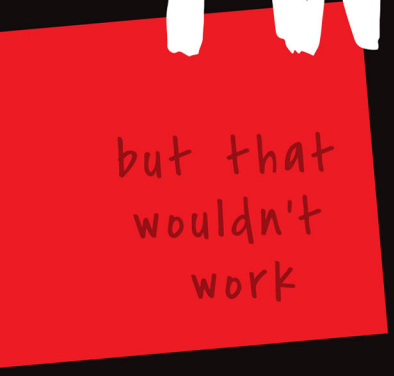
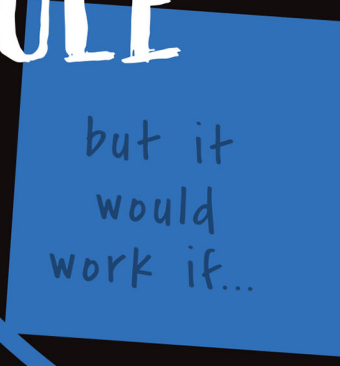
TURN NEGATIVE THINKING INTO POSITIVE SOLUTIONS

THE TWO BUT RULE





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Contents

Introduction

We're in trouble. The world feels like it's coming apart. And every solution, every innovation, seems to deliver a truckload of new problems. We're in fight-or-flight mode all the time, driven by fear. Fear of the unknown, fear of seemingly insurmountable problems, and fear of each other. Some of us respond to this by clinging to blind optimism, some wallow in obstinate negativity, and some offer half-baked ideas and censor those who question them.

This book offers an alternative, a way out of endless, circular arguments. It offers a path to solving impossible problems and capturing opportunities beyond our wildest dreams. To do that, we must rediscover an asset that most of us have been sitting on our whole lives.

This is your guide to discovering the positive power of negative thinking. We're going to dive headfirst into the benefits of contrarian perspectives and challenge the way we react to them. We'll traverse the spectrum from blind optimism to obstinate negativity and find the sensible middle, where innovation and practicality don't have to be at odds. We won't be wallowing in negativity. Instead, we'll harness it and turn it into an engine that drives us toward better solutions and better understanding of the problems themselves.

This is the practice of Momentum Thinking, or, as I like to call it, *The Two But Rule*. Momentum Thinking is a way to tackle complex problems and opportunities without slowing down or ignoring issues. It's not a miracle cure or an overnight transformation but a useful habit of balanced, nuanced, and innovative thinking.

Part 1 of this book covers the essentials of Momentum Thinking, guided by vivid examples, engaging stories, and some admittedly adolescent humor. We'll review catastrophes caused by failures to apply the Two But Rule and successes of those who, consciously or unconsciously, applied it well.

Part 2 shows how to put the Two But Rule into practice on teams and how to turn Momentum Thinking into *Momentum Doing*. Then we'll explore important techniques and tools (including the use of artificial intelligence) to help remove some of the frictions that can hinder the practice.

Part 3 puts it all to the test on life's toughest problems, from the personal to the professional to some of the biggest challenges facing humanity.

Why is all this crucial for you? Because the world isn't getting less complex or uncertain. You're going to need a way to find clarity amid chaos, see opportunities where others see dead ends, and make connections in a world that seems more divided than ever. This isn't just about problem-solving. It's about harnessing the potential within you and the people around you to create lasting, positive change.

So, if you're ready to grow your capacity to see problems clearly and to solve them creatively, it's time to unleash the power of the Two But Rule—not just for you but for a world that needs a new burst of momentum.

Be sure to join in our community of innovators and problem solvers at `2buts.com`. And for more support and tools for applying Momentum Thinking to your life and work, visit `TheTwoButRule.com`.

CHAPTER

1

Embracing Your But

Something's on your mind. You've got things to do and problems to solve. We're not talking about the simple stuff like deciding to take a break from social media. We're talking about the complex, high-stakes stuff like starting a company when you're broke, studying for exams while working two jobs, or re-creating Grandma's famous holiday stuffing without the recipe. Whatever it is, you're stuck, and you're searching for a way to figure it out.

