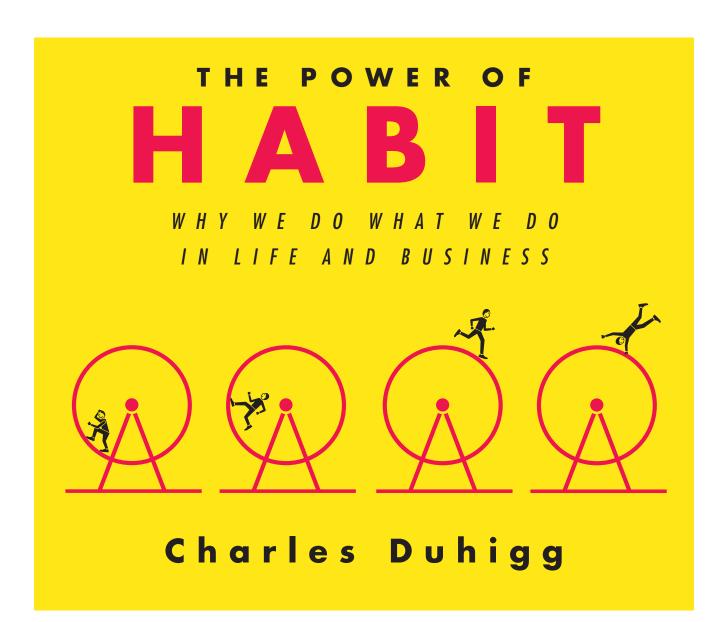
STUDY GUIDE

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THE HABIT LOOP

How Habits Work

CHAPTER SUMMARY

When you woke up this morning, what did you do first? Did you hop in the shower, check your email, or grab a donut from the kitchen counter? Did you tie the left or right shoe first? Did you choose a salad or hamburger for lunch? When you got home, did you put on your sneakers and go for a run, or eat dinner in front of the TV?

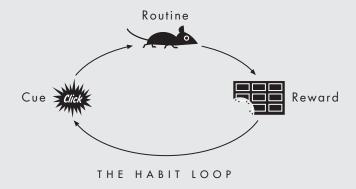
Most of the choices we make each day may feel like the products of well-considered decision making, but they're not. They're habits. This chapter explains why habits exist, and how they work. At the core of every habitual pattern is a **habit loop.**

The habit loop can be broken down into three basic steps. First, there is a cue, a trigger that tells your brain to go into automatic mode. The cue can be internal, such as a feeling or thought, or external, such as a time of day or the company of certain people (which is why it's easier to exercise among our running buddies, but harder to study when our friends are in the library).

The second part of the habit loop is the **routine**, the behavior that leads to the reward. The routine can be physical (eating a donut), cognitive ("remember for the test"), or emotional ("I always feel anxious in math class").

The third part is the **reward**. Not surprisingly, the reward can also be physical (sugar!), cognitive ("that's really interesting"), or emotional ("I always feel relaxed in front of the TV."). The reward determines if a particular habit loop is worth remembering.

In the habit loop illustrated below, a mouse learns to automatically run through a maze after hearing a click, because the habit has become ingrained through a chocolaty reward.



The basal ganglia, a small region of the brain situated at the base of the forebrain, play an important role in stored habits. Interestingly, scientists have discovered that mental activity in this part of the brain actually *decreases* as a behavior becomes more habitual. When a habit emerges, the brain become more efficient (and needs fewer resources) because automatic patterns take over.

This chapter stresses that understanding how habits work—or, understanding the habit loop—makes them easier to control. By changing the cue or the reward in a habit loop, you can change the pattern of behavior.

- 1. Why was E.P. described as "a man who would upend much of what we know about habits"? What did researchers learn from him?
- 2. What ability do patients with basal ganglia damage lose?
- 3. Thinking back to the example of McDonald's restaurants presented on page 26 in the book, how does this company use cues and rewards to trigger habit loops in its customers?
- 4. What cues and rewards can you identify when you've been to fast food restaurants? What about other settings, like movie theaters, or clothing stores?
- 5. Using the graph on page 19 as a guide, diagram your own habit loop for entering a password on your email account or your pin number at the ATM. Identify the cue, routine, and reward for this habit.
- 6. Can you diagram the habit loop for when you go into the cafeteria, or have a meal at home?
- 7. Do you think it was ethical for psychologists to study E.P.? Was he able to consent to research conducted on his memory and habits? Explain why (or why not) the benefits of this research outweigh the negative effects it may have had on his life.
- 8. On page 21 the author writes, "Habits are often as much a curse as a benefit." What are examples of habits that are beneficial or detrimental in your own life?
- 9. The author writes that it is possible to reawaken a habit, and that habits never disappear, but are changed by new cues, routines, or rewards. Describe a habit of yours that has been changed or replaced. Do you agree or disagree that this habit can be reawakened? Why? What would it take to reawaken your habit?
- 10. Psychologists have learned a great deal about habit and memory from studying individuals who have memory deficits. How are lessons from people like E.P. and H.M. relevant to your life?
- 11. Make a plan for a new habit you would like to develop. Identify what you can use as a cue, the steps involved in creating a routine and the reward this new habit will deliver.

- 1. Imagine that your friends forwarded you an email from a company that used subliminal messages in iPod audio tracks to help people quit smoking. The company claims if you listen to the messages while you sleep, you can give up cigarettes. Using information from this chapter, explain to your friends why this may or may not be a legitimate way to change a habit.
- 2. The University of San Diego Medical School (where Dr. Squire works) obtained H.M.'s brain after his death and published images of it online. You can observe the actual brain of H.M. online here. Explore the website listed above and this article here. Summarize two pieces of new information that you learned about H.M. or habits.
- 3. Before his death, Eugene Pauly was interviewed on the program *Scientific American Frontiers*. You can watch portions of his interview at here.
 - a. Observe Eugene Pauly in these interviews. What do you notice about him that is consistent with the description of his condition in this chapter? What surprises you? Can you observe any instances of his habits?
 - b. Imagine that you had visited Eugene Pauly along with Dr. Squire. What questions would you have asked him to learn more about his habits? What questions would you have asked Eugene Pauly's wife, Beverly?



THE CRAVING BRAIN

How to Create New Habits

CHAPTER SUMMARY

Recall that a habit loop is the pairing of a cue, a routine, and a reward. We learn in this chapter that a cue and a reward, on their own, are not enough to make a habit last. The cue, in addition to triggering a routine, must also elicit a craving for the reward. Only when your brain starts anticipating—or craving—the reward, will the behavioral pattern become automatic. (That's why, even if you're not hungry, once you see a box of donuts it's so easy to automatically pick one up.)

In the early 1900s, for instance, an advertising magnate named Claude Hopkins inspired millions to habitually brush their teeth by linking the cue of "tooth film" to the reward of beautiful, white teeth. But for that habit to take hold, people had to crave the minty sensation of toothpaste.

- 1. Explain how Hopkins changed Americans' habits. Prior to his marketing campaign, fewer than 10% of Americans had toothpaste in their medicine cabinets, but within 10 years, more than 65% did. How did Hopkins get Americans to change their habits and use toothpaste?
- 2. Describe Hopkins' conception of the Pepsodent habit loop. What was missing?
- 3. Explain why the initial marketing campaign for Febreeze wasn't successful. What was missing? How was the marketing campaign modified?
- 4. Proctor & Gamble (P&G) has collected thousands of hours of videotapes of people cleaning their homes over the years (page 53). Why did P&G invest so much money and effort getting these videotapes? Why didn't they just observe one person cleaning his/her house?
- 5. Proctor & Gamble sells hundreds of products, including Pringles potato chips, Oil of Olay moisturizer, Bounty paper towels, CoverGirl cosmetics, Dawn dish soap, Downy fabric softener and Duracell batteries. What do you think P&G knows about your habits?
- **6**. How did Julio the monkey's reward responses change as he became more and more practiced at pushing the lever?

