is 1,749 pounds, compared to “the total quantity released to surface water from all large industrial facilities in 2001,” 1,805 pounds. Vandenberg, *supra* note 2, at 564 n.81.

¹⁷ Vandenberg, *supra* note 2, at 519. Benzene is found in solvents and gasoline. Formaldehyde is found in fungicides and herbicides.

¹⁸ *Id.* at 576 (citing EPA estimate).

¹⁹ *Id.* at 542 n.95; *see also id.* at 559 (“Individuals contributed at least 30.6% of the total amount of ozone precursors produced in the United States in 1998.”).

one-third of the energy consumed in this country is used by households.²⁰ Motor vehicles, consumer products, and other small, non-industrial sources now contribute 76% of all air toxins.²¹ According to a 2003 National Research Council Report, recreational boats alone “release 1.47 million gallons of petroleum annually, a total that comprises approximately 5% of the total releases of petroleum from all human-related activities.”²²

The risks arising from individual polluting behavior, such as the use and disposal of household cleansers containing toxic substances, are often equal to or greater than those arising from industrial sources, especially since the pollution occurs near the user and other members of her household.²³ “Measured levels of pollutants in the air inside homes have exceeded by several times the levels in the ambient air, and indoor air pollution is a leading human exposure route for many toxics.”²⁴ Additionally, releases of toxic chemicals by individuals happen in places where they are more likely to expose sensitive subpopulations, because children, the elderly, and the sick “are more likely to breathe indoor air or the air inside a motor vehicle than to breathe air contaminated by air toxics released from a distant factory.”²⁵

The individual’s share of the total pollutant load appears “to be growing as population, consumption, and activity levels increase, and as command and control and other regulatory instruments reduce emissions from large industrial sources.”²⁶ For example, the relatively stable percentage of total nitrogen oxide (NO_x) and volatile organic compound (VOC) emissions contributed by on-road motor vehicles comes from substantial reductions in per-vehicle tailpipe emissions being offset by the increasing popularity of larger, more polluting pickup trucks and SUVs.²⁷ Increased population and activity levels and greater population dispersal have also resulted in the number of vehicles on the road and the vehicle miles traveled more than doubling since

²⁰ Vandenbergh & Steinemann, *supra* note 9, at 1676 (greenhouse gas emissions); John C. Dernbach, *Harnessing Individual Behavior To Address Climate Change: Options for Congress*, 26 VA. ENVTL. L.J. 107, 119 (2008) (energy consumption).

²¹ Vandenbergh, *supra* note 4, at 1103.

²² Vandenbergh, *supra* note 2, at 582. Richard Lazarus considers this “low-hanging fruit” that can easily be reduced. Richard J. Lazarus, *Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future* 42 (Nov. 2008) (unpublished manuscript on file with the Harvard Environmental Law Review).

²³ Vandenbergh, *supra* note 4, at 1152 (citing a number of government studies).

²⁴ *Id.*

²⁵ *Id.* at 1153; see Vandenbergh, *supra* note 2, at 542 n.96. Vandenbergh explains that “[a]s cars drive down the road, the emissions from other cars enter the ventilation system [O]ne study concluded that the levels of some air pollutants inside motor vehicles exceed the levels in the ambient air . . . [creating a] ‘person cloud’ effect.” Vandenbergh, *supra* note 4, at 1153. Sensitive ecosystems are also more prone to direct individual source pollution. See *id.* (noting that “personal watercraft release petroleum in various ways and are often used in estuaries that are particularly vulnerable to petroleum contamination”).

²⁶ Vandenbergh, *supra* note 2, at 539.

²⁷ *Id.* at 557-58. According to a mid-1990s EPA estimate, “SUVs release two-thirds more NO_x and VOCs” annually than other automobiles. *Id.* at 558 n.155.

1970,²⁸ neutralizing gains in emission reductions.²⁹ A single discharge of pollution into a river or a lake may be barely detectable, but “the cumulative impact of numerous, smaller discharges can destroy ecosystems, render water unusable, and jeopardize public health.”³⁰ Similarly, environmental injury from the random dumping of household trash, dilapidated furniture, shopping carts, plastic bags and bottles, car batteries, tires and even entire cars into rivers can be as severe in the long run as a steady stream of pollution from an industrial or wastewater pipe.³¹

Personal consumption is also a serious source of environmental problems. For example, in 1998, the automobile industry produced thirty-eight million cars, raising the global fleet from fifty-three million in 1950 to 508 million.³² At the same time, the number of people per car declined by almost 80% over the past fifty years.³³ “In the aggregate, global consumption achieved a level that is almost historically inconceivable: Measured in constant dollars, the world’s people have consumed as many goods and services since 1950 as all previous generations put together.”³⁴ According to Gro Harlem Brundtland, former Prime Minister of Norway, “[i]t is simply impossible for the world as a whole to sustain a Western level of consumption for all. In fact, if seven billion people were to consume as much energy and resources as we do in the West today we would need ten worlds, not one, to satisfy all our needs.”³⁵ Many of the decisions that individual consumers make reflect highly personal lifestyle decisions, such as where they want to live, work, drive, and shop, even when people buy “green.”³⁶

Luxury goods often exact a large environmental toll.³⁷ Air travel uses 40% more fuel than automobiles on a per-passenger, per-kilometer basis.³⁸

²⁸ *Id.* at 557-58.

²⁹ *Id.*; see also Vandenbergh, *supra* note 10, at 196 (“Although emissions from motor vehicles have declined substantially on a per-automobile basis since 1970, the number of motor vehicles has increased by well over [forty] million, and the number of vehicle miles traveled . . . per vehicle has increased by 140%.”). A recent report states that the reductions in carbon dioxide emissions from the 40% increase in fuel economy standards for cars and light-duty trucks that Congress enacted in December 2007 may well be wiped out by a 50% increase in vehicle miles traveled during the same period. See Steven D. Cook, *Growth in Vehicle Travel May Wipe Out Emissions Reductions from New CAFE Bill*, 39 *Env’t Rep. BNA* 158, 158 (Jan. 25, 2008).

³⁰ Robin L. Greenwald, *What’s the “Point” of the Clean Water Act Following United States v. Plaza Health Laboratories, Inc.?: The Second Circuit Acts as a Legislator Rather Than as a Court*, 60 *BROOK. L. REV.* 689, 720-21 (1994).

³¹ *Id.* at 721.

³² Douglas A. Kysar, *Law, Environment, and Vision*, 97 *Nw. U. L. REV.* 675, 712 (2003).

³³ *Id.*

³⁴ *Id.* (quoting ALAN THEIN DURING, *HOW MUCH IS ENOUGH?* 29 (1992))

³⁵ Gro Harlem Brundtland, *Oslo Symposium on Sustainable Consumption* (Jan. 19-20, 1994).

³⁶ See Monica Hesse, *Greed in the Name of Green*, *WASH. POST*, Mar. 5, 2008, at C1 (quoting environmentalists as saying that “buying green” is an “oxymoron,” and that the “greenest products are the ones you don’t buy”); Shankar Vedantam, *On Climate, Symbols Can Overshadow Substance*, *WASH. POST*, May 17, 2008, at A1.

³⁷ Kysar, *supra* note 32, at 722.

³⁸ *Id.*; see also *id.* at 712 (noting that “air travel,” which is highly polluting, “now accounts for five percent of annual world oil consumption”).

“Each kilogram of red meat requires three thousand liters of water, the equivalent of two liters of gasoline in petrochemicals and other farm inputs, and five kilograms of corn and meal that otherwise could be used to feed humans.”³⁹ The fashion industry, which changes styles at least four times a year, induces people to dispose of their clothes prematurely, which “carries a heavy environmental cost, including the use of pesticides and water for cotton farming, chemicals for synthetic fabric production, intense grazing for wool and leather, and hazardous industrial dyes for coloration.”⁴⁰ “[T]he competitive consumer continually trades in goods for the latest model with the latest features. The consumer desires simply to possess something that relative[ly] few others are capable of attaining, an observable symbol that signifies success under prevailing social norms.”⁴¹

Richard Stewart refers to these small sources of pollution as “second generation environmental problems,” which must be “significantly curtailed” if the country is to continue to progress environmentally in light of sustained economic growth.⁴² As the population increases and economic growth responds, the burden on industry in meeting environmental standards may become overwhelming and ultimately counterproductive for the economy as a whole. For example, many areas of the country cannot meet the new national ozone standard without reducing car use and speeds, the use of non-road vehicles, consumer product use, and residential burning.⁴³ But, most of these activities are outside the scope of our environmental laws, which focus on industrial polluters or manufacturers of harmful products.⁴⁴

Even if there were laws that reached these activities, there would be serious problems enforcing them. Efforts to detect and ultimately enforce against individual activities that usually occur at home or in the immediately surrounding area would trigger enormous political resistance, as they would be seen as an interference with individual liberty and an invasion of privacy. Such initiatives would also be resource-intensive for the government to carry out. Moreover, the questionable behavior may be perfectly legal (driving a gas-guzzling, pollutant-emitting Hummer) or publicly acceptable (littering).

³⁹ *Id.* at 722.

⁴⁰ *Id.*

⁴¹ *Id.* at 723; *see also* Strahilevitz, *supra* note 2, at 1234 n.11 (“Consumer preferences for certain types of products and behaviors can become norms precisely because those preferences are heavily shaped by factors exogenous to the individual consumer.”); Hesse, *supra* note 36, at C1 (“[C]onsuming until you’re squeaky green. It feels so good. It looks so good. It feels so good to look so good, which is why conspicuousness is key.”). Kysar describes a “consumption ‘arms race’” that can be set off when two individuals each “desire to own the largest sport-utility vehicle on the block.” Kysar, *supra* note 32, at 720.

⁴² Richard B. Stewart, *A New Generation of Environmental Regulation?*, 29 *CAP. U. L. REV.* 21, 29 (2001).

⁴³ Vandenbergh, *supra* note 4, at 1156 n.239.

⁴⁴ *See, e.g.*, Resource Conservation and Recovery Act § 3001(d), 42 U.S.C. § 6921(d) (2000) (authorizing EPA to set less stringent standards for small generators of hazardous waste); *see also* Stephen M. Johnson, *From Reaction to Proaction: The 1990 Pollution Prevention Act*, 17 *COLUM. J. ENVTL. L.* 153, 154 (1992).

It is unlikely that Congress will amend our environmental laws to reach individual actions. "A formal change in statutory or regulatory law . . . requires concerted collective action; large numbers of people must see a problem, agree that it needs quick action, and commit their time and resources to providing that action."⁴⁵ This inertia "is even more pronounced when regulation is sought in an area where unrestricted individual choice has been (or is perceived to have been) the norm."⁴⁶

III. BARRIERS TO CHANGING PERSONAL ENVIRONMENTAL BEHAVIOR

Thirty years of polling data show that the "abstract norm favoring protection of human health and the environment is widely held, stable, and influential."⁴⁷ Indeed, "environmentalist attitudes are now well-nigh omnipresent in American society."⁴⁸ So, why does individual behavior inconsistent with that norm persist?

A specific behavior is "a product of an opportunity and intent, the latter of which is a product of knowledge and attitudes."⁴⁹ Changing personal environmental behaviors, especially "those linked to Western cultural values such as independence, freedom, social mobility, or security," is challenging.⁵⁰ Equally difficult is doing this in a society where "[m]essages about conservation behaviors compete with an overwhelming number of advertisements for consumptive actions that promise economic viability, status, and pleasure."⁵¹ It takes very little to dissuade people from forming new intentions and changing their behavior when those intentions are formed by personal attitudes about whether engaging in the new behavior will result in positive results, social pressure concerning the desirability of the new behavior, and having control over the behavior.⁵² The task is further complicated by the many barriers that lie in the way, which can easily defeat all but the most firmly entrenched intentions.⁵³

⁴⁵ Holly Doremus, *Biodiversity and the Challenge of Saving the Ordinary*, 38 IDAHO L. REV. 325, 346 (2002).

⁴⁶ *Id.*

⁴⁷ Vandenbergh, *supra* note 4, at 1117; see also Daniel A. Farber, *Politics and Procedure in Environmental Law*, 8 J.L. ECON. & ORG. 59, 64-65 (1992). But see Takács-Sánta, *supra* note 4, at 26 (noting that the "high level of environmental concern" reflected in public opinion polls is neither "overwhelming" nor uniformly intense and may merely reflect public adherence to a perceived social norm or behavioral expectation).

⁴⁸ Farber, *supra* note 47, at 65.

⁴⁹ Martha C. Monroe, *Two Avenues for Encouraging Conservation Behaviors*, 10 HUM. ECOLOGY REV. 113, 115 (2003).

⁵⁰ *Id.* at 123.

⁵¹ *Id.*

⁵² *Id.* at 116 (describing Martin Fishbein and Icek Ajzen's Theory of Reasoned Action and Ajzen's modification resulting in the Theory of Planned Behavior). Monroe uses these models to show how the intent to recycle results not from information about resource recovery or general attitudes about environmental protection, but from attitudes about recycling, perceptions of recycling social norms, and a "perceived ability to recycle." *Id.*

⁵³ *Id.* at 115.

This Section discusses the barriers to creating an environmental norm and changing personal behavior. The Section first talks about how federal laws further the myth that only industry groups are to blame. Then, the discussion turns to the cognitive barriers that account for the persistence of the myth by providing a brief explanation of cognitive dissonance and by discussing in more detail specific cognitive barriers, for example the way people process information, the alarmist and optimist biases, and the fact that the focus on biodiversity makes people care less about the ordinary environment. Next, the Section identifies personal barriers to norm and behavior change. These barriers can arise for several reasons, including: habits are hard to change; individuals have trouble conforming environmental views to consumer preferences; people have difficulty with self-restraint and personal sacrifice;⁵⁴ and changing personal behavior is grounded in self-interest, making people unwilling to engage in costly and inconvenient alternative behavior. The Section ends by discussing why the nature of environmental problems makes it particularly difficult to determine the “correct” behavior.

The challenge in creating a new environmental norm is “particularly great because the American public believes a number of environmental myths,” one of which “incorrectly attribute[s] the causes of many remaining environmental problems to industrial point sources, rather than to individual behavior.”⁵⁵ People “consistently underestimate their relative share of emissions as compared to industrial sources.”⁵⁶ In fact, individuals may be unaware that they are contributing to the remaining environmental problems at all.⁵⁷ Environmental surveys infrequently inquire about what people think the sources of environmental harms are; those that do reveal that people rarely attribute the problems to their own behavior.⁵⁸ For example, a 1974 poll showed that people’s concerns about cars were focused on manufacturers, not the people who drive cars.⁵⁹ One reason for the tenacity of these myths may be the government’s failure to address individual sources of environmental harm. The problems the government has in identifying and quantifying the impacts of individual sources on the environment and in designing responsive requirements and enforcement mechanisms reinforce the

⁵⁴ See generally Vandenbergh & Steinemann, *supra* note 9, at 1697-98; see also P. Wesley Schultz & Lynnette Zelezny, *Reframing Environmental Messages To Be Congruent with American Values*, 10 HUM. ECOLOGY REV. 126, 131 (2003) (noting that messages asking the public to protect the environment are “framed as requiring sacrifice — conservation requires using less, simpler living, giving up some of the comforts that are available, and incurring greater inconvenience — for the sake of a broader goal” and are generally not persuasive with people who have not endorsed environmental goals).

⁵⁵ Vandenbergh, *supra* note 10, at 192. National environmental groups perpetuate this myth by sending out fundraising appeals that target the government or industrial sources; they certainly do not implicate prospective donors in the “blame game.” See also Lisa Heinzerling, *Minnesota Wild*, 87 MINN. L. REV. 1139, 1143 (2002).

⁵⁶ Vandenbergh, *supra* note 4, at 1130.

⁵⁷ Vandenbergh, *supra* note 10, at 197.

⁵⁸ Vandenbergh, *supra* note 4, at 1130; see also Vandenbergh, *supra* note 10, at 198.

⁵⁹ Vandenbergh, *supra* note 4, at 1131 n.127 (citing a Harris Public Opinion Poll).

belief that individuals are not responsible for environmental harm.⁶⁰ The lack of general public understanding about human health and ecological systems may also lead individuals to underestimate their part in causing pollution.⁶¹

The regulatory command and control system that is reflected in most of our major environmental laws may have contributed to the persistence of this myth by indirectly conveying “a second social meaning,” namely that industrial polluters are the source of environmental problems, and individuals “are part of the solution.”⁶² These laws principally target industrial and manufacturing sources and impose regulatory requirements and penalties on those sources. Individuals, on the other hand, are authorized to help enforce these laws under citizen suit provisions.⁶³ Even “[p]rograms directed at second generation problems, such as the [Clean Air Act’s] Employee Commute Options Program . . . have been interpreted to provide for enforcement against employers, not individuals.”⁶⁴ The implicit message sent to the public by those early environmental laws “may have facilitated public myths about the role of second generation sources, [which] . . . in turn may have impeded the development of norms regarding individual responsibility for environmental problems.”⁶⁵

Another reason for the persistence of these myths may be a form of cognitive dissonance, the “inability to hold contradictory views of oneself at the same time.”⁶⁶ When people are subject to inconsistent thoughts or discrepancies between their thoughts and actions, they usually try to resolve those contradictions. However, if this cannot be easily done, then people are inclined to wall off or sidestep information that makes them feel bad about themselves or the actions they are taking.⁶⁷ This problem appears to be par-

⁶⁰ See Vandenberg, *supra* note 10, at 212-13.

⁶¹ “[S]urveys demonstrate that individuals’ understanding of basic human health and ecological processes is minimal. Similarly, private individuals’ understanding of their role in causing pollution is remarkably low. . . . [T]he available data suggest that individuals systematically underestimate their role.” Vandenberg, *supra* note 2, at 591.

⁶² Vandenberg, *supra* note 10, at 211; see also James Paul Kimmel, Jr., *Disclosing the Environmental Impact of Human Activities: How a Federal Pollution Control Program Based on Individual Decision Making and Consumer Demand Might Accomplish the Environmental Goals of the 1970s in the 1990s*, 138 U. PA. L. REV. 505, 523 (1989) (complaining about the government’s failure to target “the sector of the economy that controls the use and disposal of products, and ultimately producer behavior—the consumer sector”); Vandenberg, *supra* note 2, at 620 (recognizing the enormity of the change in focus by regulatory agencies, if they were suddenly to target individual normal behavior in addition to illegal activities by businesses and manufacturers).

⁶³ See, e.g., Clean Water Act § 305, 33 U.S.C. § 1365 (2000); Clean Air Act § 304, 42 U.S.C. § 7604 (2000); Resource Conservation and Recovery Act § 7002, 42 U.S.C. § 6972 (2000).

⁶⁴ Vandenberg, *supra* note 10, at 210 n.99.

⁶⁵ *Id.* at 213.

⁶⁶ *Id.* at 208; see also Vandenberg & Steinemann, *supra* note 9, at 1698 (calling this “bounded rationality”).

⁶⁷ Monroe suggests that individuals must be confronted with “the hypocrisy of their actions to significantly arouse dissonance and provide the motivation to adopt a behavior that

ticularly acute when environmental values⁶⁸ are at issue because it is difficult for a person who supports environmental protection to recognize that her actions may actually be degrading the environment.⁶⁹ Cognitive dissonance, therefore, can lead people to blame “corporate polluters as the only important sources of environmental harms . . . [because that gives them] someone else to blame.”⁷⁰ Additionally, when the task is difficult or inconvenient, like bringing used solvents to a household hazardous waste collection center or avoiding driving, “the easier solution is to . . . avoid any inquiry into the effects of our behavior.”⁷¹ Cognitive dissonance affects not only a person’s understanding of where pollution is coming from, but also her estimate of the harm it may cause.⁷²

The way people process information creates its own problems. The common errors that people make when they do this are legion, especially with regard to information about potential harms.⁷³ For example, people consistently “overestimate their knowledge about a decision, evaluate information and attribute causality in very different ways based upon the framing of the information [They] make stereotypical decisions and select information to support them based on conclusions reached before receiving data about those decisions.”⁷⁴ Most people also “prefer [information that

reduces hypocrisy.” Monroe, *supra* note 49, at 119. Takács-Sánta explains how people “calm” themselves when faced with negative feelings, by suppressing such thoughts or by trivializing or denying them. This can include trivializing “human responsibility (especially our own) for environmental problems,” which can lead to a decrease in concern for the environment. Takács-Sánta, *supra* note 4, at 35; see also Martha Finnemore & Kathryn Sikkink, *International Norm Dynamics and Political Change*, 52 INT’L ORG. 887, 904.

⁶⁸ Monroe, *supra* note 49, at 119. The term “environmental values” or what is considered good environmental behavior is largely contextual. See also Lori M. Hunter & Joan M. Brehm, *A Qualitative Examination of Value Orientations Toward Wildlife and Biodiversity by Rural Residents of the Intermountain Region*, 11 HUM. ECOLOGY REV. 13, 24 (2004) (affirming “the importance of local context within value formation, and the myriad ways in which individuals define ‘environmental value’”).

⁶⁹ Vandenbergh, *supra* note 10, at 208.

⁷⁰ Vandenbergh, *supra* note 2, at 594.

⁷¹ *Id.* at 612.

⁷² *Id.* at 593.