In that search, you're going to come up with a lot of dumb ideas. If you don't, you're not doing it right. That idea you had in the shower this morning? Yeah, not good. Don't feel bad. It's just not good *yet*.

You're not alone: YouTube started as a video dating site. PayPal started as a way to beam money between Palm Pilots. (Remember Palm Pilots?) Sparkling Champagne began as a fermentation accident that caused bottles to explode. And my first attempt at re-creating Grandma's stuffing involved dousing it in vodka.

(After I worked my way through the liquor cabinet, bourbon was the answer.) These are just a few of the countless cases of getting smart by starting dumb.

Overcoming seemingly impossible problems and creating truly innovative things depends a lot on how much momentum you can muster when turning bad ideas into good ones.

But standing between you and the promised land of solved problems and glorious achievements are a bunch of meddlesome other people—and one particularly meddlesome person inside your own head—who are going to slow you down, trip you up, and send you crashing into a dead end. And they'll use one powerful, much maligned word to do it: *but*.

"But that won't work." "But it's too expensive." "But we have better things to do." But, but, but.

You probably don't like the buts. But, you should. In fact, if you want to have the best chance of success in whatever you do, you need to embrace a lot of buts. And that's the funny thing about them: even though a single one will stop you in your tracks, buts can really generate momentum when they come in pairs.

Momentum Thinking That's what the Two But Rule is about. It's about turning the world's biggest idea killer—and arguably the world's biggest relationship killer—into a powerful tool for getting unstuck, building velocity, staying nimble, and even repairing relationships. It's a tool that's always with you, though you rarely look at it, and you have to be mindful about how you display it in public. Yep…it's your but.

You might believe that you know your but, but you don't. There's a lot more there than you think. Throughout this book, we'll explore many useful kinds of buts, how to get them into shape, when to reveal them, and why it's essential that all buts come in pairs.

This is the basis of the Two But Rule: following "But that won't work" with "BUT it would if…" will lead reliably to more

positive outcomes for you, your ideas, and the people in your life. Like a Shakespearean comedy, applying the Two But Rule starts out negative but turns positive in the end.

Chapter 17: Ocean Plastic

Between 4 and 12 million metric tons of plastic enter the world's oceans every year. It can take hundreds of years to completely biodegrade. And as plastic breaks down, it becomes nasty bits of microplastic. Microplastics now show up in everything from plankton to humans…even human placentas. Catch plastic before it reaches the ocean, and you have a better chance of get-ting it out of the environment before it breaks down. But once it's in the ocean, much of it is destined to become an unrecover-able, pervasive part of the ecosystem.

We're still learning the specific harms all this plastic is doing to marine life (and to ourselves), but it doesn't take a marine biologist to understand that this is a problem that should be prioritized right up there with getting Elon Musk off the planet and resolving Taylor Swift's war with Ticketmaster.

Research chemist Captain Charles Moore made combatting ocean pollution his life's priority. He's famous for discovering and studying a giant mass of human-made trash swirling around the North Pacific known as the Great Pacific Garbage Patch. It's about twice the size of Texas (620,000 square miles) and home to a lot of plastic, more than a trillion pieces. It's one of five known accumulation zones in the world's oceans.

When science reporter Kate Bieberdorf asked Captain Moore in 2023 what he thought we could do to stop plastic pollution and clean up the mess, the man who had devoted his life, career, and fortune to the mission said simply, "Cleanup is an impossibility, and stopping it is also impossible."

That's a pretty definitive 1But. Let's see where the Two But Rule takes us.

Before we continue, I should tell you that this is a long case, the longest one in this book. The landfill full of buts we're about to pick through can really wear you out. I've added some pauses and a few jokes here and there to make this story easier to digest. (Easier than a tasty hunk of plastic.) With that said, let's get ourselves up to our buts in plastic.

Here's our intention: Massively reduce plastic entering the ocean so that it stops being a factor in the destruction of the marine ecosystem, which provides a significant portion of the world's oxygen and much of the human food supply.

But massively reducing the flow of plastic into the ocean feels overwhelming, because it's hard to know where to start. BUT there's enough data today to pick a starting place where specific actions can have the greatest impact.