- 7. The chapter breaks down several behaviors into habit loops, including running, eating, and cleaning. Think about how you exercise, eat, or clean. What are your cues, rewards, and cravings for these activities? Which ones are the same and which ones are different from those described in the chapter?
- 8. What is the difference between the reward and craving in the habit loop?
- 9. Are habits adaptive or maladaptive? How can you tell? What factors determine whether they are adaptive or maladaptive? Provide examples of adaptive and maladaptive habits in your answer.
- 10. Think of a common pattern of behavior (i.e., checking your email, taking a shower in the morning, buying a certain type of cereal, studying for your Introduction to Psychology exam). Describe the cue, routine, reward, and craving for that habit. This can be challenging, as we are often unaware of the cues and cravings in our lives.
- 11. Why do corporations hire psychologists to help design products and marketing campaigns? What other roles do you think psychology has in corporate settings?

- 1. In this chapter you read about examples of habits in people, rats, and monkeys. Have you observed habits in your pets? Animal trainers often rely on habit loops to elicit specific responses from animals (even if they don't know they're doing it).
 - a. Describe one habit you have witnessed in a pet or another animal. If you don't have a pet, search online for a video example (people love to post memorable examples of their animal's habits!). You might also want to look for examples of habits that animal trainers have taught to dogs or other animals. Think creatively!
 - b. Observe the habit closely. What makes this behavior a habit? Identify the cue, routine, and reward for this habit.
 - c. What kinds of rewards were likely involved in learning this habit? Would the habit have developed without the rewards?
 - d. How would you train an animal to create a specific habit?
 - e. What if you were trying to encourage a habit in a friend? How would your "training" be different for a person than an animal?
- 2. Following the Vietnam War, many people were concerned that returning veterans who had used heroin or other drugs during the war would still be addicted when they came home. However, studies revealed that very few veterans who abused drugs overseas continued using once they returned to the U.S. Why do you think it was easier to kick this habit once they were back in

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America? Although craving is an important component of the habit loop, why isn't it the whole story? Is craving sufficient to produce a habit?

- We've provided links to two articles that you may want to assign http://aje.oxfordjournals.org/content/99/4/235.short and http://ajph.aphapublications.org/cgi/reprint/64/12_Suppl/38.pdf
- 3. Imagine that a company that plans to develop an app for iPads and iPhones has approached you for help. The app will allow users to post updates on Facebook or Twitter whenever they eat a healthy salad instead of an unhealthy hamburger or pizza slice. The company has asked you for suggestions about how to design and market the app. Ideally, the company wants people to use the app at least once a day.
 - **a**. Using some of the principles of habit science, what suggestions would you make? What should be included in how the app is designed or marketed to help users create new habits? Remember that you want to change eating habits AND iPhone habits. The company has requested a one-to-two page memo of your suggestions.



THE GOLDEN RULE OF HABIT CHANGE

Why Transformation Occurs

CHAPTER SUMMARY

This chapter focuses on changing habits. The **golden rule of habit change** says that to change a habit, it is important to keep the cue and the reward the same, while inserting a new routine into the habit loop.

It sounds easy in theory, but given the strength of most habit loops, changing behaviors can be very difficult.

Belief is at the core of modifying many habit loops and plays a critical role in habit change. For habit change to be permanent, people **must believe change is possible**. Studies show that people must believe in their capacity to change and that things will get better to achieve more permanent habit change. **Groups** can have a powerful effect on belief by providing **shared experiences** and **opportunities for people to publicly commit** to change.

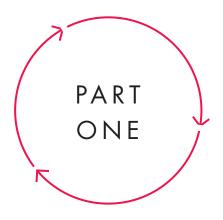
If you want to change a habit, it usually helps to recognize the cue ("I always want to go to a bar when I feel stressed"), deliver the expected reward ("I feel more relaxed around my friends"), but find an alternative routine ("Instead of going to the bar, I'll go to an Alcoholics Anonymous meeting"). And remember, your odds of success go up dramatically when you commit to changing as part of a group.

- 1. Describe the golden rule of habit change.
- 2. Explain how the framework of Alcoholics Anonymous fits with the golden rule of habit change.
- 3. What did Tony Dungy mean by the statement on page 61, "Champions don't do extraordinary things. They do ordinary things, but they do them without thinking, too fast for the other team to react. They just follow the habits they've learned."?
- 4. How did Tony Dungy get his football players to change their habits? Did the new habits stick? Why did the habits "fail" during the critical moments (i.e., playoff games)? What else was needed to make the habits permanent?
- 5. Describe the concepts of "awareness training" and "competing response" and relate these concepts to the habit loop.

- 6. Why do you think it is easier to convince someone to adopt a new behavior if it is preceded and followed by something familiar at the beginning and end?
- 7. When people try to change their habits (such as quitting smoking or exercising more), how do they typically go about it? How are their strategies different than those described in this chapter?
- 8. Why are habits so hard to change? Think about a time when you have tried to change one of your habits. Was it hard? Were you successful? If so, how did you do it? If not, what should you have done differently?
- 9. Can individuals change their habits without the support of a group? Discuss your answer in several sentences.
- 10. As stated on page 92, "There is, unfortunately, no specific set of steps guaranteed to work for every person." Do you have some habits that could not be changed by inserting a new routine into your habit loop? Why are those habits so resistant to change? What would it take to change them?

- 1. Most modern psychologists discourage the use of punishment to teach children good habits and recommend the use of rewards instead. Punishment is typically ineffective because it teaches an individual what *not* to do, rather than what they *should* do when a bad habit strikes.
 - a. Imagine you would like to teach your young cousin to play a fast-paced video game like *Angry Birds*. You could either reprimand her when she makes a mistake (punishment) or praise her when she scores. What strategy (punishment or reward) do you think will help your cousin learn to play *Angry Birds* quickly and automatically? How could your strategy influence your cousin's habit loop so she can play (and possibly beat you) at the game?
- 2. Your friend recently read an article about a woman who lost 122 pounds in Weight Watchers. She sent you the article, and is considering joining the program herself. Read the article here.
 - **a**. Then, write an email to your friend explaining why you think she may or may not have success with this program. Highlight which elements of Weight Watchers are most helpful in changing eating habits and sticking to a diet. What parts of the habit loop are most impacted by this type of program?
- 3. You've been playing third base for your softball team for several years. This season, they've asked you to become the coach. It's really flattering! And scary! You know the team really wants to win the city championship. So you bought this book to find ways to teach players to bat better and catch fly balls more quickly. Specifically, you know that when a right-handed batter is up, he is more likely to hit a ball into left field. You want to help the team develop a habit of shifting left whenever a right-handed batter is at bat. Right now, the team generally scatters across the field. How can you help your team?
 - a. What is the cue for the scattered players' habit? Are there any subtle cues they should look for?