⁷³ “[P]eople use heuristics, including those based on their prior experience, to process information and deal with uncertainty. Their perceptions of risks are affected by socioeconomic variables and by their psychological saliency and accessibility may produce . . . distortions.” Stewart, *supra* note 42, at 141; see also Lazarus, *supra* note 22, at 24 (describing the “availability heuristic,” the tendency to judge the likelihood of an event based on one’s ability to imagine that the event will happen) (citing Amos Tversky & Daniel Kahneman, *Availability: A Heuristic for Judging Frequency and Probability*, 5 COGNITIVE PSYCHOL. 207 (1973)); Adam Douglas Henry, *Public Perceptions of Global Warming*, 7 HUM. ECOLOGY REV. 25, 29 (saying that “dramatic events are seen as more probable than equally or even more frequent events that are less dramatic,” referring to this as the “availability heuristic”); Takács-Sánta, *supra* note 4, at 33 (explaining that the availability heuristic means that environmental problems that have not been personally experienced are considered to be more remote and less of a problem than those that have been personally experienced).

⁷⁴ Daniel W. Shuman, *The Psychology of Deterrence in Tort Law*, 42 U. KAN. L. REV. 115, 129 (1993) (stating that “[c]ognitive psychology research suggests that these errors result not from unconscious conflicts or other mental health factors, but from deficiencies in information processing”).

is] black-and-white over shades of gray” and have a tendency “to hold oversimplified beliefs and to hold them with excessive confidence.”⁷⁵ Given that environmental issues are frequently in shades of gray, this cognitive problem could be significant and may explain why it has taken so long for people to absorb the complexity of environmental problems like global climate change.⁷⁶ The fact that people are also inclined “to anchor their decisions stereotypically based upon their earlier conclusions, and use information gained thereafter selectively to support those decisions”⁷⁷ makes it harder to persuade them to let go of their earlier impressions.⁷⁸

The fact that people are inclined to suffer from an “alarmist bias” on the one hand and an “optimistic bias” on the other can affect how they perceive their own role as contributors to environmental problems. The alarmist bias is reflected in the difficulty “many people have in evaluating low probability events [and in] . . . the fact that frightening information is more salient and potent than comforting information.”⁷⁹ An optimistic bias, on the other hand, leads people “to underestimate their likelihood of having accidents or contracting diseases,” enabling people to distance themselves from the personal impact of using toxic substances in their houses or gardens⁸⁰ or to overestimate the capacity of the Earth to absorb environmental harm.⁸¹ These two biases may account for the length of time it took people to grasp the significance of global climate change, why events like Hurricane Katrina have helped people to understand the problem, and why they were reluctant to see themselves as contributors to the problem. Richard Lazarus attributes this behavior to “myopia,” saying that people think

⁷⁵ See *id.* at 163 (arguing that “people will always be tempted by the idea that everything that happens to them is controllable”) (quoting THOMAS GILOVITCH, *HOW WE KNOW WHAT ISN'T SO* 186 (1991)).

⁷⁶ Lazarus identifies three types of thinking about challenges unique to climate change that may prevent people from understanding and then reacting to the phenomenon: “myopia and climate change’s temporal dimension,” “the availability heuristic, space, and complexity,” and the “representativeness heuristic and climate change cause and effect.” Lazarus, *supra* note 22, at 22, 24, 26.

⁷⁷ Shuman, *supra* note 74, at 162.

⁷⁸ See *id.* at 161. This may explain why the stories about burning rivers and Love Canal were so central to the jurigenerative moment of the 1960s and 1970s, and the lack of similar stories today has shielded people from their own responsibility.

⁷⁹ Vandenbergh, *supra* note 2, at 592. But see Michael P. Vandenbergh, *Beyond Elegance: A Testable Typology of Social Norms in Corporate Environmental Compliance*, 22 *STAN. ENVTL. L.J.* 55, 93 n.120 (2003) (arguing that “if the [frightening] imagery is too strong it may backfire, leading the recipients to underestimate the probability of the event”).

⁸⁰ Vandenbergh, *supra* note 2, at 592-93; see also Shuman, *supra* note 74, at 162.

⁸¹ See Henry, *supra* note 73, at 29 (noting that dumping of toxins into the environment “has usually been justified by the immense capacity of the system to absorb these perturbations”); see also Takács-Sánta, *supra* note 4, at 32 (noting people will be less concerned with the environment if they believe that “natural systems are stable (robust and resilient), and can easily adapt to human activities so these cannot really disturb them”); *id.* at 33-34.

“‘mostly in physiological time’ and ‘natural selection favors the forces of psychological denial.’”⁸²

People also have excessively steep discount rates, which induce them to under-value the benefits of changes in behavior that will not accrue for several years . . . [and which] may affect a wide variety of environmentally significant behaviors such as investments in energy efficient (hence generally less polluting) cars, furnaces, and other equipment.⁸³

A final cognitive barrier that may prevent people from focusing on their own polluting activities is that people “are not wired to care about, or even to notice, the ordinary.”⁸⁴ Because so many things compete for attention, people develop “a variety of filtering mechanisms to help [them] focus effectively on some things by more or less shutting out others.”⁸⁵ One thing that gets edited out is the environment in which we all function on a daily basis, unless there is something in that background that is a distinguishing feature, “a focal point that differentiates [it] from the background. The ordinary, which constitutes the background itself, provides a poor focal point.”⁸⁶

For this reason, Holly Doremus worries that “a biodiversity strategy” that focuses “on the special, the unique, or the extraordinary” will “inevitably define[] the objects of our concern as something sharply apart from our everyday experiences and our ordinary world,” which will encourage people “to put nature out of sight and out of mind except during those rare moments when we specifically choose to seek it out.”⁸⁷ To Doremus, a “strategy of segregating protected nature from human taint, and humans from the impacts of nature, is likely to limit the strength of our commitment to nature protection in the future.”⁸⁸ Even more troubling, a “strategy of designating a few places for nature encourages us to believe that no more is required of us than

⁸² Lazarus, *supra* note 22, at 22; *see also* Takács-Sánta, *supra* note 4, at 32 (stating that “temporal disjunction makes it more difficult to recognize causal relationships and gives way to alternative explanation”).

⁸³ Vandenberg, *supra* note 2, at 593.

⁸⁴ Doremus, *supra* note 45, at 334.

⁸⁵ *Id.*

⁸⁶ *Id.* To the extent that people focus on things that are special, rare and threatened resources like wolves or spotted owls, they are inclined “to discount the value of abundant resources and to assume they will always be there.” *Id.* at 335.

⁸⁷ *Id.* at 340; *see also* Holly Doremus, *The Special Importance of Ordinary Places*, 23 ENVIRONS ENVTL. L. & POL’Y J. 3, 16 (2000) (“[T]he essence of our problem with nature today is that we have not learned how to coexist with wild nature on this ever-smaller planet. We cannot reach the point of co-existence until we recognize and accept that nature . . . belongs not just in extraordinary places or under extraordinary circumstances, but in ordinary places and as a matter of course. The rhetoric of specialness we have used in the past to justify nature protection can never teach that lesson. Only the message that nature is ordinary can do so. That may not be an easy message to convey . . .”).

⁸⁸ Doremus, *supra* note 45, at 342; *see also* Heinzerling, *supra* note 55, at 1140 (wondering if the reason people shy away from talking about or even seeing the “spiritual side of our work” is because “some of us spend too much time indoors”).

leaving those special places inviolate.”⁸⁹ While Doremus is directing her comments toward biodiversity, they may relate to people’s willingness to see the impact their own everyday activities have on their immediate, ordinary environments. Perhaps the failure to emphasize “what is special in the most ordinary nature”⁹⁰ — the nature that people live in or drive through — has prevented people from being aware of how those areas are affected by the most ordinary and commonplace activities, such as littering, roadside dumping, pouring used oil down a storm drain, and using herbicides, or from engaging in better environmental behavior.

Personal habits, which arise from “repeated interactions”⁹¹ and are very hard to change, present another serious obstacle to changing personal behavior.⁹² For example, the practice of solo commuting “is so deeply ingrained in people’s behavioral patterns that efforts to affect those norms via the content of the law are doomed.”⁹³ “By circumventing decisional processes, habits save cognitive time and energy” and continue to control behavior, even when it is expensive to maintain them.⁹⁴ Thus, people continue to drive alone or waste electricity by leaving lights on in rooms, even though these are increasingly costly habits to maintain. Habits become even harder to overcome if the new behavior is inconvenient, requires significant effort or is costly, like disposing of used car batteries at a hazardous waste collection site rather than dumping them on the side of a road.⁹⁵ It is hard to internalize a norm of personal environmental responsibility when complying with such a norm requires the abandonment of ingrained personal habits.

The fact that individual contributions are so small compared to the pollution from an industrial polluter makes it hard to convince any one individual that changing her behavior will make a difference.⁹⁶ As the Director of the Office of Environmental Quality for Dallas said, after noting that one

⁸⁹ Doremus, *supra* note 87, at 12; *see also id.* at 15 (arguing that “[o]nly by making the connection between special natural places and the everyday can we translate affection for those special places into affection for all of nature”).

⁹⁰ *Id.* at 15.

⁹¹ David R. Karp, *The New Debate About Shame in Criminal Justice: An Interactionist Account*, 21 JUST. SYS. J. 301, 313 (2000) (quoting DENNIS H. WRONG, *THE PROBLEM OF ORDER: WHAT UNITES AND DIVIDES SOCIETY* 48 (1994) (stating that habits “become expectations in the sense of predictions or anticipations of [individual] behavior” which pressure individuals to meet those expectations “partly out of a feeling that the other will be irritated, offended, or disappointed if the expectation is not fulfilled”).

⁹² *See* Vandenberg, *supra* note 2, at 594-95 (stating that “habits tend to truncate the traditional subjective expected utility calculation by creating a ‘habitual mindset’ . . . [and s]trong habits may also impede the influence of personal norms”).

⁹³ Strahilevitz, *supra* note 2, at 1262.

⁹⁴ Vandenberg, *supra* note 2, at 595; *see also* Takács-Sánta, *supra* note 4, at 34; *cf.* Vandenberg, *supra* note 2, at 596 (noting that “[o]nce a new habit (*e.g.*, recycling) is acquired, however, it may be continued even if the costs of doing so are high”).

⁹⁵ *See* Ann E. Carlson, *Recycling Norms*, 89 CAL. L. REV. 1231, 1231-32 (2001).

⁹⁶ Lazarus, discussing people’s perception of the causes of climate change, attributes this phenomenon to the “representativeness heuristic” that enables people to understand the relationship between events and their consequences when they seem “logically related[, like] how striking a match can lead to destruction by fire, or how breaching a dam can cause damage by flood.” Lazarus, *supra* note 22, at 26.

vehicle out of four in Texas is a pickup truck, “‘How do you reach an individual citizen and tell them: Everybody makes a difference.’”⁹⁷ There is also no visible immediate benefit to the person who behaves in an environmentally responsible manner. Assuming a benefit can be found, it is usually a “generalized benefit to the collective not typically viewed as producing any substantial, immediate benefit at an individual level.”⁹⁸ An individual can rationally conclude that “if others engage in the behavior necessary to achieve the collective good she can free ride on their efforts and still gain the benefits of their behavior.”⁹⁹ Alternatively, the same rational individual can just as easily reason “that if she behaves in a manner consistent with the collective good, her behavior will be meaningless unless other members of the group also participate.”¹⁰⁰ Thus, when many individuals cause a harm that is external to them, like non-localized air pollution, “the utility maximizing individual will prefer the harm to cost of avoidance” and see no reason to change her behavior.¹⁰¹ People must also perceive that the preferred alternative behavior is economical and convenient¹⁰² and that there is an immediate benefit to them from improved behavior if they are to adhere to its dictates.¹⁰³

⁹⁷ Felicity Barringer, *In Many Communities, It's Not Easy Going Green*, N.Y. TIMES, Feb. 7, 2008, at A18 (quoting Laura Fiffick, Director of Dallas's Office of Environmental Quality).

⁹⁸ Carlson, *supra* note 95, at 1242; *see also id.* at 1243 (quoting MANCUR OLSON, *THE LOGIC OF COLLECTIVE ACTION: PUBLIC GOODS AND THE THEORY OF GROUPS* 50 (2d ed. 1971) (finding that the larger the group, the harder it is “to solve the problem, particularly given that ‘if one member does or does not help provide the collective good, no other one member will be significantly affected and therefore none has any reason to react’”)).

⁹⁹ *Id.* at 1243; *see also* Tseming Yang, *International Treaty Enforcement as a Public Good: Institutional Deterrent Sanctions in International Environmental Agreements*, 27 MICH. J INT'L L. 1131, 1157 (2006) (discussing treaty compliance and saying that “[i]terative processes and long-term interactions alleviate free-rider difficulties,” by “creating opportunities for parties to reward cooperators or sanction defectors”); Paul C. Stern et al., *A Value-Belief-Norm Theory of Support for Social Movements: The Case of Environmentalism*, 6 HUM. ECOLOGY REV. 81, 84 (1999) (commenting that “an abiding sense of group fate,” “a belief in the viability of group action as a strategy,” the inability to distinguish one's own “capacity to contribute” from that of other group members, and “sufficiently dense” interpersonal ties among group members can overcome any free-rider problem (quoting Michael Schwartz & Paul Shuva, *Resource Mobilization Versus the Mobilization of People*, in *FRONTIERS IN SOCIAL MOVEMENT THEORY* 205, 214-15 (Aldon D. Morris & Carol McClurg Mueller eds., 1992))).

¹⁰⁰ Carlson, *supra* note 95, at 1243.

¹⁰¹ Vandenberg, *supra* note 2, at 588-89.

¹⁰² *See* Strahilevitz, *supra* note 2, at 1276 (explaining that, for example, even though road congestion is costly, carpooling is not efficient for everyone); *see also* Dernbach, *supra* note 20, at 125 (listing, as obstacles to behavior changes toward improved household energy use, “money, available technology, convenience, and trust in the information being provided”).

¹⁰³ Robert D. Cooter, *Three Effects of Social Norms on Law: Expression, Deterrence, and Internalization*, 79 OR. L. REV. 1, 19 (2000) (stating that “people will tend to make moral commitments when doing so causes a sufficiently large increase in their opportunities”). “Individuals who accept a movement's basic values, believe that valued objects are threatened, and believe that their actions can help restore those values experience an obligation (personal norm) for pro-movement action that creates a predisposition to provide support; the particular type of support that results is dependent on the individual's capabilities and constraints.” Stern et al., *supra* note 99, at 81. *But see* Alex Geisinger, *A Group Identity Theory of Social Norms and Its Implications*, 78 TUL. L. REV. 605, 622 (2004) (characterizing Eric Posner as saying that “[o]ne key to cooperation . . . is that individuals have relatively low discount rates” and

People have trouble conforming their consumer preferences to their general support for environmental laws. Michael Vandenberg calls this a “citizen-consumer distinction” and says it “may help explain the disconnect between citizen support for environmental laws and consumer behavior that often does not reflect a concern for the environment.”¹⁰⁴ An example of this phenomenon is a “Save the Whales” sticker on the window of an SUV — a vehicle that excessively consumes fuel, the production of which is threatening the continued viability of the species the sticker purports to protect. Individuals in their capacity as citizens may seek results that do not reflect their market behavior and vice-versa. Where “individual consumer behavior is the source of the problem . . . and external sources subject to traditional regulation are not implicated, policymakers may face a particularly difficult challenge.”¹⁰⁵

People also have trouble restraining themselves, which is at the heart of any request that they lower their rate of personal consumption. Self-restraint does not come easily.¹⁰⁶ People may be able to exercise self-restraint on small matters, like giving up chocolate for Lent, but to accomplish something as large and challenging as stopping climate change, reaching zero discharge of pollution, or protecting biodiversity will require a “highly motivated political community to overcome the barriers to self-restraint.”¹⁰⁷ Such a community does not yet exist. Further, a society that rewards self-interest, such as ours, is unlikely to promote “an ethic of self-restraint.”¹⁰⁸ Doremus believes that “convincing people to care [about nature]” is key to developing individual self-restraint.¹⁰⁹ The hope is that if people think of the nature that they encounter every day “as a special gift that adds value to their daily lives[,] they will make some sacrifices and accept some limitations to keep it around.”¹¹⁰

that “[p]arties with low discount rates care more about future payoffs and will generally be willing to invest more in opportunities to cooperate for future benefit”).

¹⁰⁴ Vandenberg, *supra* note 10, at 212 n.111.

¹⁰⁵ *Id.*

¹⁰⁶ Lazarus, *supra* note 22, at 23 (noting that natural selection favored overconsumption by individuals because it distinguished oneself from one’s competitors).

¹⁰⁷ Doremus, *supra* note 45, at 351 (referring to the need for concerted political action to protect biodiversity).

¹⁰⁸ *Id.* at 351-52 (“Self-restraint implies limits that come from within. Self-interest, though, looks entirely to externally-imposed limits, denying the legitimacy of setting limits for ourselves.”); see Takács-Sánta, *supra* note 4, at 32 (identifying the individualistic characteristic of Western culture as a reason why Westerners do not feel connected with nature or wildlife). But see Richard A. Posner, *Social Norms, Social Meaning, and Economic Analysis of Law: A Comment*, 27 J. LEGAL STUD. 553, 560 (1998) (“I do not myself believe that many people do things because they think they are the right thing to do unless they have first used the plasticity of moral reasoning to align the ‘right’ with their self-interest. I do not think that knowledge of what is morally right is motivational in any serious sense for anyone except a handful of saints. . . . [I]n general, you need to appeal to a person’s altruism, fear, or pride (sometimes moral pride, which is not to be confused with morality) to explain non-self interested behavior.”).

¹⁰⁹ Doremus, *supra* note 45, at 351; see also *id.* at 352.

¹¹⁰ *Id.* at 353; see also *id.* at 348 (suggesting building “stronger emotional connections to ordinary nature” to achieve that goal).

America's love affair with cars and the power of the "norm of solo commuting"¹¹¹ provide vivid illustrations of how hard it is to change personal behavior that is firmly grounded in self-interest. "The solo driver in his car has become an expression of American individualism, a symbol of freedom and liberation."¹¹² As Lior Strahilevitz explains, the solo-commuting norm is reinforced by a popular culture that glorifies "the rugged individualist solo driver,"¹¹³ the desire for privacy and solitude, and personal lifestyle choices about where to live and work.¹¹⁴ The norm persists even though most drivers "understand that society would be better off if they instead adhered to a carpooling norm."¹¹⁵ Even while many solo drivers support increased spending for mass transit programs and the construction of HOV lanes¹¹⁶ to satisfy the "aspirational norm" that they would "rather be carpooling," the strength of their personal desire to drive alone makes them refuse to abandon their cars in favor of mass transit or carpooling.¹¹⁷ "The thought of carpooling never occurs to these drivers,"¹¹⁸ even though they can observe that traffic is moving better in HOV lanes and that all they would have to do to share in that benefit would be to pick up additional drivers.¹¹⁹ Further, despite increasing awareness of the need to be green and buy fuel efficient or alternative fuel vehicles, the public has not changed its behavior when it comes to the type of car it wants.¹²⁰ As one journalist has observed, "[n]o matter what vehicles Detroit and its rivals develop, . . . ultimately car buyers will decide whether the environment wins. [According to Lawrence D. Burns, General Motors's Vice President for Research and Development and Strategic Planning,] '[u]nless you get the consumer involved in this mission, it's not solvable.'"¹²¹

¹¹¹ See Strahilevitz, *supra* note 2, at 1261.

¹¹² *Id.* at 1236.

¹¹³ *Id.* at 1240.

¹¹⁴ *Id.* at 1234 n.11.

¹¹⁵ *Id.* Strahilevitz refers to another driving norm, "the carpool missionary norm," held by "many environmentalists and carpoolers": "carpooling is morally superior to solo driving, and . . . carpoolers are therefore entitled to receive preferential treatment on the roads in the form of HOV lanes." *Id.* at 1240; see also *id.* at 1241 (noting that "[t]he people most likely to enforce these [HOV] norms vigilantly, however, will be adherents to the carpool missionary norm, who see themselves as the sole intended beneficiaries of the HOV lanes").

¹¹⁶ *Id.* at 1240-41.

¹¹⁷ *Id.* at 1238. "This somewhat hypocritical stance is partially explained by the fact that 'most drivers see themselves as victims of congestion, not contributors to it.'" *Id.* (citation omitted). The hypocrisy is "underscored" by the willingness of many solo drivers to support carpooling and mass transit "as a way of inducing other drivers to leave the roads so that the remaining solo drivers will have quicker commutes." *Id.*

¹¹⁸ *Id.* at 1239.

¹¹⁹ *Id.*

¹²⁰ "[T]he most enticing cars at the Washington Auto Show have little to do with alternative fuels, pollution-reducing technology or . . . Earth-friendly marketing themes People see the Rolls-Royce Phantom, the latest iteration of the mammoth British luxury sedan, and they exude desire." Sholnn Freeman, *Longing for Size and Speed: Auto Crowd Eschews Green*, WASH. POST, Jan. 25, 2008, at D1.

¹²¹ Micheline Maynard, *Getting to Green*, N.Y. TIMES, Oct. 24, 2007, at H1.

Finally, it may be hard to figure out what the correct behavior is.¹²² “Trying to do right by the environment means sorting through the conflicting din.”¹²³ Often there are no simple answers to environmental problems; even worse, the answers may spawn their own problems. For example, two recent studies in the journal *Science* independently concluded that “[a]lmost all biofuels used today cause more greenhouse gas emissions than conventional fuels if the full emissions costs of producing these ‘green’ fuels are taken into account.”¹²⁴ An individual concerned about global warming can reasonably conclude that there are no good alternatives to choose from. Add to this problem the inertia created by myths, cognitive dissonance, habit, and other barriers to changing behavior, and it is not difficult to see why people do not easily abandon their prior “bad” behavior. With this background, the Article now turns to the question of whether norms can overcome these barriers and influence people to behave more environmentally responsibly.