Let's look at the different ways we can reduce the flow of plastic to the ocean.

- We can catch the plastic before it reaches the ocean.
- We can reclaim perfectly sorted plastic waste immediately at the point of consumption.
- We can magically make the plastic disappear after it reaches the sea or transform it into a substance that won't hurt the ecosystem. (Crazy, yes, but stay with me.)
- We can stop making and using plastic. (Well, that's definitely crazy talk, right? Stay tuned.)

Let's take a look at the first option. Around 60 percent of plastic pollution gets to the ocean by way of rivers. Eliminating that source would massively reduce ocean plastic pollution. Definitely a good start.

But removing plastics from rivers isn't practical, because there are hundreds of thousands of rivers covering millions of miles.

BUT recent studies show that about 80 percent of river-borne plastic enters the ocean through only a thousand rivers. If those figures are correct, we could prevent roughly 50 percent of new plastic flowing to the ocean by catching and removing it at these specific locations. A thousand sites might seem like a lot, but it's a finite, workable number.

But the task of finding and physically removing plastic from these rivers is still daunting and expensive. We're talking about literally millions of miles of water under the jurisdiction of many different countries. BUT we can reduce the problem of finding the plastic by erecting filters to catch the plastic near estuaries, the river mouths that flow to the sea.

But that won't work for several reasons. First, there are many types of river estuaries, and plastics are known to inhabit water strata all the way from the riverbed to the surface. To effectively catch and remove the plastic, we would have to create filters that covered the entire breadth and depth of the river while allowing the water to flow freely. Otherwise, the water would simply overflow the barrier or create a new opening to the ocean.

Second, river estuaries are complex and diverse. Building custom filter barriers for each type would significantly increase complexity and cost.

Third, even if we could erect inexpensive, effective filter barriers that let water flow freely, they would disrupt fish and other marine creatures and would certainly hinder boats and other maritime traffic in and out of the river. That's a nonstarter for any navigable waterway, and some of the most polluted estuaries that need cleaning are also ones that provide shipping access to ports.

BUT what if we could erect a filter barrier that entirely covered almost any type of river with a simple and reasonably inexpensive mechanism to deploy and maintain, one that didn't disrupt marine life or navigation?

It turns out that a company in the Netherlands has done exactly this. The Great Bubble Barrier company has built what it calls a Bubble Barrier and demonstrated that it can collect as much as 86 percent of river-borne plastic before it reaches the sea.

According to the company, the curtain works by pumping air through a reasonably simple and inexpensive perforated tube placed on the bottom of the waterway. This creates an upward current, which brings the plastics to the surface. By placing the tube diagonally in the river, the natural flow of the water directs the plastics into a catchment system at the riverbank. The Bubble Barrier allows fish to pass, doesn't hinder ship traffic, and covers the entire width and depth of the waterway.

The first long-term bubble curtain was installed in Amsterdam in November 2019. In 2022, the first bubble curtain to be implemented in an estuary was placed in de Oude Rijn, in Katwijk. The company now has plans to roll out the solution to more rivers in Europe and Asia.

Problem solved, right?

But this is just a small implementation, and we need 1,000 estuaries covered as soon as possible. And even in the European Union there are as yet no comprehensive regulations driving river plastic monitoring or cleanup.

BUT, the Great Bubble Barrier's CTO, Philip Ehrhorn, points out that they are already using general pollution regulations and initiatives to drive momentum. There's active interest from municipalities to reduce the tourism-killing ugliness of floating debris. Plastic debris also fouls waterway management systems and hydroelectric power plants. That's a start as plastic regulation catches up.

But the company reports that an impediment to faster deployment is the complicated governance structures around waterways. It's not always clear who has responsibility for this kind of cleanup at the river mouth. Who should pay for it? Who

should collect the revenue from selling or processing the waste? Who should be responsible for maintenance? BUT the company has developed a service to help municipalities navigate these political and jurisdictional waters, and it's starting to work. They have expanded to advocating that river plastic be defined and included in the UN Global Plastics Treaty.