- b. What is the habitual behavior you would like to change?
- c. How will you help your team develop a new habit? Specifically, what steps will you take to help them develop different habits? (Think about Coach Dungy!)
- d. Imagine you have established the new habit and the team is winning. Is this habit likely to persist as the games become higher-stakes, leading to the championship? What can you do to help ensure that the team doesn't revert to old habits at high stress moments? (Create belief)
- 4. How do effective smoking cessation programs change habits? What are the essential elements for these programs? (i.e., www.smokefree.gov/ or www.cdc.gov/tobacco/data_statistics/fact_sheets/cessation/quitting/index.htm)
 - a. Make a checklist of the essential elements you want to see in an anti-smoking program, based on the information presented in this chapter.
 - b. Using your checklist, evaluate one or more smoking cessation programs that have been reviewed by the National Registry of Evidence Based Programs and Practices (www.nrepp. samhsa.gov/ and use the keyword search to look for "smoking" or "nicotine"). Or:
 - c. Compare and contrast the findings of the following two reviews of a smoking cessation programs. Note the findings they have in common and any discrepancies. Be sure to evaluate how the three sources arrived at these conclusions and how they include the principles of habit change described in this book. Are you surprised by the findings? What is your interpretation of the rates of smoking on various age groups and their rates of successful quitting?
 - www.cancer.gov/cancertopics/factsheet/Tobacco/symptoms-triggers-quitting
 - Volpp KG, Troxel AB, Pauly MV, Glick HA, Puig A, Asch DA, Galvin R, Zhu J, Wan F, DeGuzman J, Corbett E, Weiner J, Audrain-McGovern J. (2009). A Randomized, Controlled Trial of Financial Incentives for Smoking Cessation. The New England Journal of Medicine, 360, 7, 699-709. Doi: 10.1056/NEJMsa0806819
 - Villanti AC, McKay HS, Abrams DB, Holtgrave DR, Bowie JV. (2010). Smoking-Cessation Interventions for U.S. Young Adults A Systematic Review. American Journal of Preventative Medicine, 39, 6, 564-574.



Expanded Activity

1. SELF-CHANGE PROJECT-LIVING GREEN

After reading the first three chapters in this book, you may have a lot of new ideas about changing your behaviors to improve the quality of your life, your work at school, or your relationships with others. What if you could use this knowledge to improve the environment and contribute to sustainability efforts?

Some possible environmentally-damaging habits that people should consider changing include: leaving on lights or appliances when not in use; driving instead of walking to destinations; using disposable cups, plates, or silverware; using a new plastic bag each time you go to the store; buying bottled water instead of reusing cups; making paper copies of documents rather than electronic; eating food that has been shipped long distances rather than locally grown.

Changing from environmentally damaging habits to environmentally beneficial ones can be challenging, particularly when people (like college students) are busy. To help you understand some of the challenges that accompany such changes, choose one important habit that has implications for sustainability that you want to shift in your own life.

- Identify and describe the target habit, including:
 - Identify the cue of this habit
 - Identify the routine of this habit
 - Identify the reward of this habit
 - Identify the craving of this habit
- Describe the damaging effect your target habit has on the environment. In other words, provide evidence as to why it is important for you to change this specific behavior.
- Carefully construct and describe the new routine you will insert between the cue and reward
 of your habit
 - Remember, there are several aspects of habit change to consider. For more ideas you may want to think about the strategies presented in this book for changing nail-biting behavior, playing football or selling toothpaste.
- How will you measure your behavior? The specific behavior you choose will determine how
 you measure it (frequency of driving a car, consumption of fast food, etc.).

- Describe your strategy for data collection. Were you able to change your behavior? Why or why not?
- Finally, create a 10-minute presentation about your experience with this self-change project. Some ideas for your presentation:
 - What did you learn?
 - What aspects were most challenging?
 - What surprised you about this project?
 - What was the impact of your change on the environment?

Outline from a student project

Environmentally damaging behavior:

- The habit loop for using disposable coffee cups
 - The cue of this habit—Passing Starbucks on the way to class
 - The routine of this habit—Drinking coffee from a to-go cup
 - The reward of this habit—Coffee!
 - The craving of this habit—Caffeine
- Describe the damaging effect your target habit has on the environment.
 - Students should research the impact of using disposable coffee cups. Various websites provide a plethora of information regarding the impact of environmentally damaging habits (i.e., http://sustainabilityissexy.com/). For example, regarding disposable coffee cups, student could highlight the negative impact of the manufacturing process.

SEXY .	Number of Cups Used	Tons of Wood Consumed	Number of Trees Cut Down	BTU's of energy used	Equivalent number of homes that could be powered	Gallons of water used	Equivalent in Olympic sized swimming pools	
Disposable cups to be used in the US in 2010	23 Billion	1.4 million	9.4 million	7 trilion	77 thousand	5.7 billion	8.5 thousand	363 million
Disposable cups used in the US in 2006	16 Billion	951 thousand	6.6 million	4.8 trillion	54 thousand	4 billion	6 thousand	253 million
Disposable cups used by Starbucks in 2006	2.3 Billion	137 thousand	944 thousand	700 billion	7.7 thousand	569 million	859	36 million
Disposable cups used by a large university	5000 perday	109	750	560 million	6	451 thousand	1	29 thousand

Figures depict annual consumption statistics, and are based on calculations by www.PaperCalculator.org and the Environmental Defense Fund

- Carefully construct and describe the new routine you will insert between the cue and reward
 of your habit
 - The cue of this habit—Passing Starbucks on the way to class
 - Possible changes to the routine include carrying a re-usable coffee cup in your backpack, leave for class ten minutes earlier so that you can drink the coffee at Starbucks, or making coffee at home from a re-usable cup.
 - The reward of this habit—Coffee!
 - The craving of this habit—Caffeine

- Data collection would focus on the number of disposable coffee cups used and money saved if the student decides to make coffee at home.
 - Data could be collected week by week and then combined and organized into the different categories (coffee at home, coffee out, used reusable cup, and used disposable cup) after a pre-determined time frame.
 - Drank coffee 27 times in the four weeks (at home 16 times and out of the house 11 times), of which 24 times were from a non-disposable cup (either my reusable coffee cup or a mug at home).
 - The average cost of pound of coffee is \$10 and provides 32 cups of coffee. The average cost of a cup of coffee out is \$2.25. From the data above—\$24.75 on the 11 non-home coffees and \$5 for home coffees.

2. RESEARCH PROJECT: OBSESSIVE-COMPULSIVE DISORDER

Help students develop mini-research project to explore the role of habit in a psychological condition: obsessive-compulsive disorder.

- **a**. Guide students to resources to summarize the nature of this disorder.
- b. Evaluate the psychological definitions of "obsession" and "compulsion". Compare the use of these terms in psychology with common usage and usage in the book. You may want to facilitate a class discussion or use a writing assignment for students to explore this difference.
- c. Help students conduct a short observational project. Instruct students to observe how people might use these words colloquially. What do people mean when they say, "he's obsessive" or "she has a compulsion"? Do they apply these terms to habits? What distinguishes a "habit" from a "compulsion"? Observations could be conducted of classmates, family members, YouTube videos or online blogs, Facebook posts, or in another public location (e.g., a mall, library, or student union).
- d. Critically evaluate the role of habit in this disorder. You may consider instructing students to create an informative video to post online to share with classmates or to write presentation or report.



KEYSTONE HABITS, OR THE BALLAD OF PAUL O'NEILL

Which Habits Matter Most

CHAPTER SUMMARY

On the surface, remaking a multi-billion dollar corporation and training to win gold medals in swimming don't seem to have much in common. However, keystone habits explain how Paul O'Neill transformed the Alcoa Corporation and how Michael Phelps became an Olympic champion.

