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The Cardinal Rule of Behavior Change

IN THE LATE 1990S, a public health worker named Stephen Luby left his hometown of Omaha, Nebraska, and bought a one-way ticket to Karachi, Pakistan.

Karachi was one of the most populous cities in the world. By 1998, over nine million people called it home. It was the economic center of Pakistan and a transportation hub, with some of the most active airports and seaports in the region. In the commercial parts of town, you could find all of the standard urban amenities and bustling downtown streets. But Karachi was also one of the *least* livable cities in the world.

Over 60 percent of Karachi's residents lived in squatter settlements and slums. These densely packed neighborhoods were filled with makeshift houses cobbled together from old boards, cinder blocks, and other discarded materials. There was no waste removal system, no electricity grid, no clean water supply. When dry, the streets were a combination of dust and trash. When wet, they became a muddy pit of sewage. Mosquito colonies thrived in pools of stagnant water, and children played among the garbage.

The unsanitary conditions lead to widespread illness and disease. Contaminated water sources caused epidemics of

diarrhea, vomiting, and abdominal pain. Nearly one third of the children living there were malnourished. With so many people crammed into such a small space, viruses and bacterial infections spread rapidly. It was this public health crisis that had brought Stephen Luby to Pakistan.

Luby and his team realized that in an environment with poor sanitation, the simple habit of washing your hands could make a real difference in the health of the residents. But they soon discovered that many people were already aware that handwashing was important.

And yet, despite this knowledge, many residents were washing their hands in a haphazard fashion. Some people would just run their hands under the water quickly. Others would only wash one hand. Many would simply forget to wash their hands before preparing food. Everyone *said* handwashing was important, but few people made a habit out of it. The problem wasn't knowledge. The problem was consistency.

That was when Luby and his team partnered with Procter & Gamble to supply the neighborhood with Safeguard soap. Compared to your standard bar of soap, using Safeguard was a more enjoyable experience.

"In Pakistan, Safeguard was a premium soap," Luby told me. "The study participants commonly mentioned how much they liked it." The soap foamed easily, and people were able to lather their hands with suds. It smelled great. Instantly, handwashing became slightly more pleasurable.

"I see the goal of handwashing promotion not as behavior change but as habit adoption," Luby said. "It is a lot easier for people to adopt a product that provides a strong positive sensory signal, for example the mint taste of toothpaste, than it is to adopt a habit that does not provide pleasurable sensory feedback, like flossing one's teeth. The marketing team at Procter & Gamble talked about trying to create a positive handwashing experience."

Within months, the researchers saw a rapid shift in the health of children in the neighborhood. The rate of diarrhea fell by 52 percent; pneumonia by 48 percent; and impetigo, a bacterial skin infection, by 35 percent.

The long-term effects were even better. “We went back to some of the households in Karachi six years after,” Luby told me. “Over 95 percent of households who had been given the soap for free and encouraged to wash their hands had a handwashing station with soap and water available when our study team visited. . . . We had not given any soap to the intervention group for over five years, but during the trial they had become so habituated to wash their hands, that they had maintained the practice.” It was a powerful example of the fourth and final Law of Behavior Change: *make it satisfying.*

We are more likely to repeat a behavior when the experience is satisfying. This is entirely logical. Feelings of pleasure—even minor ones like washing your hands with soap that smells nice and lathers well—are signals that tell the brain: “This feels good. Do this again, next time.” Pleasure teaches your brain that a behavior is worth remembering and repeating.

Take the story of chewing gum. Chewing gum had been sold commercially throughout the 1800s, but it wasn’t until Wrigley launched in 1891 that it became a worldwide habit. Early versions were made from relatively bland resins—chewy, but not tasty. Wrigley revolutionized the industry by adding flavors like Spearmint and Juicy Fruit, which made the product flavorful and fun to use. Then they went a step further and began pushing chewing gum as a pathway to a clean mouth. Advertisements told readers to “Refresh Your Taste.”

Tasty flavors and the feeling of a fresh mouth provided little bits of immediate reinforcement and made the product satisfying to use. Consumption skyrocketed, and

Wrigley became the largest chewing gum company in the world.

Toothpaste had a similar trajectory. Manufacturers enjoyed great success when they added flavors like spearmint, peppermint, and cinnamon to their products. These flavors don't improve the effectiveness of toothpaste. They simply create a "clean mouth" feel and make the experience of brushing your teeth more pleasurable. My wife actually stopped using Sensodyne because she didn't like the aftertaste. She switched to a brand with a stronger mint flavor, which proved to be more satisfying.

Conversely, if an experience is not satisfying, we have little reason to repeat it. In my research, I came across the story of a woman who had a narcissistic relative who drove her nuts. In an attempt to spend less time with this egomaniac, she acted as dull and as boring as possible whenever he was around. Within a few encounters, *he* started avoiding *her* because he found her so uninteresting.

Stories like these are evidence of the Cardinal Rule of Behavior Change: *What is rewarded is repeated. What is punished is avoided.* You learn what to do in the future based on what you were rewarded for doing (or punished for doing) in the past. Positive emotions cultivate habits. Negative emotions destroy them.