But there are limits to the kinds of rivers the Bubble Barrier can support right now. Anne Marieke Eveleens, a cofounder of the Great Bubble Barrier, says, "Some port rivers can be too deep, and it's difficult if there is riverbed dredging multiple times a year." BUT a new study has revealed that the majority of river plastic is entering the ocean from small and medium-sized rivers where the Bubble Barrier has already proven effective. And they are still pushing the limits of their technology.

But even if we immediately were able to implement solutions like the Great Bubble Barrier, there's still a big problem. We don't know what to do with all the plastic we catch. And a lot of other kinds of trash and material can wind up in the catchment system. Furniture, mattresses, clothing, teddy bears, diapers, and even refrigerators and tires. A lot of floating organic matter can also get caught, including wood, weeds, and dead animals.

Sorting through all this stuff and sending each type of waste material to an effective and ethically responsible recycling facility is another daunting proposition.

There are two BUTs here. First, unlike other filtering systems that use skimmers and grates, the Bubble Barrier doesn't tend to get fouled as much with big heavy stuff like refrigerators, mattresses, and the occasional dead moose. Second, what if there were a way to automate sorting, inexpensively convert the plastic and other materials that enter the catchment, and turn all the waste into profitable, useful, or at least harmless byproducts right there on site?

Remember Elon Musk's fuzzy but, imagining a "magic wand for turning atoms into rockets" that led to 3D printing SpaceX Raptor engines? What if we could reverse the idea and turn junk back into atoms: pure and profitable recycled plastic base ingredients, environmentally safe byproducts, energy production, and materials that the local community near the collection site could turn into products? What if we could do that without having to incur the expense of transporting it from the river collection site?

This *fuzzy but* is admittedly a bit of science fiction, but it's still a legitimate application of Momentum Thinking. And there are examples of on-site reclamation systems that exist today. There's an AI optical system that, connected to a high-speed air-jet, identifies different kinds of plastics and blows them to different bins at astonishing speed. There's a company in Africa that grinds up all kinds of plastic and bakes it into construction bricks that are virtually indestructible, water resistant, and up to 40 percent cheaper than traditional building material.

AI is getting in on the act, as you'd expect. Researchers at the University of Texas at Austin used an AI neural network in 2022 to look at 19,000 proteins and discovered three combinations that generated a highly active enzyme that broke down a plastic tray within 48 hours. They call it the Super Enzyme, and it can retrieve 94.9 percent of the material needed to make new plastic products. This can reduce the need to make new plastic from fossil fuels. The output is pure liquid ingredients that are easy to transport. Imagine a river catchment system that dispensed plastic "liquid gold" like tapping a maple tree for syrup.

But not all plastics work in this process, so we need to sort them, and that can be expensive, time-consuming human labor. BUT Sweden's Chalmers University built a test plant in 2020 that allows mixed plastics to be recycled without sorting. That process currently has its own limitations, but the work continues.

Perhaps several of these automated processes can be combined into a comprehensive on-site reclamation system in the near future.

But even if possible, such a contraption is likely to be capital intensive to make and manage, negating the low cost of dropping a bubble curtain tube on the riverbed. BUT perhaps this would be an opportunity for a community fractional-ownership investment model, like a co-op where everyone in the community can contribute to the effort, take advantage of the outputs, and profit from dividends. Does this set up another chain of buts? Absolutely. That's your cue to go looking for more buts on your own. Let's move on for now.

Catching plastic entering estuaries is a great start, but a lot of plastic gets stuck and starts breaking down in rivers before reaching the ocean. This hurts river ecosystems. BUT if the cost of a Bubble Barrier or other appropriate catchment system were inexpensive enough, we could continue to install them further and further upstream.

But at the end of the day, even if we manage to develop magical, cost-effective machinery for getting the majority of plastic out of rivers, there's still more that will slip through. And at our current rate of consumption, that's still too much. BUT it would be a lot easier if we could magically reclaim all the plastic, perfectly sorted, immediately upon consumption.

Now we're into option #2. We could reclaim plastic waste immediately at the point of consumption and never let it get into the environment. Problem solved!