So, how did Paul O'Neill transform a huge, "stuck in its ways", aluminum-smelting company into a profit machine with an impressive safety record? He changed organizational routines, of course! Organizations—including companies, student groups, and entire universities—have habits of their own. They occur across dozens, sometimes thousands or people. Within organizations, habits are often referred to as "routines".

And within organizations, as well as individuals' lives, some habits are more powerful than others. These are known as **keystone habits** and they have the **power to change how other habits work.** Making a change in a keystone habit ("going for a run before work") can start a chain reaction that over time transforms other patterns ("eating a healthy breakfast instead of a donut" and "drinking water instead of coffee throughout the day"). As you can imagine, it can be difficult to find the critical habits that can impact other routines. Once these critical habits are identified and changed, they have the potential to have wide-reaching effects!

Much to the shock of stockholders, when Paul O'Neill became Alcoa's CEO, he focused on safety routines. ("Why isn't he directly focused on making us more money?" shareholders questioned). O'Neill understood the importance of choosing one priority, such as safety, and using it as a powerful lever to create widespread change in the organization. The focus on safety forced the creation of a new culture with new organizational routines. These changes ultimately spread through the organization resulting in a reduction in production costs, an increase in quality and productivity, and, much to the stockholders' delight, a huge increase in profits!

Keystone habits encourage widespread organizational change in three important ways.

First, keystone habits produce small wins. Small wins are accomplishments that stimulate larger, transformative changes. A series of small wins can leverage modest advantages into patterns that convince people that larger achievements are possible. **Small wins convert cumulative successes into routines.**

Second, keystone habits encourage change by creating structures that help other people thrive.

Third, keystone habits can create a **new organizational culture that embodies new values.** Particularly during times of uncertainty, a new culture can transform behaviors, and make decision making an automatic outgrowth of an organization's values.

- When Paul O'Neill became CEO, he focused on safety, much to the shock of stockholders.
 Describe how the stockholders' expectations (page 98) during Paul O'Neill's first presentation as CEO could be explained by a habit loop.
- 2. Define "keystone habits". What is a keystone habit in your life? What is a keystone habit at your college or university?
- 3. Explain what was meant by the comment "government efforts, which should have been guided by logical rules and deliberate priorities, were instead driven by institutional processes that, in many ways, operated like habits" (page 102). How does this comment relate to habits and routines?
- **4**. Describe the habit loop that captures Paul O'Neill's safety plan (page 102). Then, revise the habit loop to include a different keystone habit. Be sure to reflect upon other possible keystone habits that could also impact the organizational routines.
- 5. Define the concept of "small wins" and relate it to keystone habits.
- 6. Explain how the exclamation, "Put in the videotape!" that Michael Phelps' coach shouted, relates to habit loops (page 111).
- 7. Explain how the reclassification of books into a newly created category (Homosexuality, Lesbianism—Gay Liberation Movement, Homophile Movement) could be considered a small win and how it impacted other actions.
- 8. In this chapter, "grit" is an example of an institutional value among West Point cadets who successfully complete training by relying on certain habits. Have you ever been a part of a study group, sports team, or group at work that used "grit" to create good habits? What was the group? What were the positive habits that resulted? What cues and rewards did your group help you identify and achieve?
- 9. Have you ever been employed by a company or an individual that embodied a strong, keystone habit or culture, like employee safety at Alcoa? Alternatively, have you ever taken a class or volunteered with an organization with a similar keystone habit or culture? What was the keystone habit? Can you identify situations where the keystone habit began to effect other habits or procedures?
- 10. In this chapter, you read about unsuccessful weight loss programs that required people to radically alter their lives and successful programs that asked people to simply fill out food journals. Journaling became a keystone habit, causing changes in other unhealthy patterns. In 2008, the United States Department of Agriculture (USDA) initiated a Fresh Fruit and Vegetable Program for cafeterias in elementary schools to provide children with lunch options that include fresh produce. On their website, the USDA claims that the Fresh Fruit and Vegetable Program "can be an important catalyst for change in our efforts to combat childhood obesity". Could this change to lunchtime habits be considered a keystone habit? After reading this chapter, do you predict that this small change to one meal a day could have an impact on childhood obesity? Why or why not? What might be considered a small win in this situation?

- 11. Although this chapter focuses on keystone habit changes that benefit employees and companies, could some keystone habit changes be detrimental? Imagine that Paul O'Neill chose to change the culture to value productivity over safety or profit above all else. Predict how the company could have changed if he had focused on productivity instead of safety.
- 12. Does keystone habit change occur quickly or slowly? Why do you think that is? What factors within an organization impact whether change in organizational culture is fast or slow?

- 1. Each year, CNN, Fortune, and Money magazines compile a list of the one hundred best companies to work for (see the 2011 list here). What can we learn about keystone habits from these successful companies?
 - a. Look at the full list of 100 companies. How many of the company names do you recognize? How many would you consider a household name? What does this tell you about the success of these companies?
 - b. What keystone habits or cultures have these companies adopted that have made them successful? Read three company profiles on the website and identify at least one core value that could be a keystone habit for each organization.
 - **c.** Is there a clear theme to the keystone habits you identify?
- 2. The fast food chain Subway has featured a spokesperson named Jared Fogle in many of their commercials over the past decade. Have you seen one of these ads featuring Jared, "the Subway guy"? In commercials and appearances, Jared tells his story of losing 245 pounds eating the restaurant's sandwiches. Since losing weight, Jared has completed the New York City marathon, earned his college degree, appeared in a film (Super Size Me, 2004), and written a book (Jared, the Subway Guy: Winning Through Losing: 13 Lessons for Turning Your Life Around). What can we learn from this famous example of keystone habit change?
 - a. What elements of keystone habit change can you identify in Jared's example? (Hint: What do you think were his small wins? How did changing a keystone habit contribute to Jared's other accomplishments?)
 - b. In addition to selecting Jared as a spokesperson, Subway achieved a reputation for providing healthy and nutritious fast food. How do you think Jared's story may have influenced the keystone habits of this fast food chain?
- Imagine that you have recently been selected to become the president of the Psychology Club or the Business Club at your university. Your goals for the club in the next year are to increase the club's active membership and to increase the number of hours your club members participate in community service.
 - a. Identify a keystone habit for the club that will help you achieve your two goals.

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- b. Describe how you will implement change in your organization's keystone habits.
- **c.** Identify and describe small wins that you hope to experience on your way to achieving your goals.
- d. Once your keystone habits are in place, describe other habits within the club that you expect to change as a result.



STARBUCKS AND THE HABIT OF SUCCESS

When Willpower Becomes Automatic

CHAPTER SUMMARY

Willpower is the most important keystone habit for individual success. In the last chapter you learned that **keystone habits have the power to change other habits.** The best way to strengthen willpower is to make it into a habit. Sounds easy enough, right?

So how is it that Susie can resist cupcakes during a mid-afternoon meeting, while Marie regularly eats two? How can some people make self-discipline look so easy? **The key to their success is that they make self-control into a keystone habit.** They build habit loops that make good decision-making automatic. In other words, they learn to have more willpower. This chapter builds on the last chapter's main point regarding the role that keystone habits play in widespread change.

People can get better at regulating their impulses and learn how to **resist temptation**. Similar to other habits, repeatedly resisting temptation can increase willpower as the brain practices a new habit loop. In a series of experiments, Megan Oaten and Ken Cheng found that as individuals' willpower "muscles" strengthened, people were able to self-regulate their behavior in other areas of their lives. In other words, **changing the keystone habit of willpower can positively influence other habits**. As people changed their exercise habits or spending habits, these willpower habits spilled over to other areas of their lives, such as what they ate or how hard they worked.

