



# OUTSMART WASTE

The Modern Idea of Garbage and  
How to Think Our Way Out of It

**TOM SZAKY**

Founder and CEO  
of TerraCycle

FOREWORD BY DEEPAK CHOPRA

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and How to Think Our Way Out of It

Tom Szaky



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*To Edith and Martin Stein*

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# Foreword

Waste is natural to every living system. We all consume and at some point eliminate. Eventually, everything and everyone has an end of life.

We may frown on someone who litters or tosses a cigarette butt on the street, but is putting a candy wrapper in the garbage bin—only for it to be trucked to a landfill—much better for the planet? With the more than 4 pounds of garbage the average American discards every day, our individual contributions to this collective trove of waste are hard to countenance, and, largely, we don't.

Globally, humanity has evolved into the modern disposable society, readily buying and discarding non-recyclable products and packaging that were designed to enhance consumer convenience and regular repeat purchases. For the most part, consumers—and I am very much a part of this—buy disposable items and discard them, and we are largely inattentive to where our waste goes. With an addictive satisfaction (but largely without conscience), we each contribute to vast concentrations of waste that nature

can't digest and that add toxins into the atmosphere. Our blind eye to how much waste we produce and contribute is a spiritual breach. The flush syndrome is very much an aspect of our shadow, and it festers into a collective disrespect for our home—our planet.

Tom Szaky is a waste pioneer and an eco-capitalist. At age 31 he's running a company that operates in 24 countries, collecting and recycling waste that is otherwise landfilled or incinerated. In this book Tom illuminates pathways to finding "gold in garbage heaps" and, more importantly, explains how human-created waste can be reused, recycled, and reintegrated into our commercial systems. Through his company, TerraCycle, and this book, Tom is tackling a seemingly unsolvable global problem to which each individual contributes. Thanks to this book, I can no longer acquire and discard unconsciously, and as I've long said, change begins with awareness.

Tom's prescription isn't abstinence: He too likes to buy and own, and he is very much aware of the short life cycle of most goods. Rather, Tom suggests that we might consume our way out of the problem—practically aligning the economic forces that drive consumerism to a positive role in the solution. Tom brings the global waste picture into new focus, and in so doing he may help us solve the individual and societal compromises we each make when we somewhat blindly and seemingly helplessly discard and pollute our planet, our home, and our corporal body.

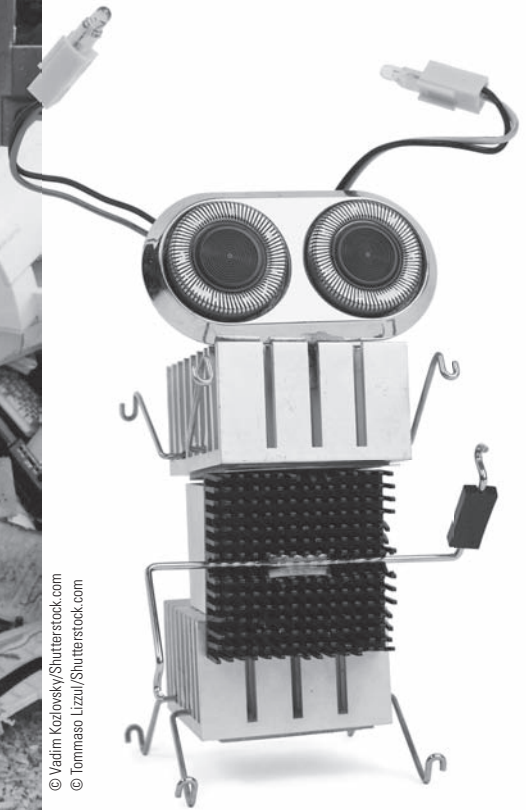
—Deepak Chopra





## Introduction

# The Unique Nature of Garbage



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Garbage” is a uniquely human concept that does not exist in nature. In nature the output, or waste, of one organism is the useful input for other organisms. Feces from a fox can become food for a berry bush, whose fruit can later become the food for a bird that may end up as supper for the fox whose droppings started it all. This natural harmony is rooted in the principle that the outputs of organisms tend to bring significant, if not fundamental, benefits to other organisms.

With the creation of synthetic materials, humans have broken this natural harmony. While plastics and other man-made materials have allowed us to innovate and create products cheaply, when they hit the end of their useful life they become useless outputs that nature doesn’t know what to do with. Not only are many of these new products relatively cheap to buy but many of us typically don’t even have to have the actual resources to buy them; gaining debt (through credit cards and other loans) is perhaps the easiest it has ever been.

Of course, there are ways to better realign ourselves with the harmony of nature. Buying products differently—buying consciously, buying durable, buying used, or simply not buying at all—is a straightforward way that individual consumption can have a smaller impact on nature.

