



Building the Habit of Excellence

with James Clear, author of *Atomic Habits*

GA Podcast Episode 261



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Introduction

Ron: During a discussion focused on virtue and excellence, Aristotle once commented, "These virtues are formed in a man by his doing the actions." Put another way, virtue requires action.

This saying was later interpreted by a man named Will Durant into the far more popular quotation of "We are what we repeatedly do." Excellence, then, is not an act, but a habit.

The question then becomes, how do we develop excellent, virtuous habits? Is there a roadmap or set of principles we can follow? Well my guest today claims there is.

He's written one of the best books I've ever read, called *Atomic Habits*. His name is James Clear, and as you'll hear, he's devoted much of his life to learning how to develop positive, virtuous habits for himself and is now on a mission to share what he's learned with the world through his writing and speaking.

On today's show, James and I go on a deep dive into habit formation. We talked about the difference between identity-based habits and outcome-based habits. We then explore the four stages habits follow. As you'll hear, these can be good habits, like exercising or flossing your teeth, to bad habits, like eating too much junk food and wasting time on our electronic devices.

During the second part of the show, we then get into more specifics about the four laws of behavior change. While James doesn't directly work within the continuous improvement field, you almost definitely see how the things he teaches align with many of the principles we lean thinkers believe in, including the importance of deliberate practice.

Ron: All right, James. Welcome to the show. How's it going?

James: Hey, thanks for having me. Yeah. Going well. Happy to talk to you.

Ron: As I've told you in some email dialogues, and I'll fill everybody in, I've talked about *Atomic Habits* actually on our podcast before. I actually did just a short overview of the book a little bit, but really enjoyed reading it. In fact, I listened to it first on Audible. I liked it so much, I bought the book. I read the book again, and then me and some buddies actually worked through the book together. It's been really good. It's very applicable, as we were talking before I hit the record button to this world of lean that most of the listeners here work in. Really excited to have you on, James.



Before we get going into the nuts and bolts of *Atomic Habits*, I'd like to see if you have a quote that possibly inspires you or something that means a lot to you.

James: Thank you so much. I'm glad you enjoyed the book, and happy that you found it useful. As far as the quote goes, there's a quote by F.M. Alexander that I really like. It says, "People do not decide their futures. They decide their habits and their habits decide their futures."

I think that encapsulates a lot of why I wrote *Atomic Habits*, and why I think habits are so important. If you want to know where you are going to end up in life, certainly luck, and randomness, and uncertainty play a role, but there's also the role of habit, and practice, and ritual.

I think that the interesting thing is we can't control randomness and luck, but we can control our habits. I like that quote because I feel like it encapsulates the piece of your future that is within your control. Anyway, so I think about that occasionally. It was part of the backbone or the background, as I was writing *Atomic Habits*.

Ron: Good. Let's segue into that. Tell us about your background, James. What led you to be so interested in this field?

James: I've come to habits gradually but through a couple of different avenues. I guess the first one was as an athlete. Growing up, I played a lot of different sports and then ended up playing baseball all the way through college. That was a really significant part of my life in childhood.

After playing the sport for 17 or 18 years, pretty much any athlete can tell you that there are all kinds of habits that you're performing, whether it's on the field, in the gym, or while you're training in the offseason. There's rituals and practices you keep coming back to to try to get better. I had an exposure to habits as a practitioner on that side.

I've always been very interested in the sciences. In college I majored in biomechanics, which is mostly hard sciences, like chemistry, physics, and biology.

Then I went to business school and got my MBA. I was exposed to Kaizen, Lean, and all those type of continuous improvement process there, and decided to start my own business when I left, or when I graduated.

Obviously, you're working to build your business. The first couple years I was trying these ideas and nothing was really working. I didn't really know what I was doing. I



had no entrepreneurs in my family, so I didn't really have anybody to look to. I was unsure and fumbling around.

As I started to research more about why would someone build a product, or why would someone buy a course or a book, why would someone sign up for an email list I was getting very interested in consumer psychology.

That led me to behavioral psychology and eventually habit formation. That where my scientific interests started to take over, and I started reading some of the research and trying to figure out how all this works.

Eventually those two worlds merged, where on the one side I was like a scientific researcher and I was trying to understand how the brain worked, why we built the habits we did, and what modern neuroscience and biology says about those topics. Then, on the other hand, I was like a practitioner, previously as an athlete, now as an entrepreneur, trying to put those things into practice.

Gradually I started to realize, "Huh, some of this stuff I'm reading about for building better habits, now I can apply that to productivity habits in my work, my workout and training habits in the gym, nutrition habits, or my creativity habits in writing. I had this canvas to try the ideas out on.

Gradually, as I started to write more and more about those and share some of those essays with the world, about my thoughts on habits and what I was learning, some of those started to become more popular. Eventually, after doing that for a few years, I was like, "OK, I feel like I have enough to write the book now." That's how we got to the publishing of *Atomic Habits*.

Ron: Your writing on your blog, JamesClear.com, that was very influential for me even long before *Atomic Habits*. Good work there. Thank you for that.

James: Thank you.



Identity-Based Habits

Ron: What I want to do now with *Atomic Habits*, I really have been thinking about this and the best approach to get through this. Obviously, you do a great job in the book of breaking things out into sections, if you will.

I thought what we'd do is go through each of these sections bit by bit. Obviously, we can't cover everything here in a 30, 45 minute podcast, but we'll hit the highlights.

I want to tell everyone, not just because I have the guy on the podcast, but if you've not read *Atomic Habits* and you're in the Lean world, you've really got to read *Atomic Habits* because it's so applicable to the things that we're trying to do as practitioners, in particular the idea of deliberate practice. We're so passionate about that within our community.