In Chapter 2, we learned about football players who were more likely to "choke" at critical moments during a game. People with weak willpower behave similarly. They seem fine most of the time, but their **self-control** is **more likely to evaporate when they are confronted with unexpected stresses or uncertainties.**

So, how do some people resist temptation when confronted with unexpected stress? How do some people marshal their willpower when the going gets tough? How, in other words, do some people make willpower into a habit? One way is they **anticipate possible challenges**. Anticipation of *inflection points*, or challenges, allows people to plan to deal with pain, stress, and temptation ahead of time. Is it the delicious smell of the cupcakes that is too much for Marie to resist? Or is it that she gets sleepy in the mid-afternoon and the cupcake is a quick pick-me-up? Anticipating these inflection points (i.e., going for a quick walk prior to the meeting to prevent drowsiness) allows Marie to choose a routine ahead of time ("When I feel tired (my cue), I'll go for a walk (my routine,) and I'll end up feeling refreshed (my reward) instead of hungry for a cupcake."). Over time, these plans become automatic habits.

Another reason why some people are better at creating willpower habits is because **they feel in control.** It is critical for companies and organizations to give people a sense of agency, a feeling of control, in order to increase how much energy, focus, and productivity they bring to their jobs. Capitalizing on this information, Starbucks has trained employees to anticipate inflection points and has instilled a sense of control among workers who are trained in willpower habits. And, it has helped the company boost revenues by more than \$1.2 billion a year.

- 1. Describe the "marshmallow study" that was conducted in the 1960s and the results of this study. What does this experiment tell us about the concept of self-regulation? Why is willpower a keystone habit?
- 2. Describe the "radish and cookie experiment" conducted three decades later. How did the findings of the "radish and cookie experiment" add to what researchers already knew from the "marshmallow study"? How does this change your understanding of self-regulation, and willpower as a keystone habit?
- 3. Define "inflection point". Think about a behavior you are trying to change (for example, checking your email less frequently, reducing the number of cigarettes you smoke, etc.). What are the inflection points for this habit? When are your newly created habits most likely to falter?
- 4. On page 144, you learned that patients who didn't write out a plan for recovering from hip replacement surgery were at a significant disadvantage compared to people who had a plan to cope with pain. Why did writing out a plans "cause" the patients to handle pain better? Explain the difference between correlation and causation. What are some other possible explanations for the findings?
- 5. Examine the similarities and differences between Paul O'Neill's focus on "safety" and Starbucks' focus on "best service" as keystone habits. How do these keystone habits differ? How are they similar?
- 6. Imagine that you need to construct a habit loop for the Starbucks' employee-training manual. Diagram a willpower habit loop and highlight possible inflection points.
- What is the LATTE method (page 145)? Diagram a habit loop illustrating the LATTE method for a Starbucks employee.
- 8. Why do you think that blank pages were included in the Starbucks' employee-training manual? What are the advantages and potential disadvantages of employees completing the following assignment, "When a customer is unhappy, my plan is to . . ." on their own? What's an even better assignment to help employees develop willpower habits?
- 9. Building on the research of Mark Muraven described on pages 149–150, what is the role of kindness or compassion in helping people develop willpower habits? What is an example from your life where kindness or compassion helped you delay gratification or strengthen your willpower?



- 10. Imagine one of your teachers asked you to teach his 8am class next week. Unfortunately, students in this early class regularly show up late. Your goal is to reduce tardiness. What steps would you take to cultivate a timeliness habit? Hint: think about setting goals and planning for challenges (inflection points) for arriving at 8am.
- 11. Have you ever sprained an ankle? If you have, you're in good company. Over 3 million sprained ankles occurred in the US between 2002 and 2006. Recovering from this type of injury generally requires elevating your foot, wearing a supportive bandage or brace, and taking a painkiller for two weeks. What are the inflection points that might delay recovery? What would your plan look like if you sprained your ankle very badly?
- 12. What advice would you give yourself to increase your willpower habits regarding completing class assignments and submitting them by the due date?

- 1. Identify some of the strategies used by children in the marshmallow studies by observing their behavior first hand. Watch footage of children who are trying to stop themselves from eating marshmallows here.
 - a. Identify two strategies the children used to avoid eating the marshmallow.
 - b. Why did these strategies help them sustain their willpower?
 - c. Based on the information in this video, do you believe culture plays an important role in delayed gratification (willpower)? Why or why not?
- 2. Would you take a class to improve your willpower and learn more about willpower research? You're not alone! Over 100 students pack the classroom of Kelly McGonigal's Science of Willpower course each time it is offered at Stanford University (home of the original marshmallow studies!). Read more about the class here.
 - a. Help Professor McGonigal with her class by creating a homework assignment for her students.
 - What activities would you assign students to learn more about willpower? Should they read about willpower research, conduct an experiment about willpower, or watch classic footage of marshmallow studies? What other activities can you think of to help the students learn about willpower?
 - ii. What are the most important pieces of information that students should know about willpower research? Write three exam questions that assess students' understanding of the most important aspects of willpower.

- 3. The President of your university has asked for your help. She is concerned about low graduation rates among undergraduate students. The President has asked you to design a strategic plan to help students graduate. Increasing students' willpower, she believes, is the key to success.
 - **a**. What key elements should this plan include? (Hint: think about the importance of detailed plans for graduation, inflection points that may interfere with graduation plans, autonomy/ self agency in creating willpower and developing positive keystone habits.)
 - b. Write a memo to the President describing three specific suggestions to increase graduation rates using the ideas in this chapter. What exercises should new freshmen complete on their first day of school? Outline a one-day workshop every sophomore must complete before they leave for summer break that would increase the likelihood of them graduating. If your school gave one assignment to each junior to help achieve the same goal, what would it be?



THE POWER OF A CRISIS

How Leaders Create Habits Through Accident and Design

CHAPTER SUMMARY

It is hard to imagine that any good could result from a doctor cutting open the wrong side of a patient's head, right? Or that a fatal fire in an underground subway could have positive benefits? However, at a hospital in Rhode Island and in a subway in London, those crises forced organizations to change their routines. This chapter explains why good leaders often capitalize on crises to remake organizational habits. Crises, or the perception of crises, can cultivate a sense that something must change and provide momentum for an organization to reevaluate organizational patterns.

Routines, as organizational habits are often called, provide unwritten rules that groups need to operate. Routines function as organizational memory and reduce uncertainty for employees. Everyone knows not to request a nonessential purchase from their boss— a huge Yankee's fan—after the team loses, right? It's not written down anywhere, but given that the head honcho is in a terrible mood when the Yankees strike out, you know not to go near him.

All organizations have institutional habits; some are beneficial routines and others are toxic. Organizational habits can be deliberately designed—like the worker safety habits at Alcoa in Chapter 4—or can grow without forethought. Toxic patterns occur when habits aren't deliberately planned or organizational decisions are made haphazardly.

During the turmoil of a crisis, organizational habits are more flexible and open to change. Leaders can use the opportunity of a crisis to deliberately design a new culture and better routines.

- 1. Right after President Obama was elected—and while the 2008 financial crisis was still in full swing—the President's chief of staff said "you never want a serious crisis to go to waste". What did he mean? How is this related to the adage that "every cloud has a silver lining"? Reflect on your own life and identify a crisis you've experienced that had a silver lining. Describe the crisis and explain how it led to a positive change.
- 2. Write down three pieces of unwritten advice about how to succeed at your workplace or university. These aren't the kinds of rules that show up in handbooks—but, rather, the kinds of tips you would give a friend on her first day. How have you, or your organization, created routines to make these rules occur? Which routines help you be successful?

