# Constructing Sustainable Consumption : From Ethical Values to the Cultural Transformation of Unsustainable Markets

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# Constructing Sustainable Consumption: From Ethical Values to the Cultural Transformation of Unsustainable Markets

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Twenty years of major policy and activist interventions that seek to promote sustainable consumption have been guided by what I term the *ethical values paradigm*, despite that this paradigm has significant conceptual flaws and has not produced impressive results. This article critiques the ethical values paradigm and proposes an alternative by adapting the market constructionist paradigm. The author analyzes the development of the American market for bottled water and demonstrates that this unsustainable consumption is an unintended consequence of the construction of a consumption ideology that is specific to the bottled water market, what the author terms *ideological lock-in*. This model explains why activist interventions have not worked and points the way toward more effective strategies. The author argues that we should reallocate the vast government, NGO, and foundation sustainability investments from promoting consumer value transformations toward a federation of market-focused social movements aimed at leapfrogging the ideological lock-in in key unsustainable markets.

*Keywords:* sustainable consumption; market construction; social movements; bottled water

The quest for sustainable consumption has animated global public policy and environmental activism since the early 1970s and has been a central plank of environmental efforts for climate policy efforts since the Rio "Earth Summit" in 1992. That conference's policy blueprint, Agenda 21, devoted an entire chapter to "Changing Consumption Patterns," which called for governments, business, and civil society to engage in actions that would restructure consumption patterns toward sustainability.

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Many ambitious policy initiatives, activist campaigns, and academic research projects have followed suit. The 2002 sustainable development meeting in Johannesburg called for a 10-year program of research and initiatives on sustainable consumption and production. The European Union (SCORE, or Sustainable Consumption Research Exchange), Germany (BMBF, or Federal Ministry of Education and Research) and the United Kingdom (DEFRA, or Department for Environment, Food and Rural Affairs) have invested tremendous resources into this effort. In the United States, the National Academy of Sciences developed a scenario for what was termed "The Great Transition," which posed the personal values that must be embraced—quality of life, human solidarity, and ecological sensibility—for the transition to sustainable consumption to occur. The 2010 version of the influential *State of the World* report, "Transforming Cultures: From Consumerism to Sustainability," focused entirely on how to inspire sustainable consumption. The list of major sustainable consumption initiatives goes on and on.

The large majority of these efforts are informed by a single set of theoretical assumptions—what I call the *ethical values paradigm*—concerning the causes of unsustainable consumption and, therefore, the most effective strategies to pursue sustainable consumption. This paradigm informs most scholarly work and most of the major activist and public policy initiatives, despite that contemporary theory and decades of empirical research argue against it. Consumers' environmental footprints continue to climb, despite poll after poll reporting that large majorities declare their allegiance to environmental values. We should question whether these ethical values assumptions are helpful at all in actually making consumption more sustainable.

It is time to take a critical look at these conceptual underpinnings and to formulate an alternative model that leads to more effective interventions. In this article, I draw on the market construction paradigm to illuminate the crucial flaws in ethical values axioms. I draw from this paradigm to inform an analysis of the American market for bottled water, along with a shorter case study of SUVs. From these analyses, I develop a new model—what I call the *market construction of unsustainability*. I demonstrate that unsustainable consumption of bottled water has resulted from the unintended construction of a consumption ideology that is specific to bottled water, resulting in what I term *ideological lock-in*. This model explains why activist interventions have not worked and points the way toward more effective strategies. I argue that we should reallocate the vast government, NGO, and foundation sustainability investments from promoting consumer value transformations toward a federation of market-focused social movements aimed at leapfrogging the ideological lock-in found in key unsustainable markets.

## The Ethical Values Paradigm

Let us begin by unearthing the assumptions, often implicit, that together serve as the foundation for the ethical values paradigm, which I synthesize as follows:

1. Unsustainable consumption is caused in part by our choices as consumers. These choices have a significant environmental impact that is separate from those aspects that consumers cannot directly influence (i.e., effects created by economic and technological structures). Sustainable consumption focuses on influencing consumer choices, not these locked-in techno-economic structures.
2. Our choices as consumers are shaped by *consumerism*, which is understood as a set of values that orients our lives around consumption. Some scholars view consumerism as the cultural consequence of industrial capitalism, while others provide multidimensional explanations for consumerism. Regardless of the cause, Western societies (the United States in particular), along with the middle classes of developing countries, are viewed as voracious consumers due to consumerism.
3. Individuals hold abstract personal values that embody this consumerism—often described in terms of materialism, possessive individualism, and sometimes narcissism—that govern consumption choices and actions across a wide range of categories, leading to unsustainable consumption.
4. Therefore, the pathway to sustainable consumption requires the transformation of these values by importing value systems from outside the modern capitalist marketplace. The sources of sustainable value systems vary widely: from various religious traditions to radical ecology to happiness research to antiquarian calls to return to the values of preindustrial society. This transformation may proceed in "top-down" fashion (learning about the problems of consumerist values and the advantages of sustainable values), or in "bottom-up" fashion (sustainable values become more salient and attractive through practicing sustainable consumption in one domain and then diffusing to others). And some sustainable consumption initiatives pursue the total transformation of society away from consumerism and toward a society based on sustainable values (what I call *ethical transformation*), while others pursue the targeted "awakening" of ethical values within a particular product category (what I call *ethical campaigning*). Regardless of the type of initiative, to consume sustainably, people must become reflexive about the environmental impacts of their consumption and then choose to substitute an ethical calculus for their former consumerist calculus.

