

THE FUNDAMENTALS

Why Tiny Changes Make a Big Difference

The Surprising Power of Atomic Habits

THE FATE OF British Cycling changed one day in 2003. The organization, which was the governing body for professional cycling in Great Britain, had recently hired Dave Brailsford as its new performance director. At the time, professional cyclists in Great Britain had endured nearly one hundred years of mediocrity. Since 1908, British riders had won just a single gold medal at the Olympic Games, and they had fared even worse in cycling's biggest race, the Tour de France. In 110 years, no British cyclist had ever won the event.

In fact, the performance of British riders had been so underwhelming that one of the top bike manufacturers in Europe refused to sell bikes to the team because they were afraid that it would hurt sales if other professionals saw the Brits using their gear.

Brailsford had been hired to put British Cycling on a new trajectory. What made him different from previous coaches was his relentless commitment to a strategy that he referred to as “the aggregation of marginal gains,” which was the philosophy of searching for a tiny margin of improvement in everything you do. Brailsford said, “The whole principle came from the idea that if you broke down everything you could think of that goes into riding a bike, and then improve it by 1 percent, you will get a significant increase when you put them all together.”

Brailsford and his coaches began by making small adjustments you might expect from a professional cycling team. They redesigned the bike seats to make them more comfortable and rubbed alcohol on the tires for a better grip. They asked riders to wear electrically heated oversHORTS to maintain ideal muscle temperature while riding and used biofeedback sensors to monitor how each athlete responded to a particular workout. The team tested various fabrics in a wind tunnel and had their outdoor riders switch to indoor racing suits, which proved to be lighter and more aerodynamic.

But they didn't stop there. Brailsford and his team continued to find 1 percent

improvements in overlooked and unexpected areas. They tested different types of massage gels to see which one led to the fastest muscle recovery. They hired a surgeon to teach each rider the best way to wash their hands to reduce the chances of catching a cold. They determined the type of pillow and mattress that led to the best night's sleep for each rider. They even painted the inside of the team truck white, which helped them spot little bits of dust that would normally slip by unnoticed but could degrade the performance of the finely tuned bikes.

As these and hundreds of other small improvements accumulated, the results came faster than anyone could have imagined.

Just five years after Brailsford took over, the British Cycling team dominated the road and track cycling events at the 2008 Olympic Games in Beijing, where they won an astounding 60 percent of the gold medals available. Four years later, when the Olympic Games came to London, the Brits raised the bar as they set nine Olympic records and seven world records.

That same year, Bradley Wiggins became the first British cyclist to win the Tour de France. The next year, his teammate Chris Froome won the race, and he would go on to win again in 2015, 2016, and 2017, giving the British team five Tour de France victories in six years.

During the ten-year span from 2007 to 2017, British cyclists won 178 world championships and sixty-six Olympic or Paralympic gold medals and captured five Tour de France victories in what is widely regarded as the most successful run in cycling history.*

How does this happen? How does a team of previously ordinary athletes transform into world champions with tiny changes that, at first glance, would seem to make a modest difference at best? Why do small improvements accumulate into such remarkable results, and how can you replicate this approach in your own life?

WHY SMALL HABITS MAKE A BIG DIFFERENCE

It is so easy to overestimate the importance of one defining moment and underestimate the value of making small improvements on a daily basis. Too often, we convince ourselves that massive success requires massive action. Whether it is losing weight, building a business, writing a book, winning a championship, or achieving any other goal, we put pressure on ourselves to make some earth-shattering improvement that everyone will talk about.

Meanwhile, improving by 1 percent isn't particularly notable—sometimes it isn't even *noticeable*—but it can be far more meaningful, especially in the long

run. The difference a tiny improvement can make over time is astounding. Here's how the math works out: if you can get 1 percent better each day for one year, you'll end up thirty-seven times better by the time you're done. Conversely, if you get 1 percent worse each day for one year, you'll decline nearly down to zero. What starts as a small win or a minor setback accumulates into something much more.