- 3. Explain how the term "truce" is used in this chapter (page 162)? How does it relate to organizational habits and routines?
- 4. According to this chapter, could an organization function if all employees had equal say in how things are run? Some people think that organizations need leaders who cultivate habits that both create a real and balanced peace and, paradoxically, make it absolutely clear who is in charge. What do you think? Do you agree or disagree with this statement? Explain your reasoning.
- 5. Summarize the toxic routines that contributed to the devastating fire that killed thirty-one people in the London Underground. Analyze those patterns and describe how different communication patterns could have prevented the tragedy.
- 6. How did the institutional changes that are listed on page 177 change the routines of the employees at Rhode Island Hospital?
- 7. Why would a leader want to prolong a sense of emergency on purpose or create the perception of a crisis? Is that ethical? Why or why not?
- 8. How many times have you visited a hospital or used public transportation? After reading about the habits of Rhode Island Hospital and the London Underground, how do you feel about your experiences with hospitals and public transportation? Based on your experiences, are you confident about the services offered by these organizations? Why or why not?
- 9. Author Shankar Vedantam in his book *The Hidden Brain: How Our Unconscious Minds Elect Presidents, Control Markets, Wage Wars, and Save Our Lives* tells the story of Bradley Fetchet, a victim of the 9/11/01 attacks on the World Trade Center towers in New York City. Fetchet and many of his fellow employees in the firm Keefe, Bruyette & Woods, died in the collapse of the South Tower. Some speculate their deaths were influenced by the safety habits of the organization. As the author writes, "The emerging school of thought in disaster management was that rather than trying to get everyone out of a big building like the World Trade Center, it made sense for people who were not affected by a problem to stay inside their workplaces, rather than wander out into danger. **This wisdom filtered down to every old-timer in the building**". (page 120–121). To avoid exposure to the disaster surrounding the North Tower, Fetchet and his colleagues stayed in the South Tower as they did not know that their building had been damaged and assumed dangers were isolated to the North Tower. What elements of organizational habits are revealed by this policy? What would you do in light of the 9/11 crises to change organizational safety habits in big buildings like the World Trade Center? What written or unwritten habits may have contributed to some of the fatalities in the World Trade Center collapse?

1. The chapters in the second section of this book focus on habits within companies and organizations. Workplaces are unique professional atmospheres that have their own language to

convey organizational habits. The questions below ask you to consider some of the language used in workplaces and to examine the underlying workplace habits.

- a. Have you ever heard the phrase "the right hand doesn't talk to the left"? What does this phrase mean in the context of this chapter? How could you apply this phrase to the example of fire in the London Underground?
- b. Have you ever heard the term "whistle blower"? What is a whistle blower and how can their actions be related to the role of crisis in changing institutional/organizational habits?
- c. What unwritten rules do these phrases reveal?
- d. Imagine that you were appointed the head of the London Underground following the 1987 fire. The British Parliament has asked you to reform the organization, and your first job is to redesign the organizational chart and develop three new rules to keep the trains running, while also making sure another tragedy like the fire never occurs. How do you assign responsibility to make it clear who is in charge of various divisions, while also assigning broad responsibility for issues like passenger safety? What would your organizational chart look like? What are your first three rules? What would you do on your first day at work?
- **e.** Here is the report that Desmond Fennell wrote after he was asked to investigate the fire in the London Underground. What do you notice about it?



HOW TARGET KNOWS WHAT YOU WANT BEFORE YOU DO

When Companies Predict (and Manipulate) Habits

CHAPTER SUMMARY

Did you ever wonder how coupons for items you already intended to buy miraculously show up in your mailbox? How do advertisers know that you need garbage bags again? Can these companies read your mind? Or, are they spying on you? You may be surprised to learn how much retail companies know about you!

This chapter focuses on how companies capitalize on our shopping habits. Studying people's patterns has increased many corporations' abilities to make money. Companies collect data about how we habitually shop. Humans prefer familiarity, and when we are doing activities like shopping, we often make choices automatically by relying on our habits. So if companies can figure out those habits, they can predict what we will buy. It doesn't stop there, however.

As you've been learning in this book, our habits can be influenced and changed. Retail stores use knowledge of our shopping behaviors to change what we habitually buy. To increase profits, companies figure out each shopper's habits and then send personalized advertising pitches designed to appeal to customers' unique buying preferences.

You learned in the last chapter that organizations are more likely to change their routines after a crisis, when everything is in turmoil. Similarly, people's buying habits are more likely to change when they are going through a major life event, such as the turmoil of bringing home a new baby. So, companies use data from observing customers to predict when a major life will occur—such as watching women's buying patterns to guess if they are pregnant, or observing families' purchases to see if it seems like they are moving into a new house. Once companies have identified a potential life event, they flood shoppers with advertisements and coupons to promote new shopping habits. Bingo! Soon-to-be parents and first-time homeowners are suddenly buying diapers, baby clothes, new pots and pans, and everything else at a store they hardly used to visit.

In addition to ramping up advertising during major life events, corporations also capitalize on people's desire for the familiar. Shoppers, in general, prefer familiarity. So corporations often pitch novel items in ways that accent their familiarity. For example, in order to get people interested in a new song, radio stations play old, well-liked songs immediately before and after the new tune, so that listeners start to associate the unfamiliar melody with familiar, well-liked songs. What's more, listeners will also stick around for the advertisements that are sandwiched between those familiar hits.

- 1. What is meant by the term "mathematical mind reader" on page 184? How do retail companies use information to predict how shoppers will behave?
- 2. In this chapter, you learned that Target creates a "guest portrait" of many shoppers. If you were to create a "guest portrait" for a college student shopping at Target, what kinds of information would you study? What kinds of questions do you think you could answer with this "portrait"?
- 3. Why do companies (i.e., Target) collect data about consumers' shopping behavior? Is it for your benefit or theirs? How do companies capitalize on "guest portraits"?
- 4. Ironically, when marketers manipulate human behavior to earn profits, it is considered an achievement of capitalism. However, if a psychologist manipulates human behavior to study the process of decision making, it might be considered unethical. Why don't advertisers and marketers need to abide by the same ethical standards when it comes to manipulation of behavior? Is it ethical for corporations to collect data about your shopping habits without your consent? Why or why not?
- 5. After reading this chapter, what is your opinion of marketing that tries to change your habits? Are these marketing practices beneficial or detrimental?
- 6. What makes a song "sticky" and how does it relate to habit loops?
- 7. Explain the statement, "Dressing something new in old clothes, and making the unfamiliar seem familiar" (page 204). Why is it important for retail companies to understand this aspect of human behavior?
- 8. Using the familiarity loop, explain how you would get a four-year-old to try a new food.
- 9. Can you recognize shopping habits in yourself? Do you turn right most often in the grocery store? Do you purchase your veggies first and junk food later on during a shopping trip? Had you ever thought about your grocery habits before? Examine your own shopping habits and describe the cue, routine, and reward for two of your own shopping habits.
- 10. As you learned in this chapter, significant life events can trigger changes in habits (shopping or otherwise). Would you consider starting college to be a major life event? Thinking back on your own experiences during the first few months of school, what habits changed? If you have not attended college, or if you did not consider it a significant life event, identify another event that may have produced new habits. What changed, and how?
- 11. In this chapter, you read about an example of Target using shopping habit information to predict habit changes that accompany pregnancy. Having a baby is only one kind of significant life event. What shopping habits might you expect Target to identify for individuals going through significant life events such as buying a new home, getting married, or moving to a new city?
- 12. Read the footnote on page 197. What is your opinion of Target's response to questioning about its practices?