The vast majority of influential scholarship, policy initiatives, and activist campaigning on sustainable consumption either assumes or explicitly invokes these ethical values axioms.

## The Market Construction Paradigm: Three Orienting Propositions

To explain why the ethical values paradigm has not produced effective interventions and to inform the development of an alternative paradigm, I draw from an

important alternative theoretical tradition—what I call the *market construction paradigm*—that is a subdisciplinary specialty within consumer culture theory (CCT); management studies; and science, technology and society (STS), among other disciplines. These three literatures each develop a different aspect of market construction that, when combined, offers a powerful alternative to the ethical values paradigm. These traditions cohere in their interest in conceptualizing how markets come into being and are transformed over time. These theories specify how market actors repurpose particular cultural, institutional, and technological resources to construct and transform markets, often leading to unintended consequences as the market evolves. Consumption patterns are a key part of what gets "constructed" as markets evolve.

This paradigm suggests that we should abandon the ethical values notion that consumption can be treated as an autonomous set of actions that are structured by general ethical frameworks, and move instead toward a view of consumption as an integral aspect of the construction of markets. Furthermore, from the paradigm, one can infer that we must understand the differing mechanics of sustainability across particular markets, rather than attempt to generalize to consumer society as a whole.

From CCT, I draw on my prior work on the cultural construction of markets for new brands (Holt 2004, 2006; Holt and Cameron 2010; also see Thompson 2004). From management studies, I adapt ideas on the influence of social movements on market construction (Weber, Heinze, and DeSoucey 2008) and the way in which different market actors work in unknowing concert to construct new "institutional logics" that eventually become sedimented as market ideologies and practices (King and Pearce 2010; Humphreys 2010). From STS, I draw on historical studies of the construction of socio-technical systems (Bijker, Hughes, and Pinch 1987; Bijker 1995), which describe how these market constructions structure the way in which new technologies are transformed into new consumer markets. Applying this market constructionist logic to sustainable consumption reveals three foundational flaws in the ethical values paradigm.

## From Abstract Values to Market Ideologies

The ethical values paradigm assumes that citizens of consumer societies hold consumerist values: generalized abstract beliefs that guide their consumption across many facets of their lives. Consumers are assumed to be philosophically consistent actors who hold overarching ideologies and continually connect the dots between these abstract values and a wide variety of specific consumption behaviors. So consumerist values are assumed to lead to unsustainable consumption. Sustainable consumption strategies, then, should seek to trade out consumerist values for environmental values. Researchers have long sought to find empirical support for this axiom by measuring how proenvironmental values and attitudes impact environmentally significant consumption, with little success and

considerable confusion (Stern 2000). After nearly 40 years of research that industriously sought out linkages between "environmental concern" and environmental behaviors, the answer is clear—the relationship barely exists.

An overview of this literature, surveying several meta-analyses, reports that "environmental concern seems to explain not more than 10 percent variance of specific environmental behaviors" (Bamberg 2003, 22). In a decade-long investigation of the ethical values hypothesis, the authors of *The Myth of the Ethical Consumer* (DeVinney, Auger, and Eckhardt 2010) demonstrate that when people are forced to make real trade-offs between ethical considerations and the perceived value of the purchase, they are rarely willing to trade benefits for ethics. In consumer research, this type of value-attitude-behavior model, which was in vogue in the 1960s and 1970s, has all but disappeared from contemporary theory because it provides little insight or explanatory power (Holt 1997; Thompson and Troester 2002).

Despite this theoretical and empirical dead end, the abstract values axiom shows no sign of fading. Leading environmental psychologists continue to advance this axiom as if it were a widely accepted truth (e.g., Yale's Anthony Leiserowitz begins a major review article on sustainability with the claim that "most advocates of sustainable development recognize the need for changes in human values, attitudes and behaviors in order to achieve a sustainability transition" [Leiserowitz, Kates, and Parris 2006, 414]). And the assumption has readily traveled to undergird the most influential activist strategy frameworks, heavily promoted by environmental NGOs and foundations. For example Yale's "Global Warming's Six Americas" (Leiserowitz et al. 2011); Earthjustice's "RE: Green The Ecological Roadmap," funded by the Nathan Cummings Foundation (Pike et al. 2008); and, in the United Kingdom, "Common Cause: The Case for Working with Our Cultural Values," sponsored by the World Wildlife Fund, Friends of the Earth, and Oxfam (Crompton 2010) all promote strategic frameworks based on implausible values and attitude assumptions.

If these abstract consumerist values shaped consumption, we would expect to see coherent patterns of sustainable and unsustainable consumption. Instead, what we find is that the sustainability of individuals' consumer actions varies wildly across categories: some people drive a Prius but routinely fly long-distance on vacations; some people buy local organic milk but also veggies grown in the dessert and shipped by air thousands of miles; some people are tireless recyclers but think nothing of tearing out their kitchen to install the latest designs.