IV. THE ROLE OF NORMS IN INFLUENCING BEHAVIOR

Norms are informal obligations¹²⁵ or social rules that are not dependent on government either for their creation or their enforcement.¹²⁶ Norms can be both descriptive and aspirational, as they portray how people behave and also prescribe how they should behave to conform to community expectations.¹²⁷ This Section begins by distinguishing between social (external) and personal (internal) norms, and between abstract and concrete norms.¹²⁸ The Section then provides an overview of how norms influence behavior. The Section goes on to explain that norms can be “internalized (and enforced through guilt) or . . . may arise without internalization (and be enforced

¹²² Even when the answer may be clear, there are other hurdles such as cost, political support for regulatory initiatives, and competing priorities. See Barringer, *supra* note 97, at A14; see also Michael Specter, *Big Foot: In Measuring Carbon Emissions, It's Easy to Confuse Morality with Science*, *NEW YORKER*, Feb. 25, 2008, at 44, 48 (discussing the difficulty of putting a carbon label on food, quoting Adrian Williams, agricultural researcher at the Natural Resources Department of Cranfield University, England: “Everyone always wants to make ethical choices about the food they eat and the things they buy And they should. It’s just what seems obvious often is not.”).

¹²³ Alex Williams, *That Buzz in Your Ear May Be Green Noise*, *N.Y. TIMES*, June 15, 2008, at ST1 (describing the backlash of “‘green noise’ — static caused by urgent, sometimes vexing or even contradictory information played at too high a volume for too long”).

¹²⁴ Elisabeth Rosenthal, *Studies Call Biofuels a Greenhouse Threat*, *N.Y. TIMES*, Feb. 8, 2008, at A9 (noting that prominent among those costs is land clearing for the production of fuel crops and emissions released from refining and transportation).

¹²⁵ Vandenbergh, *supra* note 10, at 200.

¹²⁶ Richard A. Posner & Eric B. Rasmusen, *Creating and Enforcing Norms, with Special Reference to Sanctions*, 19 *INT’L. REV. L. & ECON.* 369, 369 (1999).

¹²⁷ Strahilevitz, *supra* note 2, at 1234 n.11.

¹²⁸ See Finnemore & Sikkink, *supra* note 67, at 891; see also Vandenbergh & Steinemann, *supra* note 9, at 1706 (explaining that social norms are “informal obligations that are enforced through social sanctions or rewards”; while also informal obligations, personal norms “are enforced through an internalized sense of duty to act, as well as guilt or related emotions for a failure to act”). Both social and personal norms affect “the utility calculus” one makes in deciding whether to engage in certain antisocial behavior. *Id.*

through external non-legal sanctions such as stigma or ostracism).¹²⁹ The Section concludes by describing how norm activation is particularly difficult when dealing with environmental situations.

Internal (personal) and external (social) norms arise for different reasons. Personal norms arise from the belief that one has a personal obligation to act even when others will not reward that action.¹³⁰ Thus, a personal norm “may arise when an individual internalizes a strategy or pattern of behavior as an obligation,”¹³¹ or as a result of repeated personal contacts with an individual’s family, friends, schools, or religious organizations.¹³² Giving money to charities, tipping at restaurants where you have no expectation of returning, and saying thank you are examples of personal norms that most people have.¹³³ In turn, these personal interactions become “reciprocal expectation[s],” endowing them “with a constraining or even an obligatory character” and making their appearance more unintentional than planned.¹³⁴ Guilt, anxiety, and loss of self-esteem are the principal reasons people conform to internal norms.¹³⁵

External or social norms like voting or giving blood, on the other hand, reflect “widely held beliefs about social obligations with respect to which noncompliance may trigger external social sanctions.”¹³⁶ Social norms, because they embody general expectations about public behavior, are respon-

¹²⁹ Vandenberg, *supra* note 10, at 200. Social norms are

nonlegal rules or obligations that certain individuals feel compelled to follow despite the lack of formal legal sanctions, whether because defiance would subject them to sanction by others (typically in the form of disapproval, lowered esteem, or even ostracism) or because they would feel guilty for failing to conform to the norm (a so-called internalized norm). . . . In rational actor terms, violating a social norm imposes a cost on the violator that can tip the cost-benefit balance in favor of conformity with the norm.

Carlson, *supra* note 95, at 1238-39.

¹³⁰ Vandenberg, *supra* note 2, at 596.

¹³¹ Vandenberg, *supra* note 79, at 69.

¹³² “[I]nternational legal norms, values, and beliefs can be internalized through repeated interaction, sustained discourse, and efforts to persuade governmental and nongovernmental actions. In essence, states can be ‘socialized’ into accepting the values and norms of the international legal system just as children are socialized into accepting a society’s values and norms through educational and other social processes.” Yang, *supra* note 99, at 1147; *see also* Toni M. Massaro, *Shame, Culture, and American Criminal Law*, 89 MICH. L. REV. 1889, 1936 (1991) (stressing the importance of family and communal bonds and saying that “informal nongovernment institutions [should] first reconstitute a consensus about moral behavior and next establish mechanisms for effective negative and positive reinforcement of behavior. Decentralization of authority, revitalization of family bonds and communal bonds, and a more robust sense of interdependence and responsibility to others thus should precede, or at least accompany, any legislative or judicial attempt to shame people into norm observation.”).

¹³³ Vandenberg, *supra* note 79, at 69. Vandenberg goes on to note that these personal norms may be useful “in explaining activities . . . that may otherwise be inexplicable from a narrow view of a rational individual attempting to maximize utility.” *Id.*

¹³⁴ Karp, *supra* note 91, at 313 (quoting DENNIS WRONG, *THE PROBLEM OF ORDER* 48 (1994)).

¹³⁵ Vandenberg, *supra* note 79, at 68-69.

¹³⁶ *Id.* at 69.

sive to more external forms of enforcement like gossip, shaming, and even exclusion from the community.¹³⁷ Vandenberg notes that it is “relatively easy” to enforce social norms because “the transaction costs of inflicting negative gossip or expressions of esteem may be very low.”¹³⁸ “The positive rewards of [personal] norms include pride and increased self-esteem [The] rewards of [social] norms include enhanced reputation or the esteem of others.”¹³⁹ For both types of norms, what is “appropriate behavior,” the behavior that generates a norm, is formed by the individual’s community or society as a whole.¹⁴⁰ “We recognize norm breaking behavior because it generates disapproval or stigma, and norm conforming behavior either because it produces praise, or, in the case of a highly internalized norm, it is so taken for granted that it provides no reaction whatsoever.”¹⁴¹

There are general, widely held abstract norms, such as the environmental protection norm, which can be either social or personal.¹⁴² Another abstract norm that can reinforce the environmental protection norm is the “norm of law compliance.”¹⁴³ One of the things that motivates people to be law-abiding is “internalization of legal norms or moral commitment to comply with the law.”¹⁴⁴ In this sense, a personal abstract norm becomes a moral inhibition, often reinforced by a sense of personal shame when the prohibited act is actually engaged in.¹⁴⁵ In addition, there is the abstract “personal responsibility norm,” summarized in the euphemism “do no harm

¹³⁷ *Id.* at 70.

¹³⁸ *Id.* at 70. *But see* Carlson, *supra* note 95, at 1235 (stating that while social norms may develop to “resolve collective action problems among small, economically interdependent groups,” they are “less likely to develop within large groups,” and attributing this problem to “large numbers of people, little economic incentive to act, and lack of homogeneity”).

¹³⁹ Vandenberg, *supra* note 79, at 70; *see also* Geoffrey P. Miller, *Norm Enforcement in the Public Sphere: The Case of Handicapped Parking*, 71 GEO. WASH. L. REV. 895, 908 (2003) (saying that “obvious benefits that flow from complying with a social norm include “reducing personally offensive conduct, gaining esteem or trust from others, and experiencing satisfaction from an internalized norm”).

¹⁴⁰ Finnemore & Sikkink, *supra* note 67, at 891-92 (arguing that “[w]e only know what is appropriate by reference to the judgments of a community or a society”).

¹⁴¹ *Id.* at 892.

¹⁴² *See* Vandenberg, *supra* note 79, at 58 (identifying eight abstract norms: “law compliance, human health protection, environmental protection, autonomy, fair process, good faith, reciprocity and conformity”).

¹⁴³ *See generally id.* at 81-88. Vandenberg identifies the norm of “fair process” as one in which “[a]n individual should not be treated arbitrarily or be denied an opportunity to defend her behavior” and demonstrates that if the norm of fair process is violated it can lessen “the strength of one’s adherence to the norm of law compliance.” *Id.* at 103.

¹⁴⁴ *Id.* at 68 (listing the other motivating factors as “fear of formal legal sanctions . . . [and] of informal social sanctions . . .”).

¹⁴⁵ *Id.* at 130 n.266 (citing Raymond Paternoster & Sally Simpson, *Sanction Threats and Appeals to Morality: Testing a Rational Choice Model of Corporate Crime*, 30 LAW & SOC’Y REV. 549, 571 (1996)); *see also* Finnemore & Sikkink, *supra* note 67, at 892 (stating that “we typically do not consider a rule of conduct to be a social norm unless a shared moral assessment is attached to its observance or non-observance” (quoting James Fearon, *What is Identity (as We Now Use the Word)?* 25 n.18 (1997) (unpublished manuscript, on file with the University of Chicago))).

to others,” which Vandenberg argues, when activated, can be linked to global warming and can change individual carbon-emitting actions.¹⁴⁶

There are also “concrete norms.” These can be either social or personal norms, but they are more specific than abstract norms and supplement or support the abstract norm. An example of a concrete environmental norm that supports the abstract environmental protection norm is water or energy conservation.¹⁴⁷

Because norms exist independent from government, they can “provide a private, decentralized, and competitive alternative to government control of social behavior.”¹⁴⁸ However, Carlson counsels that norms are best relied on for this purpose when social problems arise in small, homogeneous groups of individuals who experience some personal benefit from complying with the norm and where there are no viable regulatory tools to address the problem.¹⁴⁹ And while norms may be relatively inexpensive and efficient ways to encourage positive individual behavior through “social surveillance and sanctioning,”¹⁵⁰ using norms as a basis for regulations may lead to “over- or under-regulation” to the extent that the norm is premised on some group identity irrational preference.¹⁵¹ Nonetheless, “[n]orms are particularly effective devices for social control, relative to law, when individual violations (though perhaps not aggregate violations) are too trivial, or the difficulty of proving guilt too great,” to warrant government enforcement.¹⁵² Norms play a significant part in directing individual behavior.¹⁵³ There are many different reasons why this happens. According to Robert Cooter, for a social norm to influence individual behavior, it must be internalized by a

¹⁴⁶ See Vandenberg & Steinemann, *supra* note 9, at 1678.

¹⁴⁷ Vandenberg, *supra* note 4, at 1119-20, *see also* Vandenberg & Steinemann, *supra* note 9, at 1706 (defining abstract norms, more commonly thought of as values, as “internalized, personal norms” and stating that concrete norms, while also internalized, are more likely to be broader social norms, adhered to because of some anticipated social sanction or reward, and less likely to be followed because they have been internalized).

¹⁴⁸ Posner & Rasmusen, *supra* note 126, at 382; *see also* Geisinger, *supra* note 103, at 609 (noting the value of norms “as a private alternative to law”); Saul Levmore, *Norms and Supplements*, 86 VA. L. REV. 1989, 1989 (2000).

¹⁴⁹ Carlson, *supra* note 95, at 1233-34 (warning that the utility of norms by themselves as a substitute for regulation is limited depending on “the nature of the social problem, the context in which it arises, and the availability of other regulatory tools”).

¹⁵⁰ Geisinger, *supra* note 103, at 641-42; *see also* Levmore, *supra* note 148, at 2002 (noting that “the point of social norms is that expected extralegal sanctions or reactions are better known or better constructed than these direct signs from lawmakers and law enforcers”).

¹⁵¹ Geisinger, *supra* note 103, at 646.

¹⁵² Posner & Rasmusen, *supra* note 126, at 380; *see also* Levmore, *supra* note 148, at 2018 (noting that “the ‘norms police’ [help to enforce laws by giving] disapproving looks in the event of violations”). *But see* Vandenberg, *supra* note 4, at 1113 n.51 (arguing that “no well-developed theory of guilt allows us to make predictions about when’ it will be influential or ‘what kinds of people feel guilt and what kinds of people do not’” (citing ERIC A. POSNER, *LAW AND SOCIAL NORMS* 43 (2000))).

¹⁵³ Vandenberg, *supra* note 2, at 596; *see also* Vandenberg & Steinemann, *supra* note 9, at 1709 (referencing various studies examining how “abstract norms favoring environmental protection [and] beliefs about energy use” relate to energy conservation behaviors).

large part of the individual's relevant community.¹⁵⁴ This happens through a process of the community reaching a consensus about the desirability of particular behavior.¹⁵⁵ This consensus then forms "a baseline level of expectation," to which individuals then unthinkingly conform, like saying thank you when someone does something nice for you.¹⁵⁶ People do not question whether particular behavior is good or bad because they have internalized the norm. To Miller, social norms work precisely because people internalize them "within their own psychic structures."¹⁵⁷ It is this feature that makes an internalized norm powerful because conforming to the norm is not at issue.¹⁵⁸ Motivators of personal behavior like guilt, lack of self-esteem, or community sanction come into play, and the norm is enforced.

Eric Posner finds internalization of social norms unnecessary because of the phenomenon of "signaling."¹⁵⁹ Behavior change, he says, will occur when signaling by others of their intention to cooperate in some behavior is sufficiently commonplace.¹⁶⁰ Alex Geisinger agrees that internalization of norms is not important for them to be effective, but he believes that sanctions for norm violations that exceed the cost of complying with it are critical to maintaining the norm.¹⁶¹

Paul Stern, who thinks that personal norms can direct the choices individuals make, says that "[p]ersonal norms . . . are activated when an individual believes that violating them would have adverse effects on things the individual values . . . [when, b]y taking action, he or she would bear significant responsibility for the consequences," and when "contextual influences," like available technology, legal, and regulatory requirements, convenience, and social expectations, are weak.¹⁶² Thus, for a personal abstract norm (environmental protection) or concrete norm (turn off the lights or take the bus) to be activated, a person must both understand how her action will affect the environment and be willing to "take personal responsi-

¹⁵⁴ See, e.g., Robert D. Cooter, *Decentralized Law for a Complex Economy: The Structural Approach to Adjudicating the New Law Merchant*, 144 U. PA. L. REV. 1643, 1665 (1996). But see Carlson, *supra* note 95, at 1240 (stating that "internalization is not necessary because people react to and desire the esteem of others, whether or not they believe in the correctness of a norm" (discussing Richard H. McAdams, *The Origin, Development, and Regulation of Norms*, 96 MICH. L. REV. 338, 358 (1997))).

¹⁵⁵ Strahilevitz, *supra* note 2, at 1280; see also Geisinger, *supra* note 103, at 621.

¹⁵⁶ Strahilevitz, *supra* note 2, at 1280.

¹⁵⁷ Miller, *supra* note 139, at 898.

¹⁵⁸ Finnemore & Sikkink, *supra* note 67, at 913.

¹⁵⁹ See POSNER, *supra* note 152, at 18-27.

¹⁶⁰ See also Posner, *supra* note 108, at 554 (citing as examples of signaling theory "saluting the flag or denouncing Bosnians, in order to signal loyalty to the group with which one has their most valuable interactions or, more broadly, in order to establish a network").

¹⁶¹ Geisinger, *supra* note 103, at 608-609.

¹⁶² Paul C. Stern, *Understanding Individuals' Environmentally Significant Behavior*, 35 *Env'tl. L. Rep. (Env'tl. Law Inst.)* 10,787-88 (2005); see also Stern et al., *supra* note 99, at 83 (finding that "norm-based actions flow from three factors: acceptance of particular personal values, beliefs that things important to those values are under threat, and beliefs that actions initiated by the individual can help alleviate the threat and restore the values").

bility for causing . . . those consequences.”¹⁶³ In other words, if people do not think that the effects of their behavior are significant, “concrete norms linked to the environmental protection and reciprocity norms will not be activated and little pro-environmental behavior will occur.”¹⁶⁴ Therefore, providing information tying individual behavior (turning off lights) to environmental harm (air pollution) appears to be an essential part of activating concrete environmental norms (like energy conservation).¹⁶⁵

Unless barriers to responsible environmental behavior arise, such as those discussed in Section III,¹⁶⁶ when a concrete personal norm is activated, a person will feel an obligation to behave in a particular way.¹⁶⁷ When a social norm is triggered, the individual feels guilty if she violates it and her behavior runs counter to the social pressure to conform to its dictates. She may even feel a sense of duty to conform her behavior to the norm. Additionally, if she believes that others in her immediate community or the government will enforce the norm, or she develops greater confidence in information that identifies her behavior as bad for the environment, then the influence of external social pressure may increase the likelihood that she will act consistently with it.¹⁶⁸ As the perceived social pressure on the individual to engage in certain behavior increases, and it becomes easier for her to engage in the new behavior, her attitude toward the new behavior naturally becomes more favorable.¹⁶⁹

¹⁶³ See Vandenberg, *supra* note 4, at 1120; see also *Corporate Social Responsibility: Designing a Sustainable Future*, N.Y. TIMES, Oct. 25, 2007, at ZJ1 (describing Yahoo’s “18 Seconds” campaign and saying it is designed “to provide a tool that is often missing — the ability to see how one person’s simple act, like changing a light bulb, can combine with millions of other small acts to create massive change” (quoting Andy Ruben, Vice President of Strategy and Sustainability, Wal-Mart)).

¹⁶⁴ Vandenberg, *supra* note 4, at 1129; see also *id.* at 1126 (saying that the environmental protection norm will not be activated if a person believes that she did not cause the environmental problem); Vandenberg & Steinemann, *supra* note 9, at 1710 (finding people were willing to conserve energy when they learned that the aggregate actions of people caused environmental harm and that collective response by the group “could make a big difference” and help people generally (quoting NAT’L RESEARCH COUNCIL, ENERGY USE: THE HUMAN DIMENSION 39, 72 (Paul C. Stern & Elliott Aronson eds., 1984))).

¹⁶⁵ See Vandenberg, *supra* note 79, at 97; see also Vandenberg & Steinemann, *supra* note 9, at 1712 (recommending the use of the widespread abstract norm of personal responsibility connected to concrete norms favoring carbon-emissions reductions); Stern, *supra* note 162, at 10,787-88.

¹⁶⁶ See Vandenberg, *supra* note 4, at 1121-22 (noting that “[t]hese constraints, ranging from the financial costs of behavior change (e.g., purchasing a less polluting car), to the physical effort required for the behavior (e.g., walking to a bus stop), to the social costs (e.g., the inability to signal social status with a large, high-polluting vehicle), in many cases will be substantial”); see also Vandenberg, *supra* note 79, at 77 n.64 (citing Ickel Ajzen, *From Intentions to Actions: A Theory of Planned Behavior*, in ACTION CONTROL: FROM COGNITION TO BEHAVIOR 11 (Julius Kuhl & Jürgen Beckmann eds., 1985)).

¹⁶⁷ See Vandenberg, *supra* note 4, at 1121.

¹⁶⁸ *Id.* at 1120-21.

¹⁶⁹ Vandenberg, *supra* note 79, at 77 n.64 (citing Ajzen, *supra* note 166, at 11).

Although complying with a norm can impose direct and opportunity costs, be inconvenient, and require effort,¹⁷⁰ compliant behavior also has instrumental value, such as obtaining praise, esteem, promotion, and preferential dealings.¹⁷¹ One reason the government gives awards is to “induce people to internalize values” by “rewarding citizens for having civic virtue,” or sanctioning them when they behave badly.¹⁷² Complying with a norm also allows a person to avoid social sanction, which can be unpleasant.¹⁷³ The positive features of norm compliance lead people who have internalized a norm to be “willing to sacrifice something to obey it.”¹⁷⁴

However, there are circumstances in which norm activation is very difficult, and many of these arise in environmental situations. For example, as discussed previously, when second generation environmental harms are at issue, it is extremely difficult “to conceptualize individual behavior as a distinct source of social problems.”¹⁷⁵ This conceptualization failure can impede the development of a personal norm, directing an individual to act in a way that will decrease her contribution to the harm, let alone conform her behavior to an existing social norm. Further, to the extent norms are created and sustained by social sanctions,¹⁷⁶ it is difficult to use these sanctions in negative payoff, close-knit situations.¹⁷⁷ In those circumstances, “[s]ocial sanctions will not change the individual payoff because the individual will either act in isolation or in a setting with insufficient iterative relationships

¹⁷⁰ Cooter, *supra* note 103, at 7-8 (using the example that “20% of the population may be unwilling to endure unpleasantness to clean up after their dogs unless they gain an offsetting advantage”); *see also id.* at 6.

¹⁷¹ Carlson notes that “[t]o the extent that garnering neighbors’ esteem or signaling one’s reputation motivates a potential recycler, visible curbside recycling is a wonderful tool. . . . Those who do not recycle are visible noncooperators.” Carlson, *supra* note 95, at 1279.

¹⁷² Cooter, *supra* note 103, at 19; *see also* Vandenberg, *supra* note 79, at 104; Specter, *supra* note 122, at 53 (quoting Richard Sandor, Chairman and C.E.O of the Chicago Climate Exchange, as favoring incentives over punishment because punishing people “for being bad corporate citizens” is a matter of going “to your local church or synagogue and tell[ing] God to punish them” and is not the problem of the Chicago Climate Exchange. *But see* Cooter, *supra* note 103, at 19-20 (questioning whether governments can effectively “reward people for having civic virtue” because of the problem of inferring character from individual behavior when the state lacks “intimate knowledge of the person”); Vandenberg, *supra* note 4, at 1135 (questioning the practicality of, among other things, “financial incentive and other schemes targeted at individuals”).