- 1. Have you ever been targeted by a company studying your habits? With your class or a small group of people that live in your city or neighborhood, try a mini-experiment to find out if your shopping habits have been studied.
 - a. First, your group needs to select a retail or online store where all (or most) of your group members have shopped—and if possible, where you use a "frequent buyer card" or already receive emails or coupons in the mail. It is important to select a store that sells a variety of items. Large retailers such as Amazon.com, Target.com, or WalMart.com are a good place to start. Your group may want to select other retailers that cater to your demographic. Choose one retailer, and go online or into the store and sign up for their email newsletter, their frequent buyer club, and any other similar programs. Answer all the questions truthfully—let's see what they do with the information you provide. (NOTE: Signing up for a credit card, or making any other financial commitment, is usually a bad idea. Only sign up for programs that won't cost you any money, and never hand over any information you aren't comfortable providing.)
 - b. Next, start collecting email advertisements and/or flyers sent to group members. Depending on the frequency of mailings, you may need to collect for a few days or two-to-three weeks.
 - c. Once you have a collection of advertisements, determine how you will categorize the targeted shopping habits. Working with your group, put the advertisements into categories. For example, does your group receive advertisements for male or female attire? Products for children or adults? Items for pets or holidays? If your advertising includes models, what are the demographics of the models? Male? Female? Caucasian? Other ethnicities? Do some group members receive coupons or advertisements for food while others receive advertisements for clothing? Construct a list of three to five categories.
 - d. Based on these categories, construct how the "guest portraits" designed by the retailer differ for the different people in your group.
 - e. Identify patterns in the advertising. Does it seem like the retailer is profiling group members differently? Or do the advertised items appear to be randomly distributed?
 - f. Look at the advertisement from Target (to the right). What do you think the "guest portrait" says about the person who received this ad in the mail? Are they male or female? How old are they? Do they have kids? What season is it? What other products do you think they are likely to buy?

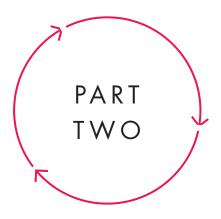




- 2. What do gummy vitamins and V8 Fusion have in common? These could both be considered examples of "dressing something new in old clothes, and making the unfamiliar seem familiar".
 - a. In the case of vitamins shaped and flavored to look and taste like gummy bears (or other kinds of candy), what is the "new clothing"? What are the manufacturers trying to make look familiar? How can this type of marketing increase purchases and use of the product?
 - b. In the case of vegetable juice blended with fruit juices to make V8 Fusion, what is the "new clothing"? What are the manufacturers trying to make look familiar? How can this type of marketing increase purchases and use of the product?







Expanded Activity

CORPORATE HABITS

- 1. Can corporate habits be shaped to make companies protect employees and *still* have beneficial effects for consumers? Consider the car manufacturer Toyota. Toyota makes and sells several different hybrid cars that use less gas and reduce pollution by curbing our reliance on fossil fuels and carbon emissions. These cars include the Prius and the Camry, both of which run on a combination of electricity and gasoline. Thinking about part two of this book, apply your understanding of corporate habits to Toyota's sale of hybrid cars. Imagine you are a consultant who has been hired to analyze Toyota's business practices. Your task is to write an internal report on Toyota's existing corporate habits and make recommendations for future practices that will help the company sell more hybrid cars.
 - a. In 2001, Toyota published a set of principles it calls "The Toyota Way". If you search for this phrase online, you will find many explanations of this philosophy, including the "Five Principles":



- b. Based on what you've learned about "The Toyota Way", what keystone habits do you think Toyota employees are likely to have adopted? Do you expect employees to adopt environmentally sustainable habits? Why or why not? What keystone habits do you recommend for the company? (CHAPTER 4)
- c. What keystone habits do you expect hybrid car buyers to adopt? How will these keystone habits, such as using less gas, influence other habits in these consumers' lives? (CHAPTER 4)
- d. In chapter 7, you read about the importance of willpower and habits. What willpower is needed in developing a habit of using a hybrid vehicle? What inflection points might Toyota anticipate among its potential consumers when they consider driving a hybrid vehicle? How can Toyota anticipate these inflection points (e.g., avoiding the ease of conventional gas stations, comments from skeptical friends about the decision to buy a hybrid vehicle)? (CHAPTER 5)
- **e.** What crisis situation could Toyota use to change driver habits and car purchases? How can Toyota use a crisis to increase use of its hybrid vehicles? (CHAPTER 6)
- f. How can Toyota use information about shopping habits to successfully market its hybrid cars? (CHAPTER 7)
- g. If Toyota were to create a "customer portrait" of its ideal hybrid car purchaser, what would that portrait include? How would having this portrait allow Toyota to sell more hybrid cars? (CHAPTER 7)
- h. How can Toyota use the idea of "making the unfamiliar, familiar" to sell its hybrid cars? How can familiarity be used to encourage consumers to purchase hybrid cars? (CHAPTER 7)





- 2. In 1984, John Hinckley Jr. attempted to assassinate the President of the United States, Ronald Reagan. When Hinckley opened fire on his target, he injured Press Secretary Jim Brady, a secret service agent, and a police officer.
 - Hinckley had been previously arrested for gun possession in a failed plot to assassinate former President Carter and he had purchased the gun used in the attack on Reagan with false

identification. In response to this crisis, Congress instituted laws for new gun safety habits. In 1993, President Bill Clinton signed the Brady Handgun Violence Prevention Act, or the "Brady Bill", named for paralyzed Press Secretary Brady. The Brady Bill required a criminal background check for all guns purchased from licensed gun dealers and forced the Federal Bureau of Investigations (FBI) to create a database of people convicted of felonies or otherwise disqualified from purchasing guns. To facilitate the creation of this database and to provide time for gun dealers to access it, a mandatory five-day waiting period was instituted for handgun purchases. Gun buyers needed to wait for five days to purchase a gun.

- a. We've learned that "you never want a serious crisis to go to waste". Debates over gun laws are always very contentious. Why do you think a gun law passed in 1993 (almost a decade after the assassination attempt on President Reagan)? What is the significance of calling the law the "Brady Bill"?
- b. Based on the information presented in the article, how would you evaluate the habit changes that were caused by this new law? In the Alcoa example, beneficial effects were measured in reduced accidents and increased profits. How were benefits measured in the case of the Brady Bill?
- c. What are the values inherent in this institutional habit change?
- d. Were there other unanticipated outcomes as a result of this policy? (*Some argue that the 5-day waiting period was helpful in reducing gun violence by acting as a "cool down" period.*)
- **e.** In light of more recent crises involving firearms on college campuses and in schools (such as the Columbine or Virginia Tech shootings), what new changes do you predict in gun safety habits?



SADDLEBACK CHURCH AND THE MONTGOMERY BUS BOYCOTT

How Movements Happen

CHAPTER SUMMARY

The civil rights movement was one of the most important social changes of the past century. Rosa Parks' refusal to move to the back of the bus served as the impetus for a widespread shift in American race relations. Why? Was she the first African-American person to challenge segregation laws? Certainly not. Using the civil rights movement as an example, this chapter describes the role habits play in social movements.