But there are many big problems with this. (Rejoice! Remember, we love big buts.) Let's start with the most obvious problem: humans have proven for generations that we suck at consistently sorting trash and properly recycling. BUT today's inexpensive optical components, processors, and AI applications can allow us to make affordable smart trash bins that take the mental work

out of sorting. (If 5.2 billion people have a supercomputer in their pocket in the form of a smartphone today, this isn't an outlandish idea.)

But even if every person had a smart bin to make recycling easier, we can be confident that they still won't prioritize recycling as much as needed to achieve our goal. BUT humans are really, really good at prioritizing things that make them money. Why not combine the smart bin with a compensation system that gives consumers credits of real value based on improved recycling profit margins from getting high-purity inputs?

Sound crazy? Well, let me tell you a story about soda and beer cans in the early 1970s. As drink can manufacturing moved from steel to aluminum, my home state of Michigan implemented a plan that paid money for every reclaimed can. In those days, the sides of streets were carpeted in them. Yeah, it was crazy. Apparently Americans had no compunction about tossing trash out of car windows. I would troll my street every weekend for cans.

It became an adolescent's gold mine. Other kids entered the business, and there was cutthroat competition for every last can we could find. Turf wars were fought over those cans. I'm pretty sure I remember earning a black eye in one battle. Soon, there wasn't a can to be found anywhere.

Some states today have bottle and can deposit laws, which makes reclamation attractive. Industry argues that this increases costs, which are passed on to consumers. And in many places recycling bin programs have replaced the practice. Still, recycling rates in places where consumers get cash for recycled items are significantly higher.

But putting a bounty on every piece of plastic the way Michigan did with cans doesn't seem likely. BUT there are actual companies combining the idea of the smart bin and a rewards system right now.

Cambridge Consultants offers a smart bin that uses image recognition to determine what material an item is made from and helps sort it. There's an associated smartphone app that doles out reward points to the user once the item has been correctly deposited. Points can be spent in various ways, including donations to charity.

The Garbi smart recycling bin takes this a step further. It identifies items, sorts them, and can then add them to a shopping list. It can even order delivery through Instacart, Amazon, and Amazon Fresh.

Another product, aptly named The Smart Bin, measures the weight of the material collected, calculates the amount of carbon saved by recycling, and grants rewards points.

But even if everyone on Earth had a smart bin and every river in every country were effectively filtered for trash, millions of tons of plastic would still slip into the oceans every year. And there's already too much plastic out there to begin with.

This takes us to option #3: magically make the plastic disappear after it reaches the sea, or transform it into a substance that won't hurt the ecosystem.

Microorganisms have evolved to break down almost everything in the natural world. They even help metals oxidize. The problem with plastics isn't that they can't be degraded into basic molecules. It's that they've been so recently introduced to the environment that no microorganisms have evolved to use them as a food source. Or so we thought.

In 2016, researchers in Japan discovered a bacteria called *Ideonella sakaiensis*, which they found living on discarded bottles and using the plastic as an energy source. Studying these bacteria led researchers at UT Austin to design the so-called Super Enzymes mentioned earlier. In other research, the University of Sydney discovered that two fungi can turn some plastic into carbon dioxide and harmless monomers. There are now 28 known

species of fungi that can degrade plastics. And now waxworms have been found to eat polyethylene plastic bags, while some kinds of mealworms have been found to eat Styrofoam.

So maybe the microbiome will evolve to clean up our mess for us. Or as the AI-driven genetics work suggests, perhaps we can turbocharge Mother Nature and design superorganisms that will make a meal of all kinds of plastic.

But wait! What about the unintended consequences of releasing these organisms into the environment? And in any event, we don't want to wait for Mother Nature to solve our problems. BUT we can do some other things to clean up the mess that's already in the ocean.

In 2012, a Dutch teenager named Boyan Slat gave a TEDx Talk and proclaimed that we could clean the Great Pacific Garbage Patch—the one that Captain Moore discovered and later said was part of the plastic problem we couldn't solve—in five years' time. He was wrong about the timeframe. BUT, the organization he started, the Ocean Cleanup company, has removed 200 metric tons of plastic from the North Pacific so far, using a giant flexible ocean skimmer stretched between two ships.

