SHORTFORM

Summary of The Master Guides: Changing Your Habits

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At least 40% to 50% of the things you do and the decisions you make every day are driven by habit, according to experts like Charles Duhigg (*The Power of Habit*) and James Clear (*Atomic Habits*). Thus, even small improvements in your habits can have a big impact on your productivity and quality of life. But how do you change them?

In Shortform's Master Guide to changing habits, we've collected the best answers to this question from five best-selling authors and experts on the subject. You'll learn what habits are, why they're so hard to break, and how to identify the triggers and behaviors that keep you stuck in the same self-defeating patterns. Then, we'll share evidence-based strategies and advice for creating a personalized plan, whether you're looking to cultivate good habits, break bad ones, overhaul your life, or simply tweak the habits that make up your daily routine.

1-Page Summary

At least 40% to 50% of the things you do and the decisions you make every day are driven by habit. Thus, **even small improvements in your habits can have a big impact on your productivity and quality of life.** Like many people, you may have bad habits you'd like to break, good habits you'd like to start, or just routine habits you'd like to tweak for better health or productivity.

But it's hard to change your habits if you don't know how they form in the first place, what they're made up of, and how you can manipulate their components. In Shortform's Master Guide, you'll learn:

- The science behind habits and how they work.
- Techniques for applying this knowledge to make positive changes to your habits

In our discussion of these topics, we've pulled together advice and insights from five leading experts:

- Charles Duhigg, *The Power of Habit*
- James Clear, *Atomic Habits*
- BJ Fogg, *Tiny Habits*
- Nir Eyal, *Hooked*
- Barbara Oakley, *A Mind for Numbers*

The Science Behind Habits

There are two primary models for understanding habits and how they form. With minor variations, most authors (Clear, Duhigg, Eyal, and Oakley) describe habits in the same way, which we'll call the Standard Model. Meanwhile, in *Tiny Habits*, Stanford behavioral scientist BJ Fogg presents the Fogg Behavior Model, a different approach to understanding habits. The two models tend to complement rather than conflict with each other.

The Standard Model

A habit is something you do without thinking because the behavior is programmed into your brain as an automatic response. There are several components to this biological "program": the cue, the routine, the reward, the craving, repetition, and the belief.

The Cue

The cue is what starts the automatic program running in your brain. Cues are also called "prompts" or "triggers." They can be either external (something in your environment) or internal (your thoughts or emotions). For example, say you have a habit of drinking coffee in the morning. This habit might have an external cue, such as the smell of coffee from other coffee drinkers in the office. Or it might have an internal cue, such as feeling drowsy in the morning.

The Routine

The routine is what you do automatically when the program runs. In our coffee example, the routine might consist of getting your coffee cup, going to the coffee maker in the break room, and pouring yourself a cup of coffee.

The Reward

The reward is a positive sensation that your brain associates with the routine or with completing

the routine. The reward gives your brain a *reason* to execute the routine. It could be a pleasurable experience, or it could be relief from something negative such as pain or fear. Either way, to be part of the habit, the reward must be immediate. This is because your brain processes things that happen later on separately from the habit "program," even if they're direct consequences of the routine. So behaviors that generate immediate pleasure or relief but have negative long-term consequences lead to bad habits.

For example, if you drink a cup of coffee and it immediately makes you feel more alert and energetic, this will reinforce your coffee-drinking habit. On the other hand, suppose you try to address your fatigue problem a different way: You work through lunch so you can go home an hour earlier and get an extra hour of sleep. The extra sleep makes you feel more alert and energetic the next day. The reward is the same, but the delay between the routine of working through lunch and the reward of getting an extra hour of sleep is probably too long for it to make working through your lunch break habit-forming.

According to Nir Eyal, the reward must also be variable—in other words, it shouldn't be predictable. This is especially true for rewards that suffer from diminishing returns, meaning they're less rewarding the more times you receive them. For example, suppose you have a phone app that displays a joke whenever you open it. If it always gives you the same joke, the app probably won't be habit-forming because there are rapidly diminishing returns to hearing the same joke over and over. But if it displays a different joke each time you click on it (a variable reward), then the app is more likely to be habit-forming.