What I want to do is start at the beginning, or towards the beginning, in the section you called "The Fundamentals." In particular, the first part. That really grabbed me. From the very beginning was this whole idea of identity-based habits and how they, I say, are quite different than what maybe some of us would call outcome or results-based habits.

Let's start there, James. Talk a little bit about the reason that you're so passionate about identity-based habits.

James: I had this question, which was how come some people can do things and it seems normal to them? It doesn't seem like a lot of work.

For example, there are some people who go to the gym four days a week and it doesn't require motivation. It doesn't feel like a sacrifice. To most people it feels like, "Ugh, I got to put in all this work to go." I was like, "Why is that?"

The conclusion I came to is that once a behavior becomes internalized, once it becomes seen as part of our identity it doesn't require that much motivation or effort to do it because you're just acting in alignment with the type of person that you already believe yourself to be.

Once your behavior and your identity, or your behavior and your self image, or your internal story that you tell yourself about who you are, once those two things are aligned you're not really even pursuing behavior change anymore.

If you think about it, that's the holy grail of habit change, because in the beginning you're trying to force yourself to do a habit or motivate yourself to do it. You're trying to come up with these hacks and workarounds. Ultimately, if you can adopt it as part



of your identity, if you can see yourself as, "Hey, this is just who I am," then the change has already occurred.

With that in mind I was thinking, "Well, if that's where we're trying to get to, how can we do that? How can we accomplish that?" This is how I came up with this concept of identity-based habits.

The way that I would describe is that most people, when they start the process of behavior change, or the process of improvement, they start with what you mentioned just a moment ago. They start with outcomes or they start with results and think, "What do we want here?"

On a personal level it might be I want to lose 30 pounds in the next six months, or on a business level it might be we want to grow revenue by 20 percent next quarter. They have that result, and then they come up with a plan for achieving it.

It's like, "Well, if I want to lose 30 pounds, then I have to go the gym four days a week, I got to eat this diet, and so on." Typically, the conversation stops there, because it's like, "Well, I have this outcome I want, and I have a plan for achieving it."

Even though we may not ever say it, the implicit assumption is whoever I become as a result of that, that'll be who I want to be. If I have this thing, if I lose these 30 pounds, then I'll be the person I want to be.

My argument is that we should actually invert that. Let's start by asking ourselves who is the type of person that could achieve the outcomes that we want. Who is the type of person that could lose 30 pounds? Maybe it's the type of person who doesn't miss workouts.

Then, when you start to look at it through the identity first lens, it shifts what you do, because if you think the main goal is to become the type of person who doesn't miss workouts, to foster that new identity, then you can start building habits that embody that identity, even if they don't give you the results right away.

If your goal is to lose 30 pounds it's very easy to dismiss the importance of doing five push ups a day, because it doesn't feel like that's going to get you your goal. It's too small to make a difference.

If, instead, you're focused on building the identity of being the type of person who doesn't miss workouts, now I'm doing a short workout. Even if it's only five push ups that's actually meaningful, because even though it's not a big thing it still reinforces the identity of being the type of person who doesn't miss workouts.



That's the central takeaway of that chapter, or that section, is that every action you take is like a vote for the type of person that you want to become. The more that you start to cast votes for the type of identity that you want, the more you start to build evidence of being that kind of person.

This is one of the distinctions between my approach and some other things that you may hear commonly, like fake it 'til you make it, for example. Fake it 'til you make it is asking you to believe something about yourself without having evidence for it. You keep telling yourself, "I am a healthy person," "I am a healthy person," even though you haven't gone to the gym yet, or something like that.

There's nothing necessarily wrong with fake it 'til you make it. If given the choice between believing something positive about yourself or believing something negative, believing something positive is probably good, but we have a word for beliefs that don't have evidence. We call it delusion.

At some point your brain doesn't like the mismatch between what you keep telling yourself and what you're actually doing. The argument that I have behind identity-based habits is to let the behavior drive the belief, rather than the other way around.

Start with a small action, doing one push up, writing one page, making one sales call, and let that small action provide evidence of the new identity you're trying to build. As the evidence builds up, as the votes for that type of identity accumulate you start to have proof of that new identity. You have a real reason to believe it.

As I mentioned a few moments ago, ultimately that's what we're looking to achieve, is this type of transformation of identity, where it doesn't feel like work to act that way. You see that in many of the most successful people, the most successful athletes, writers, creators, artists.

You see it in many of the most successful companies. In a company what we call that is your culture. That's the identity of the company.

The true culture of any organization is not the slogan that's on the wall or the exercise that you did one time at a retreat. It's the shared habits of that company. It's the little votes that you're casting every day for "this is what our identity is as a group."

For all of those reasons, that's why I think starting with identity-based habits is important and why habits are maybe the best lever that we have to focus on fostering the type of beliefs, self image, narrative, and story that we want to tell about ourselves on a daily basis.



Ron: It seems very aligned, also, with folks like Nick Saban, Bill Belichick, and these guys. People hate those teams. That's fine, but these teams have one thing in common. People say, "Yeah, they cheat." Get over it. They win.

What does Nick Saban preach? He preaches his process. It's not about winning the championship. It's about winning every moment of every day. Whatever it is you're doing at that moment, do it to your best. For him their identity is their process, and then winning is really just a byproduct of executing that process.

James: Sports is a great avenue for seeing some of these principles acted out. Dabo Swinney at Clemson has said similar things, that we're not really teaching kids how to play football. We're teaching them how to be excellent, and football just happens to be the avenue through which we express that.

