

# Managing Habits

---

Session 1:	Introduction & The Habit Loop.....	pg.2
Session 2:	Learning.....	pg.12
Session 3:	The Golden Rule & The Hooked Model...	pg.22
Session 4:	Dr. Fogg's Behavior Model.....	pg.31
Session 5:	Variable Reward & Attitude.....	pg.41
Session 6:	CBT for Habits.....	pg.50
Session 7:	CBT Part 2 .....	pg.63
Session 8:	Changing a Habit.....	pg.72
Session 9:	Creating New Habits.....	pg.85
Session 10:	Troubleshooting Habits.....	pg.93
Session 11:	Maintaining Your Habit Garden.....	pg.103
Appendix:	Glossary.....	pg.112

## What's This Class About?

The primary purpose of this class is to provide the tools that allow participants to apply habit management techniques with organized and systematic methods for maximum effectiveness. The goal is to teach habit management to the inmates that have a desire not to live in their old ways in order to reduce recidivism. In changing your habits, you reduce behaviors that can cause you to return to prison.

## Sources

The class was developed from many sources. So, for accuracy, the majority of sources are integrated verbatim; this guarantees that the information herein is correctly expressed from scientists and professionals. This material is produced under the fair use law. It is created for the sole non-profit purpose to be educational and does not impede on the marketability of the original sources.

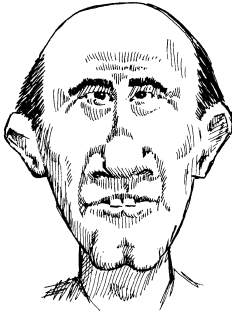
Managing Habits (Version 1.1) was written and designed by Kyle Mackey, A.A. in 2021. All editing was done by Mark Jones. All rights reserved. Reproduction for personal, group, or class use is permissible.

# Session 1: Introduction & The Habit Loop

"Excellence is an art won by training and habituation. We do not act rightly because we have virtue or excellence, but we rather have those because we have acted rightly. We are what we repeatedly do. Excellence, then, is not an act but a habit." -Aristotle



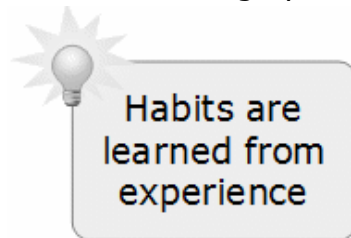
## Introduction



There is a guy named Mike. He is a good guy, and cares about his friends, but he has a lot of bad habits. He drinks, smokes, likes to gamble (a little too much), he's usually late for his job, he can't even find the time to clean the house or do his paperwork for the bills. There's another guy named Mike, but he has a lot of good habits: he eats healthy foods, exercises, he's always punctual, and his house and paperwork are always cleaned up. Which Mike do you relate with?

Actually, they're both the same person. The old Mike didn't know how to manage his habits and the new Mike developed this skill. This may sound impossible to some. Others might even say that the new Mike must be unhappy, but this is furthest from the truth. The new Mike is not only happier but also healthier. Which Mike do you relate with?

The Managing Habits course is a tool for gaining control of the things you didn't have control of before. This course gives you the skills to change your doubts, beliefs, and ultimately, your behaviors. The course shows you how the way all humans fall into habit routines. You will be able to prevent unwanted behaviors and replace them with wanted behaviors. It's up to you. The more effort you put into this course, the more empowered you will be to take charge of your life.



The class begins with the most popular habit models, then transitions to the origins of habits through the analysis style of Cognitive Behavioral Therapy (CBT) which will be explained later in the course. After all these elements are understood, then you will be shown how to analyze, modify and develop habit routines.

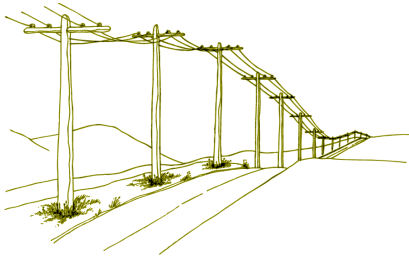
Modifying and creating habits is a skill. In being a skill, it will take practice and determination to understand and master. In accomplishing mastery in this area, well designed habits will not only change your life but those around you as well.

The ultimate goal of this course is to provide participants with the tools to cultivate responsibility and accountability by taking charge of their own actions. Participants that make the effort will be able to disrupt bad habits into extinction and create good habits for life changing results.

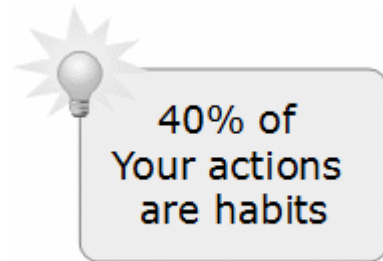
## What is a habit?

Cognitive psychologists define **habits** as "automatic behaviors triggered by situational cues."<sup>1</sup> So, when a situation happens it may trigger a habit, then we will behave automatically in some way.

Duke University researchers in 2006 found that more than 40% of actions people perform each day were not actual decisions but habits.<sup>2</sup> When a habit routine is in action it's like the cruise control in a car. It's automatic enough for the mind to wander and take a break. But as we all know, daydreaming behind the wheel can cause accidents. This is how many habits in our life happen: unintentionally.



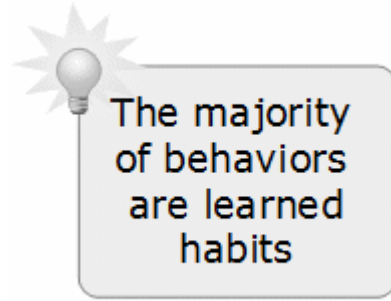
We will study the nuts and bolts of where habits come from, what makes up a habit routine, and show what things we can change and what we can't. Is there a habit you want to lose? This course will provide you the tools to work on it. Did you always want to exercise but it never stuck? Managing Habits will explain why, and how to make it stick. Just imagine being able to sculpt your habits like Michelangelo on marble.



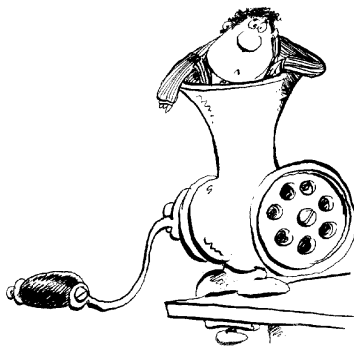
The psychology of learning is an important aspect to understanding how habits are developed. This is because automatic habits are learned from experience. **Learning** is commonly defined as a long lasting change in behavior resulting from experience. Although learning is not the same as behavior, most psychologists accept that learning can be measured *through* changes in behavior.<sup>3</sup>

## When did we learn habits?

Researchers have found that bad behaviors and outcomes such as smoking, obesity, loneliness, depression, divorce, and drug use tend to grow in social clusters. Likewise, positive things such as happiness and pro-social behavior also seem to spread within social groups.<sup>4</sup> That's right, emotions and behaviors are contagious. For example, if you have a friend who's happy in life, your chances of feeling happy go up by 25%. This "contagion" effect spreads good and bad behaviors. What's interesting is that the majority of these behaviors are actually *learned* habits.



This is why it's important to carefully curate, or carefully tend to, who is in your social circle. Of course, we can't always determine who is in our circle, especially when we're young, which is why so many people have poor behaviors today - they had bad influences. Those who grow up in homes with major household dysfunction (eg. divorce, drug abuse, mental illness, neglect, or abuse) have an increased risk of negative future outcomes related to mental and physical health.<sup>5</sup> These children also suffer significant cognitive and emotional ramifications of the abuse they experience (eg. smaller prefrontal cortex - the decision-making area of the brain - and hyperactive stress responses).<sup>6</sup> Kids who grow up in poverty also face significantly higher levels of crime, violence, incarceration, lack of parental supervision, drug use, and sexual and psychological abuse.<sup>7</sup> This is not because of income, but due to the perpetuation of negative influences.

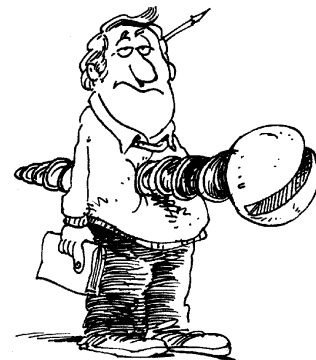


## Is Your History Doomed to be Repeated?

All this evidence may seem overwhelming for people who aren't lucky enough to win the social lottery. It can make people say, "Am I just doomed to live at the level of my peer group?"

The answer is an unequivocal and resounding NO! It turns out that great habits are not tied to your culture or social environment. That's because habits develop over a long period of time. And over time you can take back your life from negative influences and direct your mental habits and social environment toward healthy lifestyles.<sup>8</sup>

This isn't just rah-rah stuff. Research has consistently shown that people can rise above their



cultural programming and influence if they have the right *beliefs* and *strategy*.<sup>9</sup> The beliefs that will be studied in the CBT section and the strategy to change these beliefs will be learned towards the end of the course.

Simply adopting the belief that one can improve with effort has helped kids in disadvantaged neighborhoods go from terrible scores to the top of their class in study after study.<sup>10</sup> In fact, children who came from the lowest 10% socioeconomically yet believed in their ability to improve, performed as well as kids in the top 20% who believed that their abilities were unchangeable.

## Mindset

Research has shown that the view you adopt for yourself profoundly affects the way you lead your life. Believing that your qualities are carved in stone – this is called a **fixed mindset** – creates an urgency to prove yourself over and over. The **growth mindset** is based on the belief that your basic qualities are things you can cultivate through your efforts. In fact, studies show that people are terrible at estimating their abilities and it was those with the fixed mindset that accounted for most of the inaccuracy.



If you go through this course with a fixed (I'm not gonna change) mindset, you are correct, you won't change. If you go through this course with a growth (I can change my beliefs) mindset, then you will, with real effect.<sup>11</sup>

Scientific research consistently shows that certain people maintain their strength even when the environment of culture around them is less than ideal.<sup>12</sup> The difference is *how* they think. This means, with or without social support you can use your thoughts to improve your mind, mood, memory, reactions, happiness, and performance level.<sup>13</sup>

None of us are shackled to our past or our environment. We have tremendous personal control over the factors that improve our lives. So before you improve your peer group, don't for one second think you can't improve your life on your own. Social support just makes personal development and overall life success easier, faster, and more enjoyable.

Although, the idea of swiping people out of our lives isn't mature or reasonable either. So, the important thing to keep in mind is that you will learn habits from those around you. Focus on the good habits you can learn from others and be wary of the bad habits that may unsuspectingly creep in to your life from others around you<sup>14</sup> - smoking is a good example of this.

## **Change Is For Life**

From the moment we are born we change continuously – physically, emotionally, in our behaviors, and in our outlook on life – as our experiences and relationships shape our world view and our attitude to the big issue of living. Research on the functioning of the brain has shown that external experiences actually change its structure. A team of scientists at the University of California, Los Angeles (UCLA), led by neuropsychiatrist Dr. Jeffrey Schwarz, performed PET (Positron Emission Tomography) scans on eighteen OCD (Obsessive Compulsive Disorder) patients before and after ten weeks of mindfulness-based therapy. The goal was to see how mindfulness physically affects the brain.

Twelve of the eighteen showed marked improvement. It is significant that their post treatment scans revealed that activity in the frontal cortex (where the OCD circuit resides in the brain) had fallen dramatically. This led Dr. Schwarz to comment: “ Mental action can alter the brain chemistry of an OCD patient.”<sup>15</sup> In other words, *the mind change the brain*. Things that you ingest through experiences write physical pathways your brain.

This groundbreaking piece of research shows that the world and the experiences it presents to us have a clear and measurable impact on our personalities. In other words, we cannot stay the same even if we want to. And the key question is: Why would we want to? Mindfulness/Meditation is just one habit. Just imagine how much you could change if you put your mind to that task of changing many habits.

## **The Habit Loop<sup>16</sup>**

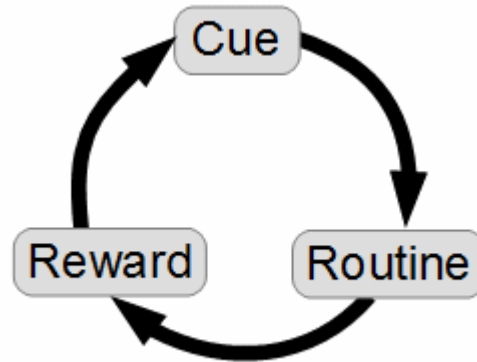
Habits emerge because the brain is constantly looking for ways to save energy. The brain will try to make any routine into a habit, because habits allow our minds to ramp down more often to save energy. Brains use 30% of our total energy consumption so the body works at conserving wherever possible.

We will show two popular habit models which have many similarities and some differences. In this chapter we will focus on the first model: The Habit Loop. The Habit Loop model was published from the popular book called, “The Power of Habits” by Charles Duhigg. The purpose of the Habit Loop is to show the mechanics of how habits work.

## The Habit Loop

**The Habit Loop** is the basic model of how habits work. The cue is where the loop starts. The cue triggers the routine (typically a behavior) to get to the reward. Then over time the loop becomes internal and automatic to where: when the cue happens, the loop happens.

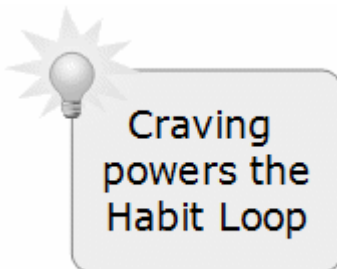
**Cue** – a trigger that tells your brain to go to automatic mode and which habit to use. Every habit has one. No matter what you do, a habit is triggered by something, be it a thought, feeling, a person, a thing, a location, or a time of day.



**Routine** – could be physical, mental, or emotional. The routine is the process you go through to get the reward. If the habit is a eating habit, such as a honey bun, then the routine is buying and eating the honey bun.

**Reward** – If buying the honey bun is the routine, then reward is the satisfaction from digesting that 700 calorie meal. The reward helps your brain figure out if this particular loop is worth remembering for the future. The reward could be the enjoyment, entertainment, satisfaction, or relief. It's whatever the reason that you seek to do the habit.

As you can see, the reward leads to the next cue. Over time the loop becomes more and more automatic. The cue and the reward become intertwined until a powerful sense of anticipation and craving emerges. This means that repetition of the loop creates craving for the loop process.



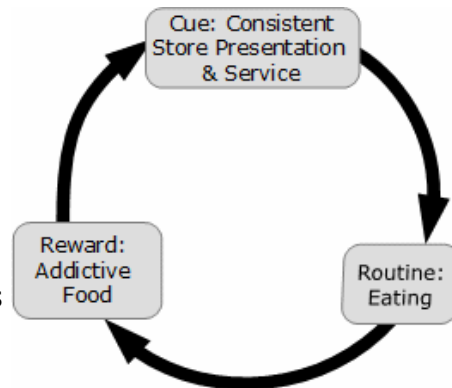
When a habit emerges, the brain stops fully participating in decision-making. So, unless you deliberately fight a habit, the pattern will unfold automatically.

Simply understanding how habits work makes them easier to control. Once you break a habit to its components, you can fiddle with the gears to see what modifications are effective for you.

Habits never really disappear. They're encoded into the structures of our brain by creating new neural pathways. By the same rule though, we can

force those tendencies into the background by creating new routines to overpower those behaviors.

Habits can also be designed. Many marketers have been designing habits for decades. Companies like McDonalds are master at manipulating new habits. The marketing for McDonald's was carefully designed with habit routines in mind. McDonald's architecture looks the same, what the employees say is the same, and everything has consistent cues to trigger eating routines. The foods are also designed to deliver immediate rewards.



## Toothpaste Advertising<sup>17</sup>



Claude Hopkins is an author of "My Life in Advertising." He is best known for a series of rules he coined explaining how to create new habits among customers.

Hopkins had established tooth-brushing as a daily activity (for society) through advertising. The secret to his success was that he found a certain kind of cue and reward that fueled a particular habit. He created a craving. And that craving is what makes cues and rewards work. That craving powers the habit loop.

Originally, toothpaste didn't do anything to remove the film on your teeth. Before Pepsodent, only 7% of Americans had a tube of toothpaste in the cabinet. After his advertising campaign, that number jumped to 65% of Americans.

When it came to teeth, he was selling a sensation (which Pepsodent had a tingling effect). Other toothpastes to this day followed Pepsodent's lead and added the tingling effect. Under tests, the reward response occurs even before the reward arrives if it is a habit.

## Habits Create Cravings

Habits create neurological cravings. Just like the sight of cigarettes is enough for the brain to crave a nicotine rush. If it doesn't arrive, the craving grows until the person unthinkingly picks up a cigarette.

Countless studies have shown that a cue and a reward, on their own, aren't enough for a new habit to last. Only when the brain starts *expecting* the



reward will the routine become automatic. This expectation in the brain is from two types of reward transmitters in the brain. The endorphins, a pleasure chemical in the brain and dopamine which is triggered when we sense an accomplishment.<sup>15</sup>

## Changing Your Brain<sup>18</sup>

In the book, "Change Your Brain, Change Your Life" by Daniel G. Amen, M.D., he does SPECT imaging analysis. SPECT (Single Photon Emission Tomography) imaging is a nuclear medicine study that looks at blood flow and activity. It tells us three things about the activity: good activity, too little activity, and too much activity. It also helps to show if the brain has been hurt from physical trauma or if it has been exposed to toxins or infections.

Through his imaging work he discovered that many people have had mild traumatic brain injuries that are a major cause of psychiatric illness that ruin peoples' lives. As he continued work with SPECT, the criticism from researchers grew louder, but so did the insight. Judges and defense attorneys sought his help in trying to understand criminal behavior. Up to 2014 he has scanned over five hundred convicted felons, including ninety murderers. Their work showed that many people who had done bad things often have troubled brains that could be rehabilitated. He discussed the radical idea with a group of Georgia judges: what if we evaluated and treated troubled brains, rather than simply warehousing them in toxic, stressful environments such as prison? In his experience we could potentially save tremendous amounts of money by making a significant percentage of these people more functional, so that when they got out of prison they could work, support their families, and pay taxes. Dostoevsky (a famous Russian writer) once said, " A society should be judged not by how it treats its outstanding citizens, but by how it treats its criminals." Instead of just crime and punishment, SPECT imaging taught him that we should also be thinking about crime, evaluation, and treatment.



After more than one hundred thousand SPECT scans; the single most important thing he's learned is this "You can literally change their lives. You are not stuck with the brain you have; you can make it better." He proves this throughout his books and his clinics.

There are many areas in your life that affect brain health: proper sleep, healthy diet, social situations, physical, and psychological effects. Managing habits is an aspect that directly affects brain health. Proper habits affect all of the areas of your life and therefore are vital to maintain a healthy brain.

Wisely choosing the right habits will actually have a powerful effect on psychological well being and physical health.

## Summary

Now that we know what habits are, you may become more aware of what habits you'd like to work on. The habit loop is just the beginning in your understanding of habits.

In the next session, we will cover how we learn behaviors. We will also figure out what happens to behaviors over a long period of time. Do habits ever go away? Do bad habits ever come back? We will find out in Session 2.

## Review

1. How does a person learn a habit? \_\_\_\_\_  
\_\_\_\_\_
2. What is a habit? \_\_\_\_\_  
\_\_\_\_\_
3. What percentage of your actions are habits? \_\_\_\_\_  
\_\_\_\_\_
4. What is learning? \_\_\_\_\_  
\_\_\_\_\_
5. Are habits contagious? \_\_\_\_\_  
\_\_\_\_\_
6. Are the majority of behaviors learned habits? \_\_\_\_\_  
\_\_\_\_\_
7. What are the two kinds of mindsets? \_\_\_\_\_  
\_\_\_\_\_
8. Scientific research consistently shows that certain people maintain their strength even when the environment of culture around them is less than ideal. The difference is *how* they \_\_\_\_\_.
9. What are the three phases of the habit loop? \_\_\_\_\_  
\_\_\_\_\_
10. What powers the habit loop? \_\_\_\_\_

---

11. Write out a habit you would consider changing or making? \_\_\_\_\_

---

---

---

- 1: Eyal, Nir (2014). Hooked: How to build habit forming products, pg 1.
- 2: Duhigg, Charles (2012). The Power of Habit, prologue, pg xvi.
- 3: AP Psychology, Learning, pg. 133
- 4: Burchard, Brendon (2017). High Performance Habits: The quest for High Performance, pg. 163.
- 5: Felitti, V.J., Anda, R.F., Nordenberg, D., Williamson, D.F., Spitz, A.M., Edwards, V., ... & Mark, J.S. (1998). Relationship of Child Abuse & Household Dysfunction: The Adverse Childhood Experiences (ACE) Study. American Journal of Preventative Medicine, 14(4), 245-258.
- 6: Danese, A., & McEwen, B.S. (2012). Adverse Childhood Experiences ... & Age Related Disease. Physiology & Behavior, 106(1), 29-39.
- 7: Dunlap, E., Golub, A., Johnson, B.D., & Benoit, E. (2009) Normalization of Violence... Journal of Ethnicity in Substance Abuse 8(1), 15-34.
- 8: Burchard, Brendon (2017). High Performance Habits: The quest for High Performance.
- 9: Ibid.
- 10: Dweck, C.S. (2014). The Power of Believing You Can Improve [Video File] Retrieved from [https://www.ted.com/talks/carol\\_dweck\\_the\\_power\\_of\\_believing\\_that\\_you\\_can\\_improve?language=en#t-386248](https://www.ted.com/talks/carol_dweck_the_power_of_believing_that_you_can_improve?language=en#t-386248)
- 11: Dweck, Carol S. PhD.(2006). Mindset: The Psychology of Success
- 12: Duckworth, A.L. (2016). Grit: The Power of Passion and Perseverance. New York, NY: Simon and Schuster.
- 13: Beck, J.S. (2011). Cognitive behavior Therapy: Basics and Beyond. New York, NY: Guilford Press.
- 14: Burchard, Brendon (2017). High Performance Habits: The quest for High Performance.
- 15: John Karter (2012). Introduction to the Psychology of Relationships: a Practical Guide. pg 124.
- 16: Duhigg, Charles (2012). The Power of Habit, The Habit Loop, Ch. 1.
- 17: Duhigg, Charles (2012). The Power of Habit, The Craving Brain, Ch. 2.
- 18: Change Your Brain, Change Your Life, by Daniel G. Amen, M.D.

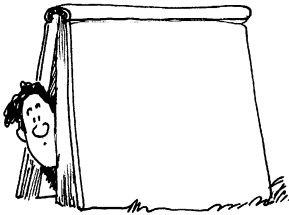
# Session 2: Learning

"All our life, so far as it has definite form, is but a mass of habits."  
-William James

## Learning Theories

When you first come to prison you probably never made the bed the way it's done here, weren't familiar with the call-out system, and even experienced language differently. It took some time to get used to how things run.

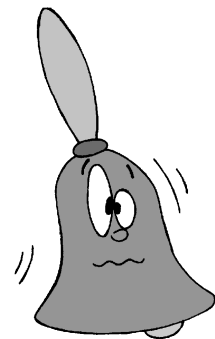
While going through the reception center process, learning is going on. Most people think learning is "studying." But psychologists define **learning** more broadly as the process by which experience or practice results in a relatively permanent change in behavior.<sup>1</sup> This certainly covers classroom learning, but it covers many other types of learning also: turning lights on or off, how to turn on a car, even learning to tie your shoes.



Three different psychological **learning theories** need to be covered in order to understand the action and process of how habits are learned. They are: Classical Conditioning, Operant Conditioning, and Social Learning Theory. It's important to point out that learning is not the same thing as behavior, but most psychologists accept that learning can be best measured through *changes* in behavior.<sup>2</sup> It's difficult to change a behavior, but it's much easier to change the habit of that behavior. When we are modifying a habit, we are also modifying the behavior that goes along with that habit. So if we analyze a behavior, we can break it down into parts, thus allowing up to form a habit more effectively. Such as teeth brushing.