Social movements rely on patterns that begin as the habits of friendship, grow through the habits of communities, and are sustained by new habits that change participants' sense of self.

First, movements often start by drawing on the social habits of friendship and the strong ties between close acquaintances. Rosa Parks' arrest triggered a series of social habits that ignited an initial, one-day protest because she was deeply respected and embedded within her community.

Second, a social movement grows because of the habits of a community and the weak ties that hold neighborhoods and groups of people together. Building on humans' natural inclination to help respected people, the Montgomery bus boycott expanded and became a society-wide action because of the sense of obligation that held the city's African-American community together. People who hardly knew Rosa decided to participate because of social peer pressure, referred to as the power of weak ties. Basically, social peer pressure made it difficult for people to say no.

Weak ties are links that connect people who have acquaintances in common, or are friends-of-friends. The habits of peer pressure often spread through weak ties and gain strength through communal expectations. In other words, people can lose their social standing if they do not heed social obligations. Combining the powerful influence of peer pressure through strong ties of friendships with the weak ties of acquaintances can create incredible momentum and widespread social change.

Third, a social movement will endure if the movement's leaders give participants new habits that create a new sense of identity and a feeling of ownership. For a movement to grow beyond a community, it must become self-propelling.

DISCUSSION QUESTIONS

- 1. Rosa Parks was not the first African American to be arrested for refusing to move to the back of the bus. However, her arrest resulted in a series of boycotts and protests. Why? What was different?
- 2. Contrary to common belief, weak-tie acquaintances are more important than strong-tie friends in getting a new job. Why? Explain Granovetter's research and findings.
- 3. Peer pressure involves the social habits that encourage people to conform to group expectations. Provide examples of peer pressure that are positive. What are some examples of negative peer pressure? How can one form of influence—peer pressure—be both good and bad? What does this tell us about how we should train people to recognize peer pressure?
- 4. Regarding the Mississippi Summer Project activities, what did Doug McAdams find when he looked at why only some students went to Mississippi to register African-American voters while others stayed home? What factors explained the difference?
- 5. Describe how the development of the Saddleback Church fits the three social movement steps.
- 6. Using the three social movement steps and peer pressure, explain the phenomenon of electing the most popular students to a school council. What types of ties might you expect these students to have?

- 1. Ryan White contracted AIDS in 1984 after receiving an infected blood infusion to treat a condition called hemophilia. People with hemophilia require periodic blood transfusion because when they are injured, they are not able to form blood clots and stop bleeding. Ryan was expelled from public school due to the stigma associated with AIDS. Because Ryan's story was widely publicized, it led to the passage of the Ryan White Care Act: a law to provide funding for low-income, uninsured, and under-insured victims of AIDS. In part due to the crisis of Ryan's case and the global attention it drew, blood transfusion procedures—a kind of organizational habit within hospitals and blood banks—were changed to make them safer. Socially, the stigma associated with AIDS diminished as word of Ryan's experience spread. Read more about this famous case on the US Department of Health and Human Services website.
 - **a**. Compare the movement to reduce AIDS-related stigma and Ryan's role in it to the movement to end segregation and Rosa Parks' role. What similarities can you identify? How do these stories differ?
- 2. The recent Occupy Wall Street protests exhibit many of the characteristics of social habit change explored in this chapter. For example, a woman associated with the Occupy Wall Street protest in California entered a corporate Chase bank and explained to the teller that she needed to close her account to satisfy the demands of the protest. Conflicted, the women explained that she actually

enjoyed the customer service of Chase and did not want to close her account. After closing her account and leaving the bank, the woman received applause from her fellow protestors. How did social influence and weak-ties influence the woman's behavior? Explain how the Occupy Wall Street movement may have contributed to other individuals closing their bank accounts in corporate banks and opening accounts in smaller credit unions. Read the US News that cites Facebook as a driving influence in banking behavior and a relevant Washington Post article.

a. Based on what you have learned about how social movements grow, do you think Occupy Wall Street will become a prolonged, widespread movement? If you were advising protestors, what would you tell them? How would you expand the movement using strong-ties, weak-ties, and then by giving participants new habits? What new habits would you hope to create?



THE NEUROLOGY OF FREE WILL

Are We Responsible for Our Habits?

CHAPTER SUMMARY

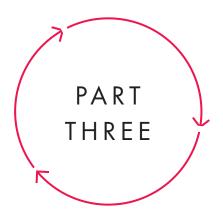
Some habits are so powerful that they overwhelm our capacity to make choices. Are we responsible for our habits? Do we have control over behaviors like gambling or sleepwalking? This chapter vividly describes the development of Angie Bachman's dysfunctional gambling and the horrific murder of a woman by her loving husband. The man killed his wife while he was asleep. He was later found not guilty, despite confessing to the crime, because the judge said his actions were due to automatism, as sleepwalking and other unconscious behaviors are known.

Our ethical culpability is determined by the habits we develop and keep in our lives. As we can all attest, changing habits is not easy! We've learned that in order to change a habit, we must understand it—the cues, responses, cravings, inflection points, and rewards—and must decide to remake our automatic behaviors through hard work, substitution of alternative routines, belief in our ability to control ourselves, and by becoming self-conscious enough to make a change. The will to believe is one of the most important ingredients in creating belief that change can occur.

- 1. Define the "central pattern generator" in this chapter and explain how it relates to habits. Speculate whether you think habits would play such a large role in our lives if we didn't have "central pattern generators".
- 2. Analyze the similarities between the customer-tracking systems that casinos use and the guest portraits that stores (i.e., Target) develop.
- 3. Using Reza Habib's brain study examining neurofunctioning of pathological gamblers and casual gamblers, describe the different neurological responses to various slot machine outcomes. Hypothesize why brains respond differently to the same stimuli and predict the behavioral responses to the win, loss, or near miss for the pathological gamblers and casual gamblers.
- 4. Have you ever observed a dog choosing a place to sleep? Dogs develop habits of place preference for sleeping, but these can change. Do you believe that animals that display habits have free will over their behaviors?

- 5. If you watch closely, it is easy to recognize habits in even very young children. What does it take for a child to change a habit? Do you believe children have free will? If so, when does free will develop? Or are we born with free will? Is a baby responsible for its actions? What about a toddler? When do we become responsible? Use examples to explain your position.
- 6. Do people acting under the influence of peer pressure still possess free will? Which is stronger free will or peer pressure? Does it vary by situation? Use examples to explain your position.

1. Explore the issue of culpability in Angie Bachman's gambling. Imagine you are on the jury when she sued the casino, claiming she should not be held accountable for her gambling losses. Articulate three reasons why she should be held accountable for her behavior and three reasons why she should not be held accountable. Be sure to thoroughly explain each of your reasons. How would you end up ruling? What evidence do you think would convince you to change your mind? How would you try to persuade your fellow jurors?



Expanded Activity

- 1. How can you use your knowledge of large-scale habit change to influence habits throughout your society or community?
 - **a**. Many people believe that low voter turn out is a crisis in our country. With fewer people voting on important governmental and social issues, the decisions made by elected officials may not reflect the interests of the general public.
 - i. What keystone habit could you target to encourage people to vote?
 - ii. What small wins might occur (e.g., voting in local elections)?
 - iii. What inflection points might you anticipate in voter turn out (e.g., access to polls, or internet in the case of e-voting)?
 - iv. What plans could you make to help would-be voters to move past these inflection points?
 - v. How could you use a "crisis" to change voter habits?
 - vi. Address the three steps of social change that would be required for this change in social voting habits to occur.