You show up to practice today and the question is how can you develop an identity of excellence. That trickles down to everything from the way that you choose to show up and the attitude you bring, the way that you choose to perform this particular drill or on this particular rep.

That ripples out even farther into our individual lives, when you think about what kind of identity do I want to have. It almost gives you a question to carry around in each moment as you think about how to live your life.

I had one reader who, she kept asking herself the question what would a healthy person do. That was her identity-based habit. Would a healthy person have a burger and fries for lunch or would they have a salad? Would a healthy person walk half a mile to the next meeting or take a cab?

That little question, that question similar to we're trying to build the habit of excellence, it gave her a reason to act a particular way in each instance.

Ron: One of the things that my friends and I did when we were going through this chapter is a buddy of mine had done this before. He suggested that we write our ideal obituaries, what we would want to be read at our funeral. Not necessarily what we are today if we died today, but what do we want.

What happened from that exercise, it was extremely powerful, was we identified many areas where we were lacking as fathers, as husbands, as businesspeople. That helped us identify, "We need to work on these areas of our lives, and to do that these are the habits that need to be developed."



It was almost looking forward as what identity do we want to have down the road. Write your own obituary.

James: That's great. I have a similar exercise that I've talked about before. Writing your obituary is forward facing. You can also do one that's backward looking, where you take the facts of your life up until now and you write the most negative version of your story that is true. You only focus on the negative facts.

You do a second version where you write the most positive version of your life that is true. Again, it can only be based on the facts.

What's fascinating comparing them side by side is both of those are true stories about your life. You get the chance to choose every day what story you tell yourself. Of course, it's much more fruitful and much more useful to tell yourself the positive story.

It's interesting to see things like that written down on paper.



The Four Stages of Habit Formation

Ron: Let's jump into the habit formation. You identify in your book, James, four steps. Let's walk through those four steps.

James: I like to divide a habit into four stages. I feel like if you understand those four stages, then you get the fundamental parts of what a habit is. Probably more important, you have a good framework for thinking about how to tinker with or adjust your habits.

From a high level, the four stages of a habit are Cue, Craving, Response, and Reward. The cue is something that gets your attention, like a plate of cookies on the counter. That's a visual cue. Or your phone buzzing in your pocket. That might be a tactile cue. Or an ambulance coming down the street is an auditory cue to pull to the side of the road. Whatever it is, the cue gets your attention.

The second step is the craving. I mean craving in more of a broader sense. You can, of course, crave a cigarette, crave a donut, or something like that, but the way that I would define craving is that it's the prediction that your brain makes, or it's the meaning that you assign to the cue.

If you have two people, you walk into a room, and they see a pack of cigarettes on the counter, the first person, if they're a smoker, they might interpret those cigarettes as favorable. They get the urge to smoke.

The second person, who's never smoked a day in their life, they see them and it's just a pack of cigarettes. They move on and don't take any action toward them.

It's really about the meaning that you assign to the cue in that craving stage that determines whether you act on it or not.

The third step is the response. That's the action itself. You see a plate of cookies. You predict, "Hey, that'll be tasty, sugary, sweet," so you walk over and take a bite.

Finally, the fourth stage is the reward or the outcome. This is where you close the feedback loop. The reward serves two purposes. The first is that it satisfies the craving that came before the action. The thing that motivated you, it satisfies that.

You see the cookie cue. You predict it'll be tasty, sugary, and sweet craving. You take a bite response. Then it is, in fact, sugary, sweet, tasty, pleasurable, enjoyable. That's the reward. It satisfied that craving that motivated you to act.



Then the second thing it does is that it teaches you what to repeat next time. This is why having a satisfying ending to a habit is really important, because if it feels pleasurable, if it's enjoyable, if there's a reward associated with it, then it's like you teach your brain, "Hey, that felt good. I should do this again next time."

Eventually, if you repeat those four stages, and you go through that loop again and again, you tighten the learning loop. You tighten that feedback loop. Pretty soon, as soon as you see a cookie you pick it up without even thinking about it. You're proceeding through all four stages on autopilot.

One of my favorite examples of how quick, rapid, and fast this process can occur is simply the process of flipping on a light switch. If you walk into your bedroom, when you first moved into your house or apartment you didn't know exactly where the light switches were or what light switch turned on which light, but pretty soon, over a few months, you start to learn exactly which switch to flip to get the particular light to turn on.

You walk into a room that's dark, cue. Craving, you want to be able to see. Response, you reach for the light switch, flip it on. Reward, the room is now lit up and you're able to see.

Of course, when you do that you're not thinking about any of those stages. They all happen in a fraction of a second.

That is actually the purpose of the habit, is your brain automates these actions that previously took effort and careful thought, "What switch is it? Where exactly do I reach?" With enough practice you can do them pretty much instantly, you're on autopilot, and without thinking.

Ron: As we'll dig into when we talk about the four laws of behavior change, this can be a good thing and a bad thing, obviously, with these habits.

James: This is something that's true about everything that we'll talk about today, but habits are a double edged sword. They can either build you up or cut you down. I think that that's one reason why it's particularly important to understand how they work, because if you're not careful your habits can hinder you, rather than help you.

I don't think it has to be that way. You can be the architect of your habits, and not the victim of them, but you're in a much better position to make that happen if you understand how they work and how to change them.



Ron: One question I've always wanted to ask you, James, is some of us have read *The Power of Habit* by Charles Duhigg. I don't know when that came out. A few years ago.

He obviously has a similar model, but he doesn't have craving. I really do like that you have craving in there. I feel it has a lot of validity to the model. I'm curious, what do you take from the three-step model to your four-step model?