The first three laws of behavior change—*make it obvious, make it attractive,* and *make it easy*—increase the odds that a behavior will be performed *this* time. The fourth law of behavior change—*make it satisfying*—increases the odds that a behavior will be repeated *next* time. It completes the habit loop.

But there is a trick. We are not looking for just any type of satisfaction. We are looking for immediate satisfaction.

THE MISMATCH BETWEEN IMMEDIATE AND DELAYED REWARDS

Imagine you're an animal roaming the plains of Africa—a giraffe or an elephant or a lion. On any given day, most of your decisions have an immediate impact. You are always thinking about what to eat or where to sleep or how to avoid a predator. You are constantly focused on the present or the very near future. You live in what scientists call an *immediate-return environment* because your actions instantly deliver clear and immediate outcomes.

Now switch back to your human self. In modern society, many of the choices you make today will *not* benefit you immediately. If you do a good job at work, you'll get a paycheck in a few weeks. If you exercise today, perhaps you won't be overweight next year. If you save money now, maybe you'll have enough for retirement decades from now. You live in what scientists call a *delayed-return environment* because you can work for years before your actions deliver the intended payoff.

The human brain did not evolve for life in a delayed-return environment. The earliest remains of modern humans, known as *Homo sapiens sapiens*, are approximately two hundred thousand years old. These were the first humans to have a brain relatively similar to ours. In particular, the neocortex—the newest part of the brain and the region responsible for higher functions like language—was roughly the same size two hundred thousand years ago as today. You are walking around with the same hardware as your Paleolithic ancestors.

It is only recently—during the last five hundred years or so—that society has shifted to a predominantly delayed-return environment.* Compared to the age of the brain, modern society is brand-new. In the last one hundred years, we have seen the rise of the car, the airplane, the television, the personal computer, the internet, the smartphone, and Beyoncé. The world has changed much in recent years, but human nature has changed little.

Similar to other animals on the African savannah, our ancestors spent their days responding to grave threats, securing the next meal, and taking shelter from a storm. It made sense to place a high value on instant gratification. The distant future was less of a concern. And after thousands of generations in an immediate-return environment, our brains evolved to prefer quick payoffs to long-term ones.

Behavioral economists refer to this tendency as *time inconsistency*. That is, the way your brain evaluates rewards is inconsistent across time.* You value the present more than the future. Usually, this tendency serves us well. A reward that is *certain* right now is typically worth more than one that is merely *possible* in the future. But occasionally, our bias toward instant gratification causes problems.

Why would someone smoke if they know it increases the risk of lung cancer? Why would someone overeat when they know it increases their risk of obesity? Why would someone have unsafe sex if they know it can result in sexually transmitted disease? Once you understand how the brain prioritizes rewards, the answers become clear: the consequences of bad habits are delayed while the rewards are immediate. Smoking might kill you in ten years, but it reduces stress and eases your nicotine cravings *now*. Overeating is harmful in the long run but appetizing in the moment. Sex—safe or not—provides pleasure right away. Disease and infection won't show up for days or weeks, even years.

Every habit produces multiple outcomes across time. Unfortunately, these outcomes are often misaligned. With our bad habits, the immediate outcome usually feels good, but the ultimate outcome feels bad. With good habits, it is the reverse: the immediate outcome is unenjoyable, but the ultimate outcome feels good. The French economist Frédéric Bastiat explained the problem clearly when he

wrote, “It almost always happens that when the immediate consequence is favorable, the later consequences are disastrous, and vice versa. . . . Often, the sweeter the first fruit of a habit, the more bitter are its later fruits.”

Put another way, the costs of your good habits are in the present. The costs of your bad habits are in the future.

The brain’s tendency to prioritize the present moment means you can’t rely on good intentions. When you make a plan—to lose weight, write a book, or learn a language—you are actually making plans for your future self. And when you envision what you want your life to be like, it is easy to see the value in taking actions with long-term benefits. We all want better lives for our future selves. However, when the moment of decision arrives, instant gratification usually wins. You are no longer making a choice for Future You, who dreams of being fitter or wealthier or happier. You are choosing for Present You, who wants to be full, pampered, and entertained. As a general rule, the more immediate pleasure you get from an action, the more strongly you should question whether it aligns with your long-term goals.*

With a fuller understanding of what causes our brain to repeat some behaviors and avoid others, let’s update the Cardinal Rule of Behavior Change: What is *immediately* rewarded is repeated. What is *immediately* punished is avoided.

Our preference for instant gratification reveals an important truth about success: because of how we are wired, most people will spend all day chasing quick hits of satisfaction. The road less traveled is the road of delayed gratification. If you’re willing to wait for the rewards, you’ll face less competition and often get a bigger payoff. As the saying goes, the last mile is always the least crowded.