What sort of theory of unsustainable consumption can explain these seeming paradoxes? The market construction paradigm demonstrates that consumer culture is not a general force structuring consumer actions but, rather, is better understood as a skeletal metacultural logic—centered on channeling desires and identities through consumer choices and actions (Holt 2002)—that gets articulated in very different ways across different markets.

Consider the sudden growth of the American SUV market in the 1990s. Americans switched in droves from sedans and minivans to SUVs, causing an

extraordinary increase in greenhouse gas emissions. This devastating impact was not caused by consumerism in its generic form as a set of values. Rather, American consumer culture has evolved a distinctive set of ideologies with respect to autos and other means of transportation—constructing ideas about convenience, safety, pleasures of using the transport, functionality, economy, and perhaps environmental and other sustainability issues. As the minivan became pilloried in media discourse as a boring and emasculating vehicle to transport kids, Americans yearned for an alternative. Ronald Reagan's revival of America's historic masculine ideology based on the frontier myth provided a resonant channel for these desires. Upper-middle-class families began buying spartan rural working-class utility vehicles with names such as Bronco and Cherokee and turned them into suburban family transportation. Detroit auto manufacturers caught on to this emergent demand and jumped on board. Auto manufacturers, such as Ford, discovered early on in their research of this emerging market that prospective customers, particularly women, perceived that SUVs were especially safe due to their grand size and elevated drivers-side seat, and they reinforced this inference in their advertising. They quickly redesigned their utility vehicles to incorporate a plush ride, family functionality, and luxury car trappings and pushed even harder on the frontier ethos (the Ford Explorer became the best-selling SUV). Consumers flocked to the SUV. That these SUVs used nearly twice as much fuel as comparable minivans and sedans never entered their calculus, despite that SUV buyers (highly educated and upper-middle-class) were precisely those Americans most likely to proclaim their proenvironmental values. This market ideology held firm for more than a decade until environmental social movements created a great stir in the media, condemning SUVs as one of the most environmentally unconscionable consumer choices one could make. SUVS soon gained a stigma, making it much more difficult for self-professed environmentalists to drive them. By focusing our attention on the construction of consumer ideologies specific to a market, the market constructionist paradigm allows us to explain hugely significant patterns of unsustainable consumption, such as the exploding American SUV market, which are enigmatic from the vista of the ethical values paradigm.

## From Consumerism to the Unintended Consequences of Market Construction

The theory of unsustainability implicit in the ethical values paradigm rests on the idea of consumerism. Leading academics, activists, and policy-makers—from Alan Durning and Bill McKibben to Gus Speth and Al Gore—routinely point the finger at consumerism as the prime culprit in creating unsustainable consumption. And so, calls for the ethical move of Western societies away from consumerism have been a staple since the 1960s. Tim Jackson's (2011) formulation provides a typical example of this logic. He begins by recognizing the basic kinds of value

that people, immersed in the logic of consumerism, perceive that their consumption provides. So the only way to move society toward sustainable consumption, he argues, is to "substitute" societal benefits that can serve as replacements for the benefits that consumption provides. Given the scale of the overshoot problems we face today, he concludes that the only possible solution is a complete move away from consumerism. A similar argument animates Bill McKibben's influential books (e.g., McKibben 2008), among many others.

But there is a fundamental problem with the idea of ethical transformation: a culture unleashed by industrial capitalism and the mass media for more than a century, which is today sedimented across myriad discourses, institutions, and everyday practices—the firmament of social life for most people, so much so that George Soros, Joseph Stiglitz, and Tom Frank all refer to it in quasi-religious terms as *market fundamentalism*—is not easily or speedily transformed. Despite a cycling of movements calling for various forms of voluntary simplicity since the time of Thoreau, Americans and other Westerners living in the thrall of consumerism have chosen otherwise. Challenges to consumerism are absorbed by the market in dialectic market-focused fashion—Whole Foods and Ben & Jerry's and Patagonia rather than the widespread support for local biodynamic agriculture or downshifted work hours or national health care or rationalized mass transit—leading to modest environmental impacts that play out over many decades (Belasco 1989; Holt and Cameron 2010). Theories of cultural change and the empirical track record both strongly suggest that environmental strategies based on the ethical transformation of consumerism cannot have the necessary impact in the time that we have remaining (estimates vary by expert and by problem but generally point to the years 2020 to 2050) to solve major overshoot problems. This is a utopian scheme that draws away resources from strategies that can have much more impact to address key environmental problems in the decades ahead.

Fortunately, consumerism is not the only cause of unsustainable consumption, perhaps not even the most important. While there is no denying the "main effect" of consumerism, its impact varies widely. Claims that unsustainable consumption is caused by consumerism hide huge heterogeneity. This variance within consumer societies exists primarily between different markets (or within a given market at different points in its development), not between consumers who are more or less environmentally conscious. Unsustainable consumption is often caused by the development of market ideologies that have become naturalized within specific market institutions and consumer practices. Contrast coal-based electricity and industrial agriculture and suburban sprawl and the depletion of ocean fish stocks. These different markets have unique variants of unsustainable consumption driven by their idiosyncratic development, not by consumers' general disposition toward materialism or possessive individualism.