But that's about only two-tenths of a percent of all the plastic out there, and the garbage patch is still growing. BUT the team is working on a system that's supposed to be three times bigger.

But critics are concerned that the system catches living organisms along with the plastic. And while the company says that the system creates a downward current flow that allows fish to swim below the skimmer, they do find plenty of fish, crabs, and other organisms caught in it. BUT the company says that it's working on ways to reduce this.

But the basic design of the skimmer makes it unlikely that disrupting marine life can be avoided completely. Sea urchins, sea stars, and other creatures are now mixed up in the plastic. Some even attach their eggs to it. What's the 2But here?

While they aren't giving up on their work in the Garbage Patch, Ocean Cleanup has turned its attention to river cleanup. They run skimming operations on rivers like the Ozama in the Dominican Republic, which is one of the most polluted rivers in the world. Ocean Cleanup has managed to collect 10 times more plastic from rivers than from its ocean operation. So, as we've discussed, sometimes we find one chain of buts crossing into a parallel chain. In this case, ocean cleanup leads back to river cleanup.

But even though as much as 80 percent of ocean plastic comes from rivers and coastlines, 20 percent comes from maritime waste. Fishing. And this stuff is the worst.

Discarded plastic fishing nets called ghost nets entangle marine life of all kinds and can damage coral reefs. They are an abomination. Other trash, like plastic filament from broken fishing line, bottles, and other plastic gear thrown overboard from ocean vessels, make up the rest.

Here we could say that the obvious 2But is, "BUT we could encourage fishermen to not use plastic ghost nets, find solutions to the problem of broken fishing lines, and in general be responsible for their trash." BUT in this case, a much more fun solution comes from the 1990s movie *Austin Powers*. We could arm the fish with "*frickin'* laser beams attached to their heads." This would allow them to cut through ghost nets and…maybe bring the ecosystem back into balance by reducing the population of plastic-polluting fishermen. Just kidding. Fishermen are full of plastic and not a healthy meal for well-armed fish.

But the presence of a patently silly but, and a good bit of science fiction, suggests that cleaning up the 100 million metric tons of plastic that's already in the ocean is going to be a real pain in the *but*. BUT there's one more option for at least not making it worse.

Option #4: Humans consume 300 million metric tons of plastic annually. Massively reducing the flow of ocean plastic (and

reducing terrestrial pollution while we're at it) would be effectively accomplished if we simply…stopped doing that. Easy peasy. Simple solution, right?

There's a common refrain among plastic pollution experts: the best way to keep plastic out of rivers, oceans, and the environment is to make less of it. But we aren't doing that. Captain Moore himself admits that humans have demonstrated no ability to stop using plastic, and an industry that employs a million people and generates $100 billion in revenue in the United States alone relies on us continuing to use it.

With plastic so pervasive, it's unrealistic to expect that some of it won't wind up in the environment. More like a lot of it. (We are messy creatures.)

Even anti-plastic advocates, the ones who carry around silverware and won't hold a plastic cup when asked, admit that it's "almost impossible" to be a perfectly plastic-free person today.

BUT we should remember that the world lived without plastics until well into the 20th century, which is really not that long ago. And there are tons of new products and packaging options that use alternatives to plastic.

The green straws you find in Starbucks today are made from polylactic acid (PLA), a biodegradable bioplastic made from cornstarch or sugarcane. PLA is somewhat more expensive than some alternatives, and it melts at a lower temperature, but it doesn't go mushy and fall apart like Starbucks' short-lived attempt at cellulose-based straws. PLA is also used in some 3D printing applications.

Corn bioplastic is a relatively new material that can be used for food packaging, even utensils. It's inexpensive and biodegrades in about two to three months.

There's an invasive brown seaweed called wakame in Australia that can be an alternative to plastic wrap. It's edible and decomposes after two weeks.

