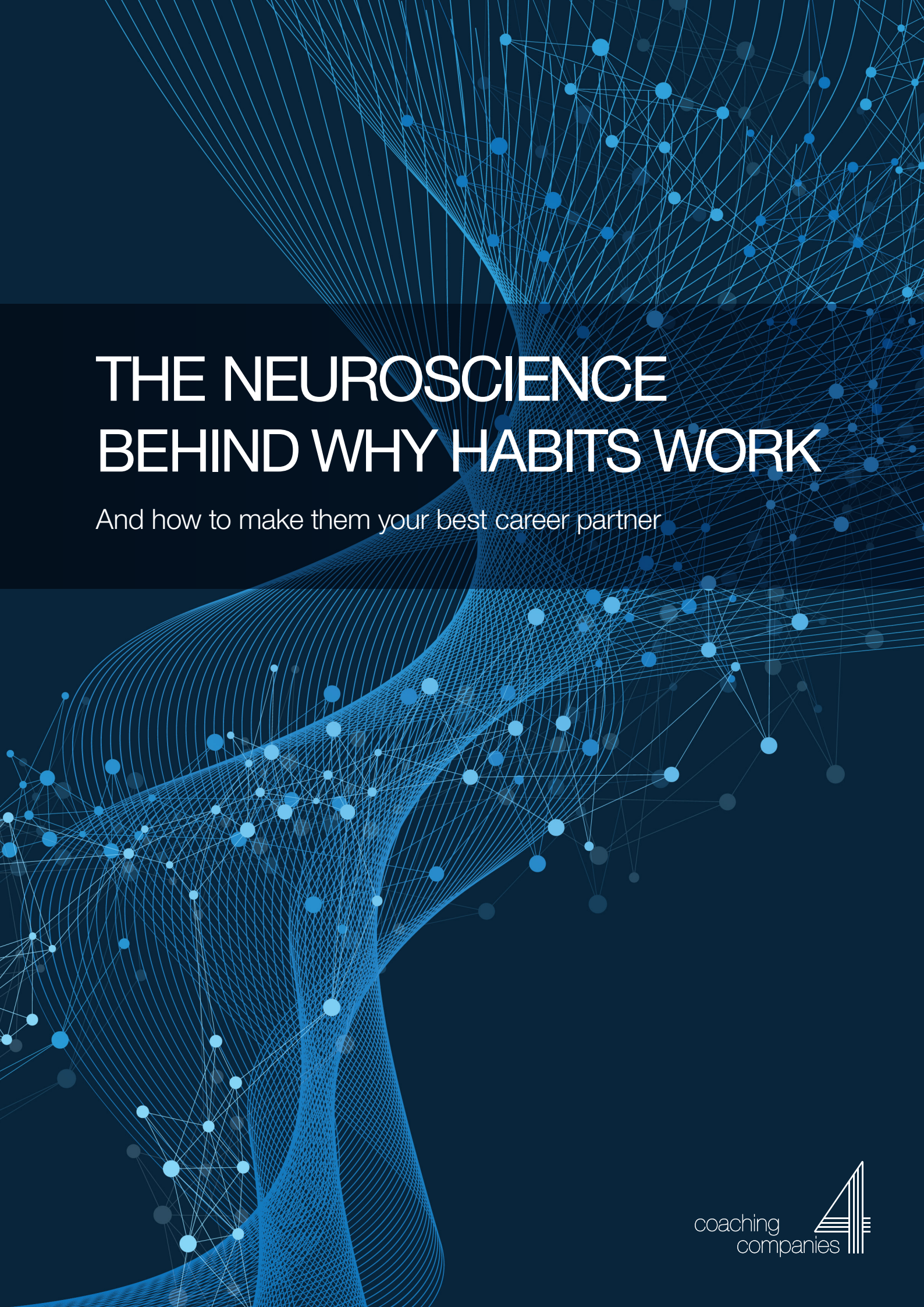




THE NEUROSCIENCE BEHIND WHY HABITS WORK

And how to make them your best career partner

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Lazy and energy sapping or highly efficient and all powerful – whichever way you look at it, Our Brain is Unique.

It is estimated that our brain mass has shrunk by 10% compared to our ancestors the Neanderthals. And believed that our intelligence (IQ) has been reducing progressively by 1.6 points every decade since the late 1800's.