This is precisely what research has shown. People who are better at delaying gratification have higher SAT scores, lower levels of substance abuse, lower likelihood of obesity,

better responses to stress, and superior social skills. We've all seen this play out in our own lives. If you delay watching television and get your homework done, you'll generally learn more and get better grades. If you don't buy desserts and chips at the store, you'll often eat healthier food when you get home. At some point, success in nearly every field requires you to ignore an immediate reward in favor of a delayed reward.

Here's the problem: most people *know* that delaying gratification is the wise approach. They want the benefits of good habits: to be healthy, productive, at peace. But these outcomes are seldom top-of-mind at the decisive moment. Thankfully, it's possible to train yourself to delay gratification—but you need to work with the grain of human nature, not against it. The best way to do this is to add a little bit of immediate pleasure to the habits that pay off in the long-run and a little bit of immediate pain to ones that don't.

HOW TO TURN INSTANT GRATIFICATION TO YOUR ADVANTAGE

The vital thing in getting a habit to stick is to feel successful—even if it's in a small way. The feeling of success is a signal that your habit paid off and that the work was worth the effort.

In a perfect world, the reward for a good habit is the habit itself. In the real world, good habits tend to feel worthwhile only after they have provided you with something. Early on, it's all sacrifice. You've gone to the gym a few times, but you're not stronger or fitter or faster—at least, not in any noticeable sense. It's only months later, once you shed a few pounds or your arms gain some definition, that it becomes easier to exercise for its own sake. In the beginning, you need a reason to stay on track.

This is why immediate rewards are essential. They keep you excited while the delayed rewards accumulate in the background.

What we're really talking about here—when we're discussing immediate rewards—is the ending of a behavior. The ending of any experience is vital because we tend to remember it more than other phases. You want the ending of your habit to be satisfying. The best approach is to use *reinforcement*, which refers to the process of using an immediate reward to increase the rate of a behavior. Habit stacking, which we covered in Chapter 5, ties your habit to an immediate cue, which makes it obvious when to start. Reinforcement ties your habit to an immediate reward, which makes it satisfying when you finish.

Immediate reinforcement can be especially helpful when dealing with *habits of avoidance*, which are behaviors you want to stop doing. It can be challenging to stick with habits like "no frivolous purchases" or "no alcohol this month" because nothing happens when you skip happy hour drinks or don't buy that pair of shoes. It can be hard to feel satisfied when there is no action in the first place. All you're doing is resisting temptation, and there isn't much satisfying about that.

One solution is to turn the situation on its head. You want to make avoidance visible. Open a savings account and label it for something you want—maybe "Leather Jacket." Whenever you pass on a purchase, put the same amount of money in the account. Skip your morning latte? Transfer $5. Pass on another month of Netflix? Move $10 over. It's like creating a loyalty program for yourself. The immediate reward of seeing yourself save money toward the leather jacket feels a lot better than being deprived. You are making it satisfying to do nothing.

One of my readers and his wife used a similar setup. They wanted to stop eating out so much and start cooking together more. They labeled their savings account "Trip to

Europe.” Whenever they skipped going out to eat, they transferred $50 into the account. At the end of the year, they put the money toward the vacation.

It is worth noting that it is important to select short-term rewards that reinforce your identity rather than ones that conflict with it. Buying a new jacket is fine if you’re trying to lose weight or read more books, but it doesn’t work if you’re trying to budget and save money. Instead, taking a bubble bath or going on a leisurely walk are good examples of rewarding yourself with free time, which aligns with your ultimate goal of more freedom and financial independence. Similarly, if your reward for exercising is eating a bowl of ice cream, then you’re casting votes for conflicting identities, and it ends up being a wash. Instead, maybe your reward is a massage, which is both a luxury and a vote toward taking care of your body. Now the short-term reward is aligned with your long-term vision of being a healthy person.

Eventually, as intrinsic rewards like a better mood, more energy, and reduced stress kick in, you’ll become less concerned with chasing the secondary reward. The identity itself becomes the reinforcer. You do it because it’s who you are and it feels good to be you. The more a habit becomes part of your life, the less you need outside encouragement to follow through. Incentives can start a habit. Identity sustains a habit.

That said, it takes time for the evidence to accumulate and a new identity to emerge. Immediate reinforcement helps maintain motivation in the short term while you’re waiting for the long-term rewards to arrive.

In summary, a habit needs to be enjoyable for it to last. Simple bits of reinforcement—like soap that smells great or toothpaste that has a refreshing mint flavor or seeing $50 hit your savings account—can offer the immediate pleasure you need to enjoy a habit. And change is easy when it is enjoyable.

Chapter Summary

- The 4th Law of Behavior Change is *make it satisfying*.
- We are more likely to repeat a behavior when the experience is satisfying.
- The human brain evolved to prioritize immediate rewards over delayed rewards.
- The Cardinal Rule of Behavior Change: *What is immediately rewarded is repeated. What is immediately punished is avoided.*
- To get a habit to stick you need to feel immediately successful—even if it's in a small way.
- The first three laws of behavior change—*make it obvious, make it attractive,* and *make it easy*—increase the odds that a behavior will be performed this time. The fourth law of behavior change—*make it satisfying* —increases the odds that a behavior will be repeated next time.