James: I thought a lot about this. This is one of the big things that I wrestled with as I was trying to fill in some of the gaps that I felt like were there, questions that I had, and build upon some of the work that's come before.

There's a large body of research behind the major stages that Duhigg mentions. It probably dates back to the early 1900s. B.F. Skinner is the first one to popularize it in the 1930s. The way that he phrased it was stimulus, response, reward, which is very similar to Duhigg's cue, routine, reward. It's basically the same steps.

Over the last 70 years there have been tons of studies that have shown if you precede a behavior with a particular stimulus and you deliver the right reward or consequence, you can shape behavior in a particular way. I still have some questions about certain situations.

There's been another body of research over the last 50 years or so. That first section is from behavioral psychology, and then the second body of research is from cognitive psychology.

What they realized is that it's not just about the external cue and the reward. It also can be influenced by internal states, so your moods, emotions, your feelings. All of those things, and of course we all know this from practical experience, those influence your habits and actions, too.

What I was looking was a model that could merge those two worlds, that could account for both the influence of external cues and rewards, and how important those were, and for the importance of internal moods, emotions, and feelings.

That was ultimately why I added craving as a stage. I feel like it more completely explains why some habits stick and why they fail, but also it answered some of the questions I had about why can the same person have a different habit, act differently in the same circumstance, or respond differently to the same cue.

For example, let's say you walk into your kitchen. It's 7:00 AM, and you see a loaf of bread on the counter. Your habit when you walk into your kitchen at 7:00 AM is I pull out a piece of bread and I make some toast.



When you first do that, that's normal. That's how you respond to that cue. Then you eat breakfast, you walk back in the kitchen 30 minutes later, and you see the same loaf of bread on the counter. Now it's 7:30, but you don't make the toast. What's going on there?

According to cue, routine, reward as soon as you see the cue you should perform the habit. We know that that doesn't happen. The answer is that the craving has changed. The meaning that you assign to the cue, which, remember, is how I define craving, has shifted.

At 7:30 that same visual cue means something different to you. Now you're full. You don't have the same craving. You don't have the same desire to make toast, and so you don't take the action.

By adding that step it helps clarify some of the more nuanced aspects of why do we stick to some habits in certain situations and not others, what exactly is it about cues that motivate us to act, and a bunch of other things. I'll go ahead and toss this now.



The Four Laws of Behavior Change

Ron: This is a perfect segue into this four laws of behavior change. In particular, law number one, which is Make It Obvious. You could even probably use the kitchen as an example there.

Talk a little bit about making it obvious. I guess this is really more aligned with that first step, that cue.

James: These four laws of behavior change that we'll go over, each one is tied to a particular stage. Make it obvious is about making the cues that trigger your habits obvious, available, visible, easy to see. The more obvious the cue is, the more likely it is to catch your attention, and that's the thing that it has to do to initiate the habit.

Some of this can be done by what I call environment design. By making cues more obvious and prevalent in the physical environment you're more likely to see them and act on them.

In the physical world this could be something like...take apples, for example. I used to buy apples and put them in the crisper in the bottom of my fridge. They would sit there for two weeks. I would forget they were there, then they'd go bad, I have to throw them out, and I'd be annoyed that I'm wasting food, wasting money, and so on.

Eventually I bought a display bowl, put it right in the middle of the counter, and put the apples in the bowl. Now they're gone in three days. That was basically all the change that I needed to make. It's because now it's more obvious and I see them every time I walk into the kitchen.

I had a similar one with flossing, where I would brush my teeth consistently but I would only floss every now and then. I realized one of the problems was that the floss was hidden away in a drawer in the bathroom, and so I wouldn't think about it. I wouldn't see it.

I bought a little bowl, put it right next to my toothbrush on the counter, and put the floss in it. Now as soon as I brush my teeth, put the toothbrush down, pick the floss up. It's right there. That's all I really had to do.

Those are some examples of making it obvious in the physical world, but you can also do it in the digital world. Software companies do this all the time.

When Facebook or Twitter, Instagram, when they light up that little notification bar and put the one, two, or whatever in there, that little number is a notification that is a cue that's meant to be more obvious than before. They're telling you. They're trying to



get in front of your face and say, "Hey, you have a notification. You have something you should check."

This is why every app company wants you to turn notifications on on your phone, so that they can pop up on your screen and say somebody just "liked" your picture or somebody sent you an email. Those are all ways of making it more obvious and reminding you that you need to come back and check the app again.

Whether it's the physical or digital space, the more obvious the cue is, the more likely it is to get your attention and get the habit initiated.

Ron: Something you also talk about in this make it obvious section is habit stacking, which was really interesting to me. Can you talk a little bit about that?

James: Another aspect of this is not just the habit catching your attention, but you realizing or it being obvious to you when to act. So often we come up with these habits that we want to perform or these goals that we want to achieve, but we only talk about them in very vague terms, like, "Well, this time it's different. I'm going to eat better," "Tomorrow is going to be the day when I go to the gym," or "I hope I feel motivated to work on my book today."

All of those are worthy causes, but they're so vague that you don't know exactly when it's going to happen. Habit stacking helps you get over that by giving you a very specific time and location for when your habit's going to occur, a very specific place for when to insert it into your life.

I first came across this strategy from B.J. Fogg, who's a professor at Stanford. He refers to it as anchoring because you anchor your new habit onto an old one, or, in my lingo, you stack the new habit on top of an old one.

For example, let's say you make a cup of coffee every morning. You find a habit that you do every day, and then you stack your new habit on top of it. After I make my cup of coffee I will meditate for 60 seconds, for example, if you wanted to build a meditation habit.