Additionally, the brain is very demanding of the body's energy and oxygen supplies consuming approximately 20% of each. It's also hypersensitive to fluctuations with a mere 2% dehydration causing a loss in attention, memory, and various cognitive skills.

Deprive it of oxygen for 5 minutes and brain cells start to die off and other cells are left severely damaged.

The Brain

The brain is >70% water, weighing in around 3 pound (1.35 grams) or some 2% of our total body mass, and spends its life lounging in a concoction of cerebrospinal fluid to protect it against damage.

The brain holds the title of the body's fattest organ with 60% of its dry mass consisting of fat and 25% of the body's total cholesterol residing there.



On the flip side of this bleak scenario, we can only marvel at our brain's computational and communicative capabilities.

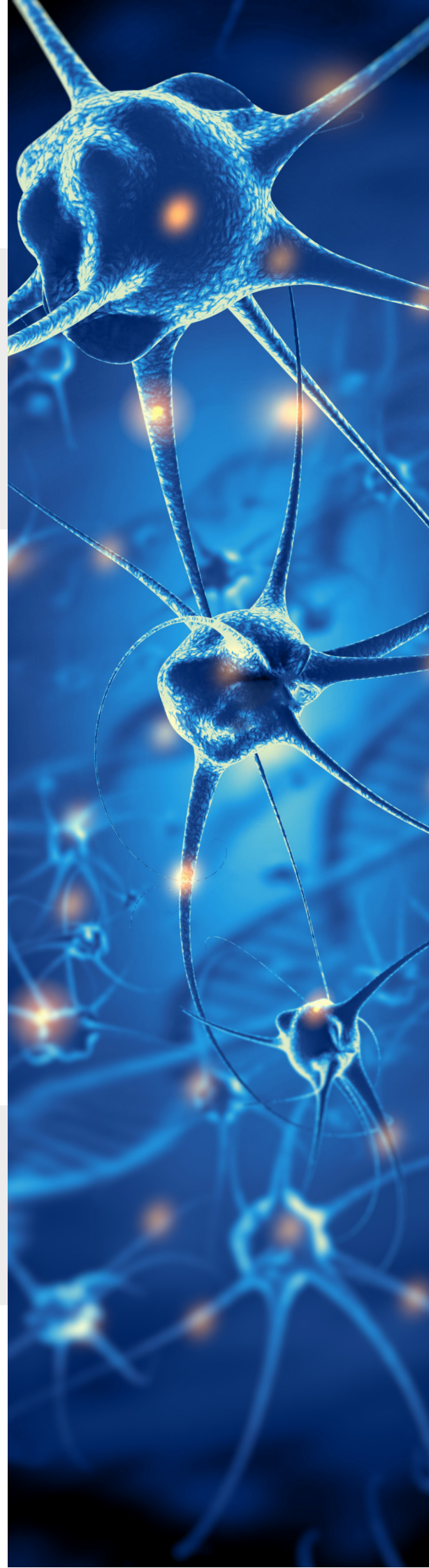
Packing an impressive 86 billion neurons and almost equal numbers of glial cells, each nerve cell transmits 1000 nerve impulses per second and tens of thousands synaptic contacts with other neurons.

Often referred to as a “random thought generator” because of its ability to generate **70,000 thoughts per day**, the brain can also process an image in less time than it takes us to blink.

We are a whole brain species using almost all areas of our brains constantly to process and communicate. *Not left and right brained as previously believed.*

Topping my favorites list is the relatively new discovery that the brain has the capacity to change and learn new things throughout our lifetime — we refer to this as **neuro plasticity**. We even continue to grow new brain cells through a process called **neurogenesis**.

It's believed that anywhere from 40 percentage to as much as 95 percent of our decisions happen via our subconscious mind in the form of habits!



The Basal Ganglia region

— it's a lot like a Tuscan Chianti in Spring...

Instead of the grape varieties that make the Tuscan hillsides so famous, the Basal Ganglia is a region in our brain that's responsible for all this autopilot activity. And just as some of the best quality grapes come from oldest grape vines, our Basal Ganglia exists in our most ancient area of the brain located near the base of our nervous system.



Grape vines in Tuscany, Italy

You'll recall that the brain uses an unproportionally large amount of energy for its size — some 20% of our total body's energy in fact. And therefore we need an effective management system in place to enable us to continue functioning at our peak. Just like a great bottle of wine, when our brain is running on empty it's not going to keep serving you for long.