1% BETTER EVERY DAY

1% worse every day for one year. $0.99^{365} = 00.03$

1% better every day for one year. $1.01^{365} = 37.78$

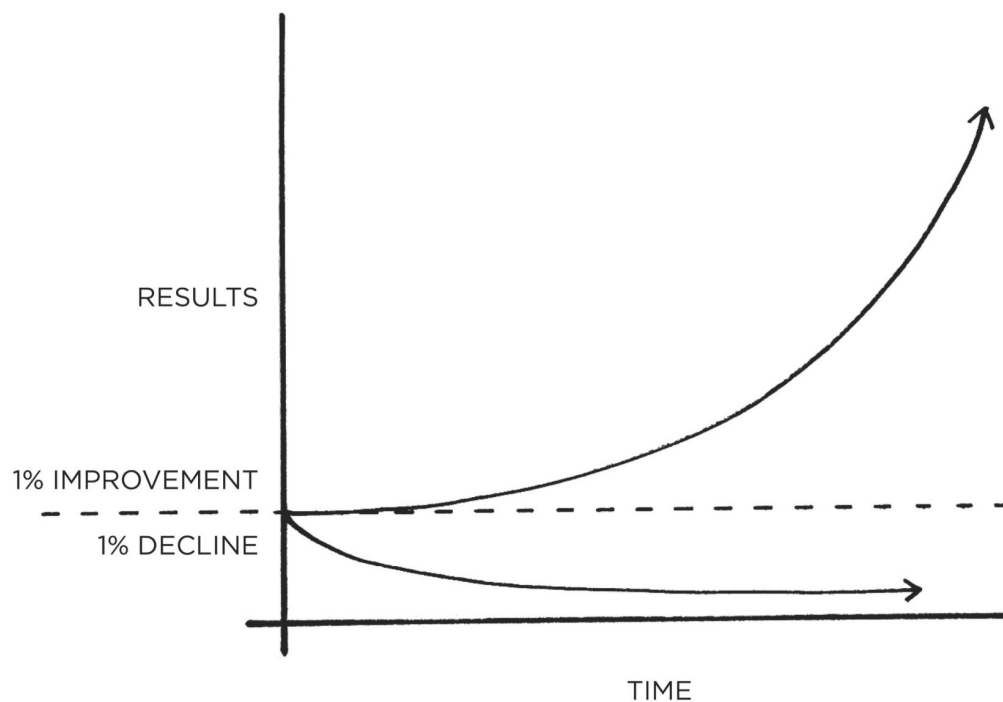


FIGURE 1: The effects of small habits compound over time. For example, if you can get just 1 percent better each day, you'll end up with results that are nearly 37 times better after one year.

Habits are the compound interest of selfimprovement. The same way that money multiplies through compound interest, the effects of your habits multiply as you repeat them. They seem to make little difference on any given day and yet the impact they deliver over the months and years can be enormous. It is only when looking back two, five, or perhaps ten years later that the value of good habits and the cost of bad ones becomes strikingly apparent.

This can be a difficult concept to appreciate in daily life. We often dismiss small changes because they don't seem to matter very much in the moment. If

you save a little money now, you're still not a millionaire. If you go to the gym three days in a row, you're still out of shape. If you study Mandarin for an hour tonight, you still haven't learned the language. We make a few changes, but the results never seem to come quickly and so we slide back into our previous routines.

Unfortunately, the slow pace of transformation also makes it easy to let a bad habit slide. If you eat an unhealthy meal today, the scale doesn't move much. If you work late tonight and ignore your family, they will forgive you. If you procrastinate and put your project off until tomorrow, there will usually be time to finish it later. A single decision is easy to dismiss.

But when we repeat 1 percent errors, day after day, by replicating poor decisions, duplicating tiny mistakes, and rationalizing little excuses, our small choices compound into toxic results. It's the accumulation of many missteps—a 1 percent decline here and there—that eventually leads to a problem.