There are alternatives for hard plastics, soft plastics, shiny plastics, high-temperature plastics, and clear plastics. You've probably noticed that the polystyrene "shipping popcorn" (aka package peanuts) you used to find in boxes has been replaced with either a starch-based popcorn (delicious), air pillows, clever cardboard formations, or even mycelium-based "mushroom popcorn." If there's a plastic product out there, someone is likely working on finding an alternative that can be commercially viable at scale.

There are also a growing number of ways to make plastics that break down faster. A commercial plastic additive called Evanesto will allow single-use plastic products like yogurt cups to break down in a normal backyard compost bin in roughly 300 days.

But, there are clearly a ton of other *buts* to consider with each of these alternatives. And there are plenty of chemists and other scientists voicing skepticism and concern over the prospect of enzymatic solutions, biodegradation accelerant additives, and alternative materials.

BUT Momentum Thinking suggests that there is reason for hope in this. Scientists and engineers, working in cultures that understand and accept the Two But Rule (and don't maintain a no-buts policy), are like those plastic-munching enzymes. They can use their powerful buts to break down problems and continuously find new solutions. Just as AI is improving those Super Enzymes, making them faster, we know that the Two But Rule is the way to accelerate the process of turning buts into breakthroughs.

But none of these projects—from the Great Bubble Barrier to smart bins to fish with frikkin' laser beams on their heads—are yet putting even a tiny dent in the global plastic problem. BUT, as John Hagel points out in *The Journey Beyond Fear*, there is enormous power in telling stories like these. Showing real deployments, even small ones, reduces uncertainty, reinjects

momentum, and encourages others to support the work. And telling the whole story openly, including all the 1Buts and 2Buts, can make it more powerful and actionable. A great way to turn doubt and skepticism into support and action is to preemptively show your whole hand: what works, what doesn't work, what doesn't work yet, what can scale, what can't, and what we don't yet know how to solve.

For every one of these stories—both the practical ones and the seemingly crazy ones—there are many more buts to explore. More than could fit on the pages of this book before it wound up becoming its own mountain of paper waste. The rest are for you to discover.

An academic paper published in the journal *Science* in 2020 projected the impacts of various methods for reducing environmental plastic by 2040. Here's the quote that stood out to me: "Our analysis indicates that urgent and coordinated action combining pre- and post-consumption solutions could reverse the increasing trend of environmental plastic pollution." I don't know about you, but these kinds of statements drive me crazy. They might be talking about the overabundance of plastic, but they demonstrate a serious scarcity in their supply of buts. That's odd, because there are so many of them! But the petroleum industry really likes to make money. How are you going to get them to play ball and willingly take steps that would make them less money? But most plastic alternatives are still more expensive for manufacturers and less effective, convenient, or appealing to consumers. You can shame or cajole some people into spending more for less, but especially in the parts of the world suffering under tight economic conditions, there are plenty of people who will kill a turtle to save a dime. Especially when they don't have to watch the turtle choke out on their plastic…assuming they never search YouTube for "turtle suffocating on plastic." (Seriously, don't search for that unless you're prepared to see some horrible stuff.)

This is a book that I hope has delivered a few good reasons why we need to reintroduce more buts to our lives—and provided a few ways to do it. So when an expert in industry, academia, or government tells you that the solution to a gnarly problem is "joining together in a comprehensive approach…blah blah blah," you can tell them to show you their buts so that you can "join together" in uncovering more. (And be sure to tell them to ensure that the total number of buts is always divisible by, yeah, two.)

When I started researching this topic, I was daunted by the magnitude of the problem. Then I noticed something. People doing real things to solve the plastic problem are *everywhere*. Their numbers are growing rapidly. And a lot of them have an engineer's love of processing an endless chain of buts into an endless series of solutions.

The ultimate BUT is this: we can work on all these approaches and keep trying more, learning more, until the job's done. And while society seems to take forever to change habits and priorities, some critical generational shifts have already happened in large parts of the world. We might have just enough time left on the ecological "time's up" clock for the rising Clean Generation—the greatest generation of cleanup artists ever to walk the Earth—to finally prioritize the work and fix the mess we all made.