So, to help minimize this constant energy drain and still handle the inordinate amount of information ingested every second, the Basal Ganglia automates much of our routine activities — good and bad, for instant recall and behavior.



How? Is that your question? According to (Yin and Knowlton, 2006), habits appear to be formed from the interplay of **two distinct basal ganglia pathways** — the “**associative**,” which consciously collects information, and the “**automatic**” which is the route for those learned lessons to become stored habits.

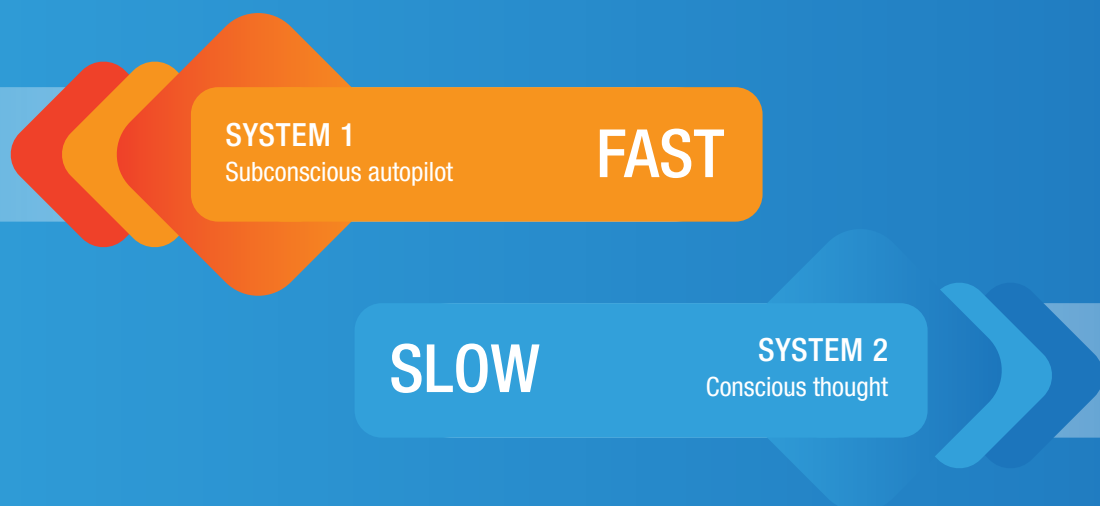
These habits are then available to be called upon, when cued by a given situation.

See more on cues (triggers), cravings, routines, and rewards, later in this document.

The basic difference between the Conscious and Subconscious Automated Thinking Patterns

If you have ever read the book *Thinking Fast and Slow* by Nobel Prize winning Daniel Kahneman you will have a fair understanding of how these two “systems” as he calls them, operate, and even compete against each other.

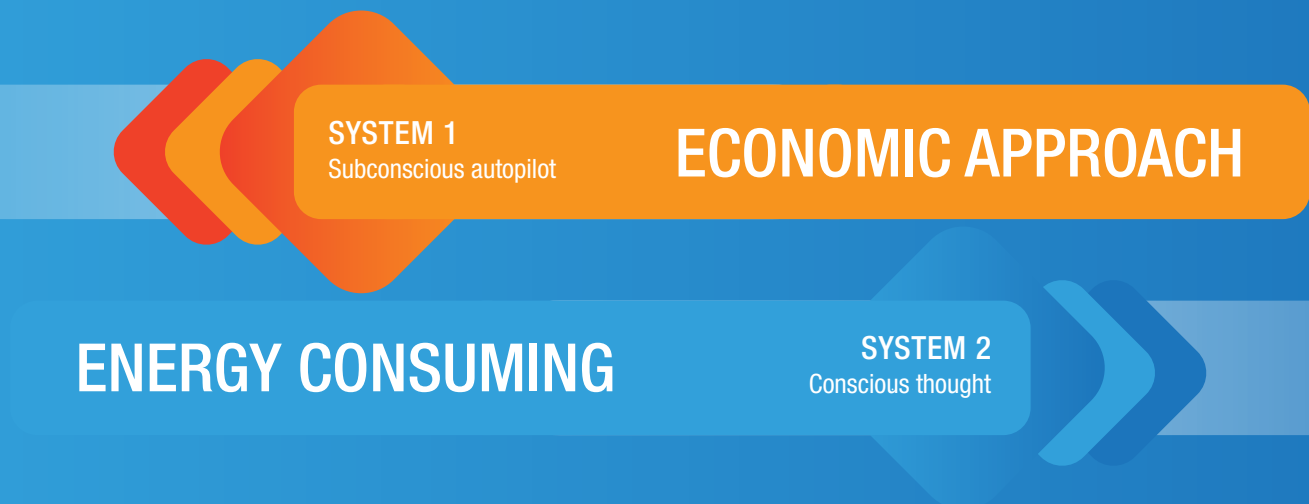
Our automatic, subconscious level Kahneman refers to as System 1 and the conscious level of thinking as System 2.