On the other hand, a reward like relief from fear or discomfort remains potent every time the fear or discomfort is present, so you don't need to vary it.

The Craving

The craving is a powerful urge to execute the routine in anticipation of the reward. Some authors, such as Clear, list this as an essential component of habits. They argue that the cue triggers the craving, which in turn causes you to execute the routine. Others, such as Oakley, leave out the craving step, stating that you perform the routine automatically in response to the cue.

Let's return to our example of a coffee-drinking habit and assume it's the smell of coffee that constitutes the cue. Any time you *smell* coffee, you'll start to *crave* coffee, and the craving will continue even if you consciously decide not to get any coffee today.

Repetition

Repetition is necessary for habits to form. This is partly because, as we said before, your brain executes the routine in anticipation of the reward—to anticipate what the outcome of a certain behavior feels like, you must have done it before. You also have to do something many times before the movements or other actions involved can become automatic. In other words, it takes time and repetition for your brain to build the routine for the habit program.

Eyal argues that habit formation is not just a matter of repetition, but of *investment*: The more time, energy, and value you put into something, the stronger your habitual attachment to it becomes. Investment gives you something to lose (or cease to benefit from) if you were to cease engaging in the habit, and so fear of loss makes the habit stronger.

For example, if you have a habit of using a social media app, over time, you'll make a lot of posts and build up your network. Or, if you have a long-standing habit of drinking coffee, maybe you've invested a lot of time in finding which blends taste the best and which coffee makers work the best.

The Belief

According to Oakley, the belief is an additional component of the habit program in your brain. She observes that **every habit tends to be grounded in something you believe about yourself or about the world you live in.**

For example, maybe you have a habit of snacking when you're under stress, and you believe that having something to munch on helps you stay calm. This habit could never develop without the underlying belief: You wouldn't have started snacking to relieve stress if you didn't believe snacking *could* relieve stress.

Most other authors don't consider underlying beliefs to be part of the habit itself. However, they would probably concede that your underlying beliefs do affect your habits because these beliefs influence what behaviors you're willing to do or repeat and color how you perceive the reward.

 The Fogg Behavior Model

Instead of viewing a habit as a routine that your brain executes automatically in response to a cue and in anticipation of an immediate reward, the Fogg Behavior Model postulates that you'll perform a given action when your ability to do it multiplied by your motivation to do it exceeds a certain threshold.

For example, suppose you're on a camping trip in central Idaho when for some reason you start thinking about donuts. To eat a donut, you would have to hike several miles back to your car, drive almost two hours back to the nearest town, and then find a bakery. So, most likely, you wouldn't eat a donut because it's just too difficult to get one—your *ability* to eat a donut is low right now. But, if you were extremely *motivated* to go find a donut, you could. Conversely, suppose you're at a conference and there's a box of donuts on a table with a sign that says, "Free—Take one." Now, your *ability* to eat a donut is extremely high, so if you have any motivation at all to eat one, you probably will.

Fogg illustrates his behavior model graphically:

Fogg's behavior model applies to all actions, not just habitual ones, but it can be used to explain habitual behavior.

In Fogg's model, the cue (or prompt) of a habit is anything that alerts you to the possibility of performing a certain action. For example, if you have a habit of snacking to relieve stress, feeling stressed alerts you to the possibility of relieving your stress by snacking.

The more you do something, the better you get at doing it: in other words, your *ability* increases. And the more you crave something, or anticipate a reward for doing it, the greater your motivation to do it will be. Both of these factors increase the likelihood that your combined ability and motivation will be above the threshold and you'll actually do the behavior whenever you have the opportunity to.

For example, if you've had a snacking habit for a long time, you probably have a good supply of snacks on hand. That increases your ability to snack because it makes it easier to access the snack food than if you had to go out and buy it first. And the stronger your cravings for snacks are, the more motivation you'll have to snack.

Thus, the Fogg Behavior Model helps to explain how habits form: **The more you do something, especially something with a built-in reward, the more likely you are to do it again.**

Techniques for Changing Your Habits

Different authors suggest different methods for cultivating good habits and breaking bad ones. We'll discuss them in turn, compare them, and consider how they can be combined for maximum effectiveness.