By having that little framework "after current habit I will new habit," you fill that out and it gives you a very specific place for when and where the habit's going to live. What that does is it increases the likelihood that you're going to notice the moment of action that you're going to follow through on it, because it has a very specific time and location to live in your life.

One of the surprising things about this, when I talk at companies or go through and do a workshop with a particular group and have people fill out their habit stacks, in many



cases that's all they really need to do, to know when exactly they're going to perform the habit.

Like gratitude habit, "When I sit down to dinner I will say one thing I'm grateful for that happened today" or a decluttering habit, "When I get home from work and take off my shoes I will organize one item of clothing in the room."

By having really specific habit stacks like that what you realize is that a lot of people feel like they lack motivation when what they really lack is clarity. They think if I was more disciplined or if I had the willpower of those people, then I'd follow through, but the truth is they just needed a specific plan.

They needed a very clear set of rules for what to do in what circumstances and when to act. Once they have that, then the habits tend to fall in line much more easily.

Ron: That was the first law, make it obvious. Let's go to law number two, Make It Attractive.

James: Again, this is about the craving. The more attractive or appealing a habit is, the more likely we are to follow through on it.

Here's one way to make habits attractive. I'll give you two. First one is a quick tactic. Psychologists call this a commitment device. Commitment devices can rewire the way that you evaluate a habit in your brain.

Quick example. Let's say that you go to bed and you think, "All right, tomorrow's going to be the day. I'm going to wake up at 6:00, and I'm going to go for a run." Then 6:00 AM rolls around, your bed is warm, it's cold outside, and you're like, "Well, maybe I'll press snooze instead."

If you rewind the clock to the previous day, you send your friend a text, and you say, "Hey, let's meet at the park at 6:30 and go for a run," now 6:00 AM rolls around. Your bed is still warm, and it's still cold outside, but if you don't get up and go for a run you're a jerk because you leave your friend at the park all alone.

Psychologists call that a commitment device, which is a choice you make in the present that locks in your action in the future. What happens is it makes that habit of getting out of bed and going for a run much more appealing than it otherwise would be. There are all kinds of things that you can do like that.

For example, when I want to cut back on calories and I'm out to eat with friends I'll ask the waiter or the waitress to box up half of the meal to go before they bring it out and serve it to me. If I said, "Oh, I'll just eat half," that would never work, but if it's done



beforehand, that if I use that commitment device, then I make the choice in the present when I'm ordering the meal that locks in my action in the future.

I had a really extreme one that I used when I was writing *Atomic Habits*. I got about a year into the book and I realized, "Man, this is not going fast enough. I'm going to need to do something to stick to the deadline here."

I was wasting a lot of time on social media. What we did was every Monday my assistant would log me out of Facebook, Instagram, and Twitter. I would work all week, she would reset the passwords, and then on Friday she would give me the new passwords.

I could log in over the weekend and use social media, and then on Monday we'd do it all over again. That was a way of locking in my future behavior every Monday and making it more likely that I would follow through and actually do the work of writing.

Commitment devices can make habits that feel unattractive more attractive to do by either locking in your future behavior or limiting your options, automating willpower, and so on. Go ahead.

Ron: You also talk in there quite a bit about dopamine. There were some things that I really had gotten wrong. Most people think of dopamine as you get it when you check the box off. That might be true for the first time, but you talked about the dopamine, really, the power of it is leading up to the actual event. Can you talk a little bit about that?

James: Dopamine is just one of many chemicals and biological processes that influence habits. The reason I'm giving this caveat is I don't want you to think dopamine is the only thing that drives habits. There are all kinds of things involved.

It does play an important role. It's always circulating throughout the brain. As you go through life and you come across different experiences, when you experience something surprising or something delightful, when the outcome is better than you had expected that first time dopamine will spike.

The reason that it spikes is that it's trying to teach your brain, "Hey, this was good. Remember this next time."

Imagine the very first time you bite a pancake. You don't really have an expectation. You don't know what the pancake's going to taste like, so the first time you take that bite dopamine spikes. It's like, "Oh, this is enjoyable."



What happens is as you repeat a habit that dopamine spike moves forward in time. The more that you learn, "Hey, this is an enjoyable experience. I really like eating pancakes," after you've don't that, say, 20 times, the next time you walk into a restaurant and you see pancakes on the menu, now that cue has come up, "Oh, I'm thinking about pancakes," dopamine actually spikes in anticipation, not afterward.

You're expecting it to be enjoyable because now you know it's going to be delightful outcome. It's actually that expectation or that anticipation that motivates you to act, that gets you to repeat.

This has been shown in all kinds of ways. Some of the strongest dopamine spikes come during drugs or other kinds of addictions.

For example, there are some studies that show that cocaine addicts, if they're shown white powder, even if it's only for 33 milliseconds, which is actually shorter than you could consciously register, that dopamine will still spike in anticipation. Gambling addicts, for example, they get a spike of dopamine before they roll the dice, not after, or before they pull the slot machine level, not after the result comes up.

It's actually that anticipation over time that drives this kind of dopamine driven feedback loop that keeps you returning to a habit again and again. It's the expectation that pushes you forward.

I'll say as a side note, since we brought this up a couple moments ago, to me this is very strong scientific proof for we need to have the second stage of craving in the model, because if you don't account for that then you're basically saying cue, routine, reward that's the previous one or stimulus, response, reward.

There's no space in there between the cue and the action to tell you that this dopamine has moved forward in time and that you have something motivating you.