According to Kahneman's research, ***System 1 is part of our ancient brain and serves our survival instincts.*** It tends to be triggered as our default setting and is immediately present on impulse to almost every situation we encounter. Meaning the majority of the time we aren't giving any conscious consideration to our actions.

System 2 on the other hand has only been present in the past few thousand years and *is what helps us with situations that are more complex and requires deeper thought* to derive a solution or action.

Remember our earlier discussion that the brain is often referred to as the lazy brain and is constantly searching for the simplest most energy efficient mode of operando. Therefore, allowing System 1 to run the show on autopilot is the most economic approach. Engaging System 2 is costly in terms of energy consumption.



As you might imagine however, the consequences of allowing System 1 to lead are not always positive and this strategy often results in us miscalculating and jumping to the wrong conclusion. We are also subject to high degrees of forgetfulness and memory loss.

Hopefully by now you are starting to get a sense of the brain's desire for making life as straight forward and simple as possible. This means it is very efficient — albeit somewhat selective, in the process of creating new patterns provided the right ingredients exist.

Those ingredients are clear goals, with a repeatable routine (in particular the beginning and end of the activity) practiced deliberately and frequently, for long enough to allow the neurons to fire together, grow together as a thickened pathway.

“Nothing in life is as important as you think it is, while you are thinking about it”

— Daniel Kahneman

Let's pause here for a moment and take stock of just how big this really is. I'm sure everyone with a little effort can think of multiple examples of where our autopilot is running things for us without so much as a whimper or nudge for assistance.

The classic lack of recollection following the 30-minute drive to work is always a good starting point to help us realize the extent that this is happening.



What other significant examples can you identify where this is happening?

Consider your daily routines for a moment. Let's begin with the morning ritual. You wake and then what? Perhaps reach for your phone and check your emails, social media, or the news, before heading for the shower, brushing teeth, grooming, and dressing.

All the while chatting with yourself in your head. Thinking about your dreams or events from yesterday, maybe the meeting you need to have in the morning.

And while that conversation is happening you continue to prepare yourself with very little thought dedicated to those actions..



“Don’t dream your life, live your dream.”

The biggest question that arises is around how you could make even more effective use of these “set and forget” subconscious actions? How can they serve you and your career better?

In our next eBook titled “**Create a Routine, Leverage Technology, and Deliver Results**”, we explore these questions in greater detail and offer an optimized daily routine as a guide for maximizing this autopilot mechanism and forming habits.

For now, we want to stimulate your awareness and trigger the idea that you can do so much more if you learn to leverage your System 2, the conscious mind and become intentional towards your actions.

The mindfulness and meditative practices that have become so popular in the past decade are a means of starting to form that deeper connection with your inner thoughts, but they are not the only tools available to support you in this endeavor.



“Failure comes from small errors repeated every day, success comes from small disciplines practiced every day.”