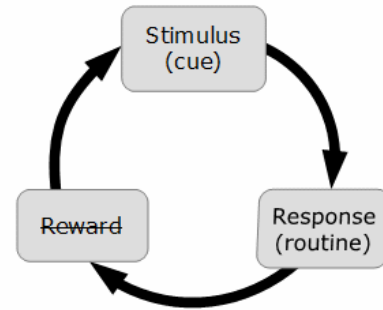
### 1. Classical Conditioning<sup>3</sup>

In the early 20<sup>th</sup> century, Ivan Pavlov, a Russian psychologist, discovered classical conditioning as a type of learning while studying the digestion of dogs. Pavlov found that the dogs learned to pair the sound of a bell when they were fed food. The dog salivated for the food naturally but also the bell by pairing the food and bell. Now, the bell alone triggers the dog's salivation. This pairing of the bell to the food in

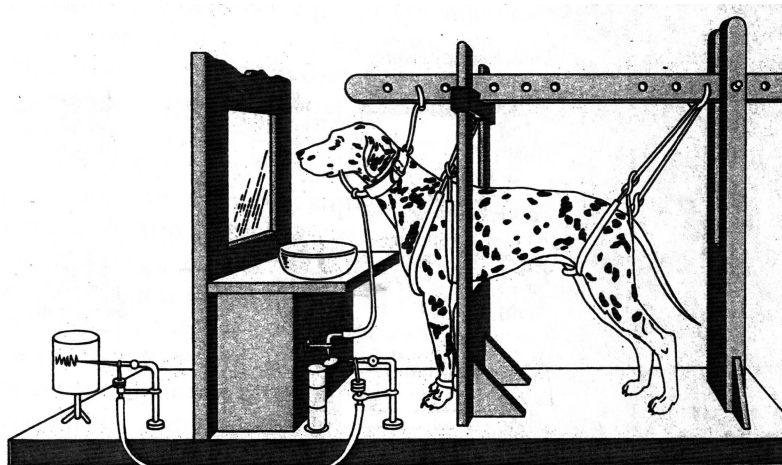


triggering a response is called **Classical Conditioning**. The dog is being *conditioned* to salivate from the sound of the bell.

The diagram to the right converts the classical conditioning terms to the Habits Model. Reward is not addressed in Classical Conditioning because Behaviorist Psychologists only look at the external stimulus and response not the internal mechanisms that drive our behaviors.

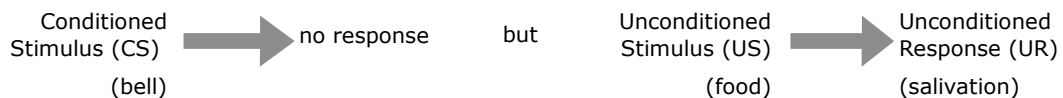


Food elicits the natural, involuntary response of salivation called the **unconditioned response (UR)**. Once the bell elicits salivation, then it is no longer neutral, it is a **conditioned response (CR)**.

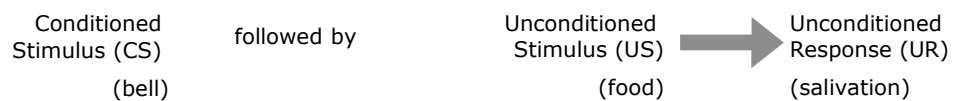


### Classical Conditioning Process for Pavlov's Dog

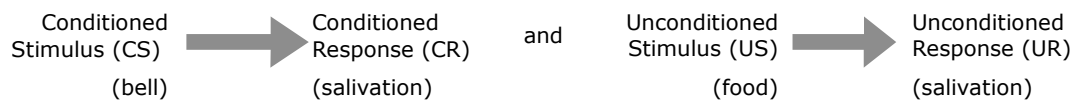
#### Before Conditioning



#### During Conditioning

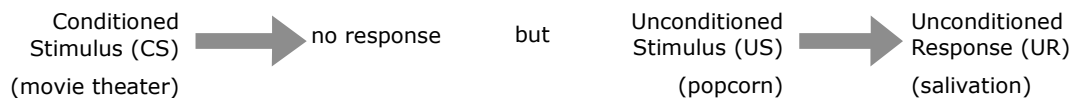


#### After Conditioning

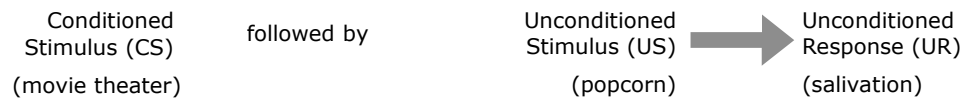


When it comes to habits, Pavlov connected the cue from the unconditioned response of the food to the conditioned response of the bell. This chart above may seem a little daunting so let's break it down in terms of what you need to know about this in relation to habits. Instead of dogs we'll use popcorn. Going to the movies you buying popcorn is an example of classical conditioning. So, if you go to the movies enough, you salivate because you always eat popcorn if you go. You can condition new triggers (or cues) to unconditioned behaviors.

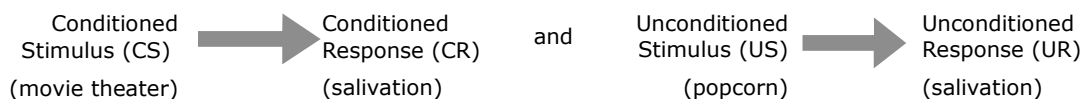
### Before Conditioning



### During Conditioning



### After Conditioning



Often, animals conditioned to respond to a certain stimulus will also respond to similar stimuli. Although the response is weaker, the dogs may salivate to a number of bells, not just the one with which they were trained. This tendency to respond to similar stimuli is known as **generalization** – like wanting popcorn when you watch a movie at home.

So what does all this have to do with habits? Let's suppose you're a smoker that decides to kick the habit. Is there any classical conditioning at work here? For many, smoking seems to be the reward itself like the food for Pavlov's dog. So even seeing the cigarette pack can be the cue. The sight of the cigarette pack creating the craving is a generalization of the smoking routine. But, there are *many* generalizations of conditioning with smoking: looking at an ash tray, a lighter, smelling cigarette smoke, etc... These can all be cues for a smoking routine. When a cue is sensed, the routine may start.

### Reflexive Conditioning<sup>4</sup>

Classical conditioning explains virtually all learning that involves **reflexes** –

heart-rate, perspiration, muscle tension, etc... You can think of reflexive responses as biological as opposed to behavioral. For habits, this is important to note because when we are analyzing a habit, we need to know if the habit has any *reflexive* cues due to classical conditioning. For instance, when they call rec, many inmates get excited and louder because of the expectation of going outside to exercise. So the reflex is the excitement and the stimulus is hearing rec being called.

Since reflexes are signs of excitement – including fear, anger, and sex – they may explain unusual or undesirable behavior. Reflexes are commonly hormonal responses to stimulus. **Hormones** are biological chemicals that help us react to the situation we are in, like when you see a threatening tiger you would get an adrenaline (hormone) rush so you can run away faster. What this all means is classical conditioning is the basis of behavior therapy.

The following conditioning therapies are listed here just to show that there are tried and true methods to modify *reflexive* behaviors by professional psychologists:

1. **Desensitization Therapy** – slowly introducing the stimulus (cue) and getting the phobic to relax: for instance, showing pictures of spiders before showing real spiders
2. **Counter-Conditioning** – replacing the reflexive bond of stimulus-response with another response: for instance, showing someone else that is interacting with a spider with no stress.
3. **Aversion Therapy** – replacing a nice bond with a nasty one to prevent cravings for the behavior: for instance, smelling something bad to connect to smoking



What we are focused on here is that the reflexes that are in *our bad habits are not only conditioned, but also changeable*. The stimulus for classical conditioning is the cue in habits. The response is the routine and the **relief** is the reward. The reward can be something we are relieved to be away from or reward to be part of.

If you are starting to get a little dizzy or your nose is bleeding from the rush of new terms, don't worry. If you forget a term, there is an indexed glossary in the back of this course. Also, these concepts will be referred to throughout the course.

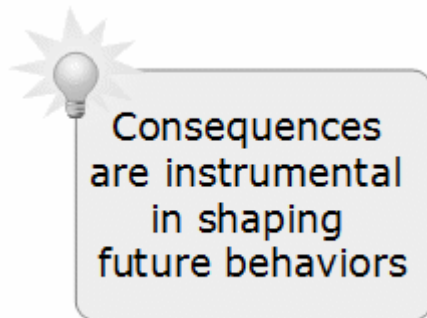
## 2. Operant Conditioning<sup>5</sup>

Whereas classical conditioning is a type of learning based on association of

stimuli, **Operant Conditioning** is a type of learning based on the association of consequences with one's behavior. Edward Thorndike was one of the first psychologists to research this type of learning.

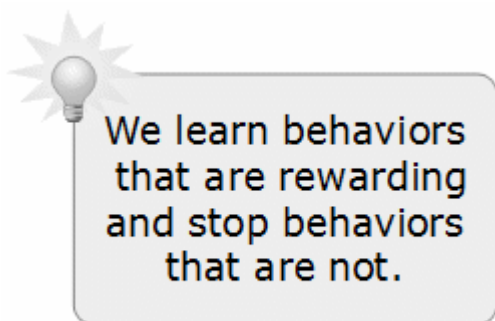
Thorndike conducted a series of famous experiments using a cat in a puzzle box. The hungry cat was locked in a cage next to a dish a food. The cat had to get out of the cage in order to get the food. Thorndike found that the amount of time required for the cat to get out of the box decreased over a series of trials (trials are repetitions of the experiment on the subject). This amount of time decreased gradually; the cat did not suddenly understand, how to get out of the cage. This finding led Thorndike to assert that the cat learned the new behavior without mental activity but rather simply connected a stimulus and a response.

Thorndike put forth the **Law of Effect** that states that if consequences of a behavior are pleasant, the stimulus-response (S-R) connection will be strengthened and the likelihood of the behavior will increase. However, if the consequences of a behavior are unpleasant, the S-R connection will weaken and the likelihood of the behavior will decrease. He used the term **Instrumental Learning** to describe his work because he believed the consequence was instrumental in shaping future behaviors.



Let's look at the Law of Effect in the behavior of stealing. If a person shoplifts from a store and doesn't get caught, they may perceive the response of obtaining these items as pleasant and rewarding. The *consequence* of not getting caught was *instrumental* in shaping their future behavior of stealing again. Some shoplifters get a 'rush' from shoplifting: they get *reflexive* excitement over the fear of negative consequence. They may actually see the reward of excitement as more important than stealing items. In this way, when reflexes are involved there may be some classical conditions (classical conditioning) at work reinforcing the behavior.

Let us now suppose what happens if the shoplifter gets caught. The consequence of getting caught was instrumental in weakening the Stimulus-Response connection and therefore reducing the behavior. If the shoplifter gets caught enough, the behavior may go to extinction. The consequence was instrumental in shaping the future behavior in not shoplifting. What's interesting about this situation is that if the shoplifter learned the reflexive behavior of excitement of deception





over the fear of consequences, the shoplifter may *generalize* to other crimes to get the same rush.

B. F. Skinner, a psychologist who coined the term *Operant Conditioning*. He is the best-known for researching this form of learning. In operant conditioning, the consequences are instrumental in developing the behavior. He developed the idea of Punishment-Reinforcement (punishment/reward) as the tools in operant conditioning that shape future behaviors.

There is more to learn about operant conditioning but it is not needed for this class, therefore we won't explain operant conditioning any further. What you need to learn from operant conditioning is that it is the very foundation of what habit routines are made of; we learn behaviors that are rewarding and stop behaviors that are not.

### 3. Observational Learning<sup>6</sup>

As you are no doubt aware, people and animals learn many things simply by observing others; such observational learning is also known as **modeling** and was studied a great deal by Albert Bandura on forming his Social-Learning Theory. This type of learning is said to be species-specific; it only occurs between members of the same species.

Modeling has two components: observation and imitation. By observing someone in prison throwing a soup on the ground to crush it up, you may imitate it and do it yourself. This was not learned from classical or operant conditioning but from the social aspect of our existence. Observational learning has a clear cognitive component that is not really part of the other learning theories. **Cognitive** here means that the mind is directly involved in processing the information related to the behavior. In observational learning, there is a mental representation of the observed behavior that must exist in order to enable the person or animal to imitate it.

A significant body of research indicates that children learn violent behaviors from watching violent media and violent adult models. Bandura, Ross, and Ross's (1963) classic Bobo Doll Experiment illustrated this connection. Children were exposed to adults who modeled by acting out aggressive or non-aggressive behavior with, among other things, an inflatable Bobo doll that would bounce back up after being hit. Later, given the chance to play alone in a room full of toys including poor Bobo, the children in the control group ( the ones that didn't see an adult beating the Bobo doll) were much less likely to be aggressive against Bobo, particularly in the ways modeled by the adults in the experimental condition. The children that did





We learn from watching others.

see the adults treat Bobo with violence, imitated the behavior. Children look to adults to determine what is acceptable or unacceptable behavior.

What's important to understand about **Social-Learning Theory** (which is another word term for observational learning) is that, good or bad, we learn from watching others. When it comes to

habits, we learn habits from others. If you have a good habit but someone else does their habit better, they are not better people, they just learned their habits differently. It's important to note that when learning from others, we don't know what focus or thought they have that may be helping them do their routine. Most times you can just ask them their technique on how they do what they are doing so you can improve.

## Extinction and Spontaneous Recovery

Going back to Pavlov's dogs, what happens when the dog has learned to salivate upon hearing a bell, but after hearing the bell repeatedly, fails to get food? The dogs response to the bell – the amount of salivation – will gradually decrease until the dog will no longer salivate when it hears the bell. This process is known as **extinction**. If the conditioned stimulus (the bell) appears alone so often that the learner no longer associates it with the unconditioned stimulus (the food), and stops making the conditioned response (salivation), extinction has taken place. Basically, the cue was being used without the reward; the bell no longer had any associated meaning.

Once the response has been extinguished, is it gone forever? A few days later the same dogs were again taken to the lab. As soon as they heard the bell, their mouths began to water. The response they learned and then extinguished reappeared on its own, with no retraining. This is know as **spontaneous recovery**. The conditions by which they were trained with the bell reappeared. The response was only half as strong as it had been before extinction. When we extinguish a habit, we don't delete those habit pathways in our minds. We only overwrite or make new pathways. In the next session we will discuss why spontaneous recover happens and how to prevent it.<sup>7</sup>

Several factors affect how easy or how hard it is to extinguish learned actions. The stronger the original learning, the harder it is to stop the action from being performed. The greater the variety of settings in which the learning takes place, the harder it is to extinguish it. Rats trained to run in a single straight alley for food will stop running sooner than rats trained in several different alleys that vary in width, brightness, floor textures, etc. Complex behaviors are also much more difficult to extinguish than simple behaviors. Since complex behaviors consist of many actions, each action that

make up the total behavior must be extinguished.<sup>8</sup>

## Deviation of Behavior

To reiterate, according to classical conditioning, generalization of the stimulus (the cue) can change to where a similar stimulus (another cue) can trigger the same routine. Remember with Pavlov's dog where other similar bells would trigger the dog to reflexively salivate, thus the similar bells are a generalization of the original bell. A behavior typically deviates by reflexively conditioned behaviors generalizing and changing over time. If this is an unhealthy or unsafe behavior and it's rewarding, it could deviate from the original routine over time – like steering off the road where it's unsafe.

Let's use a thief as an example. A thief doesn't start becoming a thief by stealing big and expensive things, they deviate to it over time. Maybe as a child they stole candy from the store. They felt the thrill of getting away with something and wanted that feeling more. As they got older then they deviated to stealing other, bigger things, and then they end up in prison for breaking and entering.



You've heard of the phrase, "gateway drug". The drug itself doesn't lead to worse behaviors, it just makes the routines for worse behaviors much easier to deviate to. Some common deviation behaviors are: lying, drugs, pornography, self-harm, theft, violence and sexual behaviors. These behaviors can develop and deviate over time and they are a call for concern especially since they are destructive to yourself or others.

There are a vast number of solutions to behavior deviations. The main categories are conditioning therapies, aversion therapy, general therapy, behavior modification, and habit management. If you want to take modifying behavior in your own hands the alternative is to use this class to develop the knowledge and skills.

The primary managing habits solution is to **un**-deviate the behavior. You do this by changing the routine to habits that are not steering you off the road. For many bad behaviors, it's best to just stop altogether. But, if you can't seem to stop the behavior outright because of spontaneous recovery, then you can replace the routine with behaviors that are more manageable.

Let's suppose you have a cookie craving, and the only solution is cookies. Of course it's best to stop it altogether, but can you summon the will be able to

do that? To un-deviate, you can try less enjoyable cookies like from chocolate chip to maria's cookies with peanut butter. After you unlock your chocolate chip habit, you may be able to un-deviate it more by eating something else and maybe even replacing it with a non-eating routine totally. Over time you'll be back on the road again to managed behaviors.

## Summary

Phew! What a session! We looked at three learning theories (Classical, Operant, and Social). They are deeply intertwined into habit creating and habit change. They will be referenced throughout this course along with Reflexive, Non-Reflexive, and Generalization. Feel free to review the concepts in this session as we delve deeper into how your habits work.

## Review

1. How do psychologists define learning? \_\_\_\_\_  
\_\_\_\_\_
2. What are the three learning theories covered in this course? \_\_\_\_\_  
\_\_\_\_\_
3. Learning can be best measured through \_\_\_\_\_ in behavior.
4. What's the difference between an unconditioned and conditioned response? \_\_\_\_\_  
\_\_\_\_\_
5. What is generalization? \_\_\_\_\_  
\_\_\_\_\_
6. What is reflexive conditioning? \_\_\_\_\_  
\_\_\_\_\_
7. Reflexes are commonly \_\_\_\_\_ responses to stimulus.
8. Can a reward be relief? \_\_\_\_\_  
\_\_\_\_\_
9. What is the Law of Effect? \_\_\_\_\_  
\_\_\_\_\_
10. Consequences are \_\_\_\_\_ in shaping future behaviors.

11. What is operant conditioning? \_\_\_\_\_  
\_\_\_\_\_
12. What does cognitive mean? \_\_\_\_\_  
\_\_\_\_\_
13. What does modeling mean? \_\_\_\_\_  
\_\_\_\_\_
14. We \_\_\_\_\_ from watching others.
15. What is spontaneous recovery? \_\_\_\_\_  
\_\_\_\_\_
16. How does a behavior deviate? \_\_\_\_\_  
\_\_\_\_\_
17. How do you un-deviate a behavior? \_\_\_\_\_  
\_\_\_\_\_

1: Charles G. Morris (1985). Psychology – An Introduction, 5th ed., pg 185.

2: AP Psychology, learning.

3: Introducing Psychology a Graphic Guide (1998), by Nigel C. Benson.

4: Ibid.

5: AP Psychology, Learning pg. 137

6: Ibid.

7: Charles G. Morris (1985). Psychology – An Introduction, 5th ed., pg 191.

8: ibid., pg. 205.

## Session 3: The Golden Rule & The Hooked Model

“Champions don’t do extraordinary things, they do ordinary things, but they do them without thinking” –Tony Dungy



What Dungy is talking about are habits. Dungy was the head coach for the Tampa Bay Bucs in 1996<sup>1</sup> and he was going to change players' old habits. Dungy's theory was that he didn't need misdirection; he simply needed to be faster than anyone else. When his strategy works, his players can move at speeds that are impossible to overcome. They practiced their plays over and over until no thinking was needed. They made all their plays into automatic habits. This is the strategy that Dungy used to win the Superbowl.

He didn't change the cue or the reward, he only tweaked the routine. This leads us to the most important fact about habits, which is called The Golden Rule of Habit Change: You can't extinguish a bad habit, you can only change it. As we learned in the last session, spontaneous recovery can happen after an extinction. The dogs began to salivate again from a bell even though the habit went through extinction. The extinction process doesn't replace the routine, it only disconnects the conditioned stimulus. So the habit is only buried in the background, not destroyed (remember extinction and spontaneous recovery?).

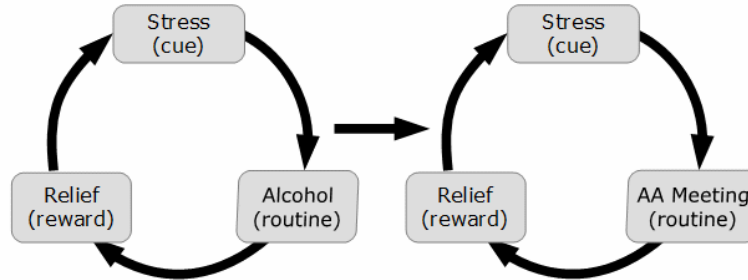


**The Golden Rule of  
Habit Change:  
You can't extinguish  
a bad habit,  
you can only change it.**

### **Routine Replacement<sup>2</sup>**

Alcoholics Anonymous is a giant machine for changing habit loops. Alcoholics crave a drink because it offers escape, relaxation, companionship, the blunting of anxieties, and an opportunity for emotional release. The physical effects of alcohol are often the least rewarding parts of drinking for addicts. Relief cravings occur in a totally different part of the brain than the craving for physical pleasure. AA meetings offer companionship, escape, distraction, and **catharsis**. Once they learned alternate routes for dealing with stress,

they stopped drinking for good.



As you can see, the only thing that has changed is the routine.

### **Mandy's Nail Biting<sup>3</sup>**

Mandy chewed on her nails. She discovered that when she was bored she chewed her nails and when she finished the routine she felt a sense of completion (the reward).



The solution was to carry around an index card, and each time she felt the cue, she would put a check mark on the card (the new routine). For some this would be enough. *The person's active awareness is sometimes all that's necessary to disrupt unwanted habits.*

She later replaced the routine with grabbing a pencil, wrapping her knuckles on the desk, or rubbing her arm – anything for a physical response. The therapist gave her a new assignment: continue with the index card, but make a check when you feel tension in your finger tips and a hash mark when you successfully override the habit. This greatly reduced it. She experimented with different routines until the habit was modified.

### **The Power of Belief**

A smoker usually doesn't quit unless he finds some activity to replace cigarettes when nicotine is his craving. Some good replacements can be caffeine, nicorette, a quick series of push-ups, or a few minute's stretch. The key here is to find a routine that can fill the same (or similar) reward. If the craving is nicotine, the reward may be a feeling of satisfaction, relief, or a sense of calm. You have replaced the old routine with an alternate routine that allows the old routine to fade. With an alternate routine, the old routine will fade over time.

Stress in people's lives triggers people to use old routines, but *just the belief in the ability to change your habits* can make a big difference. Once people

learned how to believe in something, that skill started spilling over into other parts of their lives. If you think you can do it (and it's possible), then you can do it. Belief is the biggest part of success in football. "The team wanted to believe but where things got tense, they went back to their comfort zones and old habits," said Dungy<sup>1</sup>.

A shy man once said, "When I do make the effort to overcome my shyness, I feel that it is not really me acting, that it's someone else." But by practicing with his new group, it stopped feeling like acting. He started to believe he wasn't shy. Eventually, he wasn't anymore. So maybe the phrase, "fake it till you make it," actually does have some merit. Basically what he's doing is replacing his routine shy behavior with more confident behavior.

For people in a study for weight-loss, they were simply asked to do food journaling. Participants had to record the foods they ate and at what times. Journaling what they ate made twice as many people lose weight.

## Keystone Habits<sup>4</sup>

A keystone habit is the habit, when modified, opens the door for a person to change many other habits in their lives effecting drastic changes. Exercise is a keystone habit that triggers widespread change. Military training is also example of this: first they work on the body and then what follows is the mind, for a total transformation. Here are a few examples of keystone habits in action:



## Willpower

Dozens of studies show that willpower is the single most important keystone habit for individual success. Self-discipline produced academic performance more than IQ. So many people that don't have good grades may have more of a problem with self-discipline than intelligence. That type of self-discipline is a habit. It looks like people with great self-control aren't working hard – but that's because it's automatic for them. They've made self-discipline into a habit. Their willpower occurs without them having to think about it<sup>5</sup>.

When students look at what they're doing and choose one goal they want to reach, they may modify one aspect of their habits to see what happens next. They might come to the conclusion: "Wow, if I can modify this one habit, that dramatically boosted my study skills. I wonder what *other* habits I can modify?"



## Marshmallow Test<sup>6</sup>

The researchers put each participating child in a room alone with a big marshmallow on the plate on the table. They were told that they can eat the marshmallow or wait 15 minutes and eat two marshmallows. Most of the children just ate the marshmallow within 15 minutes. Only a few waited. The researchers asked if those few used any strategies to wait the 15 minutes. They would use tricks like distracting themselves by drawing a picture or imagining a frame around the marshmallow, so it seemed less real. They used techniques to enhance their willpower.