I would say it's more like cue, craving, response, reward because cue, you see the dice. Craving, that's when the dopamine spike happens. That's what motivates you to pick the dice up and roll them again. Then you have the response and the outcome.

I felt like as was studying the research that was another vote for we need another stage here before the action itself happens.

Ron: Something that you do throughout the book is you also give the opposite. If you want to break a habit the second law of behavior change would be to make it unattractive.



This to me, though, is the hardest part because say you are an addict to some substance. It's attractive. How do I make that unattractive? You know what I mean?

James: 100 percent. It's a great question, yes.

First of all, from a high level, what you mentioned. The four laws of behavior change that we're going through are the four laws to build a good habit. The first two make it obvious, make it attractive.

Then, if you want to break a bad habit, you invert each one. For the first law, rather than making it obvious, you make the cues invisible. Or for the second law, rather than making it attractive, you make it unattractive.

Your question about breaking a bad habit, you're spot on in saying that that's really difficult, because once you see the cigarettes the craving arises automatically. Once you see the cocaine, and you're an addict, now you want you have this unstoppable wave of desire.

Ron: Or the donut.

James: Or a donut. Anything that you're trying to resist. Two things. First, I say that generally the best places to intervene for breaking a bad habit are the first and the third stages.

The first stage is you reduce exposure to the cue altogether. You cut it out. This is, for example, one of the reasons why you go into detox. You're not surrounded by drugs.

Or if you want to watch less Netflix, take the television out of the house, or put it inside a cabinet or wall unit so that you don't see it as much. Basically, all kinds of things to reduce exposure.

If you're spending too much money doing online shopping, on Amazon, or whatever, then unsubscribe from all those emails, and so on. Whatever you can do to reduce exposure to the cue.

The third stage, which we haven't gotten to yet, but that's about the response. You're going to try to make it difficult. If you can increase the friction of the action enough, then it can be so hard that you won't do it.

If a pack of cigarettes is sitting on the kitchen table 10 feet from you, now it's so easy that it's going to be hard to resist that craving, but if you're on vacation in Alaska and the closest pack of cigarettes is 30 miles down the road at the gas station, now it's much more difficult, and so it's more likely that you'll be able to resist it.



I didn't include it in the book because the science on it is still out, still being tested, but I did write a secret chapter that is a bonus to the book that's called "The Biology of Bad Behavior." It's about the pharmaceutical and medical treatments that are being used to rewire the portions of the brain that are responsible for resisting temptation.

Basically, what some of these treatments have found, this is the only way to change the craving to make it unattractive for a bad habit, is to change what's happening on a biological level so that when you see the cocaine you don't experience the craving.

Or if you activate the centers of the brain, the prefrontal cortex, which are responsible for resisting temptation and that more higher level executive decision making, if you activate that region, then people tend to be better at saying no to a cigarette, no to a donut, or whatever.

I won't get into the weeds too much on that. There are some things in the works that might allow us to have more control over that in the future, but it's still very much in flux and under experimentation.

Ron: Very interesting. One thing that I've done we've mentioned our cell phones a few times me and some buddies, we actually turned our phones into grayscale so there's no colors. It's just black and white.

It's less beautiful to look at. These iPhones have these beautiful displays, but turn it black and white and it's not so beautiful anymore. I suppose that attractiveness is lessened a bit.

James: One more thing to add to this that certainly is a strategy that can work one way to do this, one way to make it unattractive or to change the craving that you experience, ultimately what you're looking to do is to make it mean something new.

For example, let's say that you have really enjoyed pasta and bread your whole life. It's really tasty. Then you read a book that talks about how grains and carbs are the devil, are going to ruin your health, and here's all the reasons why they're bad, or whatever.

If you believe that book, if you internalize that, now the next time you see a piece of bread or a pasta dish, now it means something different. It's no longer attractive. It's now unattractive.

The point that I'm trying to get to here, and I don't endorse any particular diet, my point is that education can be a way of retraining the meaning that you assign to the cues in your life. That's a way to do it without some kind of medical workaround.



Is that if you can genuinely educate yourself to believe something new about the same cues in your life, then you can start to reprogram your brain, so to speak, make those things mean something different, and possibly curtail the craving that used to arrive.

Ron: So far we've talked about make it obvious, make it attractive. Now let's get to the third law. You've touched on it a little bit. Make It Easy.

James: This is really about making your habits as simple as possible to do. The more convenient, frictionless, easy a habit is the more likely you are to be able to perform it over time.

The method that I recommend here in this section of the book, one of them at least, is called the two minute rule. It's a great place to start. You take whatever habit you're trying to build and you scale it down to something that takes two minutes or less to do. Read 40 books a year becomes read one page, or do yoga four days a week becomes take out my yoga mat.

Sometimes people resist this because it sounds like a little bit of a trick. It's like, "Well, I know the real goal is to do the yoga workout. I don't just want to take my yoga mat out, so why would I fall for this mental trick," but if you feel that way I would encourage you to limit yourself to just the first two minutes, at least for the first few weeks. Master the art of showing up.

I had a reader. He actually was able to do this. He ended up losing over a hundred pounds.

One of the first things that he did was he went to the gym, but he didn't stay for longer than five minutes. He would get in the car, drive to the gym, get out, do half an exercise, get back in the car, drive home.

It sounds ridiculous to people. It sounds silly. It's like clearly that's not going to be the thing that gets you in shape. What you realize is that he was becoming the type of person who went to the gym four days a week. Even if it was only for five minutes, he had to start there. He had to master the art of showing up.

This is a really key insight about habits, is that a habit must be established before it can be improved. It needs to become the normal in your life. You need to make it the standard before you can worry about optimizing or expanding it from there. If it doesn't become your new normal in a small way, you don't have any hope of making it the bigger, more ambitious, more compelling thing.