Environmental consequences do not march lockstep with consumerist values. Some of the most environmentally conscious consumers also desire organic fresh

fruit and vegetables year-round, which, when combined with vastly improved global logistics and transportation, has led to an immensely unsustainable agricultural practice, draining scarce groundwater in the near-deserts of North Africa, Spain, and Mexico to grow products that are shipped by air thousands of miles. These effects result from the contingent and idiosyncratic pathways of market evolution in which companies (quite often entrepreneurs) exploit historical inflections of society, culture, and technology. Along the way, the dialectic interplay among companies, consumers, institutions, and technologies leads to profound environmental effects. This meso-level construction of unsustainable markets is far more malleable, and so much more susceptible to interventions, than is the overarching culture of consumerism that now dominates the modern world. With the appropriate strategies, these market-constructed unsustainabilities can be reversed, though such reversals must march forward one market at a time.

## From Autonomous Ethics to Ethical Movement Ideologies

In the ethical values paradigm, ethical consumption is viewed as an orientation toward consumption that must be autonomous from the market. Markets are assumed to be corrupted by consumerism. And so fighting consumerism requires importing ethics from noncommercial spheres. As a result, the ethical values paradigm often invokes religious and philosophical traditions. Activists call on consumers to apply these imported ethical schemes as a lens to orient their consumption toward sustainability (and argue that ethical consumers will realize considerable identity value in so doing). If one's ethical commitment is strong enough, one should be able to trade off the sacrifices required (in terms of higher cost or lower functionality) to enact these noncommercial ethics.

Ethical consumption certainly does exist, but only rarely in the "imported" form assumed by the ethical values paradigm. Rather, the market construction paradigm demonstrates that consumer ethics operates as a (potential) component of particular market ideologies. Whether a market has a potent ethical component depends largely on the efforts of social movements and subcultures, embedded within the market, that challenge the dominant market construction. These ethical challenges are tailored to the specific ethical "problems" of the marketplace. Consider the different ethical consumption frameworks that apply to livestock, coffee, cotton, diamonds, coal, and tropical forests (and often enough, there are multiple ethical consumption frameworks in play within a given market). Thompson and Coskuner-Balli's (2007) study of community-supported agriculture (CSA) describes a consumption community dominated by ethics, but ethics of a very different stripe than the imported abstract ethical schemes of the ethical values paradigm. CSA ethics are conceived as contextualized narratives in which participants perceive locally grown produce, small organic farms, and community-building aspects of CSA as ethical challenges to the massively dysfunctional food system organized by global agribusiness. This ideology is

particular to the anti-industrial-food movement, of which CSA has become one important expression with its own distinctive inflections (along with anti-GMO, anti-rGBH, Organic Consumers Association, local foodshed, fair trade, etc.). It is an ethics that emerged as a reaction to ethical problems that have been constructed in America's produce market and, so, the countercultural rebuttal is indigenous to the market. Markets often repurpose and commercialize these ethical ideologies (consider successful efforts by Whole Foods, Starbucks, and Chipotle to act as fast followers branding ethical food supply chains promoted by social movements). And so we should understand the advance of ethical consumption as a dialectical evolution that unfolds as market-focused social movements make ethical challenges and the mass market acts to commercialize these challenges when they resonate with a critical mass of consumers.

## Construction of the American Single-Serve Bottled Water Market

Informed by this market construction paradigm, I conduct a case study of one of America's unsustainable consumption pariahs—bottled water. In the American market, bottled water sold in single-serve plastic containers has taken off in the past 20 years and has become a major environmental problem (Gleick [2010] and Royte [2008] provide useful overviews). Water bottled in ready-to-drink plastic containers is associated with environmental problems and health risks in all stages of its product lifecycle. The production of plastic releases toxic chemicals, such as benzene and vinyl chloride, which can cause cancer. And the incineration of plastic pollutes air, land, and water despite efforts to scrub emissions. Because plastic bottles slowly disintegrate into small particles rather than decompose, these plastic bits notoriously clutter not only dumps but also the oceans. As plastics decompose, they are eaten and move up the food chain, which has led to a crisis in human endocrine disruption (including pthalates and Bisphenol A as well as other hormonally active compounds). And finally, bottled water consumption is an intensive use of energy, a discretionary purchase that has materially increased the country's carbon footprint. Bottled water consumes an energy equivalent of approximately 32 to 54 million barrels of oil per year (Gleick and Cooley 2009), equivalent to the gasoline used by more than 1 million autos in a year (about 0.3 percent of total annual U.S. oil consumption)—an environmental tally that many environmentalists deem particularly wasteful since it seems so easy to avoid.

I examine how this market was constructed and reproduced over time—a historical analysis that aims to reveal the key mechanisms that generated the explosive growth of single-serve bottled water in the United States and that have sustained this market despite widespread acknowledgement of its environmental consequences.

As a case study, bottled water is both theoretically and strategically important. It is an environmental problem that should be relatively easy to solve. While

many of our most challenging environmental problems are hidden from citizens because they occur several steps removed from consumption in the value chain (what Thomas Princen [1997] calls "distancing"), bottled water is a front-stage problem. Plastic bottles create an aesthetic "eyesore" that most everyone experiences, and it is easy for most people to imagine these bottles filling up dumps and getting incinerated and letting off toxic fumes. It is also a problem with direct and easily understandable causes and consequences, unlike the technically complex labyrinth of environmental impacts and solutions that characterize most markets in the agriculture, transportation, and energy sectors. And the pathways to sustainability seem all too obvious and much less arduous than, say, giving up your car for a bicycle. After all, tap water is widely available and for a tiny fraction of the price. Finally, anti–bottled water campaigning has received extraordinary attention and resources from the environmental movement. So bottled water should have become a leading example for how the ethical values paradigm can be used to formulate interventions that generate sustainable consumption. Yet bottled water consumption has continued to expand, pausing briefly only for the severe recession of 2008–2009.

Before the late 1980s, the consumer market for bottled water in the United States was environmentally inconsequential. Perrier pioneered the idea that drinking bottled water in small single-serve glass bottles was an affordable way to grasp a bit of European sophistication, which resonated among so-called yuppies, as Reagan and Wall Street ignited America's fondness for symbols of luxurious upper-class living in the 1980s. At the height of its market dominance, its environmental impact was miniscule: Perrier sold 300 million bottles at its zenith, which is far less than 1 percent of today's American market.

An important barrier to the diffusion of a bottled water market lifted in 1989 when bottle manufacturers developed technology that allowed PET (polyethylene terephthalate) to be used in half-liter and smaller bottles, a significantly cheaper and much more aesthetically pleasing plastic than the prior PVC (polyvinyl chloride) bottles. Most bottled water companies soon offered their product in PET, even Perrier. This technological innovation was crucial: it allowed manufacturers to hit ever lower price points for water, and the low weight and durability allowed for new consumer uses for bottled water. However, while this new packaging technology was a necessary condition for the construction of an environmentally unsustainable market, it was by no means sufficient.

## Cultural Construction of the Market for Healthy Portable Drinking Water

The takeoff of bottled water, from the late 1980s through the present, was driven by health considerations, launching a market very different from the original status-driven drinking. Three synergistic health constructs emerged beginning in the late 1980s and became ever more dominant over the following

two decades. These new cultural constructs were advanced by the news media and environmental NGOs: the two most important actors in the launch of this new market segment.

### *Media construction of tap water as health risk*

Single-serve bottles of water took off in the United States on the back of a cultural disruption that would unfold throughout the nineties. Previously, Americans had no reason to doubt the safety of the public water supply. They trusted that modern technologies provided them with water that was safe to drink. Municipal water purification systems occasionally broke down and outbreaks of dangerous bacteria would follow. Historical data show that the number of outbreaks caused by public water supplies had peaked several decades prior and was on the decline (Royte 2008). But these sporadic outbreaks, while widely reported in the media, did not resonate with Americans, who maintained an unshakeable belief in the effectiveness of modern science and technology to improve their lives. They were happy to continue to drink tap water at home and in drinking fountains.

What changed was Americans' receptivity and interpretation of such stories, reflecting their growing distrust in modern public institutions to protect their interests (what Ulrich Beck has called "risk society"; see Wilk 2006) and, likewise, their growing interest in self-monitoring the health risks of food and drinks. A consistent flow of public health scares in the media were the proximate cause. Well-publicized regulatory failings, framed by stories of government corruption and collusion, led to an expanding distrust in the federal government that has continued to this day. With this new risk society ideology in place, stories that spoke of the risks of tap water tainted with carcinogens well above government-approved levels took on new meaning. These widely disseminated stories piled atop many other media reports on bacteria outbreaks and carcinogenic chemicals in the food supply. In response, Americans began to suspect the safety of tap water and looked for alternatives.

### *The catalyzing event: Dying from tap water in Milwaukee*

Tipping points in ideology are often caused by media events that strike the collective imagination: events that resonate so powerfully that they disturb previously taken-for-granted assumptions, cause people to question them and talk about them, and, eventually, forge a new ideology. The trajectory of environmental ideology is filled with such examples: the Cayahuga River catching fire, Bhopal, Chernobyl, mad cow disease, Three-Mile Island, Love Canal, Brent Spar, Exxon Valdez, and Hurricane Katrina. Water fears were added to the list in the wake of just such an event: the extraordinary cryptosporidium outbreak that hit Milwaukee in 1993. The local newspaper headline screamed, "Don't Drink the Water." Four hundred thousand Milwaukeans would get sick and sixty-nine would die before the problem was contained. The event lent itself to disconcerting

images, such as the huge lines that formed to collect water at the one artesian well in Milwaukee, and narratives, such as people hauling water up from Chicago ninety miles away. There was so much cryptosporidium in Milwaukee's water that even a person who drank from an airport water fountain got terribly ill (Epstein 1994; Royte 2008). The shocking death toll and striking images meant that the story instantly became national headline news, covered by all of the major dailies and weeklies across a long news cycle. They portrayed shocked citizens of a supposedly modern country having to boil water to get rid of parasites. Americans who had previously ignored media reporting on tap water safety had no choice but to pay attention. Many Americans looked to bottled water as an unassailably contaminant-free choice.

### *NGOs legitimize and amplify the tap water scare*

With the public increasingly alarmed about tap water safety, environmental NGOs—particularly the Environmental Working Group (EWG) and the Natural Resources Defense Council (NRDC)—jumped into the fray to act as legitimizing advocates for the problem. Beginning in 1995, EWG launched a tenacious run of exposés on the carcinogens and other contaminants that exist in tap water. These reports were widely referenced in the media, turning the disaster into a major public health issue. It is quite possible that the Milwaukee cryptosporidium disaster would have faded from public memory after a few years had it not been for these NGO efforts. This "tap water is unsafe" health construct was by far the most important driver of the new market. But two other new health constructs also gave this market a substantial push.

### *Eight-glasses hydration ritual and the demand for convenient water*

In 1988, influential *New York Times* health columnist Jane Brody wrote an article indicating that experts recommended that people should drink eight 8-ounce glasses of water a day to stay properly hydrated. The simple idea caught on like wildfire and a new health practice was born, which Americans pursued with great zeal. Americans soon became fastidious hydrators, carrying bottles wherever they went. This hydration ritual was another significant driver of the bottled water market because it demanded that water was always in arm's reach. Domestic water and public fountains did not provide enough access to hydration, and glass bottles were too heavy and fragile to cart around.

### *High-fructose corn syrup and the sugar-obesity discourse*

Bottled water was given a third cultural push by a media-generated moral panic against sugar, specifically high-fructose corn syrup, which was the predominant sweetener used in carbonated and noncarbonated soft drinks. Inklings of this challenge emerged in the early 1990s but did not diffuse widely until the early

2000s. The cultural breakthrough was driven by muckraking media—Eric Schosser's *Fast-Food Nation*, Morgan Spurlock's *Supersize Me*, and later Michael Pollan's *Omnivore's Dilemma*—which resonated powerfully with middle-class Americans in search of an explanation for the country's obesity epidemic. The media played off this interest, picking up on public health studies suggesting that sugar consumption was at the root of obesity, Type II diabetes, and other chronic health problems. And Americans paid attention; the discourse forced them to accept that the drinks they found most pleasurable were bad for them and began to shift en masse from soft drinks to waters (and to "impostor waters" such as Vitaminwater; see Holt and Cameron 2010). This shift moved single-serve plastic from one category to another, rather than create a net increase in plastic bottle usage. However, had this shift been to tap water, the unintended positive impact on sustainable consumption would have been enormous. Instead, most consumers simply drank water, rather than soda, from plastic bottles.

With these three cultural constructs in place, bottled water became the gold standard for healthy beverages: a drink that has nothing dangerous in it—the lack of possible bad things being the most important new criterion for a healthy drink. And it was portable.

### *Big companies enter as market parasites*

While the market was already exploding in the early 1990s, it was still dwarfed by carbonated drinks. So these were early days from the perspective of big consumer marketing companies. While Nestle was aggressively building this market, PepsiCo and The Coca-Cola Company entered later simply because promoting bottled water would necessarily cannibalize their sparkling soda business. These companies could enter late and still dominate the market because, except for the boutique status waters, consumers perceived bottled water as a commodity. Since these companies controlled the key distribution channels—from vending machines and grocery shelf space, to the cold cases of convenience stores and offerings at stadiums and colleges and schools—they could easily wrestle control of the category simply by delivering the convenience that drinkers demanded. And that is what they did. PepsiCo entered the market with Aquafina in 1994 and The Coca-Cola Company with Dasani in 1999, using their massive distribution power to put bottles of water within an arm's reach of every possible usage occasion.

The big three bottled water companies—Nestle, Coca-Cola, PepsiCo—never advertised their brands as a safe alternative to tap. They did not have to. The category demand had already been nurtured by the media and NGOs for a decade. Rather, they were intent on maximizing market share. In a discourse analysis of the first decade of bottled water advertising (detailed reporting of which would push beyond the page limits of this article), I discovered that the advertising focused on differentiation strategies that tried to convince consumers that their brands were particularly pure by associating their brands with emotional cues.

However, once bottled water became a key profit center, these three companies did everything in their power to sustain the institutional underpinnings of the market, regardless of whether this perpetuated unsustainable consumption. These "backstage" institutional structures are crucial to understanding why unsustainable consumption ideologies become so powerfully "made material" in the commercial context that surrounds consumers in everyday life.

### *Ethical values campaigning*

The NRDC began the environmentalist backlash against bottled water with a scathing report published in 1999, with the subtitle: "Pure Drink or Pure Hype?" Other damning reports soon appeared, and eventually films and books. Campaigning began in earnest in 2006, with the most influential campaign—Take Back the Tap—launched by Food & Water Watch in 2007. A host of activist efforts with unusual coherence and marketing savvy soon followed, which included teach-ins, efforts to get students to use refillable containers on campus, restaurants that served tap instead of bottled water, and so on. Annie Leonard's immensely popular YouTube video *The Story of Bottled Water*, released in March 2010, was the most impactful media intervention, generating over 2 million hits.

While climate change was far and away the focal environmental issue of this period, bottled water was arguably the most intensive and best-organized environmental campaign focused on a particular issue. The core argument of all of these efforts, regardless of creative spin, was to switch from bottled water to tap. The lead argument came straight from the ethical values paradigm: bottled water is a big environmental problem and it is such an easy one to fix, so you should do something about it. Leonard's video attacked the bottled water companies for "manufacturing demand" for a product that was not necessary (an argument that my analysis above clearly refutes) and celebrated tap water. Supporting this argument were claims that tap water was safe. For instance, the Center for a New American Dream (CNAD) tried to motivate its members to switch to tap by telling them that "the Environmental Protection Agency had found that 90 percent of tap water domestically is safe to drink."[1]

Drinking bottled water did become stigmatized on some college campuses and in some niche cultural elite circles, but the campaign's impact on the mass market was negligible. Sales predictably contracted during the acute recession in 2008–2009, but then grew again. In 2011, Americans consumed an average of 29.2 gallons of bottled water a year, the highest rate on record (Beverage Marketing Corporation 2012).

### *Incumbents defend against activism*

The bottled water market incumbents acted to defend future revenue streams, even though there were clear environmental externalities. They participated in

the management of environmental problems only when doing so would not have a significant negative business impact. The big three companies all championed reducing the plastic content in their bottles as their signature commitment to solving the environmental problem. Since this effort decreases their cost of goods, they have a strong "win-win" incentive. As a result, bottle weight declined significantly (32 percent reduction in PET from 2002 to 2010). Companies used these bottle improvements to trumpet their environmental bona fides in major advertising campaigns geared toward countering the discourse that bottled water is an environmental problem.

In addition, incumbents often try to counter activism with advertising and public relations, usually through industry associations so that their brands are not directly associated with these efforts. For example, the International Bottled Water Association attempted to rebut *The Story of Bottled Water* with *The Real Story of Bottled Water*, a flimsy effort that attracted a meager sixteen thousand hits as of the end of 2011.

However, when unsustainable consumption is embedded in markets in such a way that it cannot be resolved without companies taking a profit hit, incumbents will act to sustain the market regardless of the environmental damage. These same companies that earnestly devoted R&D to shrink the footprint of their bottles were simultaneously working backstage to squash regulations that could threaten their profitability. As long as the demand for bottled water remains high and plastic is the dominant packaging material, the only viable path to decrease the carbon footprint for bottled water is recycling. Voluntary recycling yields marginal results, while recycling that is incentivized with a deposit of 5 or 10 cents has proven very effective (Royte 2008). With this clear evidence in hand, environmental groups have long sought to institute bottle deposit laws in many states (initiatives that span all beverage bottles, not just water). Most of these initiatives have not passed due to the intensive lobbying efforts of beverage marketers and bottle manufacturers.

## Why Do Americans Still Drink Bottled Water?

This analysis of the construction of the American bottled water market details the mechanisms through which this unsustainable market was constructed and reproduced and reveals why major activist campaigning did not work. The central strategic weakness of the campaigning is that it did not address the market ideology—the sedimented value perceptions that sustain bottled water consumption. Appeals to drink tap water did not resolve American's murky belief, driven by media reports of NGO findings, that public water is contaminated with carcinogens and that drinking a glass is playing Russian roulette with deadly pathogens such as *E. coli*. Americans drink bottled water because they believe that they are healthier for so doing, have developed routines around this belief, and circulate in a society that continually reinforces this ideology.

This ideology is sustained by a decrepit and underfunded public water system that the public does not trust, environmental NGOs' aggressive campaigning against tap water's health risks, and the media's continued fascination with this "scare" story. As long as these cultural mechanics are in place, the public's perceptions of tap water are not going to change. This is what I call *ideological lock-in*.

Ideological lock-in is not static. The dialectical interplay among media discourse, market competition, and evolving consumer desires tends to ratchet up the cultural codes that serve as ideological benchmarks. The net effect of two decades of the tap water safety discourse dramatically shifted what consumers perceived as safe water. Water that comes out of a tap came to be understood as problematic, regardless of the quality of the municipal water system. It must be filtered, otherwise it is not safe. And healthy water should have no taste at all. So the typical off-taste of disinfectants, such as chlorine, in the water signals to consumers that the water is inferior. While the rehabilitation of the nation's public water supply was a viable if hugely expensive solution two decades ago, today this is no longer true. "Healthy water" is now conveyed by new cultural codes—water must be filtered, water must have no taste. This is what I term *cultural code inflation* (Holt and Cameron 2010). Activists must grapple with the market construction of tap water risks that has become sedimented as a taken-for-granted ideology in today's bottled water market and construct strategies that overcome this skepticism.

Likewise, as long as Americans continue to believe that they require continual hydration throughout the day for good health, they will continue to seek out a convenient source of safe water on the go, whatever the environmental consequence. The campaigners' proposed alternative—carrying around refillable containers—never caught on beyond young cultural elites (who enjoyed the identity value they earned from their devotion to such a clunky solution) simply because it requires consumers to give up the convenience they wanted so that they can hydrate on the go all day long.

Because the campaigns ignored the structures that sustained unsustainable consumption, their foundational premise was faulty. They asked individuals to reject the market ideologies and practices that they had embraced for two decades and that they are surrounded by in everyday life. Moving markets toward sustainable consumption requires strategies that acknowledge and overcome the structures holding unsustainable consumption in place. Let me offer two speculative examples to demonstrate this logic.

## Better than Bottled

An effective strategy must provide an alternative that is perceived to be at least as safe as bottled water. So I developed a campaign concept based on installing filtered water fountains, both for drinking and to refill bottles, which filter water

to a higher standard than is required for bottled water. These public water sources are advertised as such and given a modern design, borrowing the communication codes that the bottled water industry has diffused for conveying the purity of water. The fountains are installed at a high enough density in public spaces that a fountain is always convenient. Consumers would always know where the closest fountain is via a consumer-friendly Smartphone app that shows the locations of all the fountains.

This concept could be extended into the household via a government program to facilitate the installation of inexpensive filter systems in homes and workplaces (perhaps $200 installed at scale), using a financing model that adds a small cost to the utility bill spread over a year. An institutional strategy could be layered on top of this concept, which would seek to ban the sale of bottled water in the geographies wherever public dispensers are installed.

## Pepsi, Nestle, Coke, Close the Loop!

The analysis also reveals a prime opportunity to go after the major bottled water companies: not for tricking Americans into drinking bottled water (they did not, and convincing people that this is so would not change their behavior), but for their behind-the-scenes efforts to stall sustainability efforts via recycling. Recycling is the simplest solution to the bottled water problem. PET recycling captures more than 80 percent of the embedded energy and saves 70 percent of the greenhouse gas emissions compared to virgin PET. Yet only about 14 percent of water bottles get recycled (Royte 2008). However, in states with bottle deposits that include water bottles, the percentage rises to 70 percent or more. Recycling is one of the most robust and resonant environmental rituals in the United States, and so consumers will likely support regulations that require them to recycle more as long as they are not onerous. The fact that companies fight against recycling is not well known and, if it were, would certainly be hugely damaging from a public relations perspective. All three companies make strong claims about their commitment to sustainability at a corporate level, which leaves them very vulnerable if such a poignant example of their support for unsustainable practices were to emerge. A campaign that pursues plastic bottle deposits on a national basis has tremendous promise. Furthermore, all these companies have developed the ability to make bottles with high recycled content, or with a high percentage of sugarcane cellulose (what the Coca-Cola Company has trademarked and promoted as Plantbottle). But they have been very slow to push these products into the market because they are more expensive. A Close the Loop campaign could be premised on the idea that not only should these companies embrace deposit laws as if they are truly sustainable but should play a leadership role in ensuring that all plastic bottles are 100 percent recyclable and plant-based. This campaign idea could include sodas and noncarbonated beverages as well.

## Ideological Lock-In: How Markets Reproduce Unsustainable Consumption

Many highly significant unsustainable consumption patterns accumulate as unintended consequences of market construction processes. Unsustainable consumption becomes sedimented in the structure of the market, resulting in a type of path dependence that differs from standard economic accounts. Adapting the economic concept of lock-in, I use the term *ideological lock-in* to describe these cultural underpinnings of unsustainable consumption. Ideological lock-in holds unsustainable consumption in place by shaping the taken-for-granted perceptions of the value that consumers receive from their current consumption patterns. And ideological lock-in is dynamic, influenced in unexpected ways through the process of *cultural code inflation*, such as I describe for the bottled water market. Ideological lock-in becomes institutionally "sticky," through three mechanisms: the naturalization of the market ideology in the cultural discourse, the habituation of everyday consumption practices that embody the ideology, and the materialization of the ideology in backstage market institutions that structure the market according to ideological assumptions.

## Sustainable Consumption through Movement-Led Market Transformations

While consumerism certainly impacts unsustainable consumption, it is a world-dominant meta-ideology that is impossible to overturn quickly enough to effectively manage the world's overshoot problems. Instead, policy and activism should focus on the large percentage of unsustainable consumption that is created as unintended consequences of the development of specific markets. This pathway toward sustainable consumption requires either transforming or leapfrogging the ideological lock-in that reproduces unsustainable consumption across many markets.

This alternative sustainability strategy requires effective market-facing social movements. And since the transformation process must aim at specific market ideologies, institutions, and practices, effective strategies must proceed market by market, rather than pursue an overarching shift in consumer society. Sustainable consumption, then, requires a federation of market movements, each of which has a specific strategy that is tailored to take advantage of the market's most vulnerable "lock in" features. This conclusion is no doubt discouraging news for many longtime environmentalists who have galvanized for decades around a single revolutionary environmental war. However, this constructionist model suggests that winning hundreds of specific marketplace battles is, paradoxically, the swiftest path to a societal transformation moving toward sustainable consumption.

## Note

1. See the Center for a New American Dream Web site (www.newdream.org).

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