Willpower is a learnable skill. When willpower gets stronger, it changes everything.

## Starbucks and Habit of Success<sup>7</sup>

In Starbucks they tell you that, "Your apron is your shield. Nothing anyone says will ever hurt you. You will always be as strong as you want to be."

Starbucks was turning self-discipline into an organizational habit. The key is how to handle the moments of difficulty. What employees needed were clear instructions about how to deal with inflection points (which means all reasonable possibilities in a situation). The *keystone habit* to deal with these inflection points is called the LATTE Method.



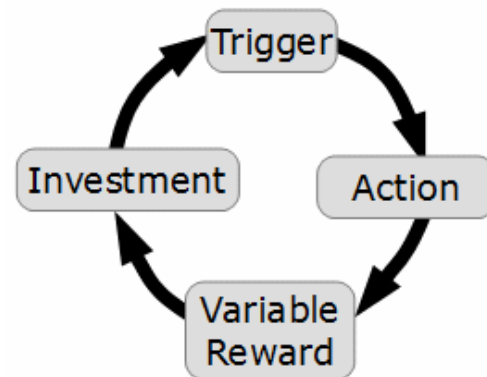
LATTE Method: **L**isten to the customer, **A**cknowledge their complaint, **T**ake action by solving the problem, **T**hank them, and **E**xplain why the problem occurred. Starbucks has dozens of routines that employees are taught to use during stressful inflection points. Wouldn't the world be a different place if everybody employed these methods for everyone? Because of the corporate wide habits, Starbucks has developed a culture of exceptional service.

## The Hooked Model<sup>8</sup>

In this section we will learn about the Hooked Model of habit routines. It's a little more advanced than the Power of Habits Model. The "Hooked" book focuses on habits in the marketplace. Corporations involved in media and video games have leveraged the science of habits for people to become drawn or addicted to their products. In understanding how companies convince you to use their products, the more you'll identify the habits they are programming into you. The goal here is for you to see the process of

habit creation in action.

As you remember from the first session, habits are 'automatic behaviors triggered by situational cues.' Companies increasingly find that their economic value is a function of the strength of the habits they create. Their goal in advertising is to connect their situational cues with their product. These companies attach their product to internal triggers which happen before rational thought. The more often you run through the habit loop, the more likely they are to form these automatic habits. In other words, they want to cultivate the internal craving before you have the opportunity to make a rational decision.



The Hooked Model is a process that has the ultimate goal of unprompted user engagement. This model is very similar to the Habit Model; the main difference being the addition of the investment arrow. This model also emphasizes that, as the cycle repeats, the the trigger changes from external to internal.

1. **Trigger** – is the spark plug of the engine; by successive cycles, users begin to form associations with internal triggers which attach to existing behaviors and emotions.
2. **Action** – psychological motivation will increase the likelihood of the action happening. Behavior is done in anticipation of reward. What increases the likelihood of the action is ease of performing an action and the psychological motivation to do it.
3. **Variable Reward** – It has the advantage of creating the craving. Research shows that levels of the neurotransmitter **dopamine** surges when the brain is expecting a reward. An unexpected reward creates intrigue and interest. Introducing variability multiplies the effect, creating a focused state, which suppresses the areas of the brain associated with judgment and reason while activating the parts associated with wanting and desire. Variable Reward is the distinguishing characteristic of the Hooked Model.
4. **Investment** – The investment phase increases the odds that the user will make another pass through the hooked cycle. This investment is: time, data, effort, social capital, or money. Commitments can be leveraged to make the trigger more engaging, the action easier, and the reward more exciting. Habit-forming is indeed a super-power. Conversely, bad habits can degenerate us into mindless zombies.

We will cover each of these parts of the model in great detail in the next few sessions.

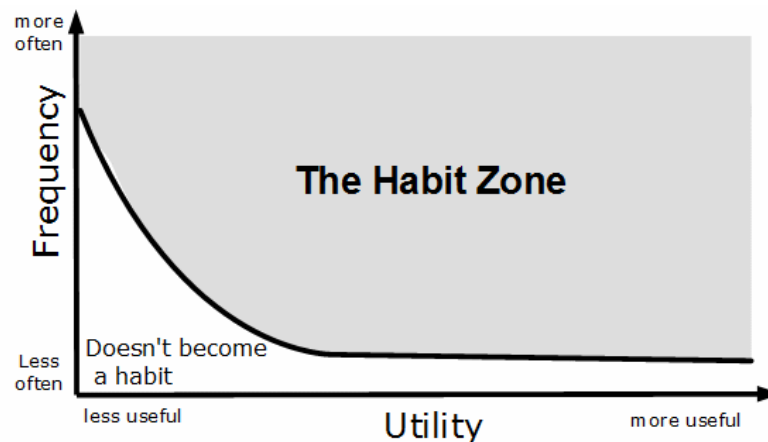
## The Habit Zone<sup>9</sup>

Habits are one of the ways the brain learns complex behaviors. Neuroscientists believe habits give us the ability to focus our attention on other things by storing automatic responses in the basal ganglia, an area of the brain associated with involuntary action. This is the area where reflexive learning occurs (see session 2).

Successfully changing long-term habits is exceptionally rare. By showing how habits work, this course changes that paradigm. The most recently learned habits are the most likely ones to be forgotten so new habits that are desired for the long term are typically lost. The other enemy of forming new habits is past behaviors. Old habits die hard. Old habits done over a long time are like grooves that are dug deep. You can change the routine itself but the habit is deeply ingrained. Old habits are changed with careful active intention, patience, and time.

So how do you make a routine into a habit? You must perceive a high degree of utility or usefulness for an infrequent action to become a habit. Some behaviors never become habits because they do not occur frequently enough. On the other hand, even a behavior that provides minimal benefit can become a habit because it occurs frequently.

**The Habit zone** is the area where the relationship between frequency and utility of a habit are enough to establish the habit. This graph shows that even a totally useless habit can take hold if it's done often enough.



**Frequency** – how often the habit occurs, the more often it occurs the more probable it will become a habit

**Perceived Utility** – how useful is the reward, the more useful the routine is the more probable it will become a habit

**Habit Zone** – if the routine is frequent or useful enough, then it will reside in the habit zone and become a habit.

**Doesn't become a habit** – if the routine is not frequent or useful enough, it doesn't become a normal routine

There are two basic neural pathways for controlling behavior<sup>7</sup>:

1. **Basel Ganglia** – There is an automatic and easily suggestible section of the brain. When an external trigger that precedes a reward the basel ganglia will receive a burst of dopamine in its anticipation. Since the reward is instantaneous, its perceived utility is less important and its frequency is more important.
2. **Long-Term Goals** – are structurally weak but they help us make conscious intentional decisions. When relating this to the habit zone, it shows that the longer the term for the goal the more difficult it is to become a habit. With less frequency, new habit routines can be difficult to establish. This is why it takes time for long-term habits to stay. One way to help is to break the long-term goal into smaller habits that are more often – like writing a page a day instead of just the goal of writing a book.

## Vitamins Vs. Painkillers<sup>10</sup>

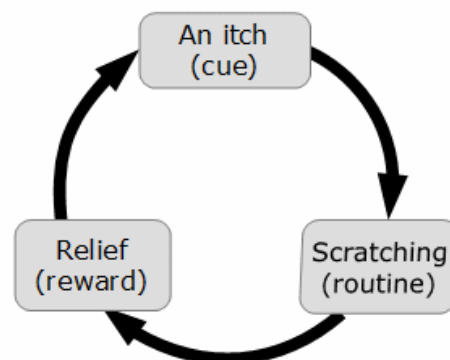
Painkillers solve an obvious need, relieving a specific pain. Vitamins by contrast, do not necessarily solve an obvious pain point. Instead they appeal to a person's emotions rather than functional needs.

For vitamins, we feel satisfied that we are doing something good for our bodies – even if we can't tell how much good it's actually doing us. But without a painkiller we cannot function effectively.

An **itch**, a term we will discuss later, is a better term than pain when it comes to habits. The routine would be the scratch and the reward would be the relief. An itch is a feeling that manifests within the mind and causes discomfort until satisfied.

When we feel discomfort, we seek escape from the uncomfortable situation. So the reward would be relief.

Since we are on the subject of addictive habits, it's important to point out that habits are not the same things as addictions. Addictions are compulsive, dependent on a



behavior or substance and are self-destructive. A habit on the other hand can have a positive influence. However, it is possible for addictions to be analyzed and modified through the habit model.

## Review

1. What is the Golden Rule of Habit Change? \_\_\_\_\_  
\_\_\_\_\_
2. The person's active \_\_\_\_\_ is sometimes all that's necessary to disrupt unwanted habits.
3. \_\_\_\_\_ is a big part in the ability to change your habits.
4. What is a keystone habit? \_\_\_\_\_  
\_\_\_\_\_
5. What are the parts of the Hooked Model? \_\_\_\_\_  
\_\_\_\_\_
6. What is the habit zone? \_\_\_\_\_  
\_\_\_\_\_
7. Why are long-term goals difficult to become habits? \_\_\_\_\_  
\_\_\_\_\_
8. Why are taking vitamins more difficult to become a habit than painkillers? \_\_\_\_\_  
\_\_\_\_\_
9. If you have an itch, what is the reward? \_\_\_\_\_  
\_\_\_\_\_

- 1: Duhigg, Charles (2012). The Power of Habit, The golden rule of habit change., Ch. 3.
- 2: Ibid.
- 3: Ibid.
- 4: Ibid, Keystone habits, Ch 4.
- 5: Dweck, Carol S. PhD.(2006). Mindset: The Psychology of Success, Where do mindsets come from?, Ch7.
- 6: TED Talk Radio Hour, Personality, Marshmallow test.
- 7: Duhigg, Charles (2012). The Power of Habit, Starbuck and the habit of success, Ch. 5.
- 8: Eyal, Nir (2014). Hooked: How to build habit forming products, introduction.
- 9: Ibid, the habit zone, Ch. 1.
- 10: Ibid, The Habit zone, Ch. 1, Vitamins vs. painkillers.

## Session 4: Dr. Fogg's Behavior Model

Suppose you want to start a new exercise routine. You understand the basics of how habits work: You set your trigger to be at a certain time of day, your routine is written down, and your reward is enjoying a good cup of coffee. But, every time you attempt to exercise, you just don't seem motivated enough to do it. Motivation is the key word here. Dr. Fogg figured this out and applied it to his Behavior Model.

Dr. B.J. Fogg, Director of Persuasive Technology Lab at Stanford University, has developed a model that serves as a relatively simple way to understand what drives our actions. Dr. Fogg believes that there are three ingredients required to initiate *all* behaviors: sufficient *motivation*, ability to complete a desired *action*, and a *trigger* must be present to activate the behavior. When one of those ingredients isn't present, the behavior won't happen.

**Behavior = Motivation + Action(or Ability) + Trigger**

**or B=MAT**

This is called the Fogg Behavior Model<sup>1</sup>. The **Fogg Behavior Model** is a model that states that motivation, action (or ability), and a trigger are the elements *required* to initiate all behaviors. We've already covered trigger in previous sessions, so let's examine motivation and action more closely.

### Motivation

**Motivation** is the energy for the action. This is where an internal craving may be involved. Motivation defines the level of desire to take the required action for the behavior. Dr. Fogg states that all humans are motivated to: seek pleasure and avoid pain, seek hope and avoid fear, and seek social acceptance and avoid rejection. Motivation in the habit model would be part of the reward (or relief).

When creating a habit such as exercise, motivation can be thought of as the craving for the reward. Such as desiring the feeling of being refreshed from working your body or wanting the satisfaction you will have in knowing you have made progress in losing weight or building muscle. The right motivators create action by offering a promise of a desirable outcome (eg. A satisfying scratch).

## Ability

Usability is an important part of this equation – or rather, the ability for you to take action easily. For the habit loop to be enacted the routine must be capable of being accomplished. If you can't complete the routine regularly, a habit can not develop. In Fogg terms, an example of increasing ability is by decreasing the price or the cost. The notion that people always consume more if something costs less is a tendency, not an absolute.

Reducing the cost in one's ability can also be in terms of mental effort. In his book "Something Really New: Three simple steps to creating truly innovative products" - author Dennis J. Hauptly laid out three useful steps which is directly helpful reducing mental cost. These are:

1. Understand the reason people use a product or service.
2. Lay out the steps the customer must take to get the job done.
3. Start removing steps until you reach the simplest possible processes.

Any technology or product that significantly reduces the steps to complete a task will enjoy high adoption rates by people it assists.

Let's convert these into habit development, you'll see in a minute why this is so relevant. Think of the following list as a way to simplify a habit.

1. Understand the reason in developing or changing the habit.
2. Lay out the steps to accomplish this.
3. Start removing steps until you reach the *simplest* possible processes.

Innovative products identify the desire, and use modern technology to take out the steps. The point is: the easier the steps, the easier the ability to do those steps. Later on when we are creating habits keep this in mind, or the habit might not stick.

An ideal example is the iPhone. Steve Jobs knew that, in design, the easier and smoother the habit, the more likely it will stick. That's why there's only one button at the bottom. You hit the button to get the phone to respond. Habit development is directly built into modern products, so why not use it for developing habits.



According to Dr. Fogg's Model, ability is the capacity to do a particular behavior. Dr. Fogg describes the "**six elements of simplicity**" – the factors that influence a task's difficulty.

1. Time – how long it takes
2. Money – how much it costs



3. Physical Effort – amount of labor
4. Mental Effort – amount of brain cycles
5. Social Deviance – how accepted is the behavior by others
6. Non-Routine – how much does it disrupt or match existing routines.

Motivation is difficult to change, as opposed to ability which is easier. Ability is an aspect of the routine in habits. You can use Dr. Fogg's "elements of simplicity" to tweak your habit routines

So, let's use an example to understand how Dr. Fogg's Model can be used to analyze a habit:

Joe has been an alcoholic for years. He was sent to prison for drunk driving and decided that since he's been sober for the time he's been in prison, that it will be easy for him not to start again when he gets out. He's sure he has the willpower and he doesn't feel the cravings he felt on the street.

Joe goes home a month later and after a few weeks he starts drinking right back where he left off. What happened? Why did he go back to drinking? Did he have weak willpower?



No! The first reason is that he didn't have the *ability* to do the habit in prison so the habit couldn't happen till he got out. Second, he didn't replace the routine from the internal cravings when he was

able to drink. Without changing the routine, the habit just lays dormant until it's possible to do and then the trigger happens (spontaneous recovery - session 2).

### Event Listeners



Event listeners in programming listen for an event to happen, like when someone clicks a button. When they program the event listener to the button an action is attached to the listener – this would be the routine. So the action "listens" for the button to be clicked and then does the attached routine. So, in habit terms, the habit listens for the proper trigger. And when the trigger occurs, the routine happens immediately after. As you develop that habit it will discern and/or generalize what triggers will be effective.

An example of event listeners your life is when you see your ex-girlfriend everywhere when you were broken up recently. That's your brain listening for those events that typically happen but now don't happen at all. What's happening here is the desired triggers hit false alarms and the mental routine happens anyway.

## Triggers

When a trigger is part of a habit, especially a habit with craving, the mind looks out for the trigger. Before it was a habit, that trigger might not ever have been noticed. As routines develop into habits, triggers can be likened to a programming term called "event listeners" which will be explained in the box below.

Habits are like pearls. Oysters create pearls from a tiny irritant such as a piece of grit or an unwelcome parasite. It triggers the oyster's system to begin blanketing the invader with layers of shimmering coating<sup>2</sup>. Habits don't just appear from nothing, they are built upon each other. New habits need a foundation upon which to build. Triggers provide the basis for sustained behavior change. Triggers come in two types: internal and external.

### External Triggers<sup>3</sup>

External triggers are embedded with information, which tells the a person what to do next. External triggers also can lead us to information about the next desired action. **External triggers** take place outside the body: person, a thing, a location, or a time of day.

The following are what corporate marketing utilizes to get people to engage with their service or product:

1. Paid Trigger – Companies generally use paid triggers to acquire new users then leverage other triggers to bring them back.
2. Earned Triggers – They require the investment of time spent on public and media relations
3. Relationship Triggers – relationship with the product
4. Owned Triggers – owned triggers prompt repeat engagement – like: I paid for this game, so I might as well play it

Almost any external cue can be made into a trigger. And actually, people are capable of taking control of their thoughts and bend them towards positive states of mind.

External trigger examples:

Brendon Burchard, from the High Performance Habits book<sup>4</sup>, developed a series of triggers that would remind him to steer social interactions toward positive emotions and experiences. There are external triggers that can accomplish this. These triggers can also be used for many habit routines involving mental attitude.

1. The **notification trigger** can be put on a note, an alarm, tablet, or composition book as a reminder. It would be a word or a phrase that signals a cue for a routine.
2. The **door frame trigger** can help keep you present, and enter a space with a positive feeling. When you enter a room, you trigger how you want to act or feel. People typically do this when they go to work or for a job interview.
3. The **waiting trigger** is used when you are waiting for something. When you realize that you are waiting, you can use that as the cue.
4. The **stress trigger** is self-created so you can decide to stop manufacturing it. When you feel stress you can stand up, take 10 deep breaths, and think about things that are good in your life and be thankful for them. This practice helps let go of anxiety. It is difficult to be anxious and thankful at the same time. What you would be doing here is replacing your default stress routine with a more positive and effective one. Replace that stress with something you want.



## Internal Triggers<sup>5</sup>

When a product becomes tightly coupled with a thought, an emotion, or a preexisting routine, it leverages an internal trigger. Internal triggers manifest automatically in your mind.

Emotions, particularly negative ones, are powerful internal triggers and greatly influence our routine. Feelings of boredom, loneliness, frustration, confusion, and indecisiveness often instigate a slight pain or irritation and prompt an almost instantaneous and often mindless action to quell the negative sensation. The severity of the discomfort may be relatively minor and perhaps below your awareness.

Like the sand in the oyster, your habits will automatically work to help alleviate the discomfort of negative emotions through routines that have a reward of some type of relief.

### The Technology of Triggers

Connecting internal triggers with a product is the “brass ring” in consumer technology. When a company creates internal triggers for their product, then they may have a customer for life. For example, Coca-Cola and McDonald's have developed many internal triggers for their products like the feeling of refreshment, community, and family.

Participants with depressive symptoms tended to engage in very high email usage, this also includes video watching, gaming, and chatting. Bored people seek exciting news headlines. Stressed people go to Pinterest. Lonely people go to Facebook and Twitter. The uncertain people go to Google<sup>6</sup>.

Products that attach these internal triggers provide users with quick relief. It takes *weeks or months* of frequent usage for internal triggers to latch onto cues.

People usually don't realize they have default habit routines for each of those uncomfortable feelings. What is the first thing you think about or do when you're bored? Some common routines are getting up and talking to somebody, eating, pacing, or even watching TV. For example, if your trying to lose weight, then your bored-eating routine may be an unhealthy habit for you.

Positive emotion can also serve as internal triggers, and even be triggered themselves by a need to satisfy something that is bothering us. After all, we use products to find solutions to problems. The desire to be entertained can be thought of as the need to satiate boredom. A need to share good news can also be thought of as an attempt to find and maintain good social connections.

## Heuristics and Perception<sup>7</sup>

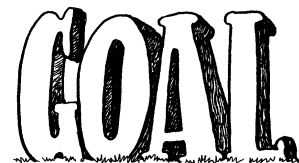
There are a number of counter-intuitive and surprising ways companies can boost a person's motivation or increasing their ability by understanding heuristics. **Heuristics** are the mental shortcuts we take to make decisions and form opinions. Scientists have been studying heuristics in order to understand and predict human behavior. We can use this to predict certain outcomes more effectively.

**The Scarcity Effect** – The appearance of scarcity affected a person's perception on value. For example, some researchers had two groups of people. The first group was given just two cookies, the second group was given a pile of cookies. The group left with two cookies (as opposed to a pile of cookies) rated the two cookies more valuable. Therefore, the more scarce something is thought to be, the more valuable it is to that person.

**The Framing Effect** – Context also shapes our perception. The mind takes shortcuts informed by our surroundings to make quick and sometimes erroneous judgments. It also changes how our brain perceives pleasure. Some researchers offered wine to participants with no label. As the bottles of wine increased in price, so did the participant's enjoyment – even though it was the same bottle (unbeknownst to them). Therefore, the belief in more value of something can increase our enjoyment of it.

**The Anchoring Effect** – People often anchor to one piece of information when making a decision (like, Shirts for 30% off) even if it ends up the same price.

**The Endowed Progress Effect** – Punch discount cards with some punches to start increases motivation, with an 82% higher completion rate. The study demonstrated that the endowed progress effect, a phenomenon that



increases motivation as people believe they are nearing a goal. On Linked In every user starts with some semblance of progress.

For product designers, building habit-forming technology, understanding, and leveraging, these methods can boost *motivation* and *ability*.

## Gratitude<sup>8</sup>

Gratitude is the grand-daddy of all positive emotion. It has also been the focus of much of the positive psychology movement – because it works. Using this as a replacement for negative routines may take practice but it is very effective in relieving anxiety.

Gratitude is the golden frame through which we see the meaning of life. In fact, gratitude is a habit along with any attitude response to the world around us like caring, consideration, peacefulness, and understanding. This also goes for negative responses like resentment, complaining, frustration, and hate.

The question is: How can I develop more gratitude?

Start being grateful for the good in other people's lives – people you love, people you read about, anyone at all. When you are feeling grateful you are connecting your experiences with gratefulness. When you feel resentful about something you are connecting your experiences with resentfulness. Why not choose gratitude? Gratitude is relaxing judgment to welcome things as they are.



When you're grateful, the mind looks for more grateful things to think about, it doesn't matter toward whom. Now you're building a new habit. It's just a short step from there to embracing incoming experiences gratefully. [maybe contrast the opposite?]

Gratitude and humility have been shown to be "naturally reinforcing" meaning the more grateful you are, the more humble you feel. And the more humble you feel, the more grateful you are<sup>9</sup>.

## Internal Cravings<sup>10</sup>

Internal cravings can have any routines attached to them. Think about what routines you may have attached to any of these combinations. The routine that you may be using may not even fully satisfy the *itch*, it may be just "the closest thing to it." Use routines that are productive

## Internal Cravings

Itch (trigger)	Scratch (reward)
Feeling helpless or out of control	Power or control
Bored, life feeling dull	Excitement
Feeling lonely	Craving connection or love
Feeling frustrated or angry	To release or vent anger
Feeling empty inside	To feel whole or like life has some purpose

There are many more cravings so you can fill in your own itch/scratch trigger/reward combination through testing. Over time, these internal cravings may even dissipate but leave the bad habit behind. Most people have well established routines for all the above internal cravings. If they are unhealthy routines, this is your opportunity to change them to something more healthy and productive. Everybody gets lonely at sometime. Everybody gets bored at some time. Etc.. It's your choice what you're going to do with those feelings.

Take note: If you think of a bad habit you'd like to improve, it is likely to have an internal craving attached to it. What internal cravings are attached to your bad habits?

## Summary

When modifying or developing habit routines, knowing whether a trigger is internal or external is important as well as understanding Dr. Fogg's model of behavior. In the next session we will focus on rewards and the attitudes we have towards our habits.

## Review

1. What is the Fogg Behavior Model equation? \_\_\_\_\_  
\_\_\_\_\_
2. What are the six elements of simplicity? \_\_\_\_\_  
\_\_\_\_\_
3. Which one is easier to change motivation or ability? \_\_\_\_\_  
\_\_\_\_\_

4. What part of Dr. Fogg's Behavior model is missing when an addict is in prison?\_\_\_\_\_
5. What is an event listener?\_\_\_\_\_
6. What are some useful external triggers (doesn't have to be the ones listed in the book)?\_\_\_\_\_
7. List at least two negative internal triggers? (the more triggers, the better for learning about yourself)  
\_\_\_\_\_
8. Now, list out a possible habit routine you do when you feel those negative triggers ? Example, what's the first thing you do when you're bored? (note: this is not an easy question to answer because most people have never thought about it)\_\_\_\_\_
9. What are heuristics?\_\_\_\_\_
10. How does a person develop more gratitude?\_\_\_\_\_
11. List out at least two itch/scratch habits you have with the routine you think that's attached to it.\_\_\_\_\_

- 1: Eyal, Nir (2014). Hooked: How to build habit forming products, Action, Ch. 5.
- 2: Ibid, Trigger, Ch. 2.
- 3: Ibid, Ch. 2.
- 4: Burchard, Brendon (2017). High Performance Habits: The quest for High Performance.
- 5: Eyal, Nir (2014). Hooked: How to build habit forming products, Ch. 2.
- 6: Ibid.
- 7: Ibid, Action, Ch. 3.
- 8: Science of the Mind, Nov. 2019 Vol. 92 no.11, Rev, Dr. Jesse Jennings "Getting a glimpse of heaven, pg 101.
- 9: Kruse, E Chancellor J., Rubertson, P.M., & Lyubomirsky S. (2014). An upward spiral between gratitude and humility. Social psychological and personality Science, 5(7) 805-814.
- 10: The Adult Relapse Prevention Workbook, Charlene Steen, PhD., J.D., 2001, pg80.