Fogg's Methods

BJ Fogg observes that your motivation, especially your motivation to *change*, tends to fluctuate over time and is difficult to control. Thus, applying his behavioral model, he recommends **changing your behavior by manipulating your *ability* rather than your motivation.**

So, if you want to start doing something regularly, find a way to make it so easy that you'll always do it. For example, if you want to start working out regularly, maybe you begin with a workout routine that consists of doing one sit-up. As this behavior becomes ingrained and thus easier, you can expand your workout.

Similarly, if you want to stop doing something, try to make it *harder* to do. For example, if you want to quit eating junk food, start by throwing out all the junk food in your house. Then plan your route through the grocery store so that you would have to go out of your way to pick up any more junk food.

You can also find ways to make eliminating something easier by starting small. For example, if you're trying to quit snacking on candy, maybe you start by eating *one less* piece of candy at every snack.

Duhigg's Methods

According to Duhigg, the key to making a new habit stick is to **make the cue unmistakable and the craving as strong as possible.** For example, if you want to make a habit of going for a run every morning, you could leave your running shoes in the middle of the doorway, where you'll have to step over them to leave your bedroom in the morning. He says you can intensify the craving by intentionally anticipating the reward. Fantasize about how good you'll feel after your run and about being in better shape because of your daily running routine.

Conversely, Duhigg says the way to break bad habits is to **eliminate either the cue, the craving, or both.** To do this, first, you need to identify the parts of the habit you want to change. He notes that this is sometimes difficult because you may not be conscious of what triggers you to perform a certain habit routine, or what it is about doing it that you find pleasurable.

Fully understanding the routine can help you get a better idea of what the reward might be, so he recommends writing down the exact sequence of actions you perform when you act out your habit. Then, start experimenting on yourself. Whenever you catch yourself starting to perform the routine, make a point of doing something differently, and see how you feel afterward. This information can help you determine what the reward really is. Sometimes you can eliminate your craving for something you want to quit by finding a better way to get the same reward.

For example, if you have a habit of walking to the cafeteria on your morning break and getting a soda, try walking somewhere else instead, or try getting something different at the cafeteria. Maybe you'll find that getting up and walking around on your break is what your body really craves to relieve the discomfort of sitting at your desk all morning. Or maybe you'll find that you're just thirsty, and getting some water satisfies your craving as much as a soda.

Similarly, if the cue isn't obvious, start keeping track of when and where you acted out your habit, what was happening around you, and what you were thinking or feeling at the time. If you can identify the cues that trigger an undesirable behavior, you may be able to eliminate the behavior simply by avoiding the cues.

Clear's Methods

At a high level, Clear's approach to changing habits mostly parallels Duhigg's, but Clear offers some additional insight on certain points.

To make a cue for a new habit harder to miss, **try using an existing habit as the cue for another behavior.** He calls this "habit stacking." For example, maybe you already have a habit of going outside in the morning to water your flower garden, and you want to get into the habit of jogging every morning. So you use finishing your watering as a cue to go for a run.

Similarly, you can **capitalize on your existing cravings by inserting other desirable habits in front of them.** For example, maybe you already have a habit of drinking hot chocolate in the morning, after you come back inside from watering your flower garden. So you insert your morning run between watering your garden and drinking hot chocolate. Eventually, this sequence becomes ingrained to the point that your craving for hot chocolate makes you want to go for a run so that you can come back and drink hot chocolate.

Interestingly, while Clear doesn't mention Fogg's Behavior Model, he does assert that one of the keys to successfully changing your habits is to **make the change as easy as possible.** He recommends breaking down new habit routines into small steps that take no more than two minutes each. Then, start your new habit with just the first two-minute step of the process, and build up the rest of it later. This advice closely parallels Fogg's ability-based approach to changing habits.

That said, where Fogg emphasizes minimizing difficulty so you don't have to depend on your ever-fluctuating level of motivation, Clear emphasizes the importance of keeping a positive attitude *in addition* to making your behavioral changes as easy as possible. In particular, Clear advises you to view performing a new habit as an opportunity, not an obligation, and to find ways that the changes reflect your identity, making them more meaningful. He says these techniques can make a big difference in your level of motivation, and thus, in your success rate at cultivating positive new habits.