¹⁷³ *See* Cooter, *supra* note 103, at 8; *see also id.* (finding that “[g]roup pressures often lower the relative cost of popular acts”); Strahilevitz, *supra* note 2, at 1265-66 (commenting that when enforcement effectively singles out violators, it causes a shift in norms from non-compliance to compliance and results in greater compliance as people seek to avoid penalties for violating the law).

¹⁷⁴ Cooter, *supra* note 103, at 6.

¹⁷⁵ Vandenberg, *supra* note 4, at 1164.

¹⁷⁶ *See id.* at 1101 (stating that “[o]ne of the greatest problems facing norms theorists and regulators is how to induce individuals to act who will not benefit personally and who are not subject to legal or social sanctions”).

¹⁷⁷ *Id.* at 1102 (“[I]n an increasingly crowded society, individuals face numerous situations in which acting in their personal interest will harm the collective interest, but their large numbers undermine the influence of legal and social sanctions.”). For further discussion of sanctions, *see* Section VI, *infra*.

or information exchange [with others] to enable social norm sanctioning to occur.”¹⁷⁸ For example, the fact that most driving usually “occurs on highways and in other classic loose-knit group situations,” makes it extremely difficult to use social sanctions to discourage individual drivers from illegally using HOV lanes, or from throwing trash out their car windows.¹⁷⁹ In such situations, using norms to control or eliminate negative behavior is unlikely to succeed without government intervention, but that will not happen unless the norms themselves change, setting up a classic catch-22 situation.¹⁸⁰

This is why Ann Carlson says that while norms may “generate an initial burst of cooperative efforts,” without help they may not lead to behavior change.¹⁸¹ She sees the effectiveness of norms as tied to the amount of personal effort required to conform to them and how often the desired behavior must be engaged in. Although the intensity of an individual’s adherence to a social norm is a predictor of her willingness to undertake behavior that requires effort on her part, Carlson says reducing the effort required will have a greater effect on behavior over time than strengthening social norms.¹⁸² This conclusion is borne out by her empirical data demonstrating that making it easy and convenient to recycle is more important than a concrete social norm favoring recycling, and that these factors may actually lessen the strength of social norms.¹⁸³

Nonetheless, Carlson concedes that commitment to a norm is important for individual environmental action involving “large-number, small-payoff collective action problems” that also require a high level of effort, like taking recycling to a drop-off center.¹⁸⁴ Even in situations where “an individual externalizes the harm caused by her behavior” — making it likely that the costs, either in money or in personal effort, of changing her behavior will exceed any benefit she might receive¹⁸⁵ — her participation in that behavior

¹⁷⁸ *Id.* at 1105.

¹⁷⁹ *Id.* at 1112.

¹⁸⁰ *See id.* at 1105-06.

¹⁸¹ *See* Carlson, *supra* note 95, at 1259.

¹⁸² *Id.* at 1236; *see also* Monroe, *supra* note 49, at 115 (suggesting in addition that peer pressure, public visibility, frequency, testability and feedback can inspire responsible environmental behavior).

¹⁸³ *See* Carlson, *supra* note 95, at 1236 (“In fact, increasing convenience is so effective that individual commitment toward the desired behavior bears little relationship to whether someone will engage in it.”); *see also id.* at 1295-96; *id.* at 1280 (noting that while “[c]onvenience . . . seems to be the most important motivator, . . . [t]here is some evidence . . . that signaling or esteem-gathering may matter in the promotion of recycling behavior”).

¹⁸⁴ *Id.* at 1296. *But see id.* at 1250 (pointing out “where the payoff is an environmental benefit (clean air, clean water, preservation of natural resources), the benefit may seem less tangible than direct economic gain,” making it less likely that people will cooperate in enforcing norms); Vandenberg, *supra* note 4, at 1105 (asking the question “whether norms also have a meaningful influence when the payoff to the individual is negative and the behavior does not occur in a close-knit group”).

¹⁸⁵ Vandenberg, *supra* note 4, at 1105 (commenting that individual behavior in negative pay-off, loose-knit group situations presents challenges to norms theorists and regulators).

will likely be greater if she has strong beliefs in the rectitude of the social norm.¹⁸⁶ For example, in the case of an environmental benefit like clean air or clean water, where the personal benefit appears less “tangible” than the direct benefit from behaving in an environmentally irresponsible manner, a social norm supporting behavior that benefits the general public interest in a clean environment may encourage people to behave cooperatively in furtherance of the norm.¹⁸⁷ In other words, people “may need to believe independently that they should recycle, or donate blood, or vote, or turn out the lights when they leave a room.”¹⁸⁸ When there is no monetary benefit from the changed behavior, people may also need additional incentives to conform to a norm’s dictates, such as intervention from the government or other organizations.¹⁸⁹ Martha Monroe notes, however, that outside incentives will only work when “they kick-start a behavior that continues for other reasons” so that when incentives are withdrawn, the good behavior continues because the individual ascribes the behavioral change “to a change in herself.”¹⁹⁰

Thus, norms can play a role in influencing individual behavior under the right circumstances. More specifically, if there is some communal consensus about the validity of the norm, and people also believe that actions inconsistent with the norm might harm others or harm something of value to them, then a sense of obligation to comply with the norm may arise. It also helps if people understand the connection between their action and the resulting harm. This obligation to conform personal behavior to some communally accepted norm exists independently of government directions telling people how to behave and is reinforced by other abstract norms, such as the personal responsibility norm.

¹⁸⁶ Carlson, *supra* note 95, at 1296.

¹⁸⁷ *Id.* at 1250; *see also* Vandenberg, *supra* note 2, at 588-89 (saying that in cases where multiple individuals cause an external harm even if some of them would support reducing the environmentally harmful behavior, “collective action problems may prevent the individuals from organizing to enforce the limits on behavior”).

¹⁸⁸ Carlson, *supra* note 95, at 1250. *But see* Vandenberg & Steinemann, *supra* note 9, at 1710 (reporting on studies that found a “sense of moral obligation” to have a greater effect on behavior than the cost or price of a product or service).

¹⁸⁹ Carlson, *supra* note 95, at 1250. *But see* Shuman, *supra* note 74, at 159 (saying incentives like attorney and expert witness fees and small damage awards might encourage people to litigate injury cases involving small damage claims); Posner & Rasmusen, *supra* note 126, at 372 (saying that sanctions cannot be too severe, or people will not engage in what might be otherwise efficient action, nor can they be too costly to administer, which will depend on how often the norm is violated).

¹⁹⁰ Monroe, *supra* note 49, at 119. Monroe also notes that internal incentives like “frugality” and “community participation” may help people not only undertake some positive environmental behavior, but also sustain it. *Id.* at 119-20.

V. HOW A NEW NORM OF ENVIRONMENTAL RESPONSIBILITY MIGHT
ARISE AND DISPLACE OTHER NORMS

Changing the existing abstract norm of environmental protection and creating a new norm are each difficult and lengthy processes. This Section begins by explaining that for a new norm to develop, a new social meaning must be created. Then the Section sets out arguments from scholars who both support and oppose a role for the government and suggest other entities that could play that role. The Section ends by describing the unique problems with the environmental protection norm that may explain why people are hesitant to adhere to it.

Changing any norm is difficult to the extent that it requires the abandonment of preconceived ideas. Here, the idea that must be abandoned is that industry is responsible for environmental harm. This idea shields the individual from any responsibility for the harm. Indeed, a social norm may have been formed excusing some types of irresponsible personal behavior.¹⁹¹ Therefore, in creating a norm of individual environmental responsibility, society will have to overcome the appeal of blaming someone else for the problem. This will require substantial effort, perhaps including external prodding.

Social meaning can “shape social norms” by strengthening or modifying existing norms or by encouraging or impeding the emergence of new norms.¹⁹² Martha Finnemore and Kathryn Sikkink describe the “life cycle” of norms and identify the point at which a new social meaning, what they call “agreements” or “shared moral assessments,” emerges.¹⁹³ They say norms have three stages, “norm emergence,” “broad norm acceptance,” and norm “internalization,” with a “threshold or ‘tipping point’” dividing the first two stages.¹⁹⁴ A “tipping point” occurs when “a critical mass” of other actors “become norm leaders and adopt new norms.”¹⁹⁵ What constitutes a critical mass is a sufficient number of people who agree with the new norm to create an impression of broad-based adoption. Included among those people must be individuals with moral suasion or who are essential to achieving the norm’s goals.¹⁹⁶ One feature contributing to norm internalization at the end of stage two is repeated behavior and habit. Internalization of a new norm also depends upon the type of norm involved and the “prominence” of

¹⁹¹ Vandenberg, *supra* note 10, at 216.

¹⁹² Vandenberg, *supra* note 10, at 204.

¹⁹³ Finnemore & Sikkink, *supra* note 67, at 892. Although writing about the phenomenon of international norm dynamics, the authors note parallels to norm dynamics at the domestic level. *See id.* at 893 (discussing the domestic emergence of the norm of women’s suffrage).

¹⁹⁴ *Id.* at 895.

¹⁹⁵ *Id.* at 901.

¹⁹⁶ *Cf. id.* at 901 (arguing that a critical mass often is reached when “one-third of the total states in the system adopt the norm,” understanding that not all states have equal “normative weight,” and the states that have adopted the norm “are critical to” achieving the “substantive norm goal” or “have a certain moral stature”).

the norm leaders.¹⁹⁷ Thus, norms that are clear and sufficiently specific so people know how to behave are more likely to be internalized and, therefore, to change behavior.¹⁹⁸ Similarly, norms that make “universalistic” claims about what is good for a lot of people, and that are consistent with “existing normative frameworks” also have a higher likelihood of success.¹⁹⁹ This last factor requires norm leaders to construct “linkages” between norms that are more established and those that are emerging.²⁰⁰

To Cass Sunstein, “norm entrepreneurs,”²⁰¹ those individuals whose mission is to change social norms, are critical to the emergence of a new norm and to its adoption by others — what Finnemore and Sikkink call “socialization.”²⁰² Norm entrepreneurs²⁰³ shine a spotlight on issues or even create new issues “by using language that names, interprets and dramatizes them.”²⁰⁴ They construct “cognitive frames” and, if they succeed in this effort, “the new frames resonate with broader public understandings and are adopted as new ways of talking about and understanding issues.”²⁰⁵ One way norm entrepreneurs do this is through “strategic social construction,” or “persuasion,”²⁰⁶ a process by which they try to change how other actors “maximize their utilities” so that their utility calculus is changed to conform to the norm entrepreneurs’ normative commitments.²⁰⁷ Indeed, persuasion is “the mission of norm entrepreneurs.”²⁰⁸

However, this process of assisting in the emergence of a new norm is not easy, as norm entrepreneurs must deal with “firmly embedded alternative norms and frames that create alternative perceptions of both appropriateness and interest.”²⁰⁹ In order to make a new norm emerge where the appropriateness of prior norms is being contested, norm entrepreneurs may

¹⁹⁷ *Id.* at 906-07.

¹⁹⁸ *Id.* at 907-08.

¹⁹⁹ *Id.*

²⁰⁰ *Id.* at 908.

²⁰¹ For Sunstein’s definition of norm entrepreneurs, see *supra* note 7; see also Geoffrey P. Miller, *Norms and Interests*, 32 *HOFSTRA L. REV.* 637, 639 (2003) (describing norm entrepreneurs as “self-appointed champions of particular values or rules for behavior”).

²⁰² Finnemore & Sikkink, *supra* note 67, at 902 (explaining that “the primary mechanism for promoting norm cascades is . . . socialization,” which occurs through a process of “emulation, . . . praise (for behavior that conforms to group norms), and ridicule (for deviation)” and noting in addition that socialization can occur through state or non-state action, such as networks of norm entrepreneurs (citing KENNETH WALTZ, *THEORY OF INTERNATIONAL POLITICS* 75-76 (1979))).

²⁰³ See Finnemore & Sikkink, *supra* note 67, at 897.

²⁰⁴ *Id.*; see also Babcock, *supra* note 6 (saying that environmental groups are ideal norm entrepreneurs and have a critical role in inducing a norm of individual environmental responsibility in the wake of the climate change crisis).

²⁰⁵ Finnemore & Sikkink, *supra* note 67, at 897.

²⁰⁶ See *id.* at 914 (defining term as “the process by which agent action becomes social structure, ideas become norms”).

²⁰⁷ *Id.* at 910.

²⁰⁸ *Id.* at 914.

²⁰⁹ *Id.* at 897.

use inappropriate persuasive tools, which may lead to their ostracism.²¹⁰ Norm entrepreneurs also may need government endorsement of their new norms and agreement to include norm socialization as part of their agenda because by themselves they lack the ability to compel adoption of the new norm.²¹¹

When a norm entrepreneur succeeds at changing what had been accepted behavior, “the results can be a rapid, self-perpetuating change in social practice — a ‘cascade’ or ‘bandwagon’ effect as many people abandon the old norm and come to behave in conformity with a new one.”²¹² Norm cascades are assisted by a form of “peer pressure” motivated by a desire for “legitimation, conformity, and self esteem.”²¹³ The cascade is set off by a change in majority preferences,²¹⁴ in large part brought on by the work of norm entrepreneurs. Once a cascade occurs, there is no longer any need for outside pressure from norm entrepreneurs to adopt the norm.²¹⁵

Social meaning shapes norms especially when that meaning is articulated by some law.²¹⁶ “[L]aw is expressive in the sense that it can signal, reinforce or change social meaning,” and “the public can receive a message conveyed by law, whether intended or unintended, and . . . this message can have an impact on perceptions about the sources of a problem and on the

²¹⁰ *Id.* What motivates norm entrepreneurs to go forward given these costs is a mix of empathy, altruism, and commitment to “the ideals and values embedded in the norms,” even at some personal cost. *Id.*

²¹¹ *Id.* at 900.

²¹² Miller, *supra* note 201, at 639 (quoting Cass R. Sunstein, *Social Norms and Social Roles*, 96 COLUM. L. REV. 903, 909 (1996)); *see also* Strahilevitz, *supra* note 2, at 1281 n.259 (“[G]roups may adhere to conflicting norms, and . . . a sudden shift by a few important individuals can cause a cascade of others to follow suit, thereby altering the dominant norm.” (citing Melvin A. Eisenberg, *Corporate Law and Social Norms*, 99 COLUM. L. REV. 1253, 1264 (1999))); Vandenberg & Steinemann, *supra* note 9, at 1709; *id.* at 1712 (predicting the tying of the widespread personal responsibility norm to the concrete norm of carbon neutrality will lead to “cascades in behavior as individuals perceive that the personal norms of a few have become widespread social norms”). Similar cascades occur in nature. *See* Hope M. Babcock, *Administering the Clean Water Act: Do Regulators Really Have “Bigger Fish to Fry” When It Comes to Addressing the Practice of Chumming on the Chesapeake Bay?*, 21 TUL. ENVTL. L.J. 1 (2007) (discussing cascades in estuarine ecosystems).

²¹³ Finnemore & Sikkink, *supra* note 67, at 895. Although discussed in the context of what motivates nation-states at the international level to adopt new norms, the concepts of legitimation (approval by other members of one’s community), conformity (a sense of belonging to a larger community), and esteem (the desire to have others think well of you) seem equally apt when applied to individual behavior. To the extent identity is based on personal qualities “in which an individual has special pride or from which an individual gains self esteem . . . [,] the desire to gain or defend one’s pride or self esteem can explain norm following.” *Id.*; *see* Vandenberg, *supra* note 79, at 112 (describing the “conformity norm”).

²¹⁴ Geisinger, *supra* note 103, at 641 (“Moreover, while norms are relatively stable, such a view allows for change in norms when a change in majority preference occurs because of the creation of new information.”).

²¹⁵ Finnemore & Sikkink, *supra* note 67, at 902 (finding that a positive response to a norm cascade is not without costs to conforming individuals as they change their behavior any more than it is costless for norm entrepreneurs to urge the implementation of new norms).

²¹⁶ Vandenberg, *supra* note 10, at 204; *see also* Stern, *supra* note 162, at 10,788 (suggesting that “if one adopts a long-time perspective, it may be that personal norms can percolate up through society and become legally codified social norms”).

social norms that develop in response to those perceptions.”²¹⁷ Law can influence perceptions of the acceptability of certain behavior at a very personal level by shifting the utility calculus. For example, a law that requires the use of seat belts as a means of saving lives both informs people about the risks of driving without a seat belt and creates a perception of wide public acceptance of the behavior.²¹⁸ In this way, law can affect what people think about the nature of a problem and the extent of public support for addressing it, the effect of which is that people will take both the law and the problem “more seriously.”²¹⁹ The law communicates “whose interests it values” and how seriously it values those interests by its selection of the type of conduct punished, the sanctions used, and their severity.²²⁰ Thus, environmental laws directly express social meaning when they prohibit or sanction certain conduct and can change the social meaning of conduct that previously might not have been condemned.²²¹ The problem is that law has sent the wrong message about individual responsibility for environmental harm, and that message is unlikely to self-correct.

Therefore, a new social meaning about responsibility for environmental harm must be created for a new environmental protection norm to emerge.²²² Since norms are public goods²²³ and as such constitute a form of social meaning about the desirability or undesirability of certain action, then changing a norm or creating a new one requires some form of public action and public sanction for its violation.²²⁴ This does not necessarily mean that there must be formal public action through the executive or legislative branches, which is unlikely in the case of regulating individual behavior,²²⁵

²¹⁷ Vandenberg, *supra* note 10, at 201-02; *see also id.* at 199-200.

²¹⁸ *See* Vandenberg & Steinemann, *supra* note 9, at 1707 (explaining how laws shift beliefs connecting concrete and abstract norms); *see also* Dernbach, *supra* note 20, at 133 (“A law addressing a particular problem validates the existence of that problem and indicates the existence of sufficient consensus to address it.”); McAdams, *supra* note 154, at 346-47.

²¹⁹ Dernbach, *supra* note 20, at 133.

²²⁰ Vandenberg, *supra* note 10, at 202.

²²¹ *Id.* at 203.

²²² *Id.* at 200 (“[S]ocial meaning . . . [is] ‘the frameworks of understanding in which individuals live.’” (quoting Dan M. Kahan, *Social Influence, Social Meaning and Deterrence*, 83 VA. L. REV. 349 (1997))); *see also id.* at 214 n.115 (quoting Lawrence Lessig, *The Regulation of Social Meaning*, 62 U. CHI. L. REV. 943, 1022 (1995)) (saying social meanings are “collective goods,” requiring “collective action” to change them); Vandenberg, *supra* note 10, at 200 (“[R]egulation of social meaning . . . include[s] ‘all the ways in which the law creates and shapes information about the kinds of behavior that members of the public hope for and value, as well as the kinds they expect and fear.’”).

²²³ *See* Posner & Rasmusen, *supra* note 126, at 370; *see also id.* at 377 (saying that because a norm is a public good it is “in danger of being underproduced”). Posner and Rasmusen also note that a norm is “nonrivalrous, because its cost does not rise if more people use the norm; and it is nonexcludable, because people who do not contribute to its enforcement cannot be denied its benefits.” *Id.* at 377.

²²⁴ *Id.* at 377; *see also* Yang, *supra* note 99, at 1168 (discussing this same problem at the international level with respect to enforcing treaties).

²²⁵ *See, e.g.,* Vandenberg, *supra* note 4, at 1135 (noting that “policymakers generally lack the political support to pursue expensive infrastructure, financial incentive and other schemes targeted at individuals,” making otherwise theoretically appealing initiatives practically infea-

but that the new or amended norm must be adopted and widely supported by the public, and some form of informal sanctions of sufficient consistency and severity must be available as a means of recognizing and enforcing it.

However, it can be hard to judge whether norm change has occurred.²²⁶ For one, at the end of a norm cascade, “norms may become so widely accepted that they are internalized by actors and achieve a ‘taken-for-granted quality,’ making conformance with the norm almost automatic.”²²⁷ There is no discoverable record of discussion among actors about whether they should conform to the new norm, which might show that a change has occurred.²²⁸ Additionally, it may be difficult to move smoothly from an existing norm to a new or modified one, and if the transition happens too quickly, existing norms can disappear before “the normative system” can adapt fully,²²⁹ creating a norm gap. Therefore, there might be a risk that in the transition from a general abstract environmental protection norm that focuses on industry to a norm of personal environmental responsibility, the more abstract norm might temporarily or even completely disappear as people substitute themselves for the traditional sources of environmental harm.

Assuming norms require the presence of an outside force to appear or change, where that force should come from is subject to many different opinions. Some scholars think the government has a pivotal role to play in creating and changing social and individual norms through “public programs and social understandings” to the extent that those programs “express and embody norms, and therefore ‘consecrat[e] certain values.’”²³⁰ Carlson suggests that the government might encourage positive behavior indirectly and inculcate norms of legal compliance by increasing the effort involved in behaving badly.²³¹ Strahilevitz proposes the government should “splinter” those who adhere to minority norms off for separate treatment.²³²

sible, and that “[c]oercive legal requirements are often at least as unpopular”). *But see* Vandenberg, *supra* note 10, at 216-17 (suggesting the enactment of legislation as a way to “signal a greater emphasis on individual or other second generation source responsibility for environmental problems”).

²²⁶ See Yang, *supra* note 99, at 1148 (“Norm internalization and transformation usually do not result in easily discernable changes or quantifiable progress.”).

²²⁷ Finnemore & Sikkink, *supra* note 65, at 904; *see also id.* at 913 (“[M]any norms, including some of the most powerful ones, have been so internalized that we no longer [sic] think seriously about alternative behavior.”).