# Session 5: Variable Reward & Attitude

“What draws us to act is not the sensation we receive from the reward itself, but the need to alleviate the *craving* for that reward.” - Hooked Model<sup>1</sup>

## The Baby and the Dog<sup>2</sup>

Researchers believe laughter may be, in fact, a release valve when we experience the discomfort and excitement of uncertainty, but without fear of harm.

When a baby sees a dog for the first time, he or she might be thinking, “Will this hairy monster hurt me? What will he do next?” But soon the child figures out that Rover is not a threat. What follows is an explosion of infectious giggles.



A few years later Rover is not thrilling anymore and no longer holds the child’s attention in the same way. By now, the child is interested in bicycles, and other toys that stimulate the senses until they also become too predictable. So what was wrong with these habit routines that had the baby lose interest?

## Variable Reward<sup>3</sup>

To hold our attention, rewards must have an ongoing degree of **novelty**, or in other words, a degree of newness. When inmates are rewarded by a movie, only a new movie keeps the reward novel. Gaming companies program novelty into their reward systems by changing the rewards over time. Many games use achievements, additional unique abilities over the course of the game, or even direct variable rewards, normally called daily rewards, for just loading the game everyday. These variable rewards are made just for the purpose of developing habit routines for their product. It's the craving for a predictable but unique reward that powers the habit loop forward.

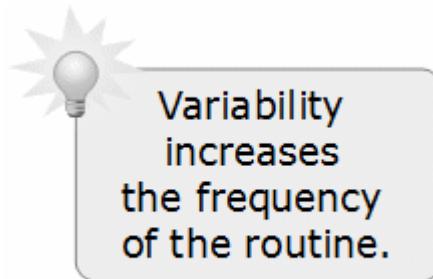
Our habits are simply our brains' ability to quickly retrieve an appropriate behavioral response to a routine or process we have already learned. Habits help us conserve our attention for other things while we go about the tasks we perform with little or no conscious effort.

However, when something breaks the cause-and-effect pattern we've come to expect, when we encounter something outside the norm, we suddenly become aware of it again. Novelty sparks our interest and makes us pay attention.

## Rewards: the Tribe, the Hunt, & the Self<sup>4</sup>

Dr. B.F. Skinner conducted experiments in the 1950s to understand how variability impacted animal behavior. **Variability** means that he changed how often and when the trigger and reward happened. In an experiment with pigeons and a food lever, the pigeons learned the cause-and-effect of hitting the lever for food.

Dr Skinner then modified the experiment by adding variability. Now the lever discharged the food from a random number of taps. Skinner revealed that the intermittent reward drastically increased the number of times the pigeons hit the lever. Variability increases the frequency of the routine.



Variability increases the activity in the nucleus accumbens (called the small part of the brain) and spikes levels of dopamine (a reward chemical in the brain), driving our hungry search for rewards. For most men, looking at faces of attractive women does the same thing.

Variable rewards come in three types: Tribe, Hunt, and Self.

### Rewards of the Tribe



Dr. Albert Bandura studied the power of modeling and ascribed special powers to our ability to learn from others.

Social rewards are driven by our connectedness with other people. Our brains are adapted to seek rewards that make us feel accepted, attractive, important, and included. Websites like Facebook use that leverage for tribal rewards.

When we feel like we are part of a group we feel rewarded for that acceptance to that group and commonly mimic behaviors of that group as a part of Social Learning Theory (see session 2). In particular, Dr. Bandura determined that people who observe someone being rewarded for a particular behavior are more likely to

alter their own beliefs and subsequent actions. This is particularly common with people that have similar traits to each other and that happen to behave like themselves, like the cliques in school: jocks, nerds, emos, etc.

You can also call this the *mimicry heuristic*<sup>5</sup>. Two people can move a couch upstairs without even a word. We accomplish this through mimicry, which often works in subtle ways. Aping, which means when we mirror other's movements, serves as a vital part in human connection. Even people threatened with social isolation resort to automatic mimicry – a primitive way of saying “I'm just like you.”

### **Rewards of the Hunt**

When you collect something, you have triggered the *Foraging Heuristic*<sup>6</sup>. It is what makes us want to explore, peek around, and learn new things. Curiosity to find new rewards is beneficial. The foraging heuristic is the need to acquire objects, such as food and other supplies that aid our survival. It is part of our brains operating system. So sometimes when we merely shop for things but don't actually acquire anything, we feel rewarded. This is part of the reason why some people love to shop. This is what the reward of the hunt does, it rewards us for acquiring resources.



### **Rewards of the Self**

We are driven to conquer obstacles, even if just for the satisfaction of doing so. The sense of progress is an internal reward. Pursuing completion can influence all sorts of behaviors. We can even pursue rewards when we don't outwardly appear to enjoy them, like searching for the right puzzle piece.

The intrinsic motivation, or the internal fuel for a habit, has a self determination to gain a sense of competency; mystery makes it even more enticing. For instance, the game mechanics of most games fulfill a players' desire for competency by showing progress and completion. This makes the person feel like they are improving in some way.

### **Considerations in a Reward System<sup>7</sup>**

Only by understanding what truly matters to a person can a company correctly match the right variable reward to the person's intended behavior.

You can't just sprinkle variable rewards on a product to make it more attractive. Many of you may have noticed that many of the cheaper games available attest to sprinkling pointless rewards. Rewards must fit into the narrative of why the product is used and align with the person's internal triggers and motivations.

### **Maintain a Sense of Autonomy<sup>8</sup>**

**Autonomy** is the freedom to choose what you want to do. Don't work against your autonomy; make yourself free to accept or refuse your habits. Marketers know that to change behavior, products must ensure the users feel in control. This is important to keep in mind when you want to create your own habit. Many people make the mistake of trying to produce a habit that takes away their own autonomy by making it too challenging or non-rewarding. If you work against your own autonomy in the habit you're working on, the behavior won't change. Going cold turkey may have you doubling down on your bad habit if it spontaneously recovers.

When our autonomy is threatened, we feel constrained by our lack of choices and often rebel against doing a new behavior. Psychologists refer to this as **reactance** – this is a negative reaction against a behavior. Maintaining autonomy is required for repeated engagement. (Autonomy is also one of the needs in the Non-Violent Communication class.)

### **Beware of Finite Variability**

When we read books, most of us immerse ourselves into the story to share the experience of the main character or protagonist; this is called *experience taking*. *Experience taking* is when people read a story and feel what the protagonist is feeling. You experience their motivations – including rewards of the tribe, hunt, and self.

Experiences with finite variety become increasingly predictable with use. This can lead to loss of the appeal over time. For instance, the value of the reward you gain for completing the same game over and over diminish over time, thus causing you to eventually stop playing. Experiences that maintain people's interest by sustaining variability, will usually exhibit infinite variability. Sports is a good example of **infinite variability** because there is always opportunity for novel and varying rewards. Gambling also has infinite variability which unfortunately makes it very habit forming. When developing habits you want, always keep in mind new ways to be challenged, and if possible, add a sense of uniqueness to each habit loop reward.

### **Changing Attitude<sup>10</sup>**

An important factor in habit formation is a change in your attitude about the

behavior. Changing your attitude about something is key to changing your habits. Your attitude about the behavior facilitates whether or not the behavior becomes a habit. For a change in attitude to occur, there must be a change in how a person perceives the behavior. For example, if you don't like smoking, you are not going to want to smoke. If, however, your attitude isn't negative about smoking, then you could more easily fall into the habit.

**Attitude** change is vital in what makes or breaks a habit. The more your attitude is in favor of the habit, the more it moves into its usefulness into the habit zone (see session 3).

There are three common tendencies<sup>11</sup> in our attitudes that tend to influence our future actions. They will be explained in detail in this section:

1. Investment (or escalation of commitment)
2. Seeking consistency in past behaviors
3. Avoiding cognitive dissonance

### 1. Investment<sup>12</sup>

Before a person can create mental associations that activate their automatic behaviors, they must first invest in the product. People use Facebook products by investing in it. They invest by putting all their personal information and experiences into it.

In the **Investment Phase** (see the Hooked Model – Session 3), a person is motivated by the anticipation of rewards that will happen in the future by adding value into the habit routine. The things people invest are their time, data, effort, social ties, or money. It is important to note that people usually don't get the reward directly from the investment phase.



Buying a book is another example of the investment phase, and reading is the routine. The reward is how the book makes you feel. You may feel the foraging heuristic reward from purchasing it, but the primary reward is in reading it.

### Storing Value<sup>13</sup>



The investment phase has a psychological phenomenon known as the **escalation of commitment**. This escalation of commitment provides the ability to change your attitude about the behavior. The more a person invests their time and effort into something like a product or service, the more they value it – it builds into their commitment. In fact, there is ample evidence to suggest that our labor lends to love. The mere effort you put into a process, the greater joy you receive from doing and completing the

process. Even the simple act of making the bed can provide satisfaction if you put care into improving how well you do it. This is why the military is extremely strict in making sure your bed is perfect. That's also why most veterans have a well made bed.

The stored value a person puts into a product increases the likelihood they will use it again in the future and comes in a variety of forms:

1. Content – the more collected, the harder it is for users to leave (like having a favorites section for your movies or a music playlist)
2. Data – songs, photos, etc... If we can get users to enter just a little info, they will be much more likely to return
3. Followers – the more followers, the more they stay
4. Reputation – task rabbit, yelp, airbnb, ebay
5. Skill – skills make a service easier (e.g. photoshop)

A good example of stored value in a habit is life mapping – in which you map out different categories in your life like relationships, finance, and environment, then place goals in each category. If you were to develop a habit doing life mapping, the more you put into it, the more value it would have.

## 2. Seeking Consistency in Past Behaviors



In a research study<sup>14</sup> there were two groups. The first group (group A) had a sign in their yard for two weeks. The sign was small and said "Be a safe driver." The second group (group B) had no sign in their yard. Both groups were asked to place a large ugly sign in their yard that read "Drive Carefully!" A whopping 76% of group A agreed to the new sign but only 17% of group B agreed.

Since group A were used to having a sign in their yard, many of them agreed on the new sign. An unsightly sign to group B elicits a negative attitude toward the desire to place a sign in their yard.

For better or worse, "little investments" such as a tiny sign can lead to big changes in future behaviors and not having a negative attitude about something can lead to forming a habit. Starting with simple habits will help you in

the creation of more complex habits. But be warned: Simple bad habits can grow into



**For better or worse,  
little investments lead  
to big changes  
in future behavior.**

monstrous terrible habits.

### 3. Cognitive Dissonance

**Cognitive dissonance**<sup>15</sup> is when we change how we see something to reduce our frustration. There is an Aesop Fable called "The Fox and the Grapes" that is a perfect example for cognitive dissonance:

A famished fox saw clusters of ripe black grapes hanging from a trellised vine. He resorted to all his tricks to get at them, but wearied himself in vain, for he could not reach them. At last he turned away in disappointment saying, "The grapes are sour, anyway." This is an all too common response we see all too often.

In conclusion, these three common tendencies can manipulate our future actions without our awareness. So when thinking about our attitudes keep these in mind:

1. The more effort we put into something, the more likely we'll value it.
2. Little habits lead to big habits.
3. We rationalize our problems instead of seeing them for what they are.



The more effort we put into something, the more likely we'll value it.

These tendencies (noted above) lead to changes in our attitudes and beliefs to adapt psychologically. It helps us give reasons for our behaviors, even if those reasons were designed by others (as companies do in advertising). Beyond just common tendencies in your attitude, we will dissect the components of your attitude later in session 8.

### What's next

It is impossible to perform consistently in a manner inconsistent with the way we see ourselves. In other words, we usually act in direct response to our self-image. Nothing is more difficult to accomplish than changing outward actions without changing inward feelings.

We will explore how our emotions and beliefs are connected in the next session. This will help us attain more control of how we react and how we feel in challenging situations.

## Review

1. What is novelty? \_\_\_\_\_  
\_\_\_\_\_
2. Why do game companies use novelty? \_\_\_\_\_  
\_\_\_\_\_
3. What is variability? \_\_\_\_\_  
\_\_\_\_\_
4. Variability increases the \_\_\_\_\_ of the routine.
5. Why is our autonomy important in creating habits? \_\_\_\_\_  
\_\_\_\_\_
6. What might happen if a challenging habit you are working on, has a static, unchanging reward? How can this be solved? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
7. What is infinite variability? \_\_\_\_\_  
\_\_\_\_\_
8. What is the investment phase? \_\_\_\_\_  
\_\_\_\_\_
9. Little investments in the beginning can lead to \_\_\_\_\_ changes in behavior later.
10. What is cognitive dissonance? \_\_\_\_\_  
\_\_\_\_\_
11. The more effort we put into something, the more likely we'll \_\_\_\_\_ it.



- 1: Eyal, Nir (2014). Hooked: How to build habit forming products, Variable reward, Ch. 4.
- 2: Ibid, Ch. 4.
- 3: Ibid.
- 4: Ibid, The tribe, the hunt, and the self.
- 5: On Second Thought: Outsmarting Hard wired habits” by Wray Herbert 2010 Ch 5, The mimicry heuristic.
- 6: On Second Thought: Outsmarting Hard wired habits” by Wray Herbert 2010 Ch 14, The foraging heuristic.
- 7: Eyal, Nir (2014). Hooked: How to build habit forming products, Variable reward, important considerations in a reward system, Ch. 4.
- 8: Ibid, maintain a sense of autonomy.
- 9: Ibid, variable reward.
- 10: Ibid, Investment, Ch. 5.
- 11: Ibid.
- 12: Ibid.
- 13: Ibid, storing value.
- 14: Ibid.
- 15: Ibid.

## Session 6: CBT for Habits

"We cannot change anything till we accept it" - Carl Jung

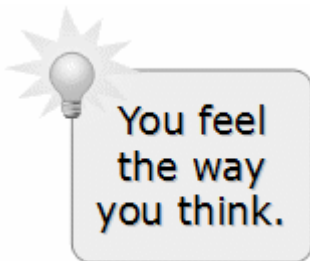
Psychologists have long known that a great deal of what we experience is fabricated by ourselves. That is, our own desires and expectations help form a large part of our perceptions, memories, and beliefs<sup>1</sup>.

In the 1960s, psychiatrist Dr. Aaron Beck<sup>2</sup> was working with his clients when he suddenly realized it was their beliefs that were causing their problems. Just before they felt a wave of anxiety or depression, something quickly flashed through their minds. It could be, "Dr. Beck thinks I'm incompetent." or "This therapy will never work. I'll never feel better." These kinds of beliefs caused their negative feelings not only in the therapy session, but in their lives too.



These weren't beliefs people were usually conscious of, yet Beck found he could teach them how to work with and change these beliefs. This is how Cognitive Therapy was born, one of the most effective therapies ever developed.

**CBT** (Cognitive Behavioral Therapy) is what later developed from Beck's work. This section of the managing habits course is about analyzing and managing the internal mechanisms of how habits develop.



Several studies reveal that CBT<sup>3</sup> is more effective than medication alone for the treatment of anxiety and depression. But, more importantly in regards to this course, we can use **CBT** as a tool for analyzing our internal mechanisms, as opposed to just looking for "problems." In this fashion, we will understand the emotional aspect of our habit routines in order to modify them. The central concept in CBT is that *you feel the way you think*.

CBT is scientific not only in the sense that it has been tested and developed through numerous scientific studies, but also in the sense that it encourages people to become more like scientists. We treat your thoughts as theories and hunches about reality to be tested (what scientists call a hypothesis)

rather than as facts. The foundation of CBT is the ABCs of CBT. The **ABCs** is a model used by CBT for understanding how emotional and behavioral consequences develop.

## ABC of CBT<sup>4</sup>

Like many people, you may assume that if something happens to you, the event makes you feel a certain way. For example, if someone treats you inconsiderately, you may conclude that he *makes* you angry. You may further deduce that their inconsiderate behavior *makes* you behave in a particular manner, such as being inconsiderate back.

We illustrate this common (but incorrect) causal relationship with the following formula: A = C. In this equation, the 'A' stands for the real or **Actual** event, like losing your job. It also stands for an **Activating** event that may or may not have happened. It could be a prediction about the future, such as "I'm going to class today," or a memory of a past problem such as, "He will be inconsiderate like he has been before." The 'C' stands for **Consequence**, which means the way you feel and behave in response to an Actual or Activating Event.

$$\begin{array}{ccc}
 \mathbf{A} & = & \mathbf{C} \\
 \text{actual or activating event} & & \text{emotional or behavioral consequence} \\
 \text{Someone's inconsiderate} & = & \text{I'm angry}
 \end{array}$$

(this is an incorrect model of reality)

CBT encourages you to understand that thinking or belief lie between the event that occurred and your ultimate feelings and actions. Your thoughts, beliefs, and the meanings that you give to an event, produce your emotional and behavioral responses.

So in CBT terms, the person doesn't *make* you angry. Rather, the person behaves inconsiderately, and you assign a meaning to his behavior such as 'He's doing this deliberately to upset me and he absolutely should not do this!' Thus, making yourself angry. The next formula, 'B' stands for your **Beliefs** about the event and the meanings you give to it.

$$\begin{array}{ccc}
 \mathbf{A} & + & \mathbf{B} & = & \mathbf{C} \\
 \text{actual or activating} & & \text{beliefs \& meanings about} & & \text{emotional or} \\
 \text{event} & & \text{the event} & & \text{behavioral consequence} \\
 \text{Someone's} & + & \text{He's deliberately trying} & = & \text{I'm angry} \\
 \text{inconsiderate} & & \text{to upset me} & &
 \end{array}$$

(this is a more accurate model of reality)

This is the formula or equation CBT uses to make sense of how we habitually react (or respond) to the world. It takes into account what is going on with us internally.

## Emphasizing the Meaning You Attach to Events<sup>5</sup>

The meaning you attach to any sort of event influences the emotional responses you have to that event.

Heather went on her first date with a new guy and hopes he'll contact her for a second date. Unfortunately, he doesn't. After two weeks of waiting, Heather gives up and becomes depressed. The fact that he didn't call *contributes* to her feeling bad. But what really leads to her acute depressed feelings is the meaning she derived from her apparent rejection, namely, 'This proves I'm unattractive and unwanted. I'll be a sad singleton for the rest of my life.'

As Heather shows, drawing extreme conclusions about yourself (and others) based on a singular experience can turn a bad distressing situation into one that is hindering or hurting you.

CBT involves identifying thoughts, beliefs, and meanings that are activated when you're feeling emotionally disturbed. If you assign less extreme, more helpful, more accurate meanings to negative events, you are likely to experience less extreme and less disturbing emotional and behavioral responses.



You can help yourself figure out whether or not the meanings you're giving to a specific negative event are causing you disturbance by answering the following questions:

1. **Is the meaning I'm giving to this event unduly extreme?** Am I making harsh conclusions?
2. **Am I drawing global conclusions from this singular event?** Am I deciding this one event defines me totally? Or that this specific situation indicates the course of my entire future?
3. **Is the meaning that I'm assigning to this event loaded against me?** Does this meaning lead me to feel better or worse about myself?

## Learning Your ABCs<sup>6</sup>



Remember that *habit triggers* start externally from the environment, but over time these triggers internalize. So, before we know it we are automatically doing the habits we are not intending to do from our internal triggers. Using the ABC form will help sort these processes out.

## Behaving Like A Scientist<sup>7</sup>

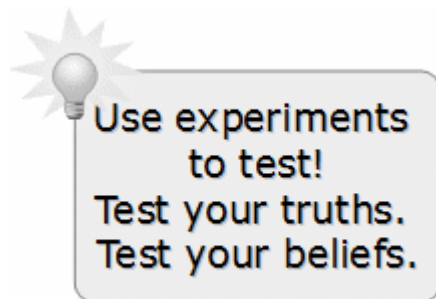


Often, CBT can seem like common sense. Behavioral experiments are particularly good examples of the common-sense side of CBT. If you want to know whether your hunch about a reality is accurate, put it to a test in reality. Try not to home-in too much on how the examples differ from your specific problems or habits. Instead, focus on what you have in common with the examples and work from there to apply the techniques to your own problems.

Use experiments to test out the truths about your beliefs and to assess the usefulness of your behaviors. If you don't use experiments, you can't know whether your beliefs are true or not. For example, let's say your in a closed room and you believe it's dark outside. You can't know for certain unless you open the door and take a look outside. Opening the door is the experiment.

You can use behavioral experiments in the following ways:

- To test the validity of a thought or belief that you hold about yourself, other people, or the world.
- To test the validity of an alternative thought or belief
- To discover the effects that mental or behavioral activities have on your difficulties.
- To gather evidence in order to clarify the nature of you problem



Use the following four steps to devise a **behavioral experiment**. Take your time with each step – don't rush. Be thorough with each step. Write down as much as you can.

### 1. **Describe your problem.**

Write down the nature of your problem. If any, include your safety

behaviors. (*Safety behaviors* are behaviors that you do to try to prevent your feared catastrophe.) Phrase the problem in your own words and make a note of how the problem negatively effects your life.

**2. Formulate your prediction.**

Decide what you think will happen if you try out a new way of thinking or behaving in real life. List the options you came up with. Rate your belief that a prediction will be true in a percentage (ie. 65%).



**3. Execute an experiment.**

Think of a way of putting a new belief or behavior to the test in a real-life situation. Try to devise more than one way to test out your prediction. Track your progress.

**4. Examine the results.**

Look to see whether your prediction came true. If it didn't, check out what you've learned from the results of the experiment.

**5. Conclusions**

Write down what you've learned. When you go through the behavior experiment steps you will have a prediction with a percentage between 0 and 100. After you've done the experiment and processed your results, re-rate your conviction in the original prediction in another percentage.

In the following experiment, Steve will be our example on how to do the steps:

1. Describe the problem:

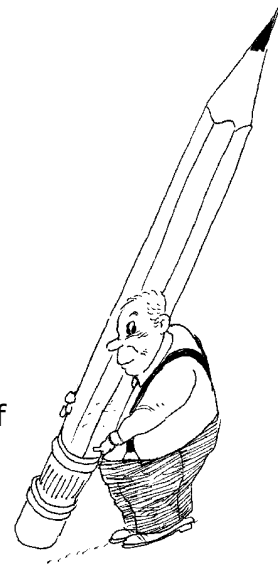
I (Steve) have had problems telling people when something is bothering me. I avoid conflict and resent myself for not standing up to others.

2. Formulate a prediction:

I choose to experiment with the prediction, 'If I speak up for myself, I'll get in a fight or get picked on.' I rate my strength of conviction in this thought at 80%.

3. Execute an experiment:

I plan to speak up carefully when something is bothering me to one of the people I know.



4. Examine the results:  
I noticed that when I spoke my mind, I felt better and the other person didn't respond badly at all. I re-rates my conviction at 40% and decide to conduct further experiments.
5. Conclusion:  
This experiment helped me see that confronting my problems helps me feel better about myself and even less frustrated.

## Keeping Records of Your Experiments

A good scientist keeps records of their experiments. Use a journal to record the steps you've taken. If you do, you can look back over your results in order to:

- Draw Conclusions
- Decide what kind of experiments you may want to conduct next in order to gather more information.
- Remind yourself that many of your negative predictions won't come true.