The impact created by a change in your habits is similar to the effect of shifting the route of an airplane by just a few degrees. Imagine you are flying from Los Angeles to New York City. If a pilot leaving from LAX adjusts the heading just 3.5 degrees south, you will land in Washington, D.C., instead of New York. Such a small change is barely noticeable at takeoff—the nose of the airplane moves just a few feet—but when magnified across the entire United States, you end up hundreds of miles apart.*

Similarly, a slight change in your daily habits can guide your life to a very different destination. Making a choice that is 1 percent better or 1 percent worse seems insignificant in the moment, but over the span of moments that make up a lifetime these choices determine the difference between who you are and who you could be. Success is the product of daily habits—not once-in-a-lifetime transformations.

That said, it doesn't matter how successful or unsuccessful you are right now. What matters is whether your habits are putting you on the path toward success. You should be far more concerned with your current trajectory than with your current results. If you're a millionaire but you spend more than you earn each month, then you're on a bad trajectory. If your spending habits don't change, it's not going to end well. Conversely, if you're broke, but you save a little bit every month, then you're on the path toward financial freedom—even if you're moving slower than you'd like.

Your outcomes are a lagging measure of your habits. Your net worth is a lagging measure of your financial habits. Your weight is a lagging measure of your eating habits. Your knowledge is a lagging measure of your learning habits. Your clutter is a lagging measure of your cleaning habits. You get what you

repeat.

If you want to predict where you'll end up in life, all you have to do is follow the curve of tiny gains or tiny losses, and see how your daily choices will compound ten or twenty years down the line. Are you spending less than you earn each month? Are you making it into the gym each week? Are you reading books and learning something new each day? Tiny battles like these are the ones that will define your future self.

Time magnifies the margin between success and failure. It will multiply whatever you feed it. Good habits make time your ally. Bad habits make time your enemy.

Habits are a double-edged sword. Bad habits can cut you down just as easily as good habits can build you up, which is why understanding the details is crucial. You need to know how habits work and how to design them to your liking, so you can avoid the dangerous half of the blade.

YOUR HABITS CAN COMPOUND FOR YOU OR AGAINST YOU

Positive Compounding

Productivity compounds. Accomplishing one extra task is a small feat on any given day, but it counts for a lot over an entire career. The effect of automating an old task or mastering a new skill can be even greater. The more tasks you can handle without thinking, the more your brain is free to focus on other areas.

Knowledge compounds. Learning one new idea won't make you a genius, but a commitment to lifelong learning can be transformative. Furthermore, each book you read not only teaches you something new but also opens up different ways of thinking about old ideas. As Warren Buffett says, "That's how knowledge works. It builds up, like compound interest."

Relationships compound. People reflect your behavior back to you. The more you help others, the more others want to help you. Being a little bit nicer in each interaction can result in a network of broad and strong connections over time.

Negative Compounding

Stress compounds. The frustration of a traffic jam. The weight of parenting responsibilities. The worry of making ends meet. The strain of slightly high blood pressure. By themselves, these common causes of stress are manageable. But when they persist for years, little stresses compound into serious health issues.

Negative thoughts compound. The more you think of yourself as worthless, stupid, or ugly, the more you condition yourself to interpret life that way. You get trapped in a thought loop. The same is true for how you think about others. Once you fall into the habit of seeing people as angry, unjust, or selfish, you see those kind of people everywhere.

Outrage compounds. Riots, protests, and mass movements are rarely the result of a single event. Instead, a long series of microaggressions and daily aggravations slowly multiply until one event tips the scales and outrage spreads like wildfire.

WHAT PROGRESS IS REALLY LIKE

Imagine that you have an ice cube sitting on the table in front of you. The room is cold and you can see your breath. It is currently twenty-five degrees. Ever so slowly, the room begins to heat up.

Twenty-six degrees.

Twenty-seven.

Twenty-eight.

The ice cube is still sitting on the table in front of you.

Twenty-nine degrees.

Thirty.

Thirty-one.

Still, nothing has happened.

Then, thirty-two degrees. The ice begins to melt. A one-degree shift, seemingly no different from the temperature increases before it, has unlocked a huge change.