²²⁸ *Id.* at 895.

²²⁹ See Posner & Rasmusen, *supra* note 126, at 378.

²³⁰ Vandenberg, *supra* note 10, at 202 n.66 (characterizing Richard H. Pildes, *The New Public Law: The Unintended Consequences of Public Policy: A Comment on the Symposium*, 89 MICH. L. REV. 936, 940-42 (1991)) (alteration in original); *see also* Dernbach, *supra* note 20, at 158 (suggesting that EPA be given the job of finding better ways to inform individuals of the greenhouse gas effects of their actions and “to develop and recommend more effective incentives”); Vandenberg, *supra* note 79, at 91 (“[B]y collecting, analyzing and reporting data that link particular violations to particular human health harms, enforcement agencies may be able to harness internal and external norm-based sanctions . . .”).

²³¹ See Carlson, *supra* note 95, at 1296.

²³² Strahilevitz, *supra* note 2, at 1282; *see also* Carlson, *supra* note 95, at 1298 (noting any government intervention in large-number, small-payoff collective action problems must take

The government can also “change the ‘social meaning’ of certain behaviors by using law expressively to change norms,”²³³ for example, by recasting an action that was previously considered to be a matter of individual choice with only individual consequences into one that creates negative externalities.²³⁴ Government-led information campaigns, shaming people into feeling guilty about their behavior, using celebrities to support a particular position, as well as directing or prohibiting certain behavior or using taxes or subsidies to discourage or encourage it can all change norms and related behavior.²³⁵ Cooter cites the example of no smoking signs in airports as an instance where announcing a rule “tipped the balance in favor of informal enforcement by citizens.”²³⁶ The mere publication of the rule can create an expectation that others will comply with it. As this expectation takes hold, compliant behavior increases.²³⁷

A law by itself can influence the social meaning of actions and can influence what people think others might do.²³⁸ Laws “can be used to publicize a consensus that a particular concrete behavior is necessary in order to comply with an abstract internalized norm”;²³⁹ failure to comport with that consensus can create a sense of individual guilt.²⁴⁰ Stewart and others talk about “reflexive law,” the process by which environmental norms are internalized,²⁴¹ and how the law can “tie internal, abstract norms (‘be a good

account of the amount of effort required to resolve the problem and the need for repeated, periodic engagement if long term behavior change is to occur); Vandenberg, *supra* note 4, at 1123 (“[L]egal interventions should seek to change individuals’ awareness of consequences and acceptance of responsibility related to the environmental protection and reciprocity norms.”).

²³³ Geisinger, *supra* note 103, at 611. Whitman comments that the government’s use of shame sanctions can also change public norms and that government often does use these sanctions to change norms. James Q. Whitman, *What Is Wrong with Inflicting Shame Sanctions?*, 107 *YALE L.J.* 1055, 1089 (1998).

²³⁴ Strahilevitz, *supra* note 2, at 1274.

²³⁵ Carlson, *supra* note 95, at 1252.

²³⁶ Cooter, *supra* note 103, at 11.

²³⁷ *Id.* at 21.

²³⁸ *See id.* at 10; *see also* Posner & Rasmusen, *supra* note 126, at 380 (“But the sanctions for violating norms are often too weak to deter all people from many offenses, while norm creation is too slow to provide for all the rules necessary for the governance of society — so laws have their place too.”); Lazarus, *supra* note 22, at 39 (noting that preference changes necessary to reduce climate change “are most likely to be driven by law rather than the converse”).

²³⁹ Vandenberg, *supra* note 2, at 613-14; *see also* Vandenberg, *supra* note 79, at 75 (“[L]aws and enforcement actions may increase an individual decision-maker’s perceptions of the existence of a consensus regarding a norm . . . [, which] may induce the individual to internalize the norm.”).

²⁴⁰ Vandenberg, *supra* note 10, at 217-18.

²⁴¹ Stewart, *supra* note 42, at 127 (explaining that reflexive law’s purpose is “to promote the internalization of environmental norms by firms and other organizational actors” through “information disclosure” mechanisms including “product labeling and emissions reporting” instead of by “directly controlling their external conduct”); *see also* Vandenberg, *supra* note 4, at 1122-23 (describing the “expressive functions of law” by saying “law can change beliefs in at least two ways. First, the enactment of a law can change beliefs about the nature of the underlying social problem addressed Second, the enactment of a law can change beliefs about the existence of a social consensus regarding the problem”).

parent’) to concrete norms (‘good parents use child safety seats’), and thus lead to new behavioral intentions.”²⁴² Laws can also be used to “induce individuals to believe that the environmental problems caused by their behavior are significant . . . , and that if they change behavior these problems can be ameliorated”²⁴³

When a law supports a social norm, state sanctions can supplement social sanctions.²⁴⁴ For example, fines can increase the shame from littering or driving illegally in an HOV lane. Legal sanctions make “legal expression more likely to cause a jump in behavior,”²⁴⁵ setting off a norm cascade.²⁴⁶ Conversely, in the absence of government sanctions, a social norm like the carpooling norm will weaken.²⁴⁷ Thus, law and social norms complement each other as ways to control individual behavior — “informal social norms are vague general principles” with inexact sanctions that a law “transforms” into an unambiguous obligation with an explicit sanction.²⁴⁸ At a minimum, law has a supplementary role to play “[w]hen social norms fail to control harmful behavior.”²⁴⁹

Not all scholars agree, however, that the government should play a role in norm creation. For example, Stephen Garvey worries that “[a] liberal state should not concern itself with the moral development of its citizens. When the state punishes, it should stay away from the ‘inner citadels of the soul’; its aims should not include ‘bring[ing] about certain responsive attitudes in those whom it condemns.’ Repentance is within the jurisdiction of the church.”²⁵⁰ According to Garvey, government should “remain neutral . . . and must not try to coerce its citizens into embracing . . . any particular vision of the ‘good life.’”²⁵¹ Richard Epstein agrees and quotes with approval John Stuart Mill on the limited role of government in character formation and behavior.²⁵² Thus, to Garvey and Epstein, norms should only

²⁴² Vandenbergh, *supra* note 79, at 75; *see also* Vandenbergh, *supra* note 10, at 218 (saying that “[r]ecycling requirements, which have been surprisingly well received in many areas, may already accomplish this function for some household waste problems”).

²⁴³ Vandenbergh, *supra* note 4, at 1123.

²⁴⁴ *See* Cooter, *supra* note 103, at 21-22; *id.* at 15 (using tax cheating as an example).

²⁴⁵ *Id.* at 16.

²⁴⁶ *See generally* Finnemore & Sikkink, *supra* note 67 (saying norms develop according to a three-stage life cycle: i) norm emergence; ii) norm cascade; iii) norm internalization).

²⁴⁷ *See* Strahilevitz, *supra* note 2, at 1242.

²⁴⁸ Cooter, *supra* note 103, at 21; *see also* Posner & Rasmusen, *supra* note 126, at 380 (“Government can provide supplemental punishments if the informal sanction for violating a norm is inadequate.”); *id.* (“Legal sanctions for norm violations are also important because many people are impervious to informal sanctions.”). *But see id.* at 381 (suggesting that sometimes the “best policy” is having the government stay out of the way).

²⁴⁹ Cooter, *supra* note 103, at 22.

²⁵⁰ Stephen P. Garvey, *Can Shaming Punishment Educate?*, 65 U. CHI. L. REV. 733, 774 (1998).

²⁵¹ *Id.* at 772.

²⁵² Richard A. Epstein, *Let “The Fundamental Things Apply”*: *Necessary and Contingent Truths in Legal Scholarship*, 115 HARV. L. REV. 1288, 1299 n.40 (2002) (“[T]he only purpose for which power can be rightfully exercised over any member of a civilized community, against his will, is to prevent harm to others. His own good, either physical or moral, is not a

arise spontaneously and not as a result of government interference or coercion.

Even some scholars who concede some role to the government in norm formation and enhancement see little to gain from governmental interference.²⁵³ Carlson believes that while governments can strengthen social norms through publicizing preferred behavior, sanctions, passing laws, and other methods, “the payoff” from such intervention is significantly less than making the desired behavior easier to perform.²⁵⁴ Because the government “is not usually an ingroup source and its messages as an outgroup source will be discounted,” it cannot effectively play the role of norm entrepreneur and change social meaning, leaving Geisinger to conclude that it should not even try.²⁵⁵ Even Cooter, who is otherwise a supporter of law’s expressive power and precision, praises the flexibility and low transaction costs of social norms.²⁵⁶

Group theory suggests that government has limited capacity to change social meaning and that the use of some tools, like shaming, may well constrain individuals who are least in need of being restrained.²⁵⁷ “Regulations that seek to direct personal behavior by fiat are extremely unpopular,”²⁵⁸ even generating “reactance” as people attempt to go around them.²⁵⁹ Such regulations are also often inefficient and expensive to enforce.²⁶⁰ Thus, if sustained government intrusion is important to get people to behave in an environmentally responsible manner, not only may this be difficult for the government to do, as discussed previously, but government involvement may generate considerable ill will.²⁶¹ Further, to the extent norms are enforced by guilt and shame, they are particularly resistant to change by governmental action because “[g]uilt and shame are heavily influenced by

sufficient warrant.” (quoting John Stuart Mill, *On Liberty*, in UTILITARIANISM, LIBERTY AND REPRESENTATIVE GOVERNMENT 73 (Ernest Rhys ed., 1910)); see also *id.* at 1299-1300 (noting that while it may make sense to try to convince people who prefer beer over milk of the foolishness of their preference, it is unwise to direct them to do this for their own protection).

²⁵³ Carlson, *supra* note 95, at 1298 (recommending “more intensive persuasive techniques, such as having workers urge their colleagues to carpool,” instead of government-sponsored radio ads urging drivers to carpool); see also Strahilevitz, *supra* note 2, at 1241 (recommending that transit authorities provide phone numbers that cellular-phone wielding motorists can call to snitch on solo drivers who use the carpool lanes as a means of counteracting the anonymity of solo driving where freeway drivers are rarely repeat players).

²⁵⁴ Carlson, *supra* note 95, at 1235-36; see also *id.* at 1299.

²⁵⁵ Geisinger, *supra* note 103, at 652.

²⁵⁶ Cooter, *supra* note 103, at 21-22; see also Epstein, *supra* note 252, at 1304.

²⁵⁷ Geisinger, *supra* note 103, at 614.

²⁵⁸ Vandenberg, *supra* note 4, at 1103.

²⁵⁹ Monroe, *supra* note 49, at 120.

²⁶⁰ Vandenberg, *supra* note 4, at 1103.

²⁶¹ See Vandenberg, *supra* note 10, at 214 (discussing how even though people express strong support for environmental protection, “[d]eep-seated notions of individual freedom, open space, and the frontier mentality, as well as concerns about basic needs such as education and safety, may affect perceptions and norms about many second generation problems”); see also Vandenberg, *supra* note 79, at 100 (noting that a European study showed that although more intrusive enforcement programs achieved greater compliance than less intrusive programs, they also generated more ill will).

social conditioning” through families, churches, and schools.²⁶² Thus, the participation of non-governmental institutions in the norm-changing process may be necessary.²⁶³ However, the government can combat bad norms through penalties or effective remedies that reduce the benefits of complying with them.²⁶⁴

If not the government, then who should play the role of norm changer? Some scholars advocate private intervention. For example, Carlson proposes block leaders and written feedback as intervention techniques that can increase participation in a recycling program by people otherwise not inclined to participate, even though there is a curbside program in place making participation easy.²⁶⁵ Carlson and others also write about how personal contact can increase cooperation in situations where individuals receive little benefit from collective cooperation.²⁶⁶ Personal contact increases norm internalization, self-esteem, and “reputation-signaling opportunities” by “drawing on a background norm of cooperation.”²⁶⁷ Geisinger suggests that “ingroup members” of a social group who represent the group, but do not have to change their own behavior, play this role.²⁶⁸ Group identity creates a behavioral stereotype that is more pronounced than the individual’s identity, leading the individual to conform to the group’s behavior.²⁶⁹ Perhaps Finnemore and Sikkink’s norm leaders or Sunstein’s norm entrepreneurs can be the external force leading to norm emergence or change.

Beyond trying to figure out who or what should be the engine of norm creation or change and how to get people to internalize new norms, there are unique problems with the environmental protection norm that may also contribute to the reluctance of people to adhere to it and become good environ-

²⁶² Posner & Rasmusen, *supra* note 126, at 379 (“Nongovernmental organizations may be more effective than either individuals or governments [in creating or changing norms.]”); *see also id.* at 382; Vandenbergh, *supra* note 79, at 123 n.241 (stating that informal sanctions, like family disapproval, have a greater effect on compliance than formal sanctions). *But see* Posner & Rasmusen, *supra* note 126, at 381 (stating that the government can foster norm creation by instilling guilt and shame in both children and adults.).

²⁶³ *See* Posner & Rasmusen, *supra* note 126, at 378 (“Without public intervention, many norms change only gradually or not at all.”).

²⁶⁴ *See id.* at 381-82.

²⁶⁵ Carlson, *supra* note 95, at 1287-89; *see also id.* at 1298 (explaining that when conserving energy requires sustained behavioral change, information about energy use and rebates for energy conservation may improve compliant behavior); Shuman, *supra* note 74, at 158 (discussing the importance of communication about damage awards in tort cases to lessen tortious behavior).

²⁶⁶ Carlson, *supra* note 95, at 1289; *see also id.* at 1245 (arguing that personal contact is important for resolving collective action problems on a sustained basis); *id.* at 1280 (suggesting “anonymity” of large apartment buildings “may decrease any sense of community the neighbors share and may, therefore, lead to a lower commitment to collective action like recycling”); Miller, *supra* note 139, at 906 (emphasizing the importance of repeated personal encounters to deterring inappropriate behavior); Vandenbergh, *supra* note 79, at 75 (“[I]nformation that induces the decision-maker to focus on an internal norm also may lead to actual or perceived increases in external norm enforcement by others.”).

²⁶⁷ *Id.* at 1291.

²⁶⁸ *See* Geisinger, *supra* note 103, at 652; *see also id.* at 614.

²⁶⁹ *See id.* at 638.

mental citizens. First, the abstract environmental protection norm may not be sufficiently robust or widely enough held to overcome all the barriers to responsible environmental behavior noted previously and activate concrete personal norms favoring specific beneficial environmental action.²⁷⁰ “[Norms] ‘come in varying strengths’ with different norms commanding different levels of agreement.”²⁷¹ Therefore, within an individual, there may be conflicting norms competing for control of that individual’s behavior,²⁷² any one of which might command greater community or social approval. These norms may trump the environmental protection norm and cause the individual to behave in an environmentally irresponsible manner.

Thus, if people adhere to what Vandenberg calls the “autonomy norm,”²⁷³ they may be less likely to increase their compliance in response to threatened formal legal sanctions.²⁷⁴ “Instead, when the freedom to conduct an activity is very important, individuals may react to increased threats to restrict that freedom by simply increasing their commitment to the illegal activity.”²⁷⁵ Additionally, if people perceive that they are not being treated fairly, their good behavior is not being rewarded, or the bad behavior of others is not being sanctioned,²⁷⁶ then the impetus to adhere to a norm of good behavior may be lessened.²⁷⁷ Vandenberg calls this the “reciprocity norm,”²⁷⁸ the desire to cooperate if one believes that others are cooperating as well. The reciprocity norm is widespread like the environmental protection norm.²⁷⁹ “‘All reciprocity norms share the common ingredients that individuals tend to react to the positive actions of others with positive responses and to the negative actions of others with negative responses.’”²⁸⁰ However, if the observer does not know the reason for the individual’s compliant or noncompliant behavior, the force of the observation may be lost.²⁸¹

²⁷⁰ Vandenberg, *supra* note 10, at 207.

²⁷¹ See Finnemore & Sikkink, *supra* note 67, at 892.

²⁷² See *id.*, at 897 (“[N]ew norms never enter a normative vacuum but instead emerge in a highly contested normative space where they must compete with other norms and perceptions of interest.”).

²⁷³ Vandenberg, *supra* note 79, at 99 (explaining that the “autonomy norm” is the desire to be left alone).

²⁷⁴ *Id.* at 101.

²⁷⁵ *Id.* at 101; see also *id.* at 102 (discussing how Texas environmental regulators use the autonomy norm to great effect in their “Don’t Mess with Texas” anti-littering program). A description of the Texas program is available at <http://www.dontmesswithtexas.org/home.php>.

²⁷⁶ Vandenberg, *supra* note 79, at 108; see also *id.* at 129 (“Chester Bowles, the Administrator of the Office of Price Administration during the Second World War, asserted that 20% of the regulated community will automatically comply with any regulation just because it is the law, 5% will seek to evade the regulation, and the remaining 75% will comply as long as they believe that the evading five percent will be caught and punished.”).

²⁷⁷ *Id.* at 104.

²⁷⁸ Vandenberg, *supra* note 4, at 1118-19.

²⁷⁹ *Id.* at 1106.

²⁸⁰ *Id.* at 1118 n.75 (quoting Elinor Ostrom, *Toward a Behavioral Theory Linking Trust, Reciprocity, and Reputation*, in *TRUST AND RECIPROCITY: INTERDISCIPLINARY LESSONS FROM EXPERIMENTAL RESEARCH* 19, 46 (Elinor Ostrom & James Walker eds., 2003)).

²⁸¹ Posner, *supra* note 108, at 555.

Second, guilt being the primary “internal enforcement mechanism” inhibiting norm violations²⁸² creates its own problems. For example, the possibility that there may be confusion about precisely what specific positive behavior is required may make the norm ambiguous, which can lessen the guilt an offender might otherwise feel from her deviant behavior.²⁸³ In addition, when there are external constraints on people engaging in the correct behavior, they may resort to “mechanisms that neutralize guilt,” such as “redefining the problem in a way that does not trigger the applicable norm, asserting that others are to blame for the harm, or asserting that no alternatives existed to the course of action taken.”²⁸⁴

Third, a norm of bad environmental behavior may take hold, for example, if people observe other people wasting water or electricity, driving SUVs, or littering. Under such circumstances, there is little incentive for observers to engage in good environmental practices, lest they be thought of as a patsies or “dupe[s].”²⁸⁵ This behavior reflects the “norm of conformity,”²⁸⁶ which arises because “people ‘frequently use the beliefs, attitudes, and actions of others, particularly similar others, as a standard of comparison against which to evaluate the correctness of their own beliefs, attitudes, and actions.’”²⁸⁷ The conformity norm is supported by social learning theory, which teaches “that human behavior can best be explained by an interaction of cognitive, behavioral, and environmental factors. It assumes that people learn behavior by observational learning: ‘[V]irtually all learning phenomena resulting from direct experience occur on a vicarious basis by observing other people’s behavior and its consequences for them.’”²⁸⁸ Social learning theory also teaches “that observing unpunished inappropriate behavior

²⁸² Vandenbergh, *supra* note 79, at 83; *see also* Strahilevitz, *supra* note 2, at 1241 (describing the guilt illegal users of HOV lanes feel because of the strength of the “I’d rather be carpooling” norm and a general uneasiness about breaking the law).

²⁸³ *See* Vandenbergh, *supra* note 79, at 85.

²⁸⁴ *Id.* at 77. Another version of this problem is that the sheer scope and size of environmental problems may overwhelm people and leave them feeling helpless about their ability to redress them. Specter, *supra* note 122, at 53.

²⁸⁵ *See* Vandenbergh, *supra* note 79, at 112 (“[P]erceptions of widespread noncompliance undermine compliance.”); *see also id.* at 114 (“[C]ooperation decreases if compliers see themselves as ‘dupes.’”); Carlson, *supra* note 95, at 1248-49; *id.* at 1289; Yang, *supra* note 99, at 1155 (ascribing the same problem to poor treaty enforcement).

²⁸⁶ Vandenbergh, *supra* note 79, at 112.

²⁸⁷ *Id.* at 114 (quoting Robert B. Cialdini, *Social Motivations to Comply, Norms, Values, and Principles*, in 2 *TAXPAYER COMPLIANCE* 200, 213 (Jeffrey A. Roth & John T. Scholz eds., 1989)); *see also id.* at 112 n.198 (quoting Robert B. Cialdini et al., *A Focus Theory of Normative Conduct: Recycling the Concepts of Norms To Reduce Littering in Public Places*, 58 *J. PERSONALITY & SOC. PSYCHOL.* 1015, 1015 (1990) (suggesting that the conformity norm “provides an efficient ‘decisional shortcut.’”)); Bruce A. Green, *Taking Cues: Inferring Legality from Others’ Conduct*, 75 *FORDHAM L. REV.* 1429, 1431 (2006); *cf.* Vandenbergh, *supra* note 79, at 59-60 (noting that the government’s common practice of “bundling enforcement actions into a widely publicized national initiative” creates a risk that the message being conveyed is one of widespread non-compliance, which could lead to more violations).