### Behavior Experiment Record Sheet<sup>8</sup>

<b>1</b> Describe Problem	Phrase the problem in how it affects your life.	
<b>2</b> Formulate Prediction	Outline the thought, belief or theory you are testing. Rate your strength of conviction 1-100%	
<b>3</b> Execute Experiment	Plan what you will do (including where, when, how, with whom), being as specific as you can	
<b>4</b> Examine Results	Record what actually happened including relevant thoughts, emotions, physical sensations, and other people's behavior	
<b>5</b> Conclusions/ Comments	Write down what you have learned about your prediction or theory in light of the results. Re-rate your strength	



	of conviction 0-100%	
Guidance on Carrying Out a Behavioral Experiment	<ul style="list-style-type: none"> <li>• Be clear on how you will measure the results of your experiment.</li> <li>• Emphasize clear, observable outcomes on the results of your experiment.</li> <li>• Write down the results in terms of the accuracy of your predictions.</li> <li>• Consider if other experiments would be helpful</li> </ul>	

## Zig-Zag<sup>9</sup> Technique for Strengthening New Beliefs

Remember, CBT is a "solution-oriented" dialogue meant to identify and root out unhelpful beliefs. CBT is not for sorting out disagreements or modifying behaviors. The following technique is good for doubting habits. Consider Sylvester's experience:

Sylvester believes that other people must like him and goes out of his way to put people at ease in social situations. He takes great care never to hurt anyone's feelings and puts pressure on himself to be a good host. Not surprisingly, he's worn out by his efforts. Because his work involves managing other staff, he also feels anxious much of the time. He worries about confrontation and what his staff members think of him when he disciplines them.

After some CBT, he concludes that his beliefs need to change if he's ever going to overcome his anxiety and feelings of panic at work. He formulates a healthy alternative belief: "I want to be liked by others, but I don't always have to be liked. Being disliked is tolerable and doesn't mean I'm an unlikable person."

Sylvester can see how this new belief makes good sense and can help him feel less anxious in social situations. But deep inside, he feels stirrings of doubt. He denies his reservations about the new belief and ignores his uncertainty. One day, when he's confronting a staff member about persistent lateness, his underlying doubts rear up. He resorts to his old belief because he hasn't dealt with his doubts effectively. Sylvester ends up letting his worker off the hook and feeling angry with himself for not dealing with the matter properly.



Had Sylvester faced up to his misgivings about allowing himself to be disliked, he may have given himself a chance to resolve his feeling. He may then have been more prepared to deal with the stressful situation without

resorting to his old belief and avoidant behavior. Sylvester used CBT to indirectly change external behaviors by working on his internal beliefs.

The Zig-Zag Technique is used to strengthen your new beliefs by working through your doubts. The Zig-Zag Technique involves playing devil's advocate with yourself. The more you argue the case in favor of a healthy belief and challenge your own attacks on it, the more deeply you can come to believe in it. The figure below shows a completed Zig-Zag form based on Sylvester's example.

When using the Zig-Zag Technique you must give full range to your skepticism. Using your skepticism is very important when you're changing your beliefs. If you try to sweep your doubts under the rug, those doubts can re-emerge when you least expect it - usually when you're in a stressful situation.

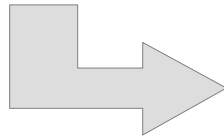
Let's use the Zig-Zag Technique on Sylvester's situation:

## The Zig-Zag Form<sup>9</sup>

### 1. Healthy Belief

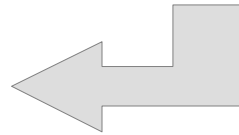
I want to be liked by other people but I don't always have to be liked. It's tolerable to be disliked and it doesn't mean that I'm an unlikable person.

Rate Conviction of Belief : 40%



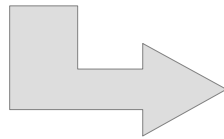
### 2. Attack

Yeah, but if lots of people don't like me it's awful!  
I can't stand that.



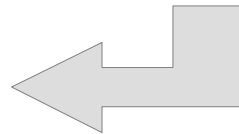
### 3. Defense

Lots of people not liking me would be unfortunate but not the worst thing in the world. Trying to get everyone to like me makes me really clumsy and anxious socially.



### 4. Attack

But lots of people not liking me must mean there's something wrong with me. It proves I'm unlikable.



### 4. Defense

First of all, I'm more likely to assume lots of people don't like me and I don't actually know that it's true. I simply can't be everyone's cup of tea. I like some people more than others and it doesn't mean there's something wrong with them.

5. Rate your conviction in healthy belief : 75%

To go through your own Zig-Zag Technique, do the following steps:

1. Write down in the top left-hand box of the zig-zag form a belief that you want to strengthen.  
In the form, rate how strongly you endorse this belief, from 0 to 100% conviction. Be sure that the belief is consistent with reality, true, logical, and helpful to you.

Is the belief true and consistent with reality?  
Is the belief flexible (not all or nothing)?  
Is the belief logical or sensible?  
Is the belief helpful?  
Imagine you're about to go into a court to present to the jury arguments in defense of your new belief. You can list all the ways the new belief is helpful.

2. In the next box down, write your doubts, reservations, or challenges about the healthy belief.  
Really let yourself attack the belief, using all the unhealthy arguments that come to mind.



3. In the next box, dispute your attack and re-define the healthy belief.  
Focus on defending the healthy belief. Don't become sidetracked by any points raised in your attack from step 2.
4. Repeat steps 2 and 3 until you exhaust all your attacks on the healthy belief.  
Be sure to use up **all** your doubts and reservations about choosing to really go for the new, healthy alternative way of thinking. Use as many forms as you need and be sure to stop on a defense of the belief you want to establish rather than on an attack.
5. Re-rate from 0 to 100 %, how strongly you endorse the healthy belief after going through all your doubts.

If your conviction in the healthy belief hasn't increased or had increased only slightly, revisit the previous instructions on how to use the Zig-Zag Form. Or, it may be helpful at this time to ask someone for additional ideas.

This technique can be used for the frustrations you have with someone else. But this is not to fix the problem with them, but to get rid of unhelpful thoughts about them that may be souring your mood or behaviors.

## **Putting Your New Beliefs to the Test<sup>9</sup>**

Doing pen-and-paper exercises are great - they can really help you move your new beliefs from your head to your heart.

However, the best way to make your new ways of thinking more automatic (to make them into a habit), is to put them to the test. Putting them to the test means going into familiar situations where your old attitudes are typically triggered (the cue), and action according to your new way of thinking.

Remember, CBT is a “solution-oriented” dialogue meant to identify and root out unhelpful beliefs. CBT is **not** for sorting out disagreements or modifying behaviors. But they are important when discovering a behavior has unhelpful beliefs driving it.<sup>10</sup> Half the time you will discover that your habits will require working on your unhelpful beliefs.

So our friend Sylvester (from earlier in the chapter) may choose to do the following to test his new beliefs:

- Sylvester confronts his staff member about their lateness in a forth-right manner. He bears the discomfort of upsetting them and remembers that being disliked by one worker doesn't prove that he's an unlikable person.
- Sylvester throws a party and resists the urge to make himself busy entertaining everyone and playing host.
- Sylvester works less hard in both work and social situations at putting everyone at ease and trying to be a super-likable Mr. Nice Guy.

If you're really, really serious about making your new beliefs stick, you can seek out situations in which to test them.

## Review

1. What is CBT? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. You feel the way you \_\_\_\_\_.
3. What are the ABCs of CBT? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
4. Why is the following statement inaccurate? “He made me angry.” \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
5. Give some examples of the thoughts included in the ABC model. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. What are the behavior experiment steps? \_\_\_\_\_

---

---

---

---

7. What is the Zig-Zag technique? \_\_\_\_\_

---

---

8. Fill out a behavior experiment for homework.

9. Fill out a Zig-Zag Form for homework.

1: The Power of Critical Thinking by Lewis Vaughn., 2013, pg 37.

2: Dweck, Carol S. PhD. (2006). Mindset: The Psychology of Success.

3: CBT for Dummies 2010 by Rhena Brand & Rob Willson, introduction.

4: Ibid, ABCs of CBT.

5: Ibid.

6: Ibid.

7: Ibid, Behave like a scientist.

8: Ibid.

9: Ibid, zig zag method.

10: How to remember disasters without being shattered by it., by Erika Huyasaki, Wired, Apr 2021, pg65.

# Session 7: CBT Part 2

## Unhelpful Thoughts

Consider all the ways thinking is helpful to us. We can plan for the future, consider our past actions, evaluate others motives, savor our favorite memories, and so forth. When our thoughts are a good enough fit with reality, they serve us well.



Our Minds can also create thoughts that do not accurately reflect reality.

- We can make predictions that are wrong.
- We can misunderstand someone's intent.
- We can misread a situation.

We all make errors in our thinking. Fortunately, we can think about our own thinking and recognize when our thoughts do and do not make sense<sup>1</sup>. If we are all willing to admit that our thought processes can be flawed and that we can invest some time for improvement, then we can work on getting rid of these unhelpful thoughts.

## Categories of Thinking Errors<sup>2</sup>

Thinking errors have been described in various ways:

- **Irrational** - Thoughts that don't make sense. For example, we might tell ourselves that everyone must think well of us or we'll be terribly upset.
- **Dysfunctional** - Thoughts that don't serve us well. For example, we tell ourselves, "There's no use in trying anyway." We're setting ourselves up to fail.
- **Biased** - Thoughts that are one-sided. For example, a person only paying attention to negative feedback and not positive feedback.
- **Distorted** - Thoughts that don't accurately reflect reality. For example, we might think we are completely incompetent after making a minor error. Or the opposite, We think we know better than others.

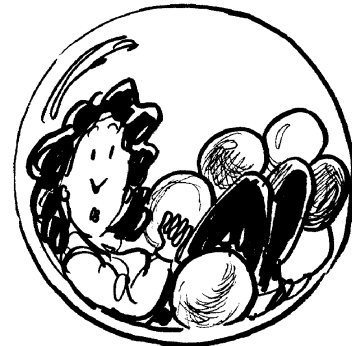
You might keep these different labels in mind as you identify and challenge your own thought patterns.

## Common Thinking Errors<sup>3</sup>

Your thoughts, attitudes, and beliefs you hold have a big effect on the way you interpret the world around you and how you feel about things. If you are feeling excessively bad, chances are that you are thinking excessively bad – or, at least, in an unhelpful way.

Thinking errors are slips of thinking that everyone makes from time to time. You'll see some of these errors pop up when modifying troublesome habits. Thinking errors get in the way, or cause you to distort, the facts. The following listing is to help you spot your unhelpful thoughts and put them straight more quickly:

- **Catastrophizing:** Am I jumping to the worst possible conclusion? Making molehills into mountains. Put your thoughts in perspective and weigh the evidence.
- **Black & White Thinking:** Am I thinking in extreme all-or-nothing terms? Nothing is black or white, find somewhere in between. Do I feel things must be all one way and not another? Am I unable to compromise?
- **Overgeneralizing:** Am I using words like 'always' or 'never' to draw generalized conclusions from a specific event? Overgeneralizing is inaccurate, so suspend your judgment and be more specific.
- **Fortune-telling:** Am I predicting the future instead of waiting to see what happens? Unfortunately, predictions can make you unduly negative; if you think something is going to turn out badly, your negativity may cause you to not even attempt it. Step away from the crystal ball!
- **Mind-reading:** Am I jumping to conclusions about what other people are thinking of me? Do I make uninformed decisions about what another person is thinking or feeling? Take your guess with a pinch of salt.
- **Disqualifying the Positive:** Am I discounting positive information or twisting a positive into a negative? Do I always believe that something or someone is doing something just because they want to and not for personal gain? Don't throw the baby with the bath water.
- **Labeling:** Am I globally putting myself down as a failure, worthless, or useless? Avoid labels and allow for varying degrees.
- **Emotional Reasoning:** Am I listening too much to my negative gut feelings instead of looking at the objective facts? Remind yourself that feelings aren't facts.
- **Personalizing:** Am I taking an event or someone's behavior too





personally or blaming myself and overlooking other factors? Remove yourself from the center of the universe.

- **Demanding:** Am I using words like 'should', 'must', 'ought', and 'have to' in order to make rigid rules about myself, the world, or other people? Think more flexibly with words like want, like, or wish.
- **Having Low Frustration Tolerance:** Am I telling myself that smiling is too difficult or unbearable or that 'I can't stand it' when actually it's hard to bear but it *is* bearable or worth tolerating? Realize that you can bear the "unbearable."

## The ABC Form<sup>4</sup>

CBT is a therapy for unhelpful thoughts. You can't necessarily just sit down and fill out these forms anytime you like. You may have to wait for an ideal situation. An ideal situation would be problems that seem to bother you every day, recurring thoughts or doubts, or even getting upset about something more than necessary. You may not have any of those issues, but at least be familiar with the material as they are tools necessary for many of the habits you may work on later in the course.

The ABC Form is a procedure to help you identify the thoughts trigger the way you feel. We will show the form in a few pages, but we need to lay some ground work so you understand how to use it effectively. We will learn to question negative thoughts and generate alternatives. We will then utilize the ABC self-help form to manage emotions.

A lot of habits are emotionally charged. Also, commonly unhelpful habits have emotional aspects to them. When emotions play a big part of a habit routine, it is useful to have tools that can help you sort out your thoughts and motivations. The ABC form will help you do this.

CBT (cognitive behavioral therapy) therapists use tools similar to the ABC form to identify and replace negative or unhelpful thoughts. Your thinking actually impacts your feelings and actions. Therefore, changing your unhelpful thoughts into helpful thoughts is a key to feeling better and in so doing changes your behavior.

We will give you two versions of the ABC form: one gets you started with identifying triggers and feelings, and another that takes you right through developing alternative thoughts so you can feel and act differently in the future.

## Catching the NATs<sup>5</sup>

NATs stands for negative automatic thoughts. NATs are a common element

when filling out the ABC form. Getting used to the ABC form is often easier if you break down the process into two steps:

1. **Fill out the first three columns.** (Activating event, Beliefs and thoughts, Consequences) This give you a chance to focus on catching your **negative automatic thoughts** (NATs) on paper and to see the connection between your thoughts and emotions.
2. **Make the thought-feeling link.** This crucial step is to make the thought-feeling link or B-to-C connection; that is, seeing clearly for yourself the connection between what goes through your mind and your resulting emotion. When you see this connection, it can help you make better sense of why to challenge and change your thoughts.

The more negative the meaning you give an event, the more negative you'll feel, and the more likely you'll act in a way that maintains that feeling. Crucially, when you feel negative, you're more likely to generate negative thoughts. See how easily you can get caught in a viscous circle? Just one of the reasons to take your negative thoughts with a grain of salt!

## Stepping Through ABC Form I

When you use the ABC Form I, follow these steps:

1. In the **Consequences** box, # 1, write down the emotion you are feeling.

Emotions are an important aspect in acting in a more self-helping and productive way. The emotion you are feeling is often the most important place to start when filling out your ABC Form.

Emotions and behaviors are Consequences (C) of the interaction between the Activating Event or Trigger (A) and the Beliefs or Meanings (B) in the ABC Model of emotion.

Examples of emotions you may choose to list in the **Consequences** box may include one or more of the following:

- anger
- anxiety
- depression
- envy
- guilt
- hurt
- jealousy
- shame

If the routine you are analyzing is related to when you get upset, then fill out the ABC Form at that time.

2. In the **Consequences** box, # 2, write down how you acted. Write down how your behavior changed when you felt your emotion. Examples of the behavior that people often identify at their actions in this box include:
  - avoiding something
  - becoming withdrawn, isolated, or inactive
  - being aggressive
  - binge-eating or restricting food intake
  - escaping from a situation
  - putting off something (procrastination)
  - seeking reassurance
  - taking alcohol or drugs
  - using safety behaviors, such as checking things several times like locks or even physical sensations
  
3. In the **Activating Event** box, write down what triggered your feeling: As we discussed earlier, The 'A' in ABC stands for Activating Event or Trigger, which are things that triggered your unhelpful thoughts and feelings. Activation events or triggers in this box can include:
  - something happening right now
  - something that occurred in the past
  - something that you're anticipating happening in the future
  - something in the external world (person, place, or thing)
  - something in your mind (an image or memory)
  - a physical sensation (increased heart rate, headache, feeling tired)
  - your own emotions or behavior

An activating event can be pretty much anything. Rather than trying to decide whether the event is important or not, use your feelings as a guide when you fill out the form.

4. In the **Beliefs** box, write down your thoughts, attitudes, and beliefs. Describe what the event (activating event from box) meant to you when you felt the emotion (consequences emotion from box). The thoughts, attitudes, and beliefs you put in the **Beliefs** box often pop up on reflex. They may be extreme, distorted and unhelpful - but they may *seem* like facts to you. Some of these negative automatic thoughts (or NATs) include:
  - Here I go again, proving that I'm useless!
  - I should've known better!
  - Now everyone knows what an idiot I am!
  - This proves that I can't cope like normal people do!

- Thoughts are what count, so think of yourself as a detective and set out to capture suspect thoughts. If your thoughts are in the form of a picture, describe the image, or what the image means to you - then write them down in the 'Beliefs' box.
  - We think not only in words but also in pictures. People who are feeling anxious frequently describe that they see catastrophic images going through their mind. For example, you may fear getting in a fight over nothing, you may get an image of being permanently injured.
5. In the **Thinking Error** box, consider what your thinking errors may be. One of the key ways to become more objective about your thoughts is to identify the *thinking errors* that may be represented in your thoughts you listed in this box. Questions that you might ask yourself in order to identify your thinking errors include:
- Catastrophizing
  - Black & White Thinking
  - Overgeneralizing
  - Fortune-telling
  - Mind-reading
  - Disqualifying the Positive
  - Labeling
  - Emotional Reasoning
  - Personalizing
  - Demanding
  - Having Low Frustration Tolerance

## ABC form I<sup>6</sup>

Date:

<p><b>Activating Event</b> 3. Write down what triggered your feelings:</p>    	<p><b>Beliefs</b> 4. Write down the thoughts and beliefs that went through your mind:</p>    	<p><b>Thinking Error</b> 5. Identify the thinking error for each thought.</p>    
<p><b>Consequences</b> 1. Write down your emotion:</p>    <p>2. Write down your actions:</p>    		

## ABC Form II<sup>7</sup>

When you feel more confident about identifying your ABCs as well as your thinking errors, you can move on to the ABC Form II. This second form helps you question your unhelpful thoughts in order to reduce their intensity and focus on acting differently.

The first five steps are the same as the ABC Form I. Then come five more steps. The ABC Form II has five columns: **A** for activating event, **B** for belief, **C** for consequences, **D** for dispute, and **E** for effect.

Keeping your old ABC Forms can be a rewarding record of your progress, and a useful reminder of how to fill them in if you need to use one again in the future. Many CBT clients look back over their ABC forms after they feel better and tell us, 'I can't believe I used to feel and think like that!'

## ABC Form II

<b>Activating Event</b>  2. Briefly write down what triggered your emotions (eg. event, situation, sensation, memory, image)	<b>Beliefs, thoughts, and attitudes about A.</b>  3. Write down what went through your mind, or what A meant to you. B's can be about you, others, the world, or the future.	<b>Consequences of A + B on your emotions and behaviors</b>  1. write down what emotion you felt and how you acted when you felt this emotion.	<b>Dispute (question and examine) B and generate alternatives.</b> The questions at the bottom of the form will help you with this  4. write an alternative for each B, using supporting argument and evidence.	<b>Effect of alternative thought and belief (D).</b>  5. Write down how you feel and with to act as consequence of your alternatives at D.
Returning to work for the first time after being off sick	Things will have changed and I won't know what to do (fortune telling). People will ask me awkward questions about why I won't know what to say (catastrophizing). They'll think I'm crazy if they find out I've had depression. (catastrophizing & mind-reading)	<b>Emotions:</b> eg. depression, guilt, hurt, anger, shame, jealousy, envy, anxiety Rate intensity 0 to 100%  Anxiety 70%  <b>Behavior:</b> eg. avoidance, withdrawing, escape, using alcohol or drugs, seeking reassurance, procrastination  Running over in my mind what I'll say to everyone.	I don't know whether things have changed. Even if they have, I've coped with changes many times before. I'm sure my colleagues will help.  Probably one or two people will ask and I can just keep my answers short.  Most everyone will be glad to have me back.  I've no reason to think they'll think I'm crazy. (with specific examples)	<b>Emotions</b> Re-rate 0 to 100%. List any healthy alternative emotions. sadness, regret, concern.  Anxiety 40%  <b>Alternative behavior or experiment</b> e.g. facing situation, increased activity, assertion.  wait and deal with things when I get there and stop trying to work it out in advance.

Disputing (questioning and examining) and generalizing alternative thoughts, attitudes, or beliefs.

1. Identify your thinking errors at B (e.g. mind-reading, catastrophizing etc..). Write them next to the appropriate B.
2. Examine whether your thought at B is 100% true. Would someone you respect totally agree with your conclusions.
3. Evaluate the helpfulness of each B. write down what you think might be more helpful, balanced, and flexible way of looking at A.
4. Add evidence to support your alternative thought, attitudes, and beliefs. Write as if you were trying to persuade someone you cared about.

## Review

1. When our thoughts don't accurately reflect reality, they are \_\_\_\_\_.
2. When thoughts are one-sided they are \_\_\_\_\_.
3. When thoughts don't serve us well, they are \_\_\_\_\_.
4. When thoughts don't make sense, they are \_\_\_\_\_.
5. What thinking error is predicting the future instead of waiting to see what happens? \_\_\_\_\_
6. What thinking error uses the words 'always' or 'never'? \_\_\_\_\_
7. If I call myself useless, which thinking error am I using? \_\_\_\_\_
8. What thinking error am I using if I say something is 'unbearable'? \_\_\_\_\_
9. What is the ABC form for? \_\_\_\_\_
10. What is a NAT? \_\_\_\_\_
11. Fill out an ABC form.

1: Cognitive Behavioral Therapy in 7 Weeks, by Seth J. Gillihan, PhD., 2016, pg 109.

2: AP Psychology.

3: CBT for Dummies 2010 by Rhena Brand & Rob Willson, pg 19.

4: CBT for Dummies 2010 by Rhena Brand & Rob Willson

5: CBT for Dummies 2010 by Rhena Brand & Rob Willson, NATs.

6: CBT for Dummies 2010 by Rhena Brand & Rob Willson, ABC form I.

7: CBT for Dummies 2010 by Rhena Brand & Rob Willson, ABC form II.

## Session 8: Changing a Habit

“Just as a piece of land has to be prepared beforehand if it is to nourish the seed, so the mind of the pupil has to be prepared in its habits if it is to enjoy and dislike the right things.” -Aristotle

You might think to yourself that you are perfect just the way you are. While there is nothing wrong with a positive attitude about yourself, there may be habits that you want better control of or want to change. The choice is yours whether you want to have better control over your actions or not. Many people want to change bad or unproductive habits. Like eating habits, time wasters, destructive habits, procrastination, gambling, or even daydreaming. This section will help you harness control over your current habits by using various tools to analyze, experiment, and isolate the parts of your habit.

### Changing a Habit Basics

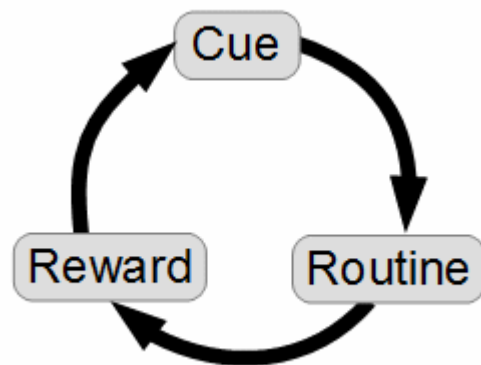
There is no one formula for changing habits. There are thousands. Each person’s habits are driven by different cravings. Some habits may require prolonged study. Here are the basic steps for analyzing and changing a habit.

#### 1. Step One – **IDENTIFY THE ROUTINE**

To understand the habit, you need to identify the components of your loops. Once you have diagnosed the habit loop of a particular behavior, you can look for ways to replace old vices with new routines. You are only looking for the routine here, not the trigger or reward.

#### 2. Step Two – **EXPERIMENT WITH REWARDS**

To figure out which cravings are driving particular habits, it’s useful to experiment with different rewards. If you have the bad habit of eating late at night, it may be difficult to figure out why you are doing it in the first place. This is because most cravings are obvious in retrospect, but incredibly hard to see when you are under their sway. So experiment with the rewards to see what affects it has on the behavior. This may take a few days or a week or longer. So if you are





eating late at night, you may try different rewards like: changing the food you are snacking on, switch to water, or even eating a little earlier to see if it might be the time that is triggering the behavior. During that period, you shouldn't feel any pressure to make any real change in the routine.