Make it easy. The two minute rule helps you do that. It helps you limit the scope, show up in a small way, master the art of showing up and being the type of person who does it



each day, and then once it's your new normal you have a lot of options of upgrading and expanding from there.

Ron: Talk about the inverse, then. Obviously, it would be make it hard.

James: Making it difficult for breaking a bad habit, this is really about increasing friction. We mentioned environment design earlier. You can also use it here.

For example, B.J. Fogg, that Stanford professor I mentioned, there's a story where he liked popcorn, he enjoyed eating popcorn, but he didn't want to eat as much of it. He took it out of his pantry, walked down the hallway, went into the garage, climbed up the ladder, and put it on the highest shelf in the garage.

If he really wants it he can go out and get it. It's only going to take him a minute or two. If he's designing for his default action, for his lazy decision, or what he's going to do when he feels exhausted or tired, he's not going to go out and get it. The reason is that the friction is higher. You can take a variety of steps like that to increase the friction associated with your bad habits.

I mentioned television earlier. You could put it inside a wall unit or a cabinet. That would reduce exposure to the cue.

You could also increase the friction associated with the task. You could take the batteries out of the remote control so that it takes you an extra 10 seconds to turn the TV on each time, or you could unplug the TV after each use, and then only plug it back in if you can say the name of the show that you want to watch. You're not allowed to plug it in and find something mindlessly.

If you want to be really extreme you can take it off a wall, put it in the closet, and only take it out when you want to watch something bad enough to set it up again. There are varying levels of extremity here, but the point is the same, which is the more that you increase the number of steps between you and the bad behavior the less likely it is to occur.

Ultimately, what we're looking to do is to increase the number of steps between you and your bad habits, reduce the number of steps between you and your good ones.

No single instance is going to transform your life, but imagine how much better it would be to live in an environment where you've got 25 of those things working for you rather than against you. Suddenly it becomes much easier to make the right choice when the environment is aligned in that way.

Ron: The fourth law, Make It Satisfying.



James: As I mentioned earlier, you want the ending of your habits to be satisfying because if a habit is satisfying, if you feel successful at the end of it, then you have a really good reason to repeat it in the future.

This can be done in a variety of ways. One method that I recommend, it comes back to this core idea that one of the most satisfying or enjoyable feelings in the world is the feeling of progress. If you feel like you're making progress then you have every reason in the world to continue with the habit or with the practice because it feels good to move forward.

One of the key aspects of this is to figure out ways to visualize your progress. One simple way to do this is with a habit tracker.

A habit tracker, it could be as simple as taking a calendar and putting an X on each day that you do the habit. My dad is really into swimming. Each day that he goes swimming he takes out his little calendar, he puts an X on that day, and then at the end of the month he adds up how many days he's gone and compares it to the month before.

That little tracker is a way to give him a signal or a feeling of progress. It feels good to mark off another workout.

I actually put together a habit journal that has some templates in it for habit tracking. There are 12. There's one for each month. You can compare your progress and whatnot. I've actually been using that the last few months to track my own habits and see if I'm making progress on reading each day or journaling each day, and so on.

There are other forms of tracking, too. I came across this story that I mentioned in the book of this guy who was a stockbroker. He had two bins on his desk, two little jars on his desk. One was empty and the other one had 120 paperclips in it.

Every time that he made a sales call, when he hung up the phone he would move a paperclip over. That was how he spent his days. He would make 120 sales calls a day, move every paperclip over, and once he was done, then the workday was done. That's a form of tracking. It's a form of measuring your progress.

Basically, the key point here is that a lot of the time when we're building habits, when we're performing deliberate practice, when we're focusing on sticking to the process you don't have much to show for it. This is one of the tough things about good habits, is that in the beginning there's not much of a reward.



What is the reward for going to the gym for three weeks? Not a whole lot. Your body basically looks the same in the mirror.

Ron: You're sore.

James: Yeah, it probably is a consequence, not a reward. Your body is sore. Your scale hasn't moved. As a result of that, you need something to carry you through that valley of death in the beginning, some way of tracking or visualizing your progress that says, "Hey look, you are on the right track, and this is the reason to feel good about what you did today, even if the long term rewards haven't accumulated yet."

Just as a final note on this, so much of the challenge of building good habits and breaking bad ones comes down to managing this misalignment of rewards. You have an immediate outcome and an ultimate outcome.

The immediate outcome of bad habits is often really favorable. The immediate outcome of eating a doughnut is great. It's sweet. It's sugary. It's enjoyable. The ultimate outcome if you repeat it for six months, or a year, or two years that's what's unfavorable.

With good habits, it's often the reverse. The immediate outcome of going to the gym is that you're sore. The ultimate outcome is in two years, you're fit. The way that I would summarize this is by saying the cost of your good habits is in the present. The cost of your bad habits is in the future.

You got to try to find ways to manage that misalignment, to pull the rewards of your good habits into the present moment, sometimes by tracking your habits, sometimes by other little rewards or reinforcements so that you feel good right now, and you have a reason to keep showing up while you're waiting for those delayed rewards to accumulate.

Ron: Kind of a little personal story here, and how your book has influenced me, and again, I mention my friends. We all downloaded this free app, called HabitShare. It's free for Android or iPhone. You can load your habits into it. You press the button once, it goes green. Press it again, it goes red, and so forth.

Since I've started using this, I have flossed my teeth for 75 days in a row. I can see in my app. I can tell you, it is now a habit to floss my teeth, but it was largely driven, initially, because of checking this box.