— Jim Rohn

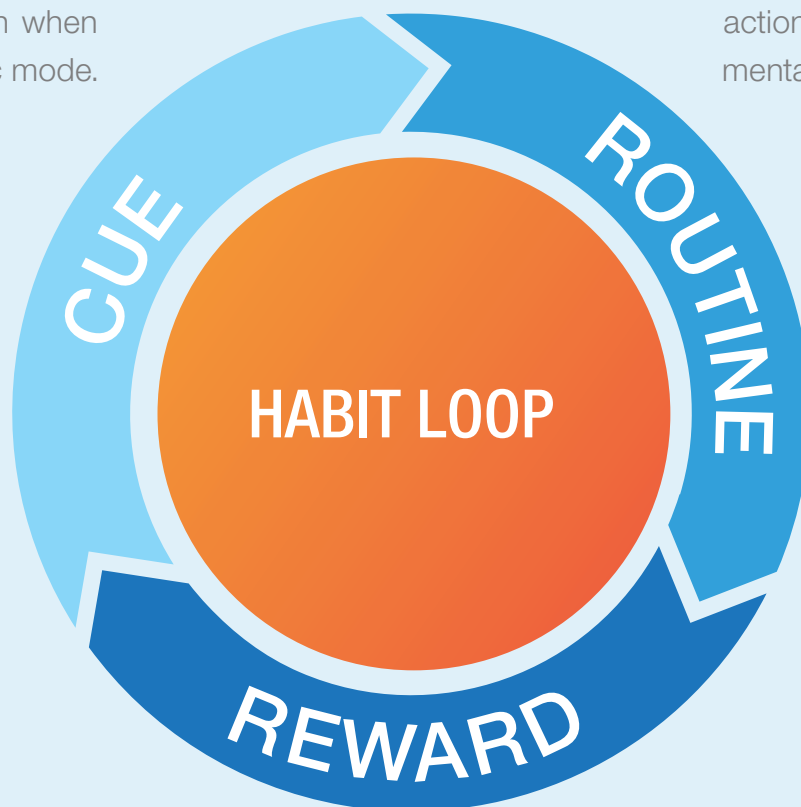
Becoming deliberate, consistent, and frequent with your actions and The Science Behind It

There are so many great books and research papers available today with excellent reference material about the topic of habit formation so our intention in this eBook is not to re-invent the wheel.

Here we only wish to introduce the basic concept presented through two of those books “*The Power of Habit*” and “*Atomic Habits*.”

In the “*Power of Habit*,” Charles Duhigg introduces us to the concept of habits being formed through a repeated three-step loop that consists of a cue, a routine, and a reward.

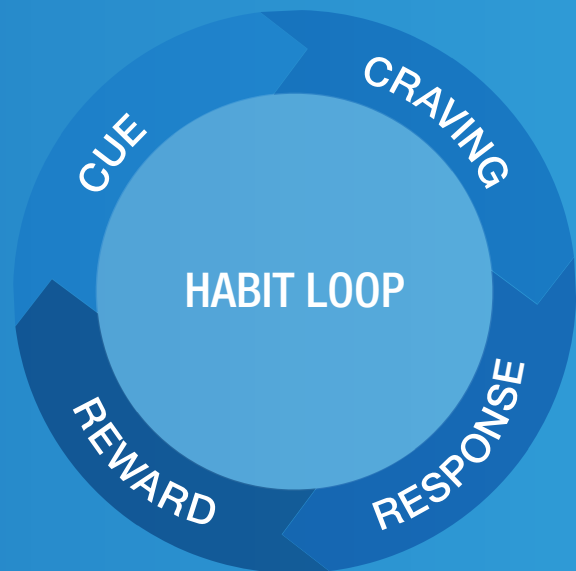
The **CUE** is the trigger that tells the brain when to go to automatic mode.



The **ROUTINE** is a set of actions that are physical, mental, or emotional and

The **REWARD** is what you get by performing the habit i.e. completing the routine.