As you test the many rewards, look for patterns by writing down the first three things that come to mind, how your feeling, what your thinking, and how you are doing it. Maybe even set a 15 minute alarm to see if the urges are still there. You might even get a note card with denoting hash marks for habitual urges. It's *essential* to isolate what you are actually craving.

### 3. Step Three – **ISOLATE THE CUE**

It's hard to identify cues that trigger our habits because there is too much information bombarding us as our behaviors unfold. To identify a cue, identify categories of behaviors ahead of time so you can examine them in order to see patterns. Experiments have shown that almost all habitual cues fit into one of the five categories:

1. Location
2. Time
3. Emotional State (internal triggers)
4. Other People
5. Immediately Preceding Action (like picking up your keys and then automatically putting them in your pocket.

When looking for a cue, make the above into questions. For example, is there a specific time or place the routine happens? Am I feeling a specific emotion (anger, depression) when the routine happens? Did something happen to set me off on the routine?

### 4. Step Four – **HAVE A PLAN**

When I see a cue, I will do a routine in order to get a reward.

Make plans to replace the routine but still keep the cue and reward. Once you diagnose the habit, you gain power over it. Remember, you can not extinguish a habit, you can only change the routine.

Evaluating and changing habits are difficult concepts to master. Identifying cues and triggers in hindsight may seem easier, but to identify the trigger *and* the reward is difficult. Be sure to review the fundamentals in the first half of the course. The term "**mastery**" means a complete understanding and ability to apply these concepts well. Gaining mastery over your habits takes effort and a willingness to persist even through failure. This is not simply becoming familiar with

your habits without fully understanding the concepts up to this point. Without a clear understanding, this process will be difficult or impossible to apply.

### **Mindset**

Everyday people plan to do difficult things, but never do them. Make a concrete plan and then a plan to implement your plan. When will you follow on your plan? Where will you do it? How will you do it? Think about it in vivid detail. Visualize, in a concrete way, how you're going to carry it out.

## **Habit Analysis of a Life Script<sup>2</sup>**

As you experience life, it becomes what you remember as your reality. Your "life script" is your view of reality as life has been given to you. This can be problematic in that when a new situation comes up, you'll make the wrong choices because of the way you believe life has always been. In other words, you may feel that life is predestined and unchangeable.

### **Example Case Study:**

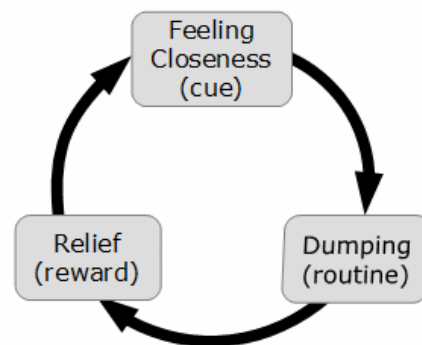
Chantal, an attractive woman of French origin, had an adult life punctuated by a series of short-lived relationships. Chantal's father left when she was four and her mother died when she was eight. She had then been brought up by her aunt, who passed away suddenly when Chantal was fifteen. Furthermore, in her first serious relationship with a man whom she met while at University, he left her for someone else when she was becoming emotionally attached to him.



This sequence of losses made her 'commitment phobic.' She avoided closeness and intimacy because her "life script" told her that any relationship is destined to end suddenly or tragically. She will dump someone before she gets dumped.

In therapy she was able to see that her "life script" can be changed; that getting close to someone did not necessarily mean they would abandon her.

1. She identified the routine: dumping/short-term relationships – dumping before being dumped
2. Experiment with rewards: the therapist would ask her what she felt by ending a



- relationship, which was relief of the fear of abandonment (being in control of her life). If she does the dumping, then she doesn't suffer from being dumped which seems to relieve her anxiety.
3. Isolating the cue: the trigger is closeness and intimacy which is an emotional state (internal). When she feels this closeness, she wants to run away.
  4. Have a plan: just being made aware of the habit routine made a drastic change in her life. She can't extinguish this habit, but she can change the routine: when she feels that closeness she can say to herself, "nothing bad is going to happen, and if it does, that's OK." She will still feel the relief and control as the reward. Which is the same original reward. If this plan doesn't settle well, she can try other routines that may work for her.

Remember, once you identify the parts of the habit, you may gain power over it. But, if you don't have a plan, you may accidentally fall into your old habits. When studying habits, for this example the dumping habit, Chantel had the trigger of closeness, the routine being the dumping, and the reward of her being in control.

## Habit Analysis of Paradoxical Intention<sup>3</sup>

Dr. Viktor Frankl was a psychologist who survived the holocaust. In his book, "Man's Search for Meaning," he promoted the idea that "man's search for meaning is the primary motivation in his life," and that a person is able to live and even die for the sake of his or her ideals and values.

For our next habit analysis we will study one of Frankl's psychological techniques called paradoxical intention. It's a two-fold fact of (1) when someone has an excessive fear and that (2) hyper-intention (taking the fear to absurdity) can break the habit routine. **Paradoxical Intention** is a psychological technique for disrupting unwanted reflexive behaviors.



### Example Case Study:

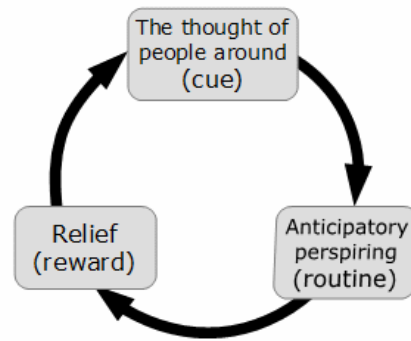
A client had anticipatory perspiring: when Bob was expecting to be around people, he would sweat profusely. Frankl advised him to exaggerate his fear with hyper-intention: he said to tell himself, "I only sweated out a quart before, but now I'm going to sweat at least 10 quarts."

The idea is to "plan" the anxiety in excess to the point of absurdity to prevent the momentum. The idea in other words is to try to make yourself overreact. This procedure consists of a reversal of the client's attitude,

inasmuch as his fear is replaced by a paradoxical wish. By this treatment, the wind is taken out of the sails of the anxiety. This solution reduced and eventually stopped the client's nervous sweating. Paradoxical intention is no cure for all anxieties but it is a useful tool in treating OCD and phobias.

Now, let's analyze the habit:

1. Identify the routine: anticipatory perspiring. This is a reflexive habit (see session 2).
2. Experiment with rewards: This is where it gets a little complicated. Sometimes reflexive behaviors prepare the person for their environment in unproductive ways (like anticipatory perspiring) and over time the person's reward is to avoid the situation altogether. Maybe, for our client, profuse sweating could be an excuse to avoid people and, in result, feel safer by avoiding them or maybe he's overly anxious about making a mistake in front of others so the reflexive (automatic) reaction is a way of motivating him to avoid people.
3. Isolate the cue: the trigger is knowing he is going to be around other people.
4. Have a plan: When he knows he's going to be around other people, he can tell himself "...I'm going to sweat at least 10 quarts." By changing his intention (chasing, not running away), he disrupted the routine. In result, he disrupted the *conditioned reflexive behavior* by changing the old routine. Reflexive behaviors take time to modify due to generalizations (see session 2) but with diligence, they can be overcome even without a professional psychologist.



## Attitude Change

An **attitude** is nothing more than a habit of thought. The process for developing habits – good or bad - is the same. Once the original cause of the attitude (habit of thought) is determined, it is within your power to accept it or reject it. Most people allow their habits to control them. When those habits are hurtful, they negatively impact their attitude<sup>4</sup>.

These last few examples are directly related to an internal attitude change. We introduced attitude change in session 5. An attitude can be defined as a set of beliefs and feelings. We have attitudes about many different aspects of our environment such as individuals, groups of people, particular events, and places. Attitudes are our feelings towards such things in a positive or negative way<sup>5</sup>.

A great deal of research focuses on ways to affect peoples' attitudes. In fact, the entire field of advertising is devoted to just this purpose. Much of the source material for this course was originally designed for getting people to buy products by modifying or creating behaviors and part of that is changing peoples' attitudes.

How can people develop a favorable attitude toward a particular brand of potato chips? The *mere exposure effect* states that the more one is exposed to something, the more one will come to like it. Therefore, in the world of advertising, more is better. When you walk into the supermarket, you will be more likely to buy the brand of potato chips you have seen advertised thousands of times rather than one that you have never heard of before.

Attitudes are social psychology's cornerstone, especially, changing attitudes for social control (war propaganda, political campaigning, health and safety) and advertising.

An attitude can be divided into three aspects<sup>6</sup>:

1. **Cognitive** – the *beliefs* (factual and neutral). e.g. smoking is a major cause of cancer. This is a factual belief.
2. **Affective** – the emotional *feelings*. e.g. I hate the smell of cigarettes. This is how you feel about it.
3. **Behavioral** – the *actions* taken. e.g. I only eat in non-smoking restaurants. This is something you do.

A simple way to remember it is: Beliefs, Feelings, and Actions. Data on attitudes is often collected by surveys, using questionnaires. Psychologists developed questionnaires similar to the one below.

#### ATTITUDE QUESTIONNAIRE ON SMOKING<sup>7</sup>

Please tick one box for each statements:

	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
1. Smoking is a major cause of cancer					
2. I hate the smell of cigarettes					
3. I only eat in non-smoking restaurants					

When looking at the three aspects of attitude, you can see how these questionnaires are very effective in understanding what needs to be done for attitude change. You can make a questionnaire like the one above on the habits you have in order to understand your own attitude.



#### Relationship Between Attitude and Behavior

Although you might think that knowing people's attitudes would tell you a great deal about their behavior, research has found that the relationship between attitudes and behavior is far from perfect. Cognitive dissonance happens when attitudes and behaviors don't line up (remember the sour grapes in session 3?).

Understanding attitude in its three aspects (cognitive, affective, and behavioral) can be very beneficial in analyzing the behaviors associated with it.

### **Internal Attitudes<sup>9</sup>**

Dr. Frankl believes that we can decide within ourselves how all of the external circumstances will be manifested by our internal attitudes. In other words, we decide how to feel about our current situation. His overall philosophy is that what matters most is how we 'respond' to what we experience in life.

If your thoughts and attitudes are properly concentrated, they are transformed into power. If the effects in your life are not to your liking, change the nature of your thoughts to focus on what you want instead of what you don't want.

All experiences in life are the result of our habitual or predominant mental attitude. We are the result of our past thinking and we will become what we are thinking in the present.

Most habits are automatic. So believing you have control of those behaviors can be fruitless. But, if your habits and attitudes behind them are examined, then you can attain control in areas that were previously impossible.

### **No Complaining<sup>10</sup>**

We often mislead ourselves that we will feel better about something by venting or complaining about it. We not only fail to feel better, but one complaint gives rise to others in a repeat cycle.



The complaint cycle can occur in conversation but it often occurs through one's inner talking, that is the thoughts you have in your head when you think about something. Try to observe your inner talking for just five minutes. It frequently consists of complaints, internal eye-rolls and listing of anxieties. Attempt to catch

yourself complaining within and stop it. You won't always be able to stop it, but if you catch it early enough, sometimes you can.

In such cases, you will interrupt the pattern of negative self suggestion. Over time, such internal "stops" will alter your outward behavior. You will eventually grow less attached to complaining as a means of conversation.

The complaining habit subtly shapes and changes our view of the world, ourselves and our satisfaction within it. If you are not careful, such habits can engulf and characterize your entire life. How you choose to view the world is a choice. There are always things to complain about or be thankful for and you can choose which you want to focus on.

## **Modifying Your Own Behavior<sup>11</sup>**

The first thing to do is to decide what behavior you want to acquire – the "target" behavior. Behavior modification specialists emphasize a positive approach called "**ignoring**". Better results are achieved when the emphasis is on the new behavior acquired, rather than on the behavior eliminated. It's not trying to eliminate a routine, but to put in a better one. For example, instead of setting a target of "being less shy", you might define the target behavior as "being more outgoing" or "being more sociable." Other possible target behaviors are behaving more assertively, studying more, and getting along better with your neighbor. In each case, you have focused on the behavior that you want to acquire rather than on the behavior you want to reduce or eliminate.

Define your target behavior precisely. What do you mean by "assertive" or by "sociable"? Imagine performing the behavior and write down the details. Next step is to monitor present behavior by logging activities related to that behavior. The last step is to find the proper rewards that will improve the target behavior.

### **Example: Justin's Habit Analysis**

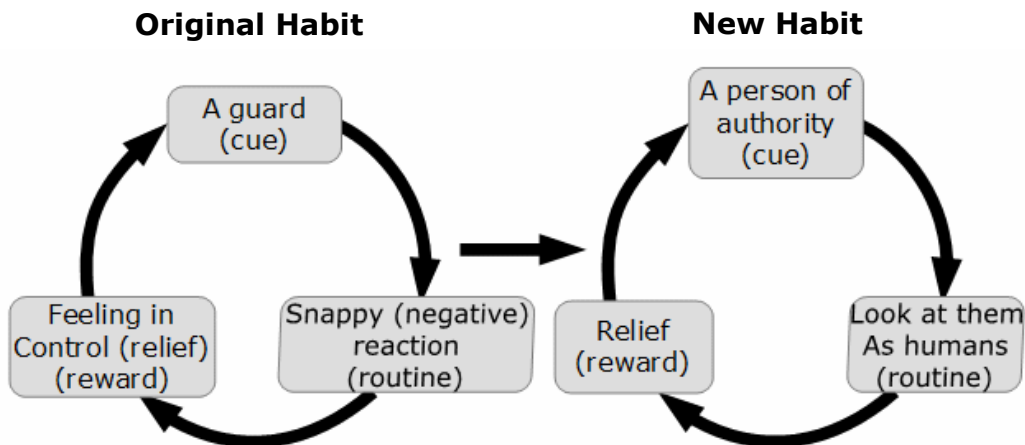
Justin was an inmate in prison. He had an automatic reaction to guards by giving them a snappy negative attitude, but he didn't know why. So, he wanted to change it. He started out by taking notes on every experience he had with his interactions with guards. This alone brought some clarity as to what the problem was. He didn't know or understand what the reward is or why guards specifically triggered the routine. So he attempted to intentionally replace the



routine with more positive behaviors. He thought the first thing he should try is saying hello or something positive when a guard walks by.

A record of each attempt for replacement of the habit routine:

1. I spoke with an officer today and felt in control of myself. I did feel at a loss for words.
2. I asked an officer a question today and she uttered the response and kept walking. She did not fully engage in the conversation. I believe this might be similar to the defense I am used to using.
3. I told the sergeant at the center gate today to have a nice day and she smiled and said thanks, then told me to shave tomorrow. I was not defensive, but found this funny. I have to keep in mind that the people who work here still have a job to do.
4. A T/A came to search a friend's locker today as I was sitting there. I didn't feel nervous about speaking to him. I spoke to him as I would a friend. This was very rewarding.



After taking notes, Justin realized that it's any authority figure that can trigger this routine. His attitude for authority was resentful.

Routine – Reacting negatively to guards, police, and those in authority.  
Rewards – feeling safe, escaping confrontation, or feeling in control  
Cue – the presence of an authority figure

## Fast and Slow Road

When developing or modifying habits, the Fast and Slow analogy works very well in describing the challenges in dealing with automatic, reflexive responses. Many times when we get angry, afraid, or excited, our quick road to the **amygdala** (the part of the brain the triggers adrenaline) makes us



feel something before we are even aware of what's going on. When modifying this habit, any routine we attempt to change it with will *always* start on the slow road first until eventually in time, the brain will memorize the pattern and do it quicker until it becomes automatic and becomes the new quick road.

For example, think of how much effort it took the first time you used a combination lock. Now, without even a thought, you can spin it open. This type of habit is from the motor memory in the **cerebellum** which stores the movements of opening the lock. Any routine should be repeated many times before it becomes easier, less mechanical, and more fluid. The same could be said about learning how to drive.

## Managing a Habit

Now that we've introduced the managing habit basics, let's put together all the elements from throughout this course. Some of these concepts will be covered later. When trying to manage a habit, this procedure will help you analyze it:

### 1. Identify the Routine

- What are the consequences of the routine? (see law of effect - session 2)
- To help study the routine (Fogg Behavior Model B=MAT - session 4)

### 2. Experiment with Rewards

- Are there any cravings that may be connected to the reward? (session 1)
- Is there a relief for the reward? Is it a variable reward? (session 5)

### 3. Isolate the Cue

- Is it an external trigger? (session 8)
- Has the trigger become internal? (test them out)
- Are there automatic emotional reactions involved? Reflexive (session 2)
- Is it an internal trigger? use CBT Zig-Zag or ABC forms.
- Are there any negative automatic thoughts? (session 5)

### 4. Have a Plan

- Is this a habit that can be improved by another person? (see social learning (session 2)
- Where is it in the habit zone?
- Behave like a scientist and take observation notes. (session 7)
- Can an attitude change help? (session 8)
- Will mindfulness weaken this habit? (session 9)

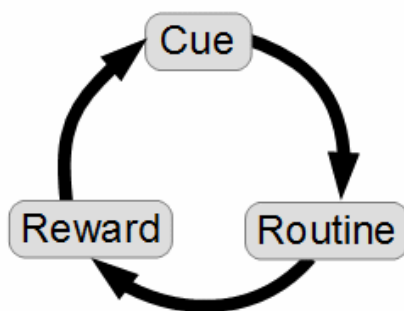
- Can this benefit from symbolic rehearsal? (session 9)
- Maybe meditation may disrupt an unhelpful routine? (session 9)

## Seeking & Averting Habits<sup>12</sup>

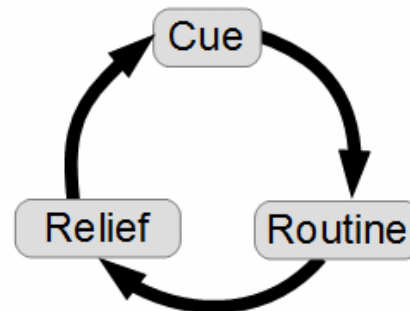
The ABCs of CBT show how routines are established and how patterns of behavior can fall into habit routines. Habit books in the business community primarily focus on how to connect you to their products or how to market a product to the masses. The science of marketing is so successful that there is a whole industry built upon using these habit models on consumers. But, being drawn to a product isn't the only way to view the habit model. It's beneficial to view behavior habits as either *seeking* or *averting*. Habit models were intended to study seeking behaviors in which you are driven to buy their products – ie., stay fresh with our deodorant. **Averting behaviors** are when you are motivated to avoid the thing concerned - typically out of some internal fear- ie., avoid unsightly stains by using our clear deodorant. Sylvester's perspiration was a prime example of an averting behavior.

Many of the avoidant behaviors that you may be doing are driven by a highly understandable goal to reduce your distress (or even danger). However, when you aim to get short-term relief (a type of reward), you may well be reinforcing the very beliefs and behaviors that underpin your problems. Seeking or averting behaviors are neither good nor bad, they are automatic. You maintain the problem habitually by avoiding *or averting* situations that you fear or that provoke anxiety. Avoidance tends to erode rather than boost your self-confidence. You may remain afraid of the situations you avoid, thus you don't give yourself a chance to confront or overcome your fears.

### Seeking Behaviors



### Averting Behaviors



Just like seeking behaviors, aversion habits become automatic. So, to disrupt or change aversion habits takes some study and awareness.

Avoidance training is especially hard to extinguish because it is based on fear of an unpleasant or painful situation. But if the unpleasant situation no longer exists, then continued response to the warning is pointless and often

harmful. The usual method of extinction – withholding reinforcement - will not work. Responding to the warning is reinforced because the unpleasant event does not happen. Special means must be used to extinguish avoidance responses.

Now that we've put many of the elements of habits together. Now let's turn to how to actually creating a habit in session 9.

## Review

1. What are the four steps in changing a habit? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. What does 'mastery' mean? \_\_\_\_\_  
\_\_\_\_\_
3. What is a life script? \_\_\_\_\_  
\_\_\_\_\_
4. What are the three aspects of attitude? \_\_\_\_\_  
\_\_\_\_\_
5. What is a better way to phrase the target habit of "being less shy?"  
\_\_\_\_\_  
\_\_\_\_\_
6. Use the manage a habit form to change a habit.
7. What's the difference between a seeking and averting habit? \_\_\_\_\_  
\_\_\_\_\_
8. Why are avoidance habits hard to extinguish? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

1: Duhigg, Charles (2012). The Power of Habit, Starbuck and the habit of success, Appendix.

2: John Karter (2012). Introduction to the Psychology of Relationships: a Practical Guide. life script.

3: Man's Search for Meaning by Viktor E. Frankl (1958), II Logotherapy, Logotherapy as a technique.

- 4: Attitude: Maxwell The Complete 101, 2003, by John C. Maxwell, Attitude.
- 5: AP Psychology, pg 274.
- 6: Introducing Psychology - A Graphic Guide (1998), by Nigel C Bensor.
- 7: Ibid.
- 8: AP Psychology, pg 274.
- 9: Leadership Lab Workbook, Attitudes.
- 10: Science of the Mind, Feb 2020, Mitch Horwitz, No Complaining, pg. 33.
- 11: Charles G. Morris (1985). Psychology – An Introduction, 5th ed. pg 212.
- 12: CBT for Dummies 2010 by Rhena Brand & Rob Willson, pg 98.

# Session 9: Creating New Habits

“Don't bother just to be better than your contemporaries or predecessors. Try to be better than yourself.” - William Faulkner

## Habit Creation Techniques

Have you ever made a New Year's resolution to start some new habit? The more important question is, were you able to keep that habit? Most people don't understand what it takes to make a habit become a part of their life. Therefore, most of the habits we desire to have, get forgotten. Deep down many of us believe that since the habit didn't stick, that maybe we didn't have the same amount of willpower that other people have that *were* successful with their habit – like exercise. As you will see in this session, the more you understand how you work, the better you will be able to make new habits stick.

Everyone at some time in their life has intentionally created their own habit. The most common way is to just copy other people with a already successfully executed habit. This may or may not work. Some of the problems with copying a habit are that you may not have the same motivation, attitude, or drive that the other person has. These are primarily internal mechanisms and are very challenging to change; motivation is key to habituate the routine. Another problem is that habits take a long time to grow and develop. Many books say for new habits to become permanent takes anywhere from 21 to 30 days - if you were to do that habit every day. The other people take that time to develop their habit to maturity, and so can you.

Common habits that people like to do: exercise, reading, learning something, reading the whole bible, budgeting, quiet time (meditation, praying), furthering your education, and goal setting. In this session, we will design a new habit routine.

## New Behaviors<sup>1</sup>

In picking up new ideas and techniques that challenge our old habits, we venture beyond our old ways that previously worked. But the new behaviors don't come naturally at first. It takes effort before these new behaviors become second nature, the extra effort to habituate shows up as a dip in performance. In the long run, the new behaviors, or skills, make us more productive, and we begin to experience the alchemical conversion of risk to reward.

New habits are delicate like growing sprouts: they take time and care to develop. With attention and diligence, your habits will become strong and fluid.

## Meditation

Sometimes habits are triggered by what meditation gurus call the “**monkey mind.**” These are unthinking, automatic thoughts that lead to unwanted behaviors. For example, you may say to yourself, “Just one more,” or “Just one more time,” and then right after that you keep going anyway. This is the monkey mind at work.



Mindful meditation mitigates and weakens the monkey mind by disrupting automatic routines with the attentiveness of not responding to them. The very purpose of meditation is to receive these thoughts and triggers, intentionally notice these thoughts, then intentionally ignore them.

If you have trouble paying attention or focusing, mindful practice will develop this. Mindfulness is the opposite of absentmindedness. Absentmindedness includes daydreaming, internal monologue, rehashing, and being judgmental.

Meditation may be the primary solution to disrupting many unwanted behaviors so it's advisable to give it a try. There are many books on the vast number of techniques for mindfulness – because it works. Here, we will show you the basics.