My friends are also seeing this. We can share these with each other, right? We, in a way, hold each other accountable, whether flossing your teeth is super important or not.



You know what I mean? It helps to know that other people are potentially watching. Yeah, HabitShare. It was a great find for us.

James: That's an interesting point that you bring up, which is...we haven't talked that much about, but the social reinforcement of habits. Knowing that someone else is watching, knowing what the expectation is for how to act, is a very powerful way to reinforce habits. It happens in all kinds of levels throughout life.

You may move into a new neighborhood and you walk outside on Tuesday night. You see that your neighbors are putting their recycling bins out. You think, "Oh, we need to sign up for recycling. I guess that's what people like us do here." Then you do it for the next 20 years. You stick to that habit, mostly because it's socially reinforced.

Why do we trim our hedges and mow our lawns? On one end, it feels nice to have a yard that's clean and tidy, but on the other hand, you want your yard to be clean and tidy because you don't want to be judged by your neighbors. There are a lot of habits that are like that.

You go to a job interview and you wear a dress, or a suit, or something nice. There's no reason you have to do that. You could wear a bathing suit to a job interview, but you don't because it would violate the expectation, the social reinforcement, of how to act. So many of our habits are like that, where they're socially reinforced.

I think that also provides a signal for how to get a habit to stick in the long run, which is you want to be surrounded by people where your desired behavior is their normal behavior.

You want to join a tribe where your desired habits are the normal action because if it's normal in that group, then it's going to become very attractive for you to do it day in and day out because it's going to help you fit in. It's going to help you belong. All humans are wired to want to belong, to be part of the tribe.

That social reinforcement piece, I think, is a very powerful aspect of getting habits to stick in the long run.

Ron: For sure, for sure.



The Downside of Building Habits

To wrap things up, James, towards the end of the book you talk about some advanced tactics. One thing that really jumped out to me was when you talked about the downside of creating good habits. Can you talk a little bit about that?

James: Habits allow you to do things on autopilot, that you previously had to think carefully about. They allow you to increase efficiency, and skill, and fluency, and act with less deliberation. All of that's great because it helps you conserve energy, and solve the problems of life with less energy and effort than before.

It does come with a downside. The more that you practice something, the more that you can do it good enough on autopilot, the less you question whether you're doing it as good as you could, or the more likely you are to overlook your little errors and mistakes.

There have been some interesting studies that have shown this. One of the ones that I mentioned is about surgeons. It finds that, early in your career as you're going through residency, and practicing to become a surgeon in the first couple years of your practice, the skill increases, you get better and better with practice.

After a few years, most surgeons will peak and actually have a slight decline in performance. Now, I don't know the stats on death rate or things like that. I don't know how particularly dangerous it is, but they make more errors than they did before. I think one of the key reasons for that is that now they can do a good enough on autopilot, and they stop thinking about how to do it better.

That's true not just for surgeons, but for all of us who build habits. The more that a habit gets ingrained, the less likely you are to examine it carefully. This, I think, is one key reason why reflection, review, and coaching, and the process of deliberate practice is really important.

It's like if you're really committed to continuous improvement, to try to carve out a small advantage each day, then you have to go through a cycle. At first, the process of improvement starts with awareness. You need to be aware of what you're doing, and what your flaws are, and what your opportunities for improvement are.

You need to start with some deliberate practice. You pick one of those areas of potential improvement and you practice it carefully. You think about how to improve it, you track it. As you practice it more and more, that thing that once was very difficult or required a lot of attention and energy, you start to develop fluency and skill.



You move, you migrate from deliberate practice to habit. Pretty soon you can do it pretty much on autopilot, even though previously it was very difficult for you. At that point, once a habit has been formed, now the cycle needs to repeat itself. You need to return again to awareness, to become aware of, what am I doing? Now, I'm acting on autopilot.

Are there gaps in this? Are there areas for improvement here? Once again, you start that process of deliberate practice leading back to habit formation and so on. I think it's really the combination of deliberate practice and habit formation, that ultimately leads to mastery. If you only make it about building habits, then you can start to coast. That's the downside of building habits.



Conclusion

Ron: Exactly. Thank you, James, for coming on and spending nearly an hour with us. It's been fantastic. I've really been looking forward to talking with you. I mentioned it over email, but this book really did connect with me on a profound level. I really appreciate your work. I always appreciate new jamesclear.com articles when they come into my email. Keep up the writing on the blog as well. Thank you.

James: Thank you so much. It was great to talk with you, and I appreciate your reading. I'll do my best to keep useful ideas coming your way.

Ron: Aside from jamesclear.com, are there any other ways that folks can connect with you, James?

James: Yeah. If you want to go straight to the book, you can check out atomichabits.com. That will give you plenty of options there to dig in, and some bonus materials to get. As you mentioned, most of my writing, you can find it at jamesclear.com. If you just click on articles, you can poke around and check out the topics that are most interesting to you.

If you click on books, you can not only see *Atomic Habits*, but also *The Habit Journal*, which I mentioned has some of those habit trackers in it. My social media sites and so on, are also at jamesclear.com. That's the best place to go to find everything in one place.

Ron: Has the next book started? Are you allowed to talk about it? What's going on there?

James: I'm toying with ideas. That's the current stage. I'll keep reading and researching. Once I come across something that I feel like is worthy of the time, and effort, and investment, I'll be very excited to share with everyone.

Ron: Maybe it'll be the biology of bad behavior, right?

James: Who knows?

Ron: Awesome. Thanks again, James. Keep up the great work. I really enjoyed chatting with you.

James: Great, thank you.

Ron: All right. Bye bye.