Breakthrough moments are often the result of many previous actions, which build up the potential required to unleash a major change. This pattern shows up everywhere. Cancer spends 80 percent of its life undetectable, then takes over the body in months. Bamboo can barely be seen for the first five years as it builds extensive root systems underground before exploding ninety feet into the air within six weeks.

Similarly, habits often appear to make no difference until you cross a critical threshold and unlock a new level of performance. In the early and middle stages of any quest, there is often a Valley of Disappointment. You expect to make progress in a linear fashion and it's frustrating how ineffective changes can seem during the first days, weeks, and even months. It doesn't feel like you are going anywhere. It's a hallmark of any compounding process: the most powerful outcomes are delayed.

This is one of the core reasons why it is so hard to build habits that last. People make a few small changes, fail to see a tangible result, and decide to stop. You think, "I've been running every day for a month, so why can't I see any change in my body?" Once this kind of thinking takes over, it's easy to let good habits fall by the wayside. But in order to make a meaningful difference, habits need to persist long enough to break through this plateau—what I call the *Plateau of Latent Potential*.

If you find yourself struggling to build a good habit or break a bad one, it is not because you have lost your ability to improve. It is often because you have not yet crossed the Plateau of Latent Potential. Complaining about not achieving success despite working hard is like complaining about an ice cube not melting when you heated it from twenty-five to thirty-one degrees. Your work was not wasted; it is just being stored. All the action happens at thirty-two degrees.

When you finally break through the Plateau of Latent Potential, people will call it an overnight success. The outside world only sees the most dramatic event rather than all that preceded it. But you know that it's the work you did long ago—when it seemed that you weren't making any progress—that makes the jump today possible.

It is the human equivalent of geological pressure. Two tectonic plates can grind against one another for millions of years, the tension slowly building all

the while. Then, one day, they rub each other once again, in the same fashion they have for ages, but this time the tension is too great. An earthquake erupts. Change can take years—before it happens all at once.

Mastery requires patience. The San Antonio Spurs, one of the most successful teams in NBA history, have a quote from social reformer Jacob Riis hanging in their locker room: “When nothing seems to help, I go and look at a stonemason hammering away at his rock, perhaps a hundred times without as much as a crack showing in it. Yet at the hundred and first blow it will split in two, and I know it was not that last blow that did it—but all that had gone before.”