A mindful meditation basic routine:

1. Set a timer for 10 minutes.
2. Relax; don't try to control your breath, just be aware.
3. As you breathe in slowly, count “one” and as you breathe out, count “one” again; go up to 10.
4. Once you get to 10, count back down to one – the challenge is to go up and down from 1 to 10 and 10 to 1 with full concentration without mentally wandering off. If you start to drift, start back at one.
5. If you succeed, then just relax and focus on your breathing without counting till the 10 minutes are up

The majority of people can't go through 1 to 10 and 10 to 1 without having to start over. Can you do it? I challenge you to give it a try. Our minds tend to get distracted to the thousands of little micro habits that make us

automatically behave. Wouldn't it be great to gain active control of these thoughts and responses. The following are the four phases of mediation which are the "engine" that disrupts these thousands of automatic micro routines:

1. You first are mindfully clearing your head of thoughts.
2. A random thought comes in your head.
3. You realize that you are thinking of something else.
4. Then, you go back to mindfully clearing you head of thoughts.

Think of one cycle of these phases as a mindful meditation push-up. Each push-up is a reinforcement to a mindful routine of non-reaction. Techniques like these cultivate focus and attention and disrupt unhelpful thinking routines.

Some may have religious beliefs that go against meditation. If this is the case for you, prayer works just as well. Prayer has some similar qualities to meditation in that it disrupts unhelpful thinking. So in prayer being similar in quality to mediation techniques, it is also very beneficial for its own sake.

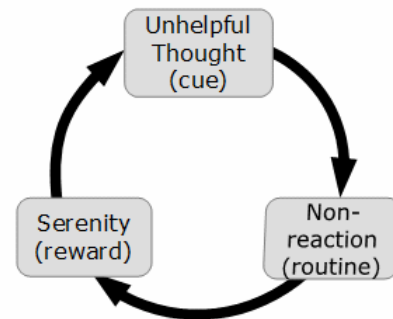
Tons of research touts meditation and some specifically center on athletics. A study involving junior elites in Norway found that after 12 weeks of consistent mindfulness practices, athletes had better focus, performance, and recovery. University of Miami football players meditated 12 minutes a day for a month and had *improved concentration*. Plus, distance runners doing a mindfulness regime showed higher self-confidence and lower anxiety before a big race. [a study in the Journal of Clinical Sports Psychology<sup>2</sup> finds.]

## Study Techniques

Are you preparing for the rest of your life? Learning new things is one of the primary elements to growth. As explained in session 2, learning changes behavior. A Liberal Arts degree, which is one of the two basic types of degrees (the other being Science) means "to live" in Latin. In essence, a liberal arts degree teaches the art of living. Learning is not just to find a job but also to make your life better.

If you are interested in learning, the mindset (see

## Mindfulness at Work

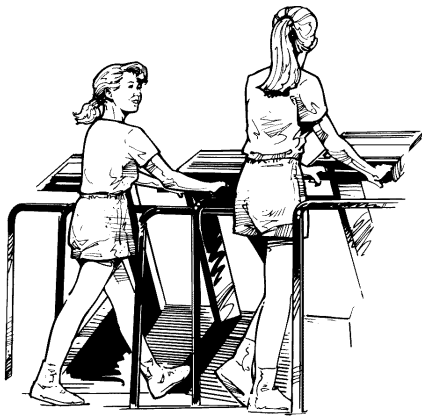


session 1) you have towards learning can make all the difference. Students with the growth mindset used better study techniques, carefully planned their study time, and kept up their motivation. In other words, they used every possible strategy in order to succeed<sup>3</sup>.

To facilitate growth, ask yourself: what did you learn today? What did you try hard at today? Listen to your responses for strategies, setbacks, and learning; if one strategy isn't working, try another. Focus on improving your study habits.

### **Exercise with Someone**

When someone initially helps and guides you in exercise, he will help you line up your intention and accuracy. This will provide multiple mini-goals for you to strive for. Not only are you being conditioned by your intention of this new habit but the social support may reinforce the routines beyond your expectations.



Other people's positive and negative emotions condition our behavior<sup>4</sup> this is called Affective Feedback Theory. In other words, a person showing you the exercise then giving feedback when you copy it, promotes drastic improvements in performance and behavior development. For that matter, getting help with any habits will not only be very rewarding but

will reinforce any routines your attempting to establish. This is one of the reasons why a trainer can help you be more effective. But keep in mind, when establishing an exercise routine, don't make the other person a vital part of your exercise routine or the habit may disappear when they do.

### **Life Mapping**

The habits that really matter in improving performance are not unconscious, automatic habits, they are deliberate habits<sup>5</sup> because you created them. There is always the automatic part of habits; but for some routines, we deliberately put them into action. We are captains of our fate, not slaves to our impulses.

Brendon Burchard, from his book High Performance Habits<sup>6</sup>, found that it's useful to organize life into ten distinct categories or arenas: health, family, friends, intimate relationships (marriage), mission/work, finances, adventure, hobby, spirituality, and emotion. When you're working in each category, rate your happiness on a scale of 1 through 10 and also write your goals in each



of these 10 categories or arenas once a week.

If you are not consistently measuring the major arenas of your life, then you couldn't possibly know what the balance you seek is, or is not. Think of mapping your life like a rudder on a ship, without which your life will move forward aimlessly and unplanned. Think of the people around you that have no rudder and see what state their life is in. This activity is really a simple check-up. It seems unnecessary, but you'd be surprised how *powerful* it actually is. Mr. Burchard once gave an executive team of sixteen people this weekly activity, and in just six weeks they reported *dramatic increases* in their sense of well being and work-life balance.

It's important to note, that you'll always feel out of balance if you're doing things you don't find engaging and meaningful like a dead end job or watching TV. So it is valuable to have a connection with your goals and dreams. If you're not thinking about it, then you're not connecting with it.

### **Symbolic Rehearsal**

Michael Phelps, an Olympic swimmer, had designed a series of behaviors that he could use to become calm and focused before each race<sup>7</sup>. In a sport where tiny advantages can shave off milliseconds of time, habits can make a big difference.

Bowman, his trainer, would tell him to watch the video of him competing before bed and when he wakes up. The video wasn't real. It was the mental visualization of the perfect race. He would make sure to have every possibility thought through until he knew them by heart. Small wins help make big wins possible.



He even mentally rehearsed for goggle failure, (when the goggles fill with water and you can't see) by practicing with his eyes closed. When working on something challenging, prepare for all contingencies. When goggle failure did happen during a race, it didn't even slow him down and he still won the race.



**Break down  
complex behaviors  
into smaller steps.**

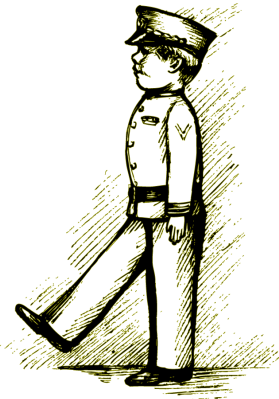
Symbolic rehearsal of activities significantly improves their later performance. Such practice appears to be most effective in tasks that rely heavily upon symbolic functions<sup>8</sup>. In other words, the better you can break down the habit behavior into smaller steps that are clear to understand, the easier it will be to

accomplish what you are intending to do.

## The Soldier<sup>9</sup>

Some people have the thought that planned habits can't change them. Here is an excerpt from Michel Foucault's book "Discipline & Punish" in which he describes just how trans-formative habits can be.

Let us take the ideal figure of the soldier ... the soldier can be recognized from afar; he bore certain signs: the natural signs of his strength and his courage. By the late 18<sup>th</sup> century, the soldier has become something that can be made; out of a formless clay, an inapt body, the machine required can be constructed; posture is gradually corrected; a calculated constraint goes through each part of the body, making it pliable, turning silently into the automatism of habit.



This excerpt depicts not only that the science of habit routines have been around hundreds of years but that you can condition your body as well as your mind with the right techniques that are actually as reproducible as it's been done for hundreds of years. The take away is this: planned habits are most effective in changing people.

## Creating a Habit

Modifying a habit and creating a habit are slightly different. Creating a habit is actually more challenging in practice. It's easy to start it but difficult for it to stick properly. This is where knowing yourself and how you work is key. The following list is the procedure for creating a habit:

1. Pick a Routine
  - Analyze the routine with Fogg's Behavior Model B=MAT [fill in] (session 4)
2. Think of a Reward
  - Does the reward line up with how you really work? (session 5)
3. Set up a Cue
  - A list of mental triggers see session 4
  - If there's an emotional or internal element, you can use the zig-zag or ABC forms. (session 5)
  - Are there negative automatic thoughts or NATs? (session 5)

4. Make a Plan
  - What's your attitude on this habit? (session 5 & 8) [add chart?]
  - If the routine is too difficult, you can set up an alternative easier, "foot-in-the-door" routine or another words baby steps. (session 5)
  - Is this a habit where you can add value or store value over time? Storing value (session 5)
  - Is this habit not improving in quality? See OK plateau (session 10)

## Review

1. What is the number of times a routine needs to be repeated to become a habit? \_\_\_\_\_
2. What are some new habits you would like to develop? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. What is the "monkey mind"? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
4. Why is life mapping useful? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
5. Break down complex behaviors into \_\_\_\_\_ .
6. Can planning your habits change you as a person? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
7. Create a new habit using one of the sheets provided.

- 1: Callings - Finding and Following an Authentic Life, by Gregg Levoy, 1997, The dignity of daring, falling up, Ch. 13.
- 2: Men's Journal: Nov 2019 "heavy lifting" by Ashley Mateo pg 92.
- 3: Dweck, Carol S. PhD.(2006). Mindset: The Psychology of Success, changing minds Ch. 8.
- 4: Albert Bandura, Behavior Modification, pg 130 Mowreq's 1960.
- 5: Burchard, Brendon (2017). High Performance Habits, introduction.
- 6: Burchard, Brendon (2017). High Performance Habits, pg. 182.
- 7: Duhigg, Charles (2012). The Power of Habit, Keystone Habits, Ch. 4.
- 8: Albert Bandura, Behavior Modification, 139-140: Morriset 1956, Perry 1939, Twining 1949, Vendell, Davis & Clugston, 1945.
- 9: Discipline and Punish: The Birth of a Prison, Michel Foucault, docile bodies, Ch. 5.

## Session 10: Troubleshooting Habits

It's been said "There are not perfect men in this world, only perfect intentions." (by Azeem in Robinhood: Prince of Thieves).

The above quote highlights the idea of our underlying psychology: we may enter situations with the best intentions, but there are many factors luring us, urging us, or even predisposing us to do the opposite. This is where analyzing our habits when things go wrong is vital for lining up our behaviors with our intentions. If we've looked into our attitude being with the right intention, but our behavior is undesirable, analyzing the habit and changing the routine will be possible. If your attitude and behavior are undesirable, then it's very unlikely you will change the behavior unless the attitude is changed first.

### Binding Yourself to the Mast<sup>1</sup>

In Homer's epic poem "The Odyssey", Ulysses wanted to hear the sirens' song when the ship passed by the sirens – beautiful women. However, anyone who heard the sirens sing would be drawn irresistibly. Obviously, Ulysses wasn't willing to die to hear their song. So, he had his men bind him up to his ship's mast with ropes. He also had his crew plug their ears with wax so they wouldn't be able to hear the song. He instructed his men, "If I beg and pray you to set me free, then bind me more tightly still."

He didn't trust his sheer willpower – he knew it wouldn't be enough when he was tested. Thus he put in place a plan that would prevent him from doing what he knew he must not do.



We often know in advance what's going to challenge us to abandon our intentions. Armed with this knowledge, we can arrange our lives in ways that make it harder to do things that aren't good for us. Look for opportunities in your own life to practice this approach, to increase the odds of doing what you want to do.

If we apply the same kind of foresight that Ulysses had, then we can prevent ourselves from doing things that we know to be unhealthy for us. We can then begin to create new routines to prevent them. Relapse prevention is a procedure to prevent unwanted routines.

## Relapse Prevention<sup>2</sup>

For bad habits, plan for relapses and take steps to make sure slipping back to old habits doesn't itself become a habit. If you plan for when failure happens and then plan for recovery – you're more likely to snap back faster. The following model can be used to prevent relapses in unwanted behaviors. It shows the process of how relapse happens. The following points shows how a relapse can happen. However, it can also be used as a model to prevent a relapse into an unwanted behavior.

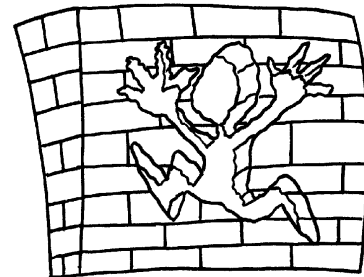
1. Old habit dormant  
Normally, when the habit routine isn't possible to do (availability – see Dr. Fogg's Model).
2. Put in situation or environment for old habits to trigger  
Basically *making the routine possible* to happen. Like an alcoholic going to a bar.
3. Lapse in judgment  
This lapse in judgment typically happens when you're in a anxious, tired, or exhausted mood. This is where we normally catch ourselves and the point where we need to be focused on changing.
4. Resume old behavior  
If the routines are not replaced, old habits will resume. Remember, habits are formed in the brain and can not be removed, they must be replaced.

It can not be said any clearer: If you are attempting to get rid of a bad habit, you **MUST** replace the routine or you will go back to your old ways. Old habits die hard is only a saying. Old habits never die, you can only replace them with other habits.

## Barriers to Habits<sup>3</sup>

Habits that are designed to improve your quality of life will commonly have a few barriers in changing them. Such as:

- It can take time, energy, and resources that might otherwise be used for an easier more pleasurable activities.
- The beneficial outcome may not be clearly demonstrated until it has



been tried over a period of time. The uncertainty and doubt of habit change can prevent the habit from getting past the planning stage. Many are reluctant to change their habits until they have observed how these new behaviors work for earlier adopters.

- What people customarily do can be a barrier to new and innovative ways of doing things. When people are frightened by innovative procedures they stick to existing customs and prevent change. Many are even afraid of change.
- Peer influence to do things the same way prevents possible changes socially. Don't allow your friends to prevent you from growing and don't give in to peer pressure. It is the fear of being ridiculed by our peers that causes many not to change.
- Personal attitude change is an important prerequisite to acceptance of new behaviors. Without the proper attitude, the behavior won't change.

## **Troubleshooting Checklist**

If you have your creating a habit form filled out and the habit doesn't seem to work, use this checklist to troubleshoot what might be going wrong.

1. Is it useful enough?  
It is important to be reminded of the habit zone when troubleshooting a habit routine you are working to implement. Usefulness of the habit can be examined to see all the reasons that this habit should be implemented.
2. Is it easy enough (or too easy)?  
If the new habit is harder than it's worth, you'll give up. You must initially implement the habit routine easy enough that the reward is rewarding enough for the habit to be repeated. If you are trying to reduce or eliminate the habit, maybe you need to make it less accessible or more difficult to do. One person attached his exercise bike to his TV so that the TV would only work if he is riding the bike.
3. Is it often enough (or too often)?  
Do the habit more often if the habit isn't wanting to stick (see Habit Zone). If you are trying to reduce or eliminate the habit, maybe you are doing it too often.
4. Are the steps clear enough?  
Maybe your steps aren't clear enough or broken down enough for your

routine to work. Proper habits can be challenging but not beyond your capabilities or understanding. Habits take time. Consider implementing something easier till your ready to kick it up a notch.

5. Reevaluate the Habit: Maybe the trigger/routine/reward isn't what you think it is. Go back to the drawing board and reevaluate the habit. Habit's are difficult to evaluate and it's perfectly normal to have these difficulties.

## **Affect Script Psychology<sup>4</sup>**

Silvan Tomkins developed a biologically-based theory of emotion, cognition, and personality, which was eventually called **Affect Script Psychology**. He believed some of our triggers are hard wired before we were born. The term **affect** here means a biological program that's wired to the central nervous system. All newborn infants have this. The affect system is made up of nine affects:

### **Nine Affects**

- Interest-excitement
- enjoyment-joy
- surprise-startle
- distress-anguish
- fear-terror
- anger-rage
- shame-humiliation
- disgust
- dis-smell

Each one of these affect *programs* is triggered when we perceive something, like sight, smell, taste, touch, hear, and pain. The affect is the trigger. For example, fear-terror is the response to our senses picking up on something too big, too loud, or too fast that's going on. On the other hand, when our senses encounter some novel stimulus that is just right, interest-excitement is triggered.

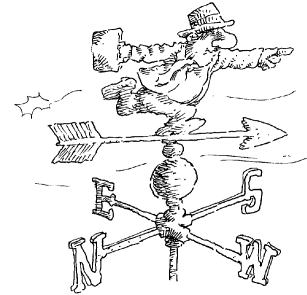
When we sense something, the affect motivates the action. This list of nine affects may help in categorizing which affects you may be seeking or avoiding. You may have specific routines when one of these affects are the trigger. This is something to be aware of when you are troubleshooting a behavior especially if an affect is a part of reflexive conditioning (see session 2).

## **The Mapmaker Heuristic<sup>5</sup>**



Heuristics are a type mental process. They are like mental “rules of thumb.” They are hard-wired mental shortcuts that everyone uses everyday in routine decision making and judgment. We're going to describe how the mapmaker heuristic works in the following experiment.

Two groups were in the study. The first group had an imaginary DVD player to be purchased now. The other group were going to wait 3 months to purchase.



They could choose from two different DVD players. One that was made of environmentally-friendly materials and another player that has a user-friendly manual. The idea was that the environmentally-friendly player made it more desirable in an *abstract idealistic* way and the user-friendly manual made the product more *practical* and more feasible in a *concrete* way. **Concrete** means a mode of thinking that has real tangible effects in reality. The researchers suspected that there would be a connection between the time when it would be purchased and these different features.

The group that was purchasing DVD players in three months, showed that the participant's focus was on the ideal environmentally-friendly player. The group that was purchasing DVD players now focused on the practical player with the user friendly manual.

Apparently, the brain automatically see a difference in time-oriented (or temporal) distance into physical and psychological distance. The further something is physically, the more abstract it is. The closer something is, the more practical it is.



To see this mechanism at work, try this: Ask yourself two questions.

1. What are the steps you need to take if you were move to Tokyo, Japan?
2. What are the things you need to do if you were to move to a house

across the street?

If you are like most people, your response to 2 would have more concrete details here, now because it is psychologically and physically closer, as opposed to generalizing with concepts.

You may be thinking at this point, "How is this useful for habits?" By the end we'll use practical examples how vitally important this concept is and how you can use this heuristic to your advantage.

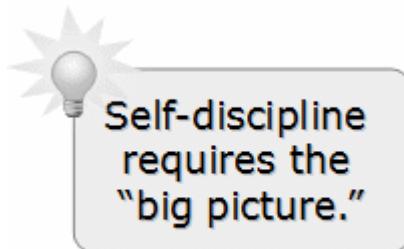
In theory, greater distanced from a situation should lead to more high-level, idealized thinking, and thus to greater self-control. *Self-discipline requires the "big picture."*



Thinking about your future is great when your developing habits on health, exercise, budgeting, and any task that takes a long time to see results. When planning for your future ideal, visualize what you will look like in 5 or 10 years. Then, imagine your future ideal self with this new or changed habit. There will be less cognitive dissonance with trying to be practical now, therefore you will focus this meaning into more willpower.

In another scientific study, two groups of students were set with an email task where they would get paid five dollars. The first group was told to focus on the HOW and the second group was told to focus on the WHY of emailing.

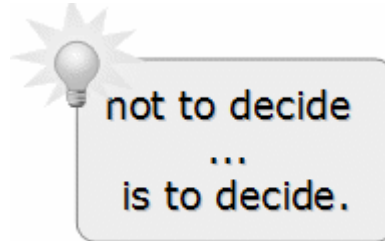
The students that were focused on the HOW, the when and where of doing the task, emailed their responses much sooner. The students focused on the WHY, procrastinated or didn't do it at all - even though they would have gotten paid.



So thinking about the HOW of a job gave immediacy and urgency. To be practical is to do it now, to seek out the ideal is to look to the future.

Let's think about how this heuristic can function on doing an exercise habit. If you can't seem to start the habit, what do you do? Think about the Practical Steps and do it now (or at least schedule a specific time to do it.)

What if your not putting enough energy in your workout? Think about what your ideal future would be if you did work out. What if your exercise form needs improvement? Think about the practical steps and maybe even break it down to even more steps.



## The Default Heuristic<sup>6</sup>

The **default** choice is the choice you would make first without conscious effort when given more than one option. You may choose otherwise, but the other choices are less likely to be chosen. Default can also mean the automatic choice you selected.

When we don't make a decision, we are making a choice not to make a choice. Even our decisions to let someone decide are really our decisions. Given the option of deciding or deciding not to, deciding is always the far more difficult choice and requires the most effort. Simply not deciding is called the Default Heuristic because of its efficiency: it takes no mental work.

Here's an example of the default heuristic in action: Around 28% of US Citizens are organ donors. In France, 99.9% of the population are organ donors. There is only one reason for this striking difference in these two percentages: It's because of the default on the driver's license application which is yes in France and no in the US. Most people just didn't make the effort to decide.

The automatic part of your brain doesn't value one public policy over another; it simply opts not to decide. That may be good or bad, depending on who is making the moral judgment for you.

Many plans that you don't want to do now can be auto-setup in the future as a default so that your decision to not decide won't affect them.

Not deciding  
(easy)



Deciding  
(work)

It may be difficult for you to imagine yourself in a future where you have put money aside for your retirement. So, when you get a job on the street, opt for a 401k not now but a year after you start. In a year when the 401k

starts, you probably wouldn't even notice.

Automatic heuristic thinking is neither good nor bad, it's all about fit. Some choices should be made thoughtfully.

This is important because the default heuristic is important to think about when starting new, positive habits. If you don't want to decide on something important now, be certain to make the decision on a specific day or time in the future, and ensure you make the decision at that future time. If you want to do something but you don't have time for it now, write it down on your calendar for sometime in the future. You would be surprised how mentally prepared you would be when that day arrives. If you don't decide to make the decision later, you probably won't make the decision at all.

## The OK Plateau<sup>7</sup>

The "OK Plateau" is the point at which you decide you're OK with how good you are at something, turn on autopilot, and stop improving. This was first discovered by psychologists Paul Fitts and Michael Posner. They described three stages of acquiring a new skill (or habit).

1. The 'cognitive stage' is when you are intellectualizing (processing and thinking through) the task and discover new strategies to accomplish it more proficiently.
2. The 'associative stage' is when your concentrating less, making fewer errors and generally becoming more efficient.
3. The 'autonomous stage' is when you figure that you've gotten as good as you need to get at the task and you are basically on autopilot. During this stage you lose conscious control over what you are doing. This would be typically when something is habituated. Much like when driving, many of your actions become automatic.

What separates experts, from the rest of us, is that they tend to engage in a very directed, highly focused routine. Dr. Anders Ericsson, a psychologist, has labeled this as **deliberate practice**. Having studied experts in many different fields, he has found that top achievers tend to follow the same general pattern of development. They develop strategies for consciously keeping out of the autonomous stage. They do this by practicing three things:



1. Focusing on technique.
2. Staying goal oriented toward the task.
3. Getting constant and immediate feedback on their performance. (This is why coaching can be so important.)

The experts force themselves to stay in the cognitive phase in skill development. Deliberate practice, by its nature, must be challenging. When you are getting good at something, how you spend your time practicing is far more important than the amount of time you spent practicing.

The best way to get out of the autonomous stage and off the OK Plateau, Dr. Ericsson found, is to actually **practice failing**. One way to do that is to put yourself in the mind of someone far more competent at the task you're trying to master, and try to figure out how that person works through problems.

Psychologists have discovered in typing on a keyboard, the most efficient method is to force yourself to type faster than feels comfortable for you, and allow yourself to make mistakes. By bringing people who brought their typing out of the autonomous stage and back under conscious control, they conquered the OK Plateau.

The great martial artist Bruce Lee said, "There are no limits. There are plateaus, but you must not stay there, you must go beyond them."