It is quite difficult, however, to lead a life in which we do not buy anything or buy only our bare essentials (food and a few

scraps of fabric to cover our bodies). I have started down the path of rethinking what I buy and have found it to be an uphill battle. Like most people, I enjoy acquiring things; the feeling when I open a box with something new to possess inside it is still thrilling, and that fleeting thrill is encouraged by a global culture of rampant consumerism. Just think of how many stores and advertisements we pass by on a daily basis that encourage more and more consumption—all seeming to scream, “You’ll gain happiness by buying me!”

We see fish with bellies full of plastic and birds making nests from cigarette butts, and the problem only compounds with our tendency to overconsume. Easy and cheap access to many goods, a dramatic increase in global population, and a throwaway consumer culture have resulted in a global garbage crisis.

## **What Currently Happens to Our Waste?**

Our waste is a monumental problem. Over the past 100 years, the amount of waste that humanity produces has increased by almost 10,000 percent. Developed countries produce more than 4 pounds of waste per person per day.<sup>1</sup> Of that staggering volume, it is estimated that 25 percent ends up in our oceans, forming five gigantic, Texas-sized ocean gyres of garbage.<sup>2</sup> Because of the complexity of much of our garbage, only a small percentage gets recycled.

The majority of the waste that isn’t recycled and doesn’t wind up in the ocean is effectively mummified and

compressed in landfills, leaching out methane and other toxic outputs over time. If it is not buried, it is typically burned in incinerators. While a very small percentage of incinerators do produce some energy as an output, in the process they also destroy all possible value except the caloric (or energy) value inherent in the materials. You can burn something only once.

While the global garbage crisis touches every individual in the world and grows every year, there is cause for optimism. Garbage is a rare example of an environmental problem over which, as individuals, we have tremendous control. The key question is: why do we spend huge amounts of resources—energy, money, and time—to extract oil from the ground and refine it into high-grade plastics, only to burn or bury it after one short use?

Unfortunately, and unlike nature, we often view our waste as something without any inherent value. Fortunately, it doesn't have to be this way.

## **A Circular Solution to Waste**

To properly manage our waste, we need to bring a perspective of value to it, as nature does. Instead of seeing waste purely as a negative—a useless by-product that we spend money to burn or bury—perhaps we can start seeing it as a positive: an inherently valuable combination of materials that can be processed and shaped into objects with specific purposes. The key is to see our outputs not as

problems but as assets; it is to see “waste” not as the end of a linear process but as a stage in a circular life cycle.

*Reuse*—a synonym of *buying used*—is perhaps the solution that most clearly sees the value inherent in our waste. It effectively says that the “waste” object is waste only in the eyes of the initial user; the object retains all of its initial utility in the eyes of the next user and because of that perspective doesn’t actually end up as “garbage.” If I’m tired of my jeans and put them in the local clothing drop and someone else buys them a few months later, that pair of pants was never rendered waste: they didn’t end up in a landfill, and a new pair of pants did not have to be made to meet the needs or desires of the second user.

Not everything is as simple to reuse as a pair of jeans, and most human waste cannot be reused at all. From an empty potato chips bag to a used toothbrush, many objects can serve their intended function only once. *Upcycling* is an emerging trend whereby one sees value in both the composition and the form of an object but not the intention. That crumpled bag that once held a few handfuls of chips can be folded into a purse or bracelet. The used toothbrush can become a pen, a doormat, or one of any number of useful objects. Although more energy is used to upcycle an object than is needed to simply reuse it, it is usually a relatively small amount.

If upcycling a particular waste product is not possible—as is the case with items like dirty diapers and cigarette



butts—the product can typically be deconstructed into its component parts and used again. A used diaper or pile of cigarette butts can be shredded and separated into their respective raw materials. The resulting material, from the plastic to the organics, can be used again for different purposes. While the initial intention and form of the object is destroyed, new raw materials don't have to be extracted from the earth, and synthetic products aren't added to a landfill or some plastic island in the ocean.

## **It's All about the Economics**

In the end all waste can be reused, upcycled, or recycled, avoiding the need to burden our planet with the constant extraction of raw materials and the introduction of synthetic ones. The challenge in all of this—whether you are trying to limit your purchasing or process waste through circular solutions—is one of economics.

In terms of waste generation, if we seriously limit our buying or exclusively buy used durable goods, we will likely negatively affect our economy, making it harder to keep our growing population gainfully employed. In terms of waste processing, circular solutions depend on waste separation, which is typically more expensive than simply burning or burying waste.

The question we must grapple with is this: Are we willing to live with moderated economic growth in exchange for a healthier planet? We can make environmental progress

in the short term without sacrificing our staggering economic growth, but a long-term, sustainable solution will require fundamental changes to our culture, economy, and individual perspectives. Do we want to live in a world where we are actively destroying our planet to fuel a need to acquire physical objects? Or do we want to rethink how we create and handle our waste, making possible a more balanced—and perhaps even happier—existence?

The best part of attempting to deal with the problem of garbage is that it is something we can do immediately, as individuals. We are, after all, the root cause of garbage.

To outsmart waste, we have to understand what it is and where it comes from; then we can rethink the ways in which we create waste and what, ultimately, we can do with it.

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## Chapter 1

# Where the Modern Idea of Garbage Originated



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