For example, if you think, "I have to jog every morning so that I don't gain weight," you'll end up associating jogging with the risk of gaining weight, which you probably have negative feelings about. But if you think, "I'm a healthy person and I have the opportunity to keep my body tuned up by jogging regularly," you'll probably feel a lot more positive about jogging.

Oakley's Methods

Oakley's advice on changing habits generally parallels Clear's and Duhigg's: She recommends identifying the parts (cue, routine, reward, and belief) of the habit you want to change and then suggests ways of manipulating each of the parts to change the habit as a whole.

In addition to the techniques that Clear and Duhigg recommend, she points out that sometimes, you have to take a brute force approach to changing a habit by recognizing the cue and deliberately overwriting the routine to replace it with a better behavior, which will presumably have a different reward.

To muster the willpower to pull this off, she recommends practicing "mental contrasting," in which you reflect on the difference between how your life is now and how you want it to be. Surround yourself with reminders of where you want to be so that you can stay focused.

Oakley also notes that **there are two different types of rewards that are both useful for modifying habits: immediate rewards and delayed rewards.** As we've discussed, immediate rewards are part of the habit itself, and sometimes, you can change them to change the habit.

Delayed rewards don't influence the habit directly, but they still provide motivation to help you overwrite the routine or continue practicing a positive behavior until it becomes a habit. Thus, she recommends rewarding yourself for reaching goals and milestones as you work on improving your habits.

Finally, Oakley says that since habits develop based on underlying beliefs, **new information or new experiences that change your beliefs can be a key factor in changing your habits.** To change a habit, believe that you *can* change and that the change will be beneficial.

She observes that the company you keep can have a significant impact on your habits because the people you choose to associate with tend to reflect and reinforce your beliefs. Associating with other people who share your belief in the change can be a great source of motivation.

Oakley's emphasis on ways to maximize your motivation tends to contrast with Fogg's approach. However, the two approaches can still be complementary: Making the change as easy as possible and keeping your motivation as high as possible will *both* help you develop a good habit.

Exercise: Design a New Habit

In this exercise, you'll think through what you could do to create a positive new habit using the techniques we discussed in the guide.

Briefly describe a behavior that you would like to make habitual.

What will you use as a cue to trigger your new habit? Remember that it should be something that you won't easily forget or overlook. Consider building onto an existing habit that's already part of your routine.

What immediate reward will you get for performing the behavior? Recall that an immediate reward is necessary for the action to become a habit. What could you do to maximize the reward or maximize your anticipation of the reward?

Now that you've designed your habit, think about how you could break it down or scale it back so that it's extremely easy to begin. Remember, the easier something is, the more likely it is you'll actually do it, and repetition is important for habit formation. Describe the smallest, easiest step you could take toward

creating your new habit.

Exercise: Change an Existing Habit

In this exercise, you'll think through what you could do to change a habit you already have for the better using the techniques we discussed in the guide.

Briefly describe a habit you already have that you would like to change. What is the habit routine (the behavior), and what do you want to change about it? For example, maybe you have a habit of sitting in bed and browsing social media for a long time before you go to sleep. Maybe you just want to quit browsing social media in bed, or maybe you want to substitute something else, like reading a book for half an hour each night.

What cue or cues trigger your habit? If you're not sure, think about the last few times you acted out the routine of the habit and brainstorm a few possible cues that might have triggered it. For example, in the case of browsing social media in bed, the cue could be feeling lonely when you're alone in your bedroom.

What immediate reward is reinforcing the behavior? If you're not sure, brainstorm a few possible rewards and describe how you could experiment on yourself to test them. For example, in the case of browsing social media in bed, maybe browsing social media alleviates loneliness.

What would have to change about the habit's rewards, or about how you perceive and anticipate them, for the routine to change the way you want it to? Try to brainstorm a few different possibilities. For example, could reading an autobiography alleviate feelings of loneliness better than social media by giving you a deeper sense of connection with the author?

Select one of the possibilities from the previous question and identify the smallest possible step you could take toward creating that change. Describe it below. For example, maybe when you get into bed each night, you'll open the book you want to read, and you'll read one word.

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