²⁸⁸ Shuman, *supra* note 74, at 157 (quoting ALBERT BANDURA, *SOCIAL LEARNING THEORY* 12 (1977)).

reduces the inhibition to engage in that behavior . . . [,] ‘tends to increase prohibited behavior in observers,’”²⁸⁹ and undermines the social consensus behind the rule.²⁹⁰ While one obvious way to increase people’s positive conforming behavior and individual compliance with a norm is positive feedback about how others are performing as well as their own performance,²⁹¹ if those engaging in the correct environmental behavior are seen as odd or just a few committed environmentalists, then they are less likely to change their behavior, unless the behavior pattern is widespread.²⁹²

Fourth, people may not want to change their behavior because they simply do not believe the reason for the behavior change or they question the legitimacy of the norm.²⁹³ Sometimes what looks like a competition between two or more norms over which should control an individual’s behavior may simply be that person’s reluctance to change her behavior. If the norm is not widely enough shared, the esteem of others — the critical element leading to norm internalization and behavior change — will not be there.²⁹⁴ “The evidence suggests that esteem matters; many individuals care what others think of them.”²⁹⁵ If no one sees the environmental norm compliant behavior (e.g., not littering, driving to a hazardous waste disposal site to dispose of toxic household cleansers, driving in the HOV lane or even taking the bus), the positive regard of neighbors and friends is missing.²⁹⁶

Finally, personal self-regard matters. If an individual can feel proud of her good behavior, then she is more likely to engage in good behavior; if her

²⁸⁹ *Id.* at 158-59 (quoting BANDURA, *supra* note 288, at 121).

²⁹⁰ Yang, *supra* note 99, at 1152 (saying treaty noncompliance can undermine the expression of consensus about norms and interests reflected in a treaty by putting forth an “alternative normative universe”).

²⁹¹ See Carlson, *supra* note 95, 1289-90 (saying a norm of cooperation may be triggered when households learn through feedback they are cooperating less than their neighbors; alternatively, they may want to beat or at least equal, their neighbors’ performance).

²⁹² See Vandenberg & Steinemann, *supra* note 9, at 1705.

²⁹³ See Christopher Deabler, *The Normative and Legal Deficiencies of “Public Morality,”* 19 J.L. & POL. 23, 34-35 (2003).

²⁹⁴ See Carlson, *supra* note 95, at 1232; *id.* at 1299 (noting that for high-effort behavior, norm internalization will increase the effort an individual makes to recycle).

²⁹⁵ *Id.* at 1290 (“Cooperative behavior typically increases when opportunities to communicate esteem (or lack of it) increase”); Vandenberg, *supra* note 79, at 93 n.120 (saying “in many settings people desire to put forward their ‘socially responsible self’” to gain esteem (quoting IAN AYRES & JOHN BRAITHWAITE, *RESPONSIVE REGULATION: TRANSCENDING THE DEREGULATION DEBATE* 33 (1992))).

²⁹⁶ Carlson, *supra* note 95, at 1299-1300 (saying face-to-face contact and behavioral feedback increase the opportunities to signal or gain esteem); see also *id.* at 1279 (attributing success of curbside recycling programs in part to their feature of making norm compliant behavior visible to neighbors); Stern, *supra* note 162, at 10,788 (“[N]orm activation can be enhanced in a community context in which face-to-face communication, mutual interdependence, and the possibility for social influence can build interpersonal norms that buttress personal norms.”).

actions do not generate that type of response, then the behavior will be similarly negative.²⁹⁷

While there appears to be a reasonably strong correlation between norms and behavior under the right circumstances, norms are not easy to activate and enforce and even harder to create or change. The government and law can play some role in shaping the social meaning that forms the basis of a norm, but the principle job of norm creation and activation probably belongs to non-government actors; Carlson's block captains; Finnemore and Sikkink's norm leaders; or Sunstein's norm entrepreneurs. However, their job is not an easy one, as norms alone may be weak motivators of personal behavior improvement when barriers to norm change and behavior exist, unless there is strong encouragement for change, such as the additional persuasive tools discussed in the next part of this Article.

VI. ADDITIONAL "PERSUASIVE TOOLS"²⁹⁸ TO INDUCE BEHAVIORAL CHANGE

Assuming that a new norm of environmental responsibility is needed to induce behavioral changes, the prior Sections have demonstrated how challenging it will be to activate and implement such a norm. Therefore, this Section of the Article discusses a variety of supplemental measures to assist in that outcome. The first portion of the Section describes various enforcement approaches to changing norms, such as sanctions for norm deviant behavior and shaming conduct to motivate people to avoid certain behavior. The second portion of the Section investigates non-enforcement approaches to changing norms such as information and public education as well as market based incentives.

No single approach can perform this task.²⁹⁹ Rather, a combination of approaches may be necessary, the precise combination or number of which may vary depending on the targeted behavior.³⁰⁰ The key is to pick approaches that will be "mutually reinforcing"³⁰¹ and do not work at cross-purposes. A critical component of any package of approaches is providing reliable, trustworthy, and timely information about the effects of individual

²⁹⁷ See Carlson, *supra* note 95, at 1283 (citing study that shows a positive "correlation" between the level of recycling intensity and the extent to which an individual feels proud about being environmentally responsible).

²⁹⁸ Finnemore & Sikkink, *supra* note 67, at 898.

²⁹⁹ Monroe, *supra* note 49, at 118; see also *id.* at 120 (listing thirteen initiatives for a successful campaign to establish specific conservation behavior). Stern suggests that there are many factors influencing environmental behavior, that "their effects are to some extent mutually dependent," and that "contextual influences" such as "effective laws and regulations, strong financial incentives or penalties, irresistible technology, [and] powerful social norms . . . can leave little room for personal factors" unless these "contextual influences are weak." Stern, *supra* note 162, at 10,786.

³⁰⁰ Dernbach, *supra* note 20, at 132.

³⁰¹ Dernbach applies this concept to climate change legislation. *Id.*

sources of pollution and behavior that also identifies alternative behavior and presents incentives for improved behavior.³⁰² This is true even though information by itself cannot change behavior or induce the development of a new or modified norm of personal behavior and may even be counter-indicated where a quick change in public behavior is required.³⁰³

A. Enforcement Approaches to Changing Norms

Most scholars agree that some form of sanctions is necessary to punish behavior that deviates from a norm; otherwise, behavior will not change.³⁰⁴ However, not all sanctions are successful. Those that are successful are very carefully designed. One form of sanction, shaming, has received a lot of attention, both positive and negative. This part of the Article discusses both the structure of sanctions in general and the particular use of one sanction: shaming.

1. Sanctions for Norm Deviant Behavior

Sanctions for deviant behavior are necessary to produce norm-compliant behavior.³⁰⁵ An active enforcement program signals that certain social behavior is unacceptable³⁰⁶ and establishes the existence of “a normative

³⁰² *Id.* at 144-51; see also Monroe, *supra* note 49, at 116 (noting the importance of specific information); *id.* at 118 (suggesting inclusion of “information and reminders about the consequences of doing the behavior, the social acceptability of the behavior,” the ease of engaging in it, and the contribution of the behavior to solving the problem).

³⁰³ See Lazarus, *supra* note 22, at 39 (acknowledging importance of public education about climate change, but arguing that public education cannot be the sole means relied on to effect changes of a more pressing nature); see also Monroe, *supra* note 49, at 118.

³⁰⁴ See Posner & Rasmusen, *supra* note 126, at 369 (“The sanctions for the violation of a norm can be categorized as automatic, guilt, shame, informational, bilateral costly, and multi-lateral costly.”). Posner and Rasmusen worry that information sanctions, which are closely aligned to guilt and shame and transmit information about the violator she does not want others to know, may be too draconian because they could lead to “ostracism,” which may go beyond the offense’s “social cost.” *Id.* at 376. *But see id.* at 375 (discussing the efficiency of informational sanctions because they “impose significant costs on the violator” while allowing the enforcer to avoid the negative costs of having to confront the violator).

³⁰⁵ *But see* Cass R. Sunstein, *On the Expressive Function of Law*, 144 U. PA. L. REV. 2021, 2032 (1996) (arguing that laws mandating behavior without a threat of enforcement serve an important expressive function and can “reconstruct norms and the social meaning of action”); Vandenberg, *supra* note 79, at 126 (arguing that formal legal sanctions may lessen environmental noncompliance, but only if moral restraints or internal norms are weak); *id.* at 125-26 (noting that the probability of detection has greater deterrent effect than the severity of the penalty); Massaro, *supra* note 132, at 1896-97 (arguing that because each person experiences fear differently, criminal actions are not motivated by the criminal’s rational balancing of utilities based on fear of some sanction). For a contrasting perspective, see Posner & Rasmusen, *supra* note 126, at 379 (“Heavy sanctions for violating a norm affect both norm change and who becomes a norm innovator.”); Geisinger, *supra* note 103, at 605 (“Norms, or behavioral rules supported by a pattern of informal sanctions, can serve both as a source of law and a tool for effective behavioral change.”).

³⁰⁶ See Vandenberg, *supra* note 79, at 75.

community.”³⁰⁷ “Protecting and preserving normative communities” can lessen the need for public or private norm enforcers and “have long-term transformational benefits.”³⁰⁸

To be successful, the punishment for norm deviation must be proportional, and there must be “alternatives or accommodations” for those whose behavior deviates from the norm.³⁰⁹ Proportionality is consistent with the fairness norm. The availability of alternatives for those who want to deviate from the norm makes it easier for those who already comply with the norm to enforce it. Providing easy alternatives for those inclined to ignore or even breach social norms is another benefit; it increases the social pressure on offenders to comply.³¹⁰ Any sanction that is imposed must also have some educational value.³¹¹ For example, if the reason to decrease solo commuting is to lessen the contribution of cars to climate change, then any sanctions directed at solo commuting, such as tolls, alternative driving days, or increasing the use of HOV lanes, must directly lead to environmental improvement if the sanction is to have any long-term educative effect beyond increasing the short-term pain of solo commuting.

People are more likely to enforce norms and sanction deviant behavior if the personal benefits of doing so exceed costs.³¹² People who enforce widely held norms additionally “create a social benefit that others [and they] enjoy.”³¹³ Norm enforcers can also feel a sense of personal satisfaction from preventing harmful social behavior.³¹⁴ For these individuals, “virtue is its own reward.”³¹⁵ But enforcing norms is difficult and expensive,

³⁰⁷ See Yang, *supra* note 99, at 1152 (“Enforcement actions are necessary to affirm the existence and primacy of a common normative community to which all treaty parties belong, including the violator.”).

³⁰⁸ See *id.* at 1153 (applying same thought to compliance with treaties).

³⁰⁹ Strahilevitz, *supra* note 2, at 1276 (quoting Lessig, *supra* note 222, at 1030-31). Failure to strike the right balance in deterrence can be costly, because failing to deter negative behavior may lead to serious risks, while over-detering may add unnecessary costs or reduce the availability of useful goods or services. Shuman, *supra* note 74, at 167.

³¹⁰ Providing commuters with options that allow them to reach their destination on time without breaking the law makes cheating “a less legitimate form of defiance.” Strahilevitz, *supra* note 2, at 1267.

³¹¹ *Lex talonis* is an enforcement theory requiring the punishment of an individual to “mirror” the harm she inflicted on others and requiring the offender to repair the injury she has caused, thus morally educating the offender about the error of her ways. See Garvey, *supra* note 250, at 739. An example of a *lex talonis* sanction applied to someone who litters would be to require her to pick up litter along the side of the road to repair the harm she caused while at the same time educating her about the consequences of her action.

³¹² Miller, *supra* note 139, at 908.

³¹³ *Id.* at 906.

³¹⁴ *Id.* at 907.

³¹⁵ *Id.*; see also Peter H. Huang & Christopher J. Anderson, *A Psychology of Emotional Legal Decision Making: Revulsion and Saving Face in Legal Theory and Practice*, 90 MINN. L. REV. 1045, 1067 (2006) (reviewing MARTHA C. NUSSBAUM, *HIDING FROM HUMANITY: DISGUST, SHAME, AND THE LAW* (2004)) (touting the role of “positive emotions,” like a sense of internal pride, in improving decision making, especially in situations involving complex decisions). But see Strahilevitz, *supra* note 2, at 1241 n.51 (noting idea of paying whistleblowers a bounty in lieu of relying on feel-good emotions); Yang, *supra* note 99, at 1166 (suggesting ways in which financial incentives may increase enforcement at the international level).

requiring the norm enforcer to determine if “a norm has [actually] been violated, expend the effort to administer a sanction, and bear the possibility of retaliation by the accused.”³¹⁶ According to Miller, the most significant of these costs is the threat of retaliation by a hostile norm violator.³¹⁷ Other costs include the time spent observing and recording violations and monitoring reformed behavior.

There are many excuses potential norm enforcers can and do use to explain why they have elected not to enforce a norm. For example, in addition to the exculpatory norms of noninterference, fairness, and equal treatment, there is a general belief that “rules should be administered reasonably in light of their purpose.”³¹⁸ But there may be different interpretations of what the norm actually means, as well as questions about whether the norm is widely supported and “whether the rule in question is justified by principles to which any right-thinking person would subscribe.”³¹⁹ If the norm’s meaning is uncertain, it may be hard to determine if the actor’s behavior has actually violated the norm³²⁰ and what sanction, if any, should be applied.³²¹ For example, fines as an enforcement tool for norm violations are morally “ambiguous” because they create the impression that “an offender can buy his way out of punishment.”³²² When there are competing norms, as in the case of the solo commuting and carpooling norms, compliance becomes more problematic and enforcement less likely.³²³ Christine Parker also warns that if political support for the enforcer’s “view of the law” is absent,

³¹⁶ Miller, *supra* note 139, at 904; *see also* Vandenberg, *supra* note 79, at 87 n.98 (explaining how problems gathering information on whether a norm has been violated can affect external norm sanctioning). For this reason, it is also important that “application of a sanction not require too much information” in order to be activated. Posner & Rasmusen, *supra* note 126, at 372.

³¹⁷ Miller, *supra* note 139, at 904; *see also* Yang, *supra* note 99, at 1166 (listing the potential for retaliatory action as a cost of treaty enforcement and concluding it is more important than the administrative costs of pursuing an enforcement action).

³¹⁸ Miller, *supra* note 139, at 911-13.

³¹⁹ *Id.* at 899; *see also* Strahilevitz, *supra* note 2, at 1289 (polluters’ violation of a confusing law may be excused or tolerated as opposed to being viewed as socially unacceptable).

³²⁰ Miller, *supra* note 139, at 899.

³²¹ *Id.* at 915.

³²² *See* Garvey, *supra* note 243, at 745 (“[M]ost of us don’t think criminal acts should be subject to market logic.”); *see also* Christine Parker, *The Compliance Trap: The Moral Message in Responsive Regulatory Enforcement*, 40 *LAW & SOC’Y REV.* 591, 592 (2006); Daniel M. Kahan & Eric A. Posner, *Shaming White Collar Criminals: A Proposal for Reform of the Federal Sentencing Guidelines*, 42 *J.L. & ECON.* 365, 380-81 (1999) (“The problem with fines is less the perception that they are ineffective deterrents than the perception that they are ineffective symbols of disapprobation Fines . . . are open to the interpretation that society is attaching a price tag to, rather than prohibiting, the punished behavior: we cannot condemn someone morally for buying what we are willing to sell, even if we are charging a high price for it.”). *But see* Drew Feeley, *Personality, Environment, and the Causes of White-Collar Crime*, 30 *LAW & PSYCHOL. REV.* 201, 210-11 (2006) (praising fines because, by putting the burden solely on the offender, they save government resources and, if large enough, “will offset the value of committing the crime”).

³²³ *See* Strahilevitz, *supra* note 2, at 1242.

and the meaning of compliance is “politically contested,” there is nothing the enforcer can do to improve compliance.³²⁴

If the goal of the enforcement action is to transform a new behavior into a habit, additional steps may be required to make the new habit as “useful or attractive as the old habit.”³²⁵ The violator must also be made aware of her actions through some type of communication by the norm enforcer. However, this communication increases the risk of a distressing confrontation with the offender, often a stranger whose inclination toward violence may be unknown.³²⁶

Regardless of which specific sanction is applied, publication of the norm violation and sanction is critical if more than just the violator’s behavior is going to be changed.³²⁷ But doing this implicates the norm of privacy, which many consider a higher good. The privacy norm can decrease the effectiveness of other norms “by depriving neighbors, acquaintances, gossips, and scandal sheets of the information needed for shame, informational, and multilateral sanctions.”³²⁸

2. *Shaming Conduct That Does Not Align with Norms*

Shame as a specific method of enforcing norms has drawn both favorable and unfavorable comment.³²⁹ Shaming sanctions are generally ap-

³²⁴ Parker, *supra* note 319, at 611.

³²⁵ See Vandenberg, *supra* note 2, at 596.

³²⁶ Miller, *supra* note 139, at 905-06; *see also id.* at 925-29 (describing the different levels of hostility associated with various ways of confronting offenders, from the relatively benign to direct confrontation).

³²⁷ *See id.* at 372 (stating that “[i]f punishment will not be effective unless many people learn about the violation, there may be no punishment at all”); *see also* Vandenberg, *supra* note 82, at 79 (noting that “[a]n enforcement intervention may activate some or all of the norms relevant to environmental compliance, if it provides information about the consequences of a noncompliant act and the individual’s responsibility for or ability to prevent those consequences”); Massaro, *supra* note 132, at 1901-02 (arguing that the efficacy of shame as a sanction requires witnesses who observe or learn of the shameful act and who will then censure it).

³²⁸ Posner & Rasmusen, *supra* note 126, at 381; *see also* Posner, *supra* note 108, at 558 (stating that the legal protection accorded privacy undermines regulation by social norms, which requires that observers be able to detect the violation).

³²⁹ Many scholars have written about the effectiveness of shaming as an enforcement tool. For those simply describing what shaming is, see Joshua Andrix, *Negotiated Shame: An Inquiry into the Efficacy of Settlement in Imposing Publicity Sanctions on Corporations*, Note, 28 CARDOZO L. REV. 1857, 1865-66 (2007) (describing shaming as a process by which people draw attention to bad acts); Garvey, *supra* note 243, at 738 (distinguishing between shaming penalties that rely on public exposure and those that seek to educate); Deni Smith Garcia, *Three Worlds Collide: A Novel Approach to the Law, Literature, and Psychology of Shame*, 6 TEX. WESLEYAN L. REV. 105, 121 (1999) (explaining that the emotional content of shame ranges from embarrassment to mortification); Jayne W. Barnard, *Reintegrative Shaming in Corporate Sentencing*, 72 S. CAL. L. REV. 959, 972-73 (1999) (discussing the connection between shaming and the offender’s morality and the role of “reintegrative” shaming). For those writing in support of shaming, see Kahan & Posner, *supra* note 322, at 383 (saying shaming gratifies public desire to condemn the offender); Karp, *supra* note 91, at 310-11 (saying shaming reinforces the moral order); Huang & Anderson, *supra* note 315, at 1064 (saying shame can have a “constructive role to play in human interactions”). For those oppos-

plied to sexual, moral, and commercial offenses, as well as initial or minor infractions, such as shoplifting or drunk driving.³³⁰ However, there is no immediately apparent reason to think that shame might not work as a deterrent to bad environmental behavior.

After all, there are many positive features of using shame to sanction bad behavior. Shame is one of the principal reasons people obey the law. Shame can encourage children and adults to avoid harmful behaviors and exercise self-control.³³¹ The “expressive function of shaming sanctions” may deter bad behavior by having an educative function that alerts people to bad behavior and simultaneously “instills aversions to such behavior.”³³² For example, “labeling someone a litterer subjects him or her to a stereotypical perception of character that is likely to be much more egregious along relevant dimensions than the person’s acts would suggest.”³³³ Because such labeling treats everyone who litters in the same way “by connecting them to a particular stereotypical vision” of their behavior, the person who considers herself an environmentalist will suffer more because she does not see herself as someone who litters. An environmentalist will also be more sensitive to being perceived by her community as someone who ignores environmental norms like littering or not recycling.³³⁴ On the other hand, people who have not internalized the non-littering social norm will be affected very little by negative labeling.³³⁵

Shaming is also cheaper than imprisonment because the costs of shaming, like gossiping, are borne by the community or, in some cases, by the norm violator, such as requiring an offender to post a sign on her lawn describing her offensive behavior.³³⁶ Shaming can deter bad behavior by curtailing to some limited extent the offender’s freedom to repeat the offense and by creating “an unpleasant emotional experience for the offender, which

ing shaming, see Whitman, *supra* note 233, at 1059 (describing shaming as “lynch justice” and something that “involve[s] an ugly, and politically dangerous, complicity between the state and the crowd”); Miller, *supra* note 139, at 920 (saying shaming is “significantly more adversarial” than giving a norm violator advice or admonishing her norm-deviant behavior).

³³⁰ Whitman, *supra* note 233, at 1064. Even though the offense is criminal in nature, the use of a shaming sanction reflects the fact that the community does not yet think of the offender as part of a criminal class. *Id.* at 1067.

³³¹ Huang & Anderson, *supra* note 315, at 1064.

³³² Andrix, *supra* note 329, at 1866. *But cf.* Kahan & Posner, *supra* note 322, at 379 (likening shaming and the resultant public humiliation of offenders to “real life morality plays in which the public vividly experiences the important emotions — anger, contempt, pity, disgust, and fear — that maintain cooperative relations”).

³³³ Geisinger, *supra* note 103, at 649; *see also* Garvey, *supra* note 243, at 743 (listing examples of ways to publicize an offender’s actions: requiring her to place a sign on her lawn describing the offense or wear a sign in public, placing an ad in a local newsletter or posting a message describing the offending action on the internet).

³³⁴ Miller, *supra* note 139, at 924 (“[T]he efficacy of shame depends on the vulnerability of the violator to being judged as inadequate by the community.”).

³³⁵ Geisinger, *supra* note 103, at 649. *But see* Garvey, *supra* note 243, at 784 (“[Visual stigmas] may successfully condemn and shame. They may even be effective deterrents, but they do little to educate.”).