## Review

1. What do you do if your attitude has the right intention, but our behavior is undesirable? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. What are the steps in a relapse? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. \_\_\_\_\_ the routine or you may go back to your old ways.
4. \_\_\_\_\_ of a habit can prevent the habit from getting past the planning stage.
5. If a habit you are trying to reduce is too easy or too accessible, what do you do? \_\_\_\_\_

- 
6. What is the term affect mean? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
7. \_\_\_\_\_ motivates everything humans do and think.
8. Think about your future self helps you \_\_\_\_\_ rewards.
9. If you can't seem to start a routine, what would the *practical* solution be? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
10. What is your first automatic choice called? \_\_\_\_\_  
\_\_\_\_\_
11. If you want to do something but don't have time for it now, what do you do? \_\_\_\_\_  
\_\_\_\_\_
12. What are the three stages when acquiring a new skill? \_\_\_\_\_  
\_\_\_\_\_
13. What is the OK plateau? \_\_\_\_\_  
\_\_\_\_\_
14. What is deliberate practice? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

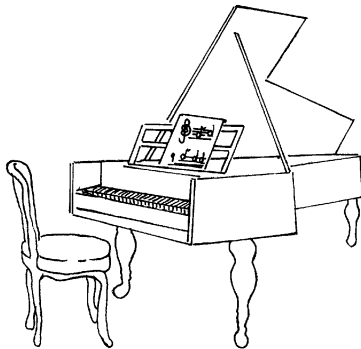
- 1: Cognitive Behavioral Therapy in 7 Weeks, by Seth J. Gillihan, PhD., 2016, pg 78.
- 2: The Adult Relapse Prevention Workbook, Charlene Steen, PhD., J.D., 2001, pg2.
- 3: Albert Bandura, Behavior Modification, pg 199.
- 4: The Psychology of Emotion in Restorative Justice, by Vernon C Kelly Jr. & Margaret Thorsborne, 2014, Ch. 1.
- 5: On Second Thought: Outsmarting Hard wired habits by Wray Herbert 2010, Mapmaker Heuristic.
- 6: On Second Thought: Outsmarting Hard wired habits by Wray Herbert 2010, Default Heuristic.
- 7: Moonwalking with Einstein, by Joshua Foer, 2011, The OK Plateau, Ch. 8.

# Session 11: Maintaining Your Habit Garden<sup>1</sup>

Looking after the positive changes you've made is a major part of keeping good habits. You can nurture your belief and behavior changes every day. The process is a bit like watering a plant to keep it thriving. We will use the agricultural metaphor throughout this session but for now we will focus on the dynamics of small positive changes in habits.

## Tiny Habit Gains<sup>2</sup>

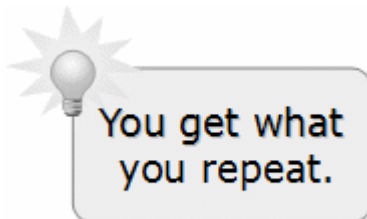
Remember in the last session when we talked about the solution to the OK plateau is to do deliberate practice. When a student learns to play the piano, they practice their scales and work to gain minor improvements every day. Although, you might have to wear ear plugs for the first few weeks of development. They won't become a great pianist over night; but after a few years, they will see great improvements. This is true for most habits.

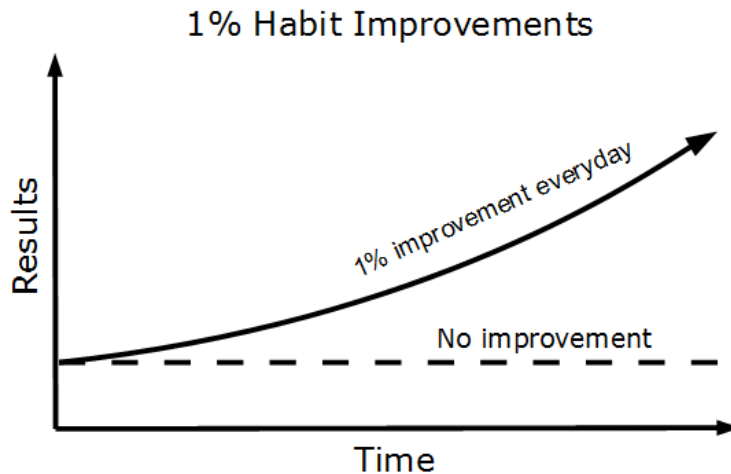


The philosophy of searching for a margin of improvement in everything you do is called "the collection of marginal gains." The effect of small habit changes compound over time. If you get 1% better every day, you'll be 37 times better in a year. Success is the product of daily habits – not once-in-a-lifetime transformation. You should be far more concerned with your current trajectory than with your current results.

How do you measure these habits to know where you are at? For many habits, you can look to what state your life is in right now. Your weight is a lagging measure of you eating habits. Your knowledge is a lagging measure of your learning habits. Your clutter is lagging measure of your cleaning habits. You get what you repeat.

If you want to predict where you'll end up in life, all you have to do is follow the curve of tiny gains or tiny losses, and see how your daily choices will compound ten or twenty years down the line. Are you spending less than you are getting each month? Are you exercising each week? Tiny battles like these are the ones that will define your future self.





Time magnifies the margin between success and failure. It will multiply whatever you feed it. The hallmark of this compounding process: the most powerful outcomes are delayed. Many people just make a few small changes, fail to see a tangible result, and decide to stop – the most common being exercise.

## The Plateau of Latent Potential<sup>3</sup>

We often expect progress to be linear. In reality it is often delayed. Complaining about not achieving success despite hard work is like complaining about an ice cube not melting when you heated it from 25° to 31°. All the action happens at 32°.

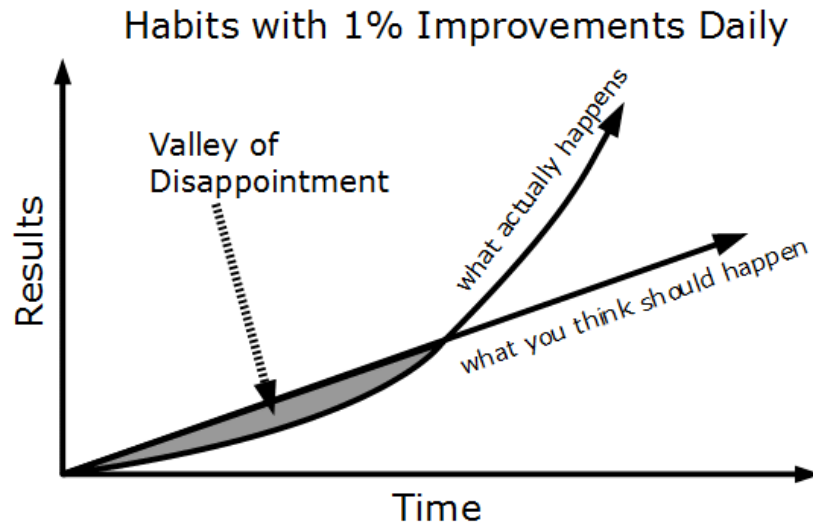
We think we need to change our results, but the results are not the problem. What we really need to change are the systems that cause those results. A systems-first mentality provides the antidote. When you fall in love with the process rather than the product, you don't have to wait to give yourself permission to be happy. You can be satisfied anytime your system is running.

If you're having trouble changing your habits, the problem isn't you. The problem is your system. Bad habits repeat not because you don't want to change, but because you have the wrong system for change.

Slowly improving 1% everyday isn't very noticeable and can make you impatient to see more improvements. Then disappointment can set in because it's below your expectations. But be patient **Padawan**, in time you will see an amazing transformation. These 1% improvements compound, so that 1% yesterday adds to the 1% improvement today.

Your commitment to the process is what will determine your progress. It's





about your cycles of endless refinement and continuous improvement.

## Knowing Your Weeds from Your Flowers

Think of your life as a garden. When unhealthy habits form your ways of thinking and behaviors, they are the weeds in your garden. The flowers consist of your healthy and flexible thinking and behaviors. Such as better eating habits, exercising, communicating more effectively, and responding to stressful situations with care.

No garden is ever weed-free. Planting desirable plants isn't enough. You need to continuously water and feed the flowers, and uproot the weeds to keep your garden healthy. If you tend to your habit garden regularly, the weeds don't get a chance to take hold because you are there with your trowel, digging them out at the first sign of sprouting. The more you practice new ways of thinking and acting, the more you reduce the chances of returning to your old, problematic ways.

### Nipping Weeds in the Bud

Out of the corner of your eye, you see a weed sprouting out a tiny leaf. You may be tempted to ignore it. Maybe it will go away or wither and die on its own. Unfortunately, just like habits, weeds seldom eliminate themselves. Rather, they tend to spread and smother your blossoming flowers. Assume that any weed you identify needs savage and prompt killing; just



like bad routines.

Setbacks are a normal part of development. Human beings have emotional and psychological problems just as readily as physical problems. You don't have to be ashamed of psychological problems any more than you should be of an allergy or a heart condition.

### **Spotting Where Weeds May Grow**

Most people, regardless of their specific psychological problems, find themselves most vulnerable to setbacks when they are tired or under stress. This goes for habits as well. If you're overtired and under a lot of environmental stress, such as dealing with work deadlines, financial worries, bereavement or family/relationship difficulties, you tend to be more prone to physical maladies, such as colds, flu, and episodes of eczema. Psychological problems are no different from physical ones in this regard: they get you when you're depleted and weakened.

Ask yourself: When am I at my weakest point? Compile a list of situations and environmental factors that are likely to give your weeds a head start. For example, you may be able to pinpoint environmental triggers for your depression, such as the following:

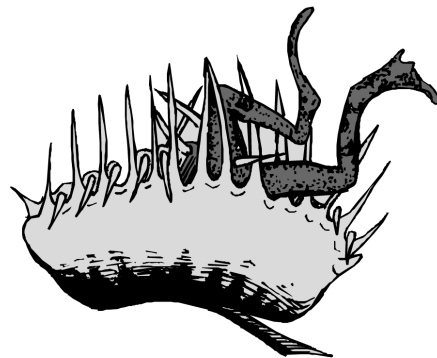
- Seasonal Change (Especially during autumn when the days get shorter and cold)
- Sleep Deprivation (due to work or illness, stress, etc..)
- Lack of Exercise or Physical Activity
- Day-to-Day Hassles (they can pile up at once causing stress) some examples are: not getting to canteen when you're out of coffee or being stuck in court for 2 hours
- Reduced opportunity for social interaction with friends and family

One common way to become aware of your weak points is to just write about your day in a journal. When you write down your thoughts, the things that bother you most become clear. And when you become aware of them, then you can manage them.

### **Dealing with Recurrent Weeds**

Some weeds just seem to keep coming back. You may think you are rid of them, only to open your garden door to a scene from Little Shop of Horrors ('feed me Seymour!').

This may be due to your *core beliefs* that



need to be worked through. These beliefs will keep trying to take root and may be particularly resistant to your attempts to kill them off. Certain unhealthy habits, such as addictions and rituals associated with eating disorders or OCD (Obsessive Compulsive Disorder), for example, can be very stubborn.

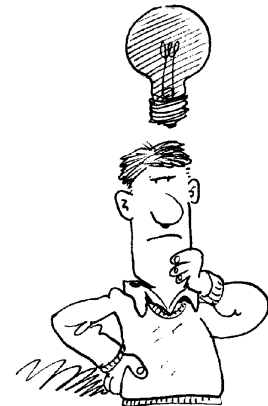
What is the best way to deal with these recurrent weeds? It's to keep reinforcing your alternative beliefs! Do not become complacent. Keep up with activities that fill the gaps left by your addictions or preoccupation with food or other bad habits. Trust that over time and with persistence, your new ways of thinking and acting will get stronger.

Are you unwittingly feeding your weeds? Avoidance is a major weed fertilizer. You may have developed a healthy belief such as 'I want to be liked by people, but I don't have to be. Not being liked by some people doesn't mean I'm unlikable.' And yet, if you still avoid social situations, self-expression and confrontation, you are giving your old belief an opportunity to germinate.

When you spot a recurrent, stubborn weed in your garden, dig it out from the root. You can kill off the weeds entirely by getting the roots. Dispute your thinking errors and challenge your faulty thinking.

Here are some common thinking errors<sup>4</sup>:

- **Overgeneralizing** - thinking in 'always' or 'never' terms.
- **Labeling** - people with low self-esteem label themselves as 'worthless', 'inferior', or 'inadequate'
- **Making Demands** - thoughts using words like 'should', 'need', 'got to', 'have to' replace with 'want', 'prefer', 'wish'
- **Mental Filtering** - only listening to the negative; gather evidence like in a court room instead
- **Disqualifying the Positive** - your bad traits don't disqualify your good traits
- **Low Frustration Tolerance** - the 'unbearable' is actually bearable
- **Personalizing** - remove yourself from the center of the universe
- **Catastrophizing** - turning mole hills into mountains
- **All-or-Nothing** - black and white thinking like love or hate; the thermometer reads degrees of temperature not just 'hot' or 'cold' so as it is in life. so be realistic
- **Fortune-Telling** - step away from the crystal ball and test out your predictions
- **Mind-Reading** - take your guesses with a pinch of salt. Many think they 'know' what others are thinking. Generate alternative reasons



from what you see

- **Emotional Reasoning** - give yourself time for your feelings to subdue before interpreting the situation

## Planting New Varieties

Digging out a weed (an unhealthy belief and behavior) is important, but you also need to plant a flower (healthy belief and behavior) in its place. Since in habit routines, you don't destroy the habit; you replace the routine. So this is a good opportunity to replace bad habit routines with good ones.



## A Happy Habit Gardener's Checklist

Here are some points to help you prevent and overcome relapse. Use your checklist to stop your orchids getting choked out by sand spurs.

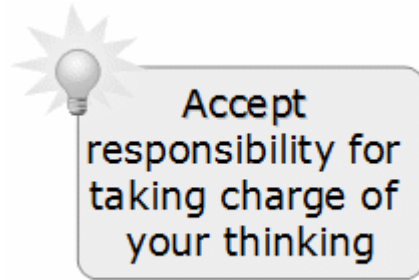
- **Stay calm** - setbacks are normal
- **Make use of setbacks** - it can show you the things that make you feel worse as well as what you can do to improve your situation. Look for preventative measures that you may have used to get better.
- **Identifying triggers** - there maybe additional triggers that you haven't discovered yet
- **Remember your gains** - nothing can take your gains from you. Even if your gains have vanished, *they can come back*. You can take action to make this happen more quickly
- **Face your fears** - Don't let yourself avoid what triggered your setback, show your fears who's boss
- **Set realistic goals** - Sometimes, you can bite off more that you can chew. Keep your exercises challenging but not overwhelming; don't just start bench-pressing 500lbs, you have to build up to it
- **Hang on!** - Stick with it. You've nothing to lose by trying. With time and effort, you can overcome the setback. Don't hesitate to get appropriate support from friends and family.

## Being a Compassionate Gardener

What do you do if your precious plants aren't doing so well? If you notice you've got blight on your prize rose, do you deprive it of food and water, or do you try to treat the disease? It's better not to abuse or neglect the plants in your garden for failing to thrive. Habits take time and care. Problems will

provide you with valuable information on how to improve and strengthen your habits.

Accept responsibility for taking charge of your thinking and behavior to engineer your own recovery. Left to their own devices, most gardens become overgrown with weeds. Try to continue to be an active gardener throughout your life. Happy gardening!



## **A Final Note on Habits Vs Addictions<sup>5</sup>**

Now that you know how to manage your habits, what happens if you are unsure if a habit may be an addiction and what can you do about it?

### **Defining Addictions**

Addiction is a term we hear all the time, but it's a surprisingly tricky concept to pin down. We might say, "Hey, I'm real addicted to that new game." But, from a clinical perspective, we think of addiction as occurring when someone has found that their life – family, friends, job, etc... - has been knocked off kilter by a compulsion to perform a behavior. An **addiction** involves a repeated powerful motivation to engage in a learned behavior that has actual or potential harmful consequences. Addiction turns from a *want* for it to a *need* for it.

It's about loss of control. Let's say your potential addiction is binge watching TV. If it's not interrupting work and relationships, then it's probably not an addiction. But if you are watching TV till sunrise and not answering your phone, it's probably an addiction.

How taking pleasure from something can lead to dependence is less well understood. But, it can be at least identified as needing something, rather than wanting it.

### **Addiction Warning Signs**

there is a concern among researchers from several different countries that online games and apps are taking inspiration from gambling to keep people playing, and paying. These include what are known as "loot boxes." These are prizes paid for with real money, where the contents are not known until they are purchased. Maybe the Mario question boxes came from. When this link gets stronger, games employ another device used in the gambling industry – the near miss, showing people what they could have won along side what they did win.

There are warning signs of a pleasurable activity becoming a compulsion: isolation, a loss of interest in previously enjoyed activities, or a worsening of accomplishing daily activities.

### **Create Boundaries**

There is hope! Professor Robert West, editor-in-chief of the journal "Addiction" has some words of advice for those individuals who are trying to reduce their need for a behavior. "Self-control is much easier when you set fixed boundaries than when you leave the rules more flexible." Be strict with yourself and don't allow your boundaries to slide, then even if you slip up, you can get back on track

### **Summary**

Now you are aware of the difference between bad habits and addictions. With this new awareness you can take responsibility have the life you dreamed of. When you stand back and take a look at the direction your life is going, is it a place you want it to go? Tiny changes over time can lead you to a wonderful life or down the rabbit hole. The choice has been yours all along but now you have the tools to improve it.

### **Review**

1. If you get 1% better every day, you'll be \_\_\_\_\_ times better in a year.
2. You get what you \_\_\_\_\_.
3. What is the valley of disappointment? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
4. What environmental triggers make you at your weakest point? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
5. What is the best solution to recurrent problems? \_\_\_\_\_  
\_\_\_\_\_
6. List some things to think about when tending to your habits and preventing old habits from relapse. \_\_\_\_\_  
\_\_\_\_\_

---

---

7. Accept \_\_\_\_\_ for taking charge of your thinking.

1: CBT for Dummies 2010 by Rhena Brand & Rob Willson, Maintaining Your Habit Garden, Ch 20.

2: Atomic Habits, 2018 by James Clear, Ch 1.

3: Atomic Habits, 2018 by James Clear, Ch 1.

4: CBT for Dummies 2010 by Rhena Brand & Rob Willson, Ch 2.

5: Is Addiction on the Rise? By Dr. Suzi Gage, BBC: Science Focus, April 2019, pg. 79-83.

# Glossary

**ABCs** – a model used by CBT for understanding how emotional and behavioral consequences develop (pg.51)

**Addiction** - a repeated powerful motivation to engage in a learned behavior that has actual or potential harmful consequences (pg.109)

**Affect-(ive)** – **1.** emotional feelings (pg.77) **2.** a biological program that's wired to the central nervous system (pg.96)

**Affect Script Psychology** - biologically-based theory of emotion, cognition, and personality (pg.96)

**Amygdala** – the part of the brain that triggers adrenaline (pg.80)

**Attitude** – **1.** is an important factor in forming habits (pg.45) **2.** a habit of thought (pg.76)

**Autonomy** – the freedom to choose what you want to do (pg.44)

**Averting Behavior** – something you are desire to avoid (pg.82)

**Basel Ganglia** – This area of the brain will receive a burst of dopamine from its anticipation of a reward (pg.28)

**Beliefs** – your thoughts, your personal rules, the demands you make, and the meanings you attach to things (pg.53)

**Catharsis** – the process of releasing, and thereby providing relief from, stron or repressed emotions (pg.22)

**Cerebellum** – the area of the brain that stores mechanical movement patterns (pg.81)

**Classical Conditioning** – (pg.13)

**CBT (Cognitive Behavioral Therapy)** - a tool for analyzing our internal mechanisms (pg.50)

**Cognitive** – the mind is directly involved in the processing the information related to the behavior (pg.17)

**Cognitive Dissonance** - is when we change how we see something to reduce our frustration (pg.47)

**Concrete** – a mode of thinking that has real tangible effects in reality (pg.97)

**Cue** – a trigger that tell your brain to go to automatic mode (pg.7)

**Default** – the option you would choose automatically (pg.99)



**Dopamine** – a neurotransmitter that triggers when the brain is expecting a reward (pg.26)

**Escalation of commitment** – when you do a behavior repeatedly with care, your attitude becomes more committed to it (pg.45)

**Event Listeners** – when a routine waits for the trigger to activate it (pg.33)

**External Triggers** – triggers that take place outside of a person (pg.34)

**Extinction** – when the conditioned stimulus is no longer associated with the unconditioned stimulus (pg.18)

**Fixed Mindset** – the mindset that peoples' basic qualities are static and unchanging (pg.5)

**Fogg Behavior Model** – a model that states that motivation, action (or ability), and a trigger are the elements required to initiate all behaviors (pg.31)

**Generalization** – the tendency for classical conditioning to generalize a response to similar triggers (pg.14)

**Growth Mindset** – the mindset that peoples' basic qualities can be cultivated through efforts (pg.5)

**Habits** – automatic behaviors triggered by situational cues (pg.3)

**Habit Loop** – a basic model for how habits work (pg.7)

**Habit Zone** – the area where the relationship between frequency and utility of a habit are enough to establish the habit (pg.27)

**Heuristics** - the mental shortcuts we unconsciously take to make decisions and form opinions (pg.36)

**Hooked Model** – a more advanced model for how habits work (pg.25)

**Hormones** - biological chemicals that help us react to the situation we are in (pg.15)

**Ignoring** – a psychology term used to emphasize on the new behavior acquired rather than on the behavior eliminated (pg.79)

**Infinite Variability** – when there is always opportunity for novel and varying rewards (pg.44)

**Instrumental Learning** - the consequence was instrumental in shaping future behaviors (pg.16)

**Internal Triggers** – triggers that take place inside your mind (pg.35)

**Investment Phase** – 1. the phase in the Hooked Model where the user invests into the habit (pg.26), 2. A person is motivated by the anticipation of rewards that will happen in the future by adding value into the habit routine. (pg.45)

**Itch** – another way to identify a trigger that has an association with a craving (pg.37)

**Law of Effect** - if consequences of a behavior are pleasant, the stimulus-response (S-R) connection will be strengthened and the likelihood of the behavior will increase (pg .16)

**Learning** - **1.** a long lasting change in behavior resulting from experience (pg.3); **2.** the process by which experience or practice results in a relatively permanent change in behavior (pg.12)

**Learning Theories** – there are four learning theories but three are covered here: classical conditioning, operant conditioning, and social learning theory. They are theories about how mammals learn that psychologists discovered through experimentation (pg.12)

**Motivation** – energy for the action (pg.31)

**Novelty** – When a reward changes enough to have a degree of newness (pg.41)

**Observational Learning** – (see Social Learning Theory)

**OCD (Obsessive Compulsive Disorder)** – (pg.107)

**Operant Conditioning** – is a type of learning based on the association of consequences with one's behavior (pg.16)

**Padawan** - generic way to refer to learners, followers, or anyone just starting out (coined in Star Wars) (pg104)

**Paradoxical Intention** – a psychological technique for disrupting unwanted reflexive behaviors (pg75)

**Reactance** – a negative reaction against your behavior (pg.44)

**Reflexive Conditioning** – hormonal response to a cue or trigger (pg.14)

**Reward** – the goal of a habit (pg.7)

**Routine** – the process you go through to get the reward (pg.7)

**Six Elements of Simplicity** – are the factors that influence a task's difficulty (pg.32)

**Social Learning Theory** - learning simply by observing others (pg.18)

**Spontaneous Recovery** – when an extinguished behavior reappears (pg.18)

**Symbolic Rehearsal** - a style of practice that improve performance (pg.89)

**Trigger** - (see cue)

**Variability** - changing how often and when the trigger and reward happens (pg.42)

**Variable Reward** - a reward that varies each time the habit is activated (pg.26, pg.41)

## Habit Submission Form

If you would like to submit the habits you have worked on for future publishing, please fill out this form along with any filled out forms from this course. All submissions can be anonymous.

**Name:** \_\_\_\_\_

**Prisoner Number:** \_\_\_\_\_

**Address:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

May we publish your name along with your submission?    Yes            No

What do you think of the course? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

I am submitting these Managing Habit Forms with the understanding that it may be reproduced in a variety of formats including but not limited to print, web, and email. I certify that my entry is my original work and does not infringe anyone else's intellectual property rights. I grant the unrestricted right to publish and reproduce this work.

Your Signature: \_\_\_\_\_

Send to:

---

## Habit Submission Form

If you would like to submit the habits you have worked on for future publishing, please fill out this form along with any filled out forms from this course. All submissions can be anonymous.

**Name:** \_\_\_\_\_

**Prisoner Number:** \_\_\_\_\_

**Address:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

May we publish your name along with your submission?    Yes            No

What do you think of the course? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

I am submitting these Managing Habit Forms with the understanding that it may be reproduced in a variety of formats including but not limited to print, web, and email. I certify that my entry is my original work and does not infringe anyone else's intellectual property rights. I grant the unrestricted right to publish and reproduce this work.

Your Signature: \_\_\_\_\_

Send to: