

Good Habits, Bad Habits: A Conversation with Wendy Wood

By **Michaela Barnett**

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Early in her academic career, psychologist Wendy Wood noticed a trend: many of her fellow graduate students and professors struggled to get things done in the highly demanding but unstructured academic environment. Intelligence, talent, and motivation didn't seem to matter—some of those who were struggling to stick to project plans or meet deadlines were among the brightest of the group. Why, she wondered, was it so easy to make the initial decision to change but so hard to persist in the long term? Willpower didn't seem to be the issue—her colleagues wanted to and were trying to change—so what was? Over the past three decades, Wood has sought the answers to these questions. She recently wrote a book, [*Good Habits, Bad Habits: The Science of Making Positive Changes that Stick*](#), which details the most important, practical insights from her research. We had the chance to talk about how better understanding how habits form and drive our behavior can help us change—and enjoy—our lives.

Michaela Barnett: Habits are ubiquitous, and we all probably think we know what a habit is, but as a researcher who has studied habits for years, how do you define a habit? And why do you think it's important that we understand them?



Wendy Wood: You're absolutely right that most people think they know what habits are. In fact, when I've conducted surveys, over 80 percent of people say they understand habits. But then I ask: So, how successful are you when you change behavior? Are you able to make changes and get them to stick? Those same people say, "Hmm, no, not very often." So whatever people are understanding is not helping them.

Habits are a learning mechanism. All we have to do is repeat something and get rewarded for it, and we're learning a habit. In research that I've done, we find that about 43 percent of what people do every day is repeated in the same context, usually while they are thinking about something else. They're automatically responding without really making decisions. And that's what a habit is. A habit is a sort of a mental shortcut to repeat what we did in the past that worked for us and got us some reward.

Most of us think of self-control as being able to force yourself to do things you don't want to do. We have this idea that some people have super willpower and others don't. You write a lot about why this is the wrong way to think about self-control. Why is that?

Many people actually confuse habit and self-control. The majority of people in my surveys say that in order to start a new habit you have to exert self-control, and that's just not true. The issue with self-control is that we all know people who are just more successful at almost every domain of their lives, and psychologists have developed scales to identify these people by measuring how much self-control they have.

The people who score high on these scales tend to weigh less than the rest of us. They are more likely to have saved enough money for retirement. They have happier relationships, they're more productive at work, they get better grades at school. These are all things that are associated with what we think of as self-control. But recent research by Angela Duckworth and colleagues has shown a fascinating contradiction: people who score high on self-control don't achieve successes in life by exerting control. They are not practicing self-denial by white-knuckling through life. Instead, they know how to form habits that meet their goals.

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So, people who we thought had high self-control to achieve great life outcomes instead are really good at forming the right habits. They seem to understand the influence of situations and choose ones in which it's easier to repeat desired actions. They don't have much "friction" in their lives and so are not tempted to act in counterproductive ways.

It feels like changing our perspective on self-control can really help us reclaim our sense of self-worth and be kinder to ourselves. We can tweak our environments rather than continuously berating ourselves for "Oh man, I did this thing again that I didn't want to do." It's a liberating way to view it.

That's the flip side of self-control. It's great to say: "Yes, I have a lot of self-control, and I am good at resisting temptation." But so often we fail and then we feel like failures. It does sort of liberate us from that very unhappy kind of experience in a way.

Can you tell me about the M&M and carrot study you did and what it tells us about how our thinking self can actually get in the way of some of our health goals?

This was a study that I did with Pei-Ying Lin and John Monterosso. We trained people to choose carrots in a computer game. People played the game when they were hungry and they actually got the carrots. They had to move a joystick in the direction of the carrots when they saw them on the screen, and then they won carrots and got to eat them. All of our participants liked carrots, but they also liked chocolate. And after we had trained people to choose carrots by moving a joystick toward the carrots whenever they saw them on the screen, we gave them the opportunity to choose M&M's if they wanted to. Now, when the screen was set up in just the same way as it was during training, people continued to choose carrots. Over 60 percent of them chose the carrots. But when the screen changed and they had to actually move the joystick in a different direction, then they stopped to think. And many more of them chose M&M's.

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In a way, this turns the standard thinking about habits upside down. People think habits are the bad things that they fall back on when they're not thinking about what they want. But in

our study, we formed beneficial habits to choose healthy food that, when people thought about it, they disrupted.

We tend to think of that top-down executive control as being our “good self.” But can the pause to think be the thing that keeps us from taking sustainable transportation or going to the gym if we already have set up those habits in the first place?

We have found in other research that when people are distracted or feeling particularly tired or overwhelmed, they fall back on good habits as well as bad habits. Their executive control is sort of off-grid. They are worrying about things that are happening in their lives or they are too tired to really make decisions. We see a boost in good-habit performance as well as bad habits. It's surprising to most of us, because as you say we like to think that our conscious, executive control self is well-intentioned and is going to help us meet our goals.

I have three older sisters and all of them have young kids. My nieces and nephews range in age from 2 months old to 7 years old. In the book you mentioned that having young kids can disrupt routine and result in fewer habitual behaviors for parents. Is there any advice that I can give my sisters who are trying to form good new habits despite having young children?

One of the interesting things that emerged early on in this research was that if you live with other people, particularly children, you have fewer habits overall than other people simply because of the disruption that other people cause in your life. The important thing I found when I was a mom with young kids is to find a time or a place where you have actually do have some control. For me, it was 6:00 in the morning, because my kids usually slept until 7:00. I used that as my exercise hour and I would get back home in time to make them breakfast and send them off to school. I tried setting up exercise habits at other times of the day, and it just didn't work, because they always needed to go to the doctor or needed to go to a friend's house to play or do sports. I just didn't have control over the rest of my day in the same way as I did very early in the morning. Eke out, find whatever time of day that is most consistently, uninterruptedly yours, and focus on building your habits there.

My sisters have all started to call being trapped to their kids' schedules “[nap jail](#).”

(Laughs.) But you can't anticipate when nap jail is going to happen!

The unanticipated nature is what makes it so hard! Beyond children, you write a lot more about the role of others in habit formation. How can we harness our relationships in habit formation?

I think we do that automatically. We're always forming habits. My husband and I have a lot of habits that are shared as part of our relationship. We eat breakfast together, and we eat

dinner together. He makes the coffee in the morning; I will wash all the fruit and put it out. We have patterns that are interconnected and those patterns are just as influential as the patterns in the rest of our environment. The other people we're with, we're sort of negotiating the habits that we're going to form with them. And if you've been in a close relationship and then it has ended, it's surprising how much your behavior changes because that other person is not there cueing a particular response anymore. You've lost your habit cue. It is maybe not a very romantic way of thinking about relationships, but it is an accurate one.

When I moved to a new city a year ago to start grad school, I picked up a habit that I had always wanted: biking as my primary form of transportation. Why is a move or another big life change, like a relationship ending, an opportune time to pick up good habits and break bad ones?

That's a perfect example of being in a new situation with new cues and new context, and we then start trying out new behaviors. We have to make decisions. It's like in the carrot and M&M study where the screen changed and you had to make new decisions. The habit is not the first thing that comes to mind anymore. You now have to think, and you can use it as an opportunity to try new behaviors and to develop new patterns.

We think of these life changes as very stressful, unwelcome, difficult—but they are also opportunities.

That thinking self can get in the way, but it also can be a chance for us to start aligning our habits with our values.

Exactly. I had just the same experience as you. I went to Paris for nine months and I came back to Southern California. And as much as I love Southern California, I cannot stand the car traffic. I sold my car, and I talked my husband into renting an apartment close by a train station, and I don't ride in cars or drive them anymore. Even in Southern California, it's possible to walk and to take your bike.

It takes some thought to begin with to structure your life a little differently, but when you don't have those cues anymore from your old context, then you're freed up. It's like a window of opportunity to make new decisions.

A lot of us might have also had the opposite experience where we live in one place and we develop a habit, but then we move and lose that routine and habit that took months or years to build. How resilient are habits to change and does length of time practicing that habit matter?