³³⁶ *Cf.* Feeley, *supra* note 322, at 212 (noting also that the “stigma” of shame imposed on the offender lasts longer than “the burden of paying a fine”).

potential offenders will want to avoid and actual offenders will want to avoid repeating,” especially if the community gossips about or shuns her.³³⁷ As shaming penalties are based in large part on a moral consensus in the community that the individual’s behavior is wrong, they are a very visible way of expressing that consensus.³³⁸ When the deterrent value of shaming is added to “the moralizing effects of widespread publicity of offenders’ wrongdoing,” shaming performs an educative function for the community and thus may contribute to maintaining social order.³³⁹

On the other hand, shaming displays significant hostility toward norm violators and is much more hostile than other types of sanctions.³⁴⁰ Conveying the observers’ “moral revulsion” about the person’s behavior is essential if shaming is to have any effect, which is why merely gossiping about the person’s behavior may not be sufficient.³⁴¹ When people feel shame, it is because they have “lowered” themselves in their “own eyes or in the eyes of other people.”³⁴² Since the quintessence of a shaming penalty is to diminish the individual’s status by embarrassing and humiliating her,³⁴³ the consequences of shaming are extremely unpleasant for those who care about the respect of their peers or community. Shame can not only cause a “crippling diminishment of self-esteem” for anyone subjected to shaming, but also bring about financial hardship in any job that is dependent on a good reputation.³⁴⁴

Shaming signals that a norm violator is not considered a worthwhile member of a community by excluding her from that community.³⁴⁵ Since the effectiveness of shaming sanctions depends upon the target losing status

³³⁷ Garvey, *supra* note 243, at 751-52.

³³⁸ See Andrix, *supra* note 329, at 1866 (“[S]haming punishments serve to expressly communicate the message that society morally condemns an offender’s assessment of the balance of values.”); *id.* at 1865-66; see also Massaro, *supra* note 132, at 1898 n.87 (arguing that success of crime prevention depends on a widely accepted legal system embodying a consensus of values and procedures that guarantees equal and fair enforcement). But see *id.* at 1884 (“Public shaming [is] a retributive spectacle that is devoid of other positive community-expressive or community-reinforcing content.”); Jeffrey Abramson, *Response to Professor Kahan*, 12 FED. SENT’G REP. 56, 58 (1999) (noting that “shame may accomplish a morally destructive task but it is not clear how it accomplishes a morally reconstructive task”).

³³⁹ Garvey, *supra* note 243, at 752. But see Kahan & Posner, *supra* note 322, at 373 (“[S]haming produces highly imperfect deterrence.”); Barnard, *supra* note 329, at 973 (“Shaming is more pregnant with symbolic content than punishment.” (quoting John Braithwaite, *Shame and Modernity*, 33 BRIT. J. CRIMINOLOGY 1, 72-73 (1993))).

³⁴⁰ Miller, *supra* note 139, at 920; see also Kahan & Posner, *supra* note 322, at 383 n.49 (arguing that people like shaming penalties in part because they allow them to express outrage.).

³⁴¹ Kahan & Posner, *supra* note 322, at 368-69; see also Andrix, *supra* note 329, at 1866.

³⁴² Posner & Rasmusen, *supra* note 126, at 371.

³⁴³ Karp, *supra* note 91, at 304; Kahan & Posner, *supra* note 322, at 383; see also Geisinger, *supra* note 103, at 611. But cf. Karp, *supra* note 91, at 304 (“[Shaming] captures the practical function of retribution by disallowing the offender the opportunity to profit from the offending act.”).

³⁴⁴ Dan M. Kahan, *Shaming White Collar Offenders*, 12 FED. SENT’G REP. 51, 52 (1999); see also Kahan & Posner, *supra* note 322, at 370 (“[W]hile gossip and innuendo may damage a person’s reputation, shaming typically destroys it.”); Feeley, *supra* note 322, at 212.

³⁴⁵ Karp, *supra* note 91, at 302.

in her community,³⁴⁶ a sense of belonging to a community is critical, whether the community is her family, workplace, neighborhood, or identified group, like environmentalists. Therefore, for shaming to work, people must internalize community norms and hold the respect of their peers, family, and community in high esteem.³⁴⁷ This, however, may not always be true.

Shaming involves a “dangerous willingness, on the part of the government, to delegate part of its enforcement power to a fickle and uncontrolled general populace, . . . a form of ‘lynch justice.’”³⁴⁸ To some scholars, shaming inspires an “atavistic reaction” in those who observe the shaming and “appeals to the public’s lowest moral sensibilities, inviting ridicule and epithets, stigma and outcasting.”³⁴⁹ James Whitman worries that shame can stir up political “demons” and “carry all the dangers of a demagogic democratic politics.”³⁵⁰ He writes about the offender’s loss of “transactional dignity,” and the loss of the ability to deal with predictable “partners.”³⁵¹ By characterizing the offender instead of the offense, shame sanctions demote her to a lower social status.³⁵² In the shaming context, the public is free to use the information about an offense any way it wishes, which can lead to shunning in the workplace and the offender’s neighborhood.³⁵³ Shaming is a “direct assault”³⁵⁴ on the offender’s dignity and the esteem of one’s peers, loss of which may be irreversible and could extend to her family and friends.³⁵⁵

Problems can also arise with the effectiveness of shaming if the public identifies with the offender.³⁵⁶ People observing the shaming must agree that the person and the activity she engaged in are bad. Otherwise they will not

³⁴⁶ *Id.* at 316.

³⁴⁷ *See id.* at 313-16 (discussing the relationship between social identity and shame).

³⁴⁸ Andrix, *supra* note 329, at 1869; *see also* David A. Skeel, Jr., *Corporate Shaming Revisited: An Essay for Bill Klein*, 2 BERKELEY BUS. L.J. 105, 109 (2005); Whitman, *supra* note 233, at 1059; Massaro, *supra* note 132, at 1920 (finding it “worrisome” to allow the government to search for and manipulate an “offender’s psychological core.”).

³⁴⁹ Karp, *supra* note 91, at 313.

³⁵⁰ Whitman, *supra* note 233, at 1091; *see also id.* (“[W]e have far too little control over the tendency of the public to become either a mob or a collection of petty prison guards.”).

³⁵¹ *Id.* at 1090.

³⁵² *Id.* at 1090 n.155. *But see* Skeel, *supra* note 348, at 115 (arguing that even though shaming raises “dignity concerns,” it is appropriate if the conduct is “genuinely blameworthy” and involves regulatory offenses like pollution, which are not as highly charged as race discrimination); Garvey, *supra* note 243, at 758 (saying shaming penalties are no more degrading than other forms of punishment).

³⁵³ Massaro, *supra* note 132, at 1937-38.

³⁵⁴ *Id.* at 1942; *see also id.* at 1920 (“[shaming] redefines a person in a negative, often irreversible, way.”).

³⁵⁵ Andrix, *supra* note 329, at 1870; *see also* Kahan & Posner, *supra* note 322, at 384 (arguing that the severity of shaming’s impacts could undermine the goal of making the penalty proportionate to the offense.); Skeel, *supra* note 348, at 109 (stating that shaming seriously punishes some offenders and merely “glances off of those who are more immune to discipline”); Garcia, *supra* note 329, at 117-18 (“[S]haming is particularly stigmatic to innocent third-party relations given the public nature of shaming.”); Massaro, *supra* note 132, at 1938, 1932 n.250 (noting “the potential unfairness of stigma spillover . . . to . . . family or other associates” and onto “innocent neighbors” from home-centered shaming sanctions, like lawn signs).

³⁵⁶ Massaro, *supra* note 132, at 1933.

“ostracize” that person — in fact, they might applaud her and her individualistic behavior, as in the case of the solo commuter, enhancing her reputation as a norm violator.³⁵⁷ Additionally, if the broader community does not share the “same moral passions” as the shamer, then shaming will not reinforce any broader moral order.³⁵⁸ So, if her neighbors believe it is all right to dispose of waste oil down a storm drain, then putting a lawn sign on the disposer’s property criticizing her for her action will have no effect and could even provoke others to engage in the same behavior as a sign of solidarity.³⁵⁹ Shaming can backfire as the reduced status and public humiliation may actually decrease the incentive to stop the behavior on the theory that there is nothing else to lose.³⁶⁰ Shaming can create opportunity costs for the person who is doing the shaming and monitoring costs to be sure the person is carrying out her punishment (e.g., putting a lawn sign up describing her bad behavior).³⁶¹ Shaming is also “an inherently short-fused sanction”; there is a risk that if shaming sanctions become too common, the public interest in them will drop and with it their deterrent effect.³⁶²

Shaming without an audience is meaningless;³⁶³ moreover, the audience must be composed of people who are important to the offender so that their disapproval puts at risk an important relationship to her.³⁶⁴ Therefore, shaming works best in “relatively bounded, close-knit communities, whose members ‘don’t mind their own business’ and who rely on each other” because these communities generally have the same well-known “moral or behavior expectations” which bind their members together, including the offender.³⁶⁵ The community’s capacity to reinforce “socially correct behavior” is additionally important for shaming to work.³⁶⁶ However, conditions that are con-

³⁵⁷ Kahan & Posner, *supra* note 322, at 375; *see also* Garcia, *supra* note 329, at 118-19.

³⁵⁸ Karp, *supra* note 91, at 310-11 (“[S]ocial sanctioning reinforces the moral order [by offering an opportunity] for the collective expression of shared moral passions, [strengthening them] through mutual reinforcement and reassurance.”); *see also* Massaro, *supra* note 132, at 1883 (identifying five conditions that must be satisfied for shaming to be “effective and meaningful”). *But see* Abramson, *supra* note 338, at 58 (calling shaming penalties “Scarlet A” punishments that seek to change community norms in radical and controversial ways, not to express them).

³⁵⁹ *See* Massaro, *supra* note 132, at 1933 (shaming can actually result in an increase in violations).

³⁶⁰ *Id.* at 1919.

³⁶¹ Kahan & Posner, *supra* note 322, at 372 (discussing shaming’s “hidden costs”); *see also id.* at 369 (discussing other risks of shaming, such as retaliation by the target and loss of personal reputation if people do not believe source of the shame, even though “it has a higher return if successful”); Feeley, *supra* note 322, at 212 (discussing shaming’s monitoring costs).

³⁶² Massaro, *supra* note 132, at 1930-31

³⁶³ *Id.* at 1901.

³⁶⁴ *Id.* at 1902.

³⁶⁵ *Id.* at 1916 (quoting JOHN BRAITHWAITE, *CRIME, SHAME AND REINTEGRATION* 57 (1989)); *see also* Barnard, *supra* note 329, at 972; Whitman, *supra* note 233, at 1063 (stating that anonymity is especially true in cities from where “one can always escape”).

³⁶⁶ Massaro, *supra* note 132, at 1917; *see also* Andrix, *supra* note 329, at 1868 (stating that the lack of cohesiveness of modern American communities makes it difficult for these communities to reinforce socially preferred behavior, making it unlikely that shaming sanctions will work).

ductive to shaming, like a strong feeling of social and communal responsibility, together with close social connections and strong family ties, do not describe the typical American community or even, perhaps, the typical American family.³⁶⁷ Classical liberal values, such as “individuality, independence, and autonomy,” (i.e., the solo commuter), rather than “interdependence, community, or shared values,” create significant barriers to shaming’s effectiveness.³⁶⁸

Shaming is an extremely powerful sanction. However, it has anarchical aspects and, depending on the individual’s sensitivity to, and need for, the approval of her community, might have no effect at all, or be too extreme a response to an act of environmental bad behavior, especially if there is no guiding concrete norm telling her that her behavior is bad. Therefore, the effectiveness of shaming as a sanction for irresponsible environmental behavior seems problematic at best.

There are other reasons why shaming alone may be ineffective in the case of environmentally deviant behavior. First, since there is no common understanding that an offender’s irresponsible environmental behavior is bad, it stands to reason that shame will not work until such an understanding emerges. Second, it is highly unlikely that individuals will take onto themselves the tasks of shaming a friend, neighbor, or family member and following up with the offender to make sure that bad habits have not returned. Third, any outside source of shaming, be it the government or some private norm enforcer, will be resisted as unwarranted interference with private activities, or worse yet, might provoke a hostile response.³⁶⁹ Fourth, even if the offender is part of a community about which she cares a great deal, her capacity to explain away her behavior to herself and blame others who are commonly seen as the source of environmental problems, or to excuse her behavior as being a minor part of a much larger problem, probably means that she can blunt the effect of any shaming penalties.³⁷⁰ Fifth, there is a risk

³⁶⁷ Massaro, *supra* note 132, at 1916; *see id.* at 1922 (“[T]he social unit that is mainly responsible for inculcating cultural shame values, the family, is often missing, culturally isolated, or dysfunctional.”); Skeel, *supra* note 348, at 108-09 (noting that both population diversity and political polarization in the United States pose challenges to the effectiveness of shaming, while acknowledging that shaming may be effective in family or professional settings where relationships are “intertwined” and personal reputations are very important).

³⁶⁸ Massaro, *supra* note 132, at 1924; *see also id.* at 1922-24 (listing other reasons shaming may not work well in the United States); *id.* at 1916-17 (saying that since shaming’s effectiveness relies on whether the offender depends on her community for “social, economic, or political support, or cannot leave the group easily,” it means the very rich, who are “insulated by their wealth,” and the very poor, who “cannot afford to conform [or] have less ‘social standing’ to lose,” are the most likely to “defy social norms and risk shaming sanctions”).

³⁶⁹ Kahan & Posner, *supra* note 322, at 375; *see also id.* at 375 (stating that shaming depends on “the cooperation of citizens for it to have any effect” and will not work if there are “widespread doubts about the motives of government actors”). This may explain why the government is not an effective source of shame.

³⁷⁰ For example, while I might feel briefly embarrassed if my environmental law students lined up at the entrance to the school’s garage complaining about my solo commuting to school, I would not expect them to keep this up, and all of the devices I employ to shield my behavior from internal criticism would more than likely keep me driving to work.

that if shaming were to work, it could have a devastating effect on the individual, losing any educative function of the penalty through either hostility toward the source of the shame or withdrawal from the community.

Sanctioning norm violations is an important part of inducing people to internalize norms and change their behavior. However, to be effective, sanctions should be proportionate to the deviant behavior, be accompanied by information about how to engage in more appropriate behavior, perform an educative function, and, if levied by individuals, provide sufficient personal benefit for the norm enforcer to overcome the costs of enforcement. Using shame to sanction bad behavior can be problematic because of shaming's spillover effects, its potential to over-punish, and its reliance on the norm violator having strong community ties. Yet shame can also have positive educative attributes and be very effective in some circumstances. While abstract and concrete environmental norms may themselves be clear, the required behavior to implement them may be less clear, lessening the likelihood that any one individual will sanction another's bad environmental behavior. Further, the existence of competing norms, such as the privacy norm, the autonomy norm, and the reciprocity norm, may dissuade the enforcer from acting, as may the threat of a hostile reaction by the norm violator. Nonetheless, sanctions remain a useful supplemental tool in any effort to encourage norm and behavioral change.

B. Non-Enforcement Approaches to Changing Norms and Behavior

Rewarding people for positive behavior may secure norm or behavioral changes better than negative sanctions for bad behavior. Aggressive enforcement can backfire and undermine social norms.³⁷¹ A benefit of a more cooperative, less aggressive response to norm breaches is that they offer "*ex ante* approaches that seek to prevent noncompliance from occurring in the first place."³⁷² Set forth below are two such approaches: (1) information and public education; and (2) market-based incentives.³⁷³

1. Information and Public Education

Scholars are divided on education's potential to change individual behavior. Some believe that with the right amount of public education, behavior will change partly because they consider other ways of inducing people

³⁷¹ Vandenbergh, *supra* note 79, at 84-85 (stating that aggressive enforcement against "well-intentioned business managers" can contribute "to a perception of regulatory unreasonableness," lessening the managers' desire to be law-abiding and undermining abstract norms of social responsibility).

³⁷² Yang, *supra* note 99, at 1158.

³⁷³ Two other approaches to changing norms and behavior not discussed in the text are tort liability and commodification. For a critical view of using liability to improve individual environmental behavior, see Stewart, *supra* note 42, at 97; Vandenbergh, *supra* note 2, at 603-04; Shuman, *supra* note 74, at 126-27. On commodification, see Strahilevitz, *supra* note 2, at 1292 (applauding San Diego's FasTrak system).

to change their behavior less “palatable.”³⁷⁴ Others find little empirical support for these claims.³⁷⁵ Relying on information to educate the public is challenging given the difficulties people have in accurately processing the information they receive and then acting in conformance with that new information.³⁷⁶ As shown in Section III of this Article, people use a variety of heuristics to process and internalize information, especially information about risk, which may distort the information’s accuracy. Additionally, the effectiveness of information strategies for changing behavior depends in part on the degree to which the target audience has been environmentally “socialized.”³⁷⁷

Despite these challenges, information can play a pivotal role in changing negative actions into those that are more positive.³⁷⁸ Cultivating environmental literacy, the “knowledge, attitudes, skill, and behaviors to be competent and responsible,”³⁷⁹ is more effective over time than campaigns to change specific behavior, according to Monroe.³⁸⁰ She suggests that a new norm may arise if information is presented about the benefits other people have realized as a result of implementing the new behavior.³⁸¹ Monroe recommends two strategies for improving the effectiveness of information: social marketing tools applied to change a specific behavior “in a carefully targeted audience;” and the cultivation of environmental literacy “through selected educational programs that lead to knowledge, attitudes, skills, and ultimately but not immediately, environmental behaviors.”³⁸² Vandenberg says that norms will be activated and behavior changed when an individual

³⁷⁴ See Vandenberg, *supra* note 10, at 216 n.123.

³⁷⁵ See, e.g., Shuman, *supra* note 74, at 163 (stating that the task of educating members of the public to accurately calculate the risks of their behavior seems “insurmountable”); Vandenberg, *supra* note 4, at 1116 n.68 (stating that while attempts to create or shift abstract norms through school curricula are important, studies show that the critical abstract norms that are important for changing environmental behavior in negative-payoff, loose-knit groups already exist).

³⁷⁶ Stewart, *supra* note 42, at 141 (arguing that people do not have the time, energy, or attention to pay to information collected by regulatory authorities); see also Takács-Sánta, *supra* note 4, at 30 (listing among barriers to obtaining information about environmental harms lack of direct interaction with the environment, imperceptible nature of environmental impacts, “habituation” to a degraded environment, slow pace of negative environmental changes, physical distance between the environmental problem and where people live or work, and “the distancing effect of technologies,” which prevent people from directly experiencing their own environment); Henry, *supra* note 73, at 29 (noting the challenge of making environmental information “salient to the public, a public with knowledge that is roughly right but can easily be confused and misdirected about detail”).

³⁷⁷ See Stewart, *supra* note 42, at 135; Monroe, *supra* note 49, at 115 (defining “environmental literacy,” as possessing “knowledge, attitudes, skill, and behaviors” to make the correct environment choices).

³⁷⁸ Vandenberg, *supra* note 4, at 1127 (stating that studies show that information about the aggregate effects of individual behavior can activate norms and change behavior).

³⁷⁹ Monroe, *supra* note 49, at 115 (citing J.F. Disinger & C.E. Roth, *Environmental Literacy*, ERIC/CSMEE DIGEST, Educational Resources Information Center Clearinghouse for Science, Mathematics, and Environmental Education (1992)).

³⁸⁰ Monroe, *supra* note 49, at 117.

³⁸¹ *Id.* at 119.

³⁸² *Id.* at 123.

believes that her behavior is the cause of an environmental problem and that a change in that behavior will lessen the problem.³⁸³ He cites empirical studies suggesting that adroitly presented information, by itself or together with other regulatory instruments, may affect individual behavior.³⁸⁴ Vandenberg's belief in the ability of information to work as a motivational force is premised on the information connecting the individual's behavior to the environmental problem.³⁸⁵

However, people may not change their behavior unless they believe others are "doing their fair share."³⁸⁶ Information must also show that "others have reciprocated or will reciprocate" and, therefore, that "the individual is not a sucker" if she behaves responsibly.³⁸⁷ In other words, information will have a higher likelihood of inducing responsible environmental behavior when a person recognizes that she has contributed to an environmental problem and knows that other sources of the problem have changed or committed to changing their behavior out of a sense of doing their "fair share" to lessen the problem.³⁸⁸ Collecting information about what other people are doing can be costly and intrusive.³⁸⁹

Schultz and Zelezny suggest that environmental information must "resonat[e] with the values of the recipient," especially with people who have self-enhancing values, such as material and personal success and independence.³⁹⁰ Stern adds that information is most effective "when it arrives at the time and place of decision, is linked to the available choices, is delivered from trusted sources, and is delivered personally."³⁹¹ Carlson believes that government-directed "[i]nformation campaigns may increase knowledge and signal the importance of desired behavior,"³⁹² but to be effective,

³⁸³ Vandenberg, *supra* note 4, at 1123-24.

³⁸⁴ Vandenberg, *supra* note 2, at 521.

³⁸⁵ See Vandenberg, *supra* note 4, at 1129 ("[I]f individuals believe that the mean, aggregate and relative effects of their behavior are not substantial, concrete norms linked to the environment protection and reciprocity norms will not be activated and little pro-environmental behavior will occur."); see also Schultz & Zelezny, *supra* note 54, at 131 ("The environmental problems that attract the most interest and concern are those that can directly affect the individual or people to whom the individual has a direct connection.").

³⁸⁶ Vandenberg, *supra* note 4, at 1124.

³⁸⁷ *Id.*

³⁸⁸ *Id.*; see also *id.* at 1123 ("[D]isclosure of information that is targeted at the types of beliefs that activate norms . . . when applied to environmental behavior [can have a more direct effect on belief change].").