THE PLATEAU OF LATENT POTENTIAL

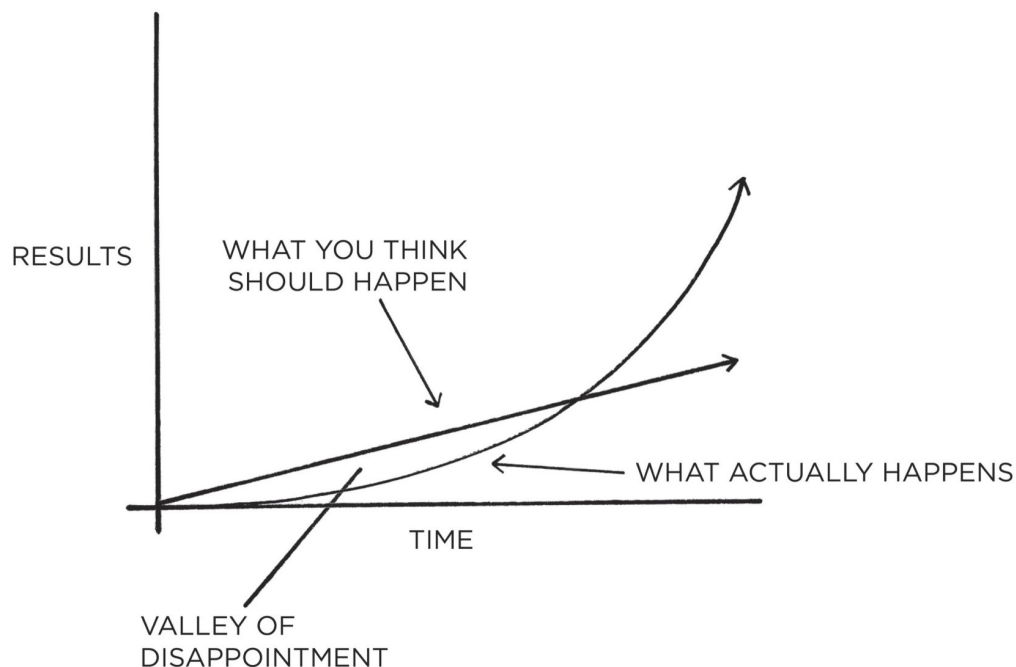


FIGURE 2: We often expect progress to be linear. At the very least, we hope it will come quickly. In reality, the results of our efforts are often delayed. It is not until months or years later that we realize the true value of the previous work we have done. This can result in a “valley of disappointment” where people feel discouraged after putting in weeks or months of hard work without experiencing any results. However, this work was not wasted. It was simply being stored. It is not until much later that the full value of previous efforts is revealed.

All big things come from small beginnings. The seed of every habit is a single, tiny decision. But as that decision is repeated, a habit sprouts and grows stronger. Roots entrench themselves and branches grow. The task of breaking a bad habit is like uprooting a powerful oak within us. And the task of building a good habit is like cultivating a delicate flower one day at a time.

But what determines whether we stick with a habit long enough to survive the Plateau of Latent Potential and break through to the other side? What is it that

causes some people to slide into unwanted habits and enables others to enjoy the compounding effects of good ones?

FORGET ABOUT GOALS, FOCUS ON SYSTEMS INSTEAD

Prevailing wisdom claims that the best way to achieve what we want in life—getting into better shape, building a successful business, relaxing more and worrying less, spending more time with friends and family—is to set specific, actionable goals.

For many years, this was how I approached my habits, too. Each one was a goal to be reached. I set goals for the grades I wanted to get in school, for the weights I wanted to lift in the gym, for the profits I wanted to earn in business. I succeeded at a few, but I failed at a lot of them. Eventually, I began to realize that my results had very little to do with the goals I set and nearly everything to do with the systems I followed.

What's the difference between systems and goals? It's a distinction I first learned from Scott Adams, the cartoonist behind the *Dilbert* comic. Goals are about the results you want to achieve. Systems are about the processes that lead to those results.

- If you're a coach, your goal might be to win a championship. Your system is the way you recruit players, manage your assistant coaches, and conduct practice.
- If you're an entrepreneur, your goal might be to build a million-dollar business. Your system is how you test product ideas, hire employees, and run marketing campaigns.
- If you're a musician, your goal might be to play a new piece. Your system is how often you practice, how you break down and tackle difficult measures, and your method for receiving feedback from your instructor.

Now for the interesting question: If you completely ignored your goals and focused only on your system, would you still succeed? For example, if you were a basketball coach and you ignored your goal to win a championship and focused only on what your team does at practice each day, would you still get results?

I think you would.

The goal in any sport is to finish with the best score, but it would be ridiculous to spend the whole game staring at the scoreboard. The only way to actually win is to get better each day. In the words of three-time Super Bowl winner Bill Walsh, “The score takes care of itself.” The same is true for other areas of life. If you want better results, then forget about setting goals. Focus on your system instead.

What do I mean by this? Are goals completely useless? Of course not. Goals are good for setting a direction, but systems are best for making progress. A handful of problems arise when you spend too much time thinking about your goals and not enough time designing your systems.

Problem #1: Winners and losers have the same goals.

Goal setting suffers from a serious case of survivorship bias. We concentrate on the people who end up winning—the survivors—and mistakenly assume that ambitious goals led to their success while overlooking all of the people who had the same objective but didn’t succeed.

Every Olympian wants to win a gold medal. Every candidate wants to get the job. And if successful and unsuccessful people share the same goals, then the goal cannot be what differentiates the winners from the losers. It wasn’t the *goal* of winning the Tour de France that propelled the British cyclists to the top of the sport. Presumably, they had wanted to win the race every year before—just like every other professional team. The goal had always been there. It was only when they implemented a *system* of continuous small improvements that they achieved a different outcome.

Problem #2: Achieving a goal is only a momentary change.

Imagine you have a messy room and you set a goal to clean it. If you summon the energy to tidy up, then you will have a clean room—for now. But if you maintain the same sloppy, pack-rat habits that led to a messy room in the first place, soon you’ll be looking at a new pile of clutter and hoping for another burst of motivation. You’re left chasing the same outcome because you never changed the system behind it. You treated a symptom without addressing the cause.

Achieving a goal only changes your life *for the moment*. That’s the counterintuitive thing about improvement. We think we need to change our results, but the results are not the problem. What we really need to change are the systems that cause those results. When you solve problems at the results

level, you only solve them temporarily. In order to improve for good, you need to solve problems at the systems level. Fix the inputs and the outputs will fix themselves.

Problem #3: Goals restrict your happiness.

The implicit assumption behind any goal is this: “Once I reach my goal, then I’ll be happy.” The problem with a goals-first mentality is that you’re continually putting happiness off until the next milestone. I’ve slipped into this trap so many times I’ve lost count. For years, happiness was always something for my future self to enjoy. I promised myself that once I gained twenty pounds of muscle or after my business was featured in the *New York Times*, then I could finally relax.

Furthermore, goals create an “either-or” conflict: either you achieve your goal and are successful or you fail and you are a disappointment. You mentally box yourself into a narrow version of happiness. This is misguided. It is unlikely that your actual path through life will match the exact journey you had in mind when you set out. It makes no sense to restrict your satisfaction to one scenario when there are many paths to success.

A systems-first mentality provides the antidote. When you fall in love with the process rather than the product, you don’t have to wait to give yourself permission to be happy. You can be satisfied anytime your system is running. And a system can be successful in many different forms, not just the one you first envision.

Problem #4: Goals are at odds with long-term progress.

Finally, a goal-oriented mind-set can create a “yo-yo” effect. Many runners work hard for months, but as soon as they cross the finish line, they stop training. The race is no longer there to motivate them. When all of your hard work is focused on a particular goal, what is left to push you forward after you achieve it? This is why many people find themselves reverting to their old habits after accomplishing a goal.

The purpose of setting goals is to win the game. The purpose of building systems is to continue playing the game. True long-term thinking is goal-less thinking. It’s not about any single accomplishment. It is about the cycle of endless refinement and continuous improvement. Ultimately, it is your commitment to the *process* that will determine your *progress*.

A SYSTEM OF ATOMIC HABITS

If you're having trouble changing your habits, the problem isn't you. The problem is your system. Bad habits repeat themselves again and again not because you don't want to change, but because you have the wrong system for change.

You do not rise to the level of your goals. You fall to the level of your systems.

Focusing on the overall system, rather than a single goal, is one of the core themes of this book. It is also one of the deeper meanings behind the word *atomic*. By now, you've probably realized that an atomic habit refers to a tiny change, a marginal gain, a 1 percent improvement. But atomic habits are not just any old habits, however small. They are little habits that are part of a larger system. Just as atoms are the building blocks of molecules, atomic habits are the building blocks of remarkable results.

Habits are like the atoms of our lives. Each one is a fundamental unit that contributes to your overall improvement. At first, these tiny routines seem insignificant, but soon they build on each other and fuel bigger wins that multiply to a degree that far outweighs the cost of their initial investment. They are both small and mighty. This is the meaning of the phrase *atomic habits*—a regular practice or routine that is not only small and easy to do, but also the source of incredible power; a component of the system of compound growth.

Chapter Summary

- Habits are the compound interest of selfimprovement. Getting 1 percent better every day counts for a lot in the long-run.
- Habits are a double-edged sword. They can work for you or against you, which is why understanding the details is essential.
- Small changes often appear to make no difference until you cross a critical threshold. The most powerful outcomes of any compounding process are delayed. You need to be patient.
- An atomic habit is a little habit that is part of a larger system. Just as atoms are the building blocks of molecules, atomic habits are the building blocks of remarkable results.
- If you want better results, then forget about setting goals. Focus on your system instead.
- You do not rise to the level of your goals. You fall to the level of your systems.