Well, length of time contributes to habit strength, so the longer you've done something, the stronger your habits. I have actually done some research with students transferring to a new university. What we found is that for people who have strong habits, if the context at the new school is similar to their old one, then they maintained their habits. People kept exercising just like they did at their old university if, for example, they had a gym at their apartment in both places. They could just sort of pick up the habit and keep going. But if they move to a new apartment without a gym and there wasn't one close by, or if there was just a running track but they usually lifted weights, then they lost the habit. Moves can be very disruptive to your habit if it changes the cues, but not all moves change those cues. You can maintain the important parts of your context to continue a habit.

We often think about habits from a really personal or individual perspective, but what might be the role of government or policymakers in creating habits among citizens?

This was actually one of the most important messages that I wanted to convey in the book. We are all dependent on the context in which we live. We form habits based on what's easy and rewarding, what's easy for us to do repeatedly and what's rewarding in our context in the places where we live. Across the country, in different states people experience different types of environments. We see that people in the U.S. have different habits in different states. For example, people exercise more in Colorado, in D.C., and in Alaska than many other parts of the country and they also tend to be healthier. Part of that is that healthy people self-select to move to those places, but part of it is also that those places influence us once we get there to have a healthier, more active lifestyle. And that has implications for our health and well-being.

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I think that policymakers have a real responsibility to understand what options they're giving us in the environments we live in. Are there sidewalks? Are they building a pedestrian-friendly community where people will get exercise just by walking? Do they offer recycling?

In more rural areas, people have to really work hard if they want to recycle. Recycling rates are much lower, because they have to take everything to some central facility somewhere away from their house—there's no automatic pick-up. These things make a difference in our lives.

We know how to change behavior at a policy level because we did it so well with the smoking cessation campaigns. We taxed cigarettes. We took the ads off the air. We made it so that you have to ask somebody in a store to give you a packet of cigarettes—you can't just pick it up off the shelf. We banned smoking in public places. I'm predicting there will be similar sorts of policies put in place with e-cigarettes in part because they are being used so heavily among kids. The limits on e-cigarettes, the first ones that are going to come, I think, is to make them taste like tobacco—getting rid of those bubble-gum flavors so that they aren't so rewarding to kids.

Let's talk about rewards. To build habits, behaviors need to be rewarding and it's best if the reward is intrinsic or built into the behavior itself. But if I found an activity rewarding, wouldn't I already be doing that behavior? How do you start to recognize and feel rewards in behaviors that you don't really like, but that you want to?

They don't have to be intrinsic to the behavior—they can be extrinsic rewards too, so long as they are immediate. And it's that immediacy that matters. There's also a neural process that happens—when you are rewarded, your brain releases dopamine, which is a neurochemical, that actually binds together the context that you're in and the response that you gave in order to get that reward. That's one of the reasons why rewards are so important and so useful for forming habits.

The best evidence we have at this point is that it can take two to three months to form a simple habit—to make something so automated that you don't have to think about it.

A reward that you get, say, in a month—some bonus for working hard that you get in your next paycheck isn't going to help you form a habit today. That reward has to occur immediately because dopamine works for maybe up to a minute (we're still learning about the time frame of dopamine effects), but it works for a short amount of time tying together that information in memory. That's why the reward has to be immediate. Anything that's later, your mind is on to other things and it's no longer connecting context and responses.

Are there any other big misconceptions you want to correct about habits?

A question I often get is: how often do I have to repeat something in order to make it a habit and the conventional wisdom is 21 days, but that's just not true. The best evidence we have at this point is that it can take two to three months to form a simple habit—to make something so automated that you don't have to think about it, you just do it. Sort of like when you start

tying your shoes. You put your shoes on and you tie them and you don't even have to form an intention. Instead it just flows while you're thinking about something else.

So be in it for the long game, be patient, and don't give up.

And if you like what you're doing, you're not going to find it painful to keep repeating things.

Stop trying to force yourself to do things that you don't really like and instead find the ones you do.

Exactly.



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