³⁸⁹ *Id.* at 1123 ("[G]athering information on the contribution of any one individual often is prohibitively expensive and intrusive."); see also Roy, *supra* note 12, at 198 ("[T]he cost of good information in this [pollutant disposal] market puts good information beyond the reach of many firms."). But see Vandenberg, *supra* note 2, at 530 ("[I]nformation disclosure may be less expensive for regulators and regulated entities than command and control requirements, may be more flexible and efficient than command and control or market mechanisms, and may enhance deliberative democracy.").

³⁹⁰ Schultz & Zelezny, *supra* note 54, at 134; see also *id.* at 131 (criticizing environmental messages for stressing altruism because they ask people to "give up personal convenience or comfort in order to address the problem").

³⁹¹ Stern, *supra* note 162, at 10,789.

³⁹² Carlson, *supra* note 95, at 1285; see also Vandenberg, *supra* note 4, at 1106.

the information must inform the person what the correct behavior is.³⁹³ Stewart talks about the use of “eco-labels” as a source of information for consumers, but acknowledges the lack of consumer interest in them.³⁹⁴ Vandenberg echoes that thought and says that neither environmental norm campaigns nor product labels have an effect on personal behavior “in negative-payoff, loose-knit group situations” where changing behavior calls for long-term or significant effort.³⁹⁵ Moreover, the effectiveness of labels is limited to situations involving product choices, such as deciding whether to buy an SUV or a hybrid car as opposed to driving or taking public transportation.³⁹⁶

How information is presented has a direct effect on how people react to it.³⁹⁷ “Durable behavior, which is the result of effortful information processing (i.e. elaboration), is more achievable when cognitive involvement is high, arguments are strong, sources are credible, topics are relevant, message is clear, distractions are few, and comparisons are favorable.”³⁹⁸ The problem with trying to educate people about environmental risks is that the underlying information rarely meets those criteria. It is contentious, complex, contestable, and frequently from non-credible sources. The sheer complexity and volume of often conflicting information about environmental harms makes it extremely difficult to convey the magnitude of a particular environmental risk.³⁹⁹ Information overload, which is common in the environmental area, can overwhelm people or cause them to tune out.⁴⁰⁰

³⁹³ Carlson, *supra* note 95, at 1296-97 (explaining that face-to-face communication and feedback mechanisms result in greater norm compliance than the provision of information).

³⁹⁴ Stewart, *supra* note 42, at 139; *see also id.* at 137 (“Eco-labels need to be recognizable and believable. Consumers must know what the label means and trust it.”); *id.* at 97 (noting the problems associated with providing accurate and concise information on environmental performance to consumers and the fact that no one knows yet about the willingness of consumers to pay more for green products and services); Eric Pfanner, *Cooling Off on Dubious Eco-Friendly Claims*, N.Y. TIMES, July 18, 2008, at C3 (noting that within a year green marketing “while booming, has lost some of its cachet” due to “the public’s growing skepticism over ads with environmental messages”).

³⁹⁵ Vandenberg, *supra* note 4, at 1132 (stating that the failure to convey information that will activate the environmental and responsibility norms may be responsible for the limited effect of norm campaigns and product labels and not reflect any inherent weakness in the ability of norms to influence behavior); *see also id.* at 1134-35 (noting that eco-labels have minimal impact on consumers unless all other factors, such as the product’s price and quality, are the same).

³⁹⁶ *Id.* at 1138 n.158 (“[T]he focus of eco-labeling on the consumer’s point of purchase for a vehicle will miss the effects that arise from driving style, such as driving speed and idling.”). For example, product information accompanying hybrid cars does not inform a prospective purchaser that driving less will save as much fuel.

³⁹⁷ Shuman, *supra* note 74, at 162.

³⁹⁸ Monroe, *supra* note 49, at 119.

³⁹⁹ Stewart, *supra* note 42, at 141.

⁴⁰⁰ *Id.* at 140; *see also* Vandenberg, *supra* note 2, at 592 n.287 (“With respect to information, less may be more. If information is not provided in a clear and usable form, it may actually make people less knowledgeable than they were before, producing overreactions, or underreactions, based on an ability to understand what the information actually means.” (quoting Cass R. Sunstein, *Information Regulations and Informational Standing: Adkins and Beyond*, 147 U. PA. L. REV. 613, 627 (1999))).

The result can be “green-fatigue”⁴⁰¹ and the marginalization of information about environmental harm.⁴⁰² The fear of this marginalization leads to a tendency to simplify the environmental message and use alarmist language to catch the public’s attention.⁴⁰³ For example, in the case of global climate change, the complexities surrounding the issue led scientists and technical experts to dominate the debate,⁴⁰⁴ effectively keeping the public at bay. Not until there were pictures of receding glaciers and swimming polar bears did the public perception of the seriousness of the problem begin to develop. Yet

[s]tudies indicate that . . . hortatory information that highlights the individual’s personal obligation to act . . . can have a “boomerang effect.” Instead of changing behavior, the information may induce the individual to believe that she will feel less satisfaction if she alters her behavior or to believe that her personal freedom is being restricted.⁴⁰⁵

But purely “descriptive information” has little chance for success unless the behavior the individual is engaging in is not in her interests and is not driven by “ingrained habits.”⁴⁰⁶ The converse is true when the change in behavior will have a direct beneficial impact on the individual, such as using a seat belt.⁴⁰⁷

How activities are depicted may also affect individual behavior. For example, Strahilevitz suggests that to strengthen carpooling norms, it may make more sense in the short term “to label solo driving a financially wasteful activity, rather than an environmentally insensitive activity.”⁴⁰⁸ Lessig suggests that “the social meaning of an action can be changed by tying desired new concepts or actions to concepts that are already popular,” using as an example the “Chesapeake Bay Watershed — Don’t Dump” stencils on

⁴⁰¹ Williams, *supra* note 123, at 8 (quoting Jen Boulder).

⁴⁰² Carl Pope, Executive Director of the Sierra Club, acknowledges that “today’s media environment is an extremely crowded one, and message overload is the order of the day.” *Id.* (quoting Carl Pope).

⁴⁰³ For further discussion of the effects of using alarmist language, see Stern, *supra* note 162, at 10,789.

⁴⁰⁴ Yang, *supra* note 99, at 1147.

⁴⁰⁵ Vandenbergh, *supra* note 4, at 1138; *see also id.* at 1136 (noting that environmental campaigns mostly use hortatory language telling people that they must act, instead of providing information about their role in the problem as compared to other sources).

⁴⁰⁶ Vandenbergh, *supra* note 2, at 610; *see also id.* at 608 (explaining that straightforward, unembellished disclosure of data may cause an individual to change her behavior by influencing her understanding of the costs and benefits of particular actions, or by influencing personal and social norms); Takács-Sánta, *supra* note 4, at 31-32 (criticizing the media for presenting environmental information in a way that defends the status quo, fails to inform the public about problems or risks, or overwhelms the public with information).

⁴⁰⁷ *See* Vandenbergh, *supra* note 2, at 521 n.13.

⁴⁰⁸ Strahilevitz, *supra* note 2, at 1277.

storm drains.⁴⁰⁹ Alternatively, “undesired concepts or actions can be tied to unpopular concepts.”⁴¹⁰ Vandenbergh suggests that compliance with environmental laws might improve if the government described the harms to human health and the environment that would be avoided as a result of a particular enforcement initiative, instead of boasting about the size of the fine or how much pollution was prevented.⁴¹¹ A less direct approach to improve environmental behavior is for the government to create the circumstances in which the meaning of an individual’s action becomes “ambiguous.”⁴¹² “This ambiguation [*sic*] of social meaning then may undercut the [positive nature of the] act [It may also] blunt the social meaning of individual actions that currently convey positive social meaning but harm the environment.”⁴¹³

Therefore, while there are clear challenges in trying to educate the public about its role in harming the environment, these challenges appear to be surmountable by carefully crafting the message. The message must come from a trusted and knowledgeable source and link individual action with environmental harm in a believable way that resonates with the values and other acknowledged concerns of the target audience. Even those who are critical of information as a means of creating new norms or changing individual behavior recognize that public education has some role to play, just that it should not be the only player.

2. *Market-Based Incentives*

There are many who support the idea of using market-based incentives to change behavior.⁴¹⁴ Many support using tax breaks, subsidies,⁴¹⁵ trading programs or credit systems, and disincentives, like pollution fees or taxes, for this purpose, especially as an alternative to command and control approaches.⁴¹⁶ Dernbach recommends the use of tax credits as well as various

⁴⁰⁹ Lessig, *supra* note 222, at 1009; *see also* Strahilevitz, *supra* note 2, at 1292 (complimenting San Diego’s FasTrak system for successfully tying programmatic norms to strong existing norms).

⁴¹⁰ Vandenbergh, *supra* note 10, at 217.

⁴¹¹ Vandenbergh, *supra* note 79, at 59; *see also* Parker, *supra* note 319, at 610-11 (suggesting that confronting businesses with the disjuncture between their behavior and their ideological support for complying with the law is more effective than economic penalties because the latter can be easily harmonized with commercial reality).

⁴¹² Vandenbergh, *supra* note 10, at 218 n.130.

⁴¹³ *Id.*

⁴¹⁴ Kysar calls these approaches “ecological economics.” Kysar, *supra* note 32, at 677.

⁴¹⁵ *See, e.g.*, Vandenbergh, *supra* note 2, at 606-07 (suggesting that government subsidies of “desired changes” in individual behavior may reduce pollution more than alternative strategies). *But see* Kysar, *supra* note 32, at 705-08 (criticizing economic subsidies because they encourage unsustainable production and consumption by encouraging otherwise uneconomic resource exploitation, and hide the true cost of resource intensive products within the general tax burden).

⁴¹⁶ *See* Stewart, *supra* note 42, at 150 (stating that economic incentive systems are more effective normative “signaling mechanisms” than regulatory programs); *see also* Kysar, *supra* note 32, at 675-76 (stating that tradable permits, remedial taxes, information disclosure initiatives, and other market-based tools represent the future of environmental regulation).

incentives, especially when the behavior has considerable associated expenditures, and even suggests lower taxes for people who can show that their prior year's activities were carbon neutral.⁴¹⁷ However, Stern sounds a warning note that while financial incentives can be effective, this effectiveness relies upon how the financial incentives are put into practice.⁴¹⁸ He cautions that getting people to change their behavior is more complex than any single factor, especially if one is trying to influence a substantial portion of the population.⁴¹⁹

Influencing the price of a product or activity, as illustrated by the recent change in driving habits and sales of SUVs and trucks with poor gas mileage brought on by the spike in gas prices, can have a meaningful direct impact on personal behavior.⁴²⁰ The recent spike in gas prices has resulted in a 4% decline in driving, a "50-year high" in mass transit ridership, and has put sales of SUVs "in free fall," illustrating that "[e]verything has a price point."⁴²¹ However, unless these changes are made permanent through the internalization of a norm of responsible environmental behavior, and the new behavior has become a habit, the bad behavior will return the moment the price sinks back to a more affordable level.⁴²² Furthermore, increasing the cost of a product or consumer behavior will only affect the price-sensitive segment of the population. The wealthy will continue to over-consume, so there will continue to be a market for products that are environmentally destructive. These products will continue to be a source of aspiration for those who hope to afford them someday.

A problem with using trading or taxes for individual sources of pollution is that the sources are small and diffuse, can cause chronic harms, and are spread out among victims, including nonhuman ones.⁴²³ Further, the task of "[i]dentifying, distributing, and enforcing rights" to goods created under trading or credit schemes would be massive and costly because of the number of people involved as well as the lack of a baseline for determination of the initial allocation of credits.⁴²⁴ The number and characteristics of the peo-

⁴¹⁷ Dernbach, *supra* note 20, at 152-53.

⁴¹⁸ Stern, *supra* note 162, at 10,789.

⁴¹⁹ *Id.*

⁴²⁰ See Charles Krauthammer, *At \$4, Everybody Gets Rational*, WASH. POST, June 6, 2008, at A19; see also Clifford Krauss, *Driving Less, Americans Finally React to Sting of Gas Prices, a Study Says*, N.Y. TIMES, June 19, 2008, at C3 (suggesting that recent changes in gas consumption, total vehicle miles traveled, light truck and hybrid car sales, and public transportation ridership may be the start of "an enduring trend").

⁴²¹ Krauthammer, *supra* note 420, at A19; see also *id.* (promoting the use of a gas tax to keep gas prices high and suppress demand); Vedantam, *supra* note 36, at A4 (stating that people are more sensitive to prices than they are to ethical and environmental concerns, and observing that interest in hybrid cars surged when gas reached \$4 a gallon). *But see* Carlson, *supra* note 95, at 1293 (stating that reducing recycling barriers is "more effective than increasing the cost of garbage disposal").

⁴²² *But see* Krauss, *supra* note 420, at C3 (noting that climate change has pushed fuel efficiency to the forefront of public consciousness for the foreseeable future (citing Samantha Gross, Cambridge Energy Research Associates)).

⁴²³ See Vandenbergh, *supra* note 2, at 601.

⁴²⁴ *Id.*; see also Vandenbergh, *supra* note 4, at 1103-04.

ple who would be covered by such a trading scheme and the diffuse nature of the harms would result in high transaction costs and little “Coasian bargaining.”⁴²⁵ Vandenbergh not only finds the challenges of making such systems work in the case of individual behavior overwhelming,⁴²⁶ he also finds “the social meaning effects of commodifying pollution” worrisome.⁴²⁷ There is a danger that implementing economic incentives might weaken the personal or communal psychological advantages of carrying out a supportive action and thereby deter the intended behavior.⁴²⁸ Additionally, there is always the danger of unintended consequences. For example, the California bottle bill failed to get support from those favoring curbside recycling because “container deposit laws . . . remove from curbside pickup the most valuable recyclable material, and thus reduce municipal revenues from curbside programs.”⁴²⁹

While increasing the cost of bad behavior may have an effect,⁴³⁰ there is almost universal agreement that using taxes to increase that cost will not succeed.⁴³¹ General public opposition to taxes in the United States creates an almost insurmountable barrier to the enactment of new environmental taxes.⁴³² Additionally, no one knows how to value ecosystem goods and services reliably, so applying a tax that reflects any diminishment on those values seems problematic at best.⁴³³ Even presuming that scientists can create exact models of the consequences of environmental harms and economists can accurately predict the associated costs, the price instruments, or “Pigouvian taxes,” would not take into account the ethical decisions that are made respecting the calculus of environmental harms inflicted upon society

⁴²⁵ Vandenbergh, *supra* note 2, at 601; *see also* Vandenbergh, *supra* note 4, at 1103-04 (“[A]llowance schemes are difficult to develop and administer when the number of potential market participants is large and the emissions from any one individual are minute.”).

⁴²⁶ Vandenbergh, *supra* note 4, at 1103.

⁴²⁷ *See* Vandenbergh, *supra* note 2, at 601-02 (“To the extent individual behavior is steered as much by norms as by legal sanctions or economic incentives . . . , a shift in the meaning of certain individual behaviors from ‘polluting’ to something less value-laden may generate a sub-optimal level of social control on individuals’ environmentally significant behavior.”).

⁴²⁸ *Id.* at 608; *see also* Strahilevitz, *supra* note 2, at 1290-91 (discussing Michael J. Sandel’s “norm-related argument against using tradable permit schemes to control emissions [because] emissions trading may undermine the ability of the relevant community to deal with common problems through a regime of shared sacrifice”).

⁴²⁹ Carlson, *supra* note 95, at 1267. *But see id.* at 1294 (finding that a combination of norms, deposit money, and “reputation-signaling” among other factors is responsible for the success of bottle bills).

⁴³⁰ *See* Carlson, *supra* note 95, at 1297.

⁴³¹ *But see* Dernbach, *supra* note 20, at 129 (supporting increasing fossil fuel prices by a carbon or fuel tax, which “would permeate through the entire economy, driving a variety of GHG-reducing behaviors”).

⁴³² *See, e.g.,* Vandenbergh, *supra* note 4, at 1103; Vandenbergh, *supra* note 2, at 604 (calling environmental taxes “politically radioactive”).

⁴³³ *See, e.g.,* Kysar, *supra* note 32, at 687.

in years to come.⁴³⁴ Such taxes might also have a regressive effect on the poor.⁴³⁵

Kysar proposes imposing a products liability regime, what he calls “enterprise liability,”⁴³⁶ which might result in the production of goods that are either less environmentally harmful or priced out of the market. James Salzman suggests that manufacturers be required to take back products when their useful lifetime has expired, which might lead to the production of less environmentally hazardous and resource intensive consumer goods and less wasteful product packaging and other types of incidental waste.⁴³⁷ Such a program might actually make product markets more efficient by encouraging participants to reduce costs that they had not even realized existed. It could also inform consumers of the actual consequences of their consumption choices, which might shift demand toward products that are less costly to produce using the broadest possible meaning of that term.⁴³⁸

Of these approaches, the least feasible one seems to be implementing some kind of trading program. The problems associated with designing a model to fit so many disparate and small sources of pollution, the costs of gathering data as well as of implementing and enforcing the program, the need to construct some form of bureaucracy at the local or state level to oversee the workings of the program, and the loss of individual privacy all seem like overwhelming problems. However, other economic measures, such as product pricing and taxes, despite their unpopularity, might be good supplemental measures to induce a change in environmental norms and individual behavior, if they are accompanied by accurate and reliable information to explain their connection to an environmental problem and its source.⁴³⁹

VII. CONCLUSION

The simple fact is that we can't force people to be good; we can't beat them with a stick, the way we can a donkey or a horse. Well,

⁴³⁴ *Id.* at 688.

⁴³⁵ *Cf.* Stewart, *supra* note 42, at 114-15 (noting that the scope of environmental taxes in northern Europe has been limited by factors including the fear of regressive impact on low-income consumers).

⁴³⁶ Kysar, *supra* note 32, at 712.

⁴³⁷ James Salzman, *Sustainable Consumption and the Law*, 27 ENVTL. L. 1243, 1270-77 (1997) (outlining the proposed take-back program).

⁴³⁸ Kysar, *supra* note 32, at 712-13.

⁴³⁹ For other approaches to irresponsible individual environmental behavior, see, for example, Vandenberg, *supra* note 10, at 216-17 (suggesting new laws that focus on individuals); Vandenberg, *supra* note 4, at 1149 (proposing “Individual Toxics Release Inventory” to activate personal norms); *id.* at 1149-50 (suggesting EPA conduct annual surveys of individual and household uses of toxic substances); Kimmel, *supra* note 62, at 507 (proposing an “environmental impact index” to give consumers numerical information about the environmental impacts of products they consume together with an “environmental impact tax” on consumers to reflect the environmental costs of those goods).

of course we can force them to do some things But what happens when we put the stick away?⁴⁴⁰

Individual behavior is a continuing source of environmental harm, even though people profess to believe in the abstract norm of environmental protection and support environmental causes. Many of the reasons this dissonance persists are set out in this Article. One solution is to create a new norm of environmental responsibility; however, as this Article shows, this is a daunting task. My first Article explored the happenstance of what I call a second environmental republican moment: the country's increasing awareness of, and concern about, the phenomenon of global climate change and the pending environmental and socioeconomic crises. During such moments, the public is more open to being taught about its civic responsibilities. Thus, the public's attention to climate change provides a window in which additional learning about individual responsibility for other environmental harms is open, albeit perhaps only briefly. But, as shown here, norm creation and implementation are problematic processes, regardless of when such efforts are undertaken, and may not lead to changes in personal behavior, given the barriers in the way.

This Article, like the first, emphasizes the importance of public education about the environmental consequences of individual behavior. That Piece recommends that environmental groups function as norm entrepreneurs by teaching the public about their individual contributions to environmental harm. Here, I show how these groups might set off a norm cascade leading to a change in both norms and individual behavior. However, even environmental groups armed with the best and most accessible information during the occurrence of an environmental republican moment may not be able to induce such changes without additional tools. This Article has analyzed several of those tools, including shame and various market-based incentives like trading or increasing the cost of a product or particular behavior. Although by themselves each has problems, the possibility remains that these supplemental methods, combined with public education, might be sufficient to achieve both norm and behavior change, when tailored to meet the particular harm and target audience.

Thus, for example, the application of shame by itself is problematic, given the anarchical aspects of shaming sanctions, their potential spillover affects, and the difficulties of imposing them successfully. Similarly, while market-based incentives like increasing the cost of engaging in certain behavior might have an impact on price-sensitive members of the public, their long-term effect is uncertain unless additional steps are taken to internalize new habits, and their impact might be regressive. Trading, given the myriad of problems associated with its application to individuals, seems the least likely of the proposed economic approaches to change individual environmental behavior. On the other hand, if having readily available, cost-effec-

⁴⁴⁰ DONNA LEON, *THE GIRL OF HIS DREAMS* 81 (2008).

tive alternative practices or products, such as those that might result from Salzman's "take back initiative" or price increases, helps people to internalize a new behavioral norm and form good habits, then finding ways to encourage the development of those alternatives may be key. For those whose economic status makes them insensitive to cost, shaming or maximizing personal guilt, like the successful campaign of animal rights activists to eliminate the market for fur coats, might be an effective way to encourage the creation of a new or revised norm of individual environmental responsibility and more environmentally benign behavior.

Not surprisingly, there is no single answer or silver bullet that will magically transform poor environmental behavior into good behavior. One thing by now should be apparent, and that is that public education must be a central part of any effort to change behavior whether as part of an effort to sanction deviant behavior, use economic incentives, or directly inform the public about the consequences of their action. Otherwise, a norm of individual environmental responsibility will not emerge, and new good behaviors will not replace those supported by bad habits. One other thing is certain: much hard work lies ahead for norm entrepreneurs who have a limited time within which to make people behave more environmentally responsibly. Neither environmental republican moments nor the planet, apparently, last forever.