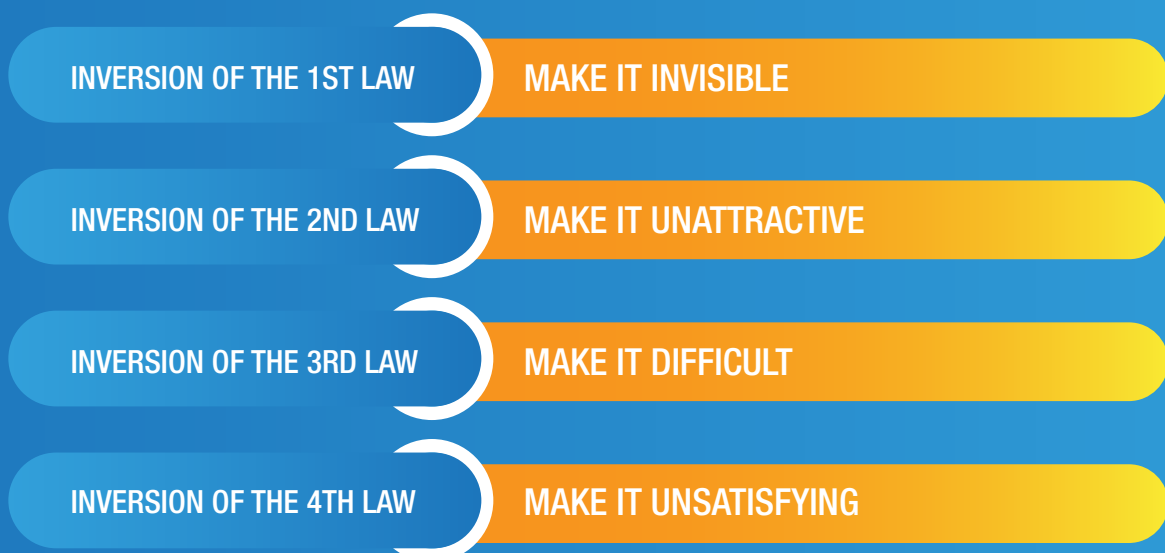
James Clear author of “*Atomic Habits*” builds on this premise by embedding cravings as a fourth step in the process. He does introduce many additional bites of gold for our awareness and adoption, but those are for later discussion inside our program. We do however introduce one other element later in this eBook.



Clear, states that 4 simple steps (Laws) will lead to building **good habits**.



The reverse process then applies to break what you deem are bad habits:



“We are what we repeatedly do.”

— Aristotle

Charles Duhigg however contends that it is sufficient to break the loop by changing just one of the elements — *mostly he suggests disrupting the “Routine” (Response).*

Busting the myth about the amount of time it takes for the formation of an automatic habit.

James Clear, very nicely illustrates that there is an additional consideration required when setting yourself off with the

aim of being consistent and establishing a daily repetitive behavior.

Instead of only formulating your routine’s duration — i.e. repeating for “xx” days, weeks or months, also increase the frequency.

Given what we have already discussed about the thickening and strengthening of neural pathways each time the neurons fire together, this would seem logical.

Identifying those desired behaviors that will serve you best in your career and —

Learn How to Habit Stack

The following extracts from James Clear’s book are a nice introduction to this portion of our eBook as it demonstrates the power of identifying the desired career centric actions and behaviors that you want to pop up automatically and consistently. He suggests that you create small “atomic” habits and stack them on top of each other.

He states, “changes that seem small and unimportant at first will **compound into remarkable results** if you’re willing to stick with them for years.”

“The holy grail of habit change is not a single 1 percent improvement, but a thousand of them. It’s a bunch of atomic habits stacking up, each one a fundamental unit of the overall system.”

His method for habit stacking is to *identify an existing “good habit” you already have and want to enhance, and then each day build your new behavior on top.*

Turning deliberate behaviors into career shaping habits

In our next eBook we focus on establishing the daily routines that have the power to shape your career, and our approach follows Clear's methodology. Of course, just as written in both books, you need to first select those desired habits, consider how best to trigger them, and understand how the routine outcome can stimulate and provide reward so that you continue the practice.

Cultivating your internal and external accountability partners

In our program we also explore steps to establish your own accountability habits and how to leverage external partners that can support your transformational journey.

We finish off this section with a couple of pieces of wisdom from Charles Duhigg.

- “The Golden rule of habit change is based on two steps. For changing a habit, we first identify the components of the habit loop which are the cue, routine, and reward. And then we change only one part in the loop, the easiest to change being the routine.”
- “Not all habits are created equal — there are keystone habits. Some habits once started have a ripple effect and produce much greater effects. They start like a chain reaction that leads to many more changes over time.”



*Change your habit,
change your life.*

Conclusion and Next Steps

Clearly our brain is an extraordinary organ and unmatched by any other living or artificial opponent.

Learning to leverage more of the brain's capacity therefore would mean ***utilizing an existing and free resource*** that is already sitting at the top of the food chain.

In this instance, our focus is directed to the subconscious mind and automatic workings of the Basil Ganglia region.

Our aim is to create “good habits” and overwrite “bad habits”

leaving us with a sustainable, routine driven, set of behaviors that are career enhancing.



In this eBook we have observed what is possible through automated thinking patterns and spoken about the need to establish a “Habit Loop” for effective application.

Are you aware of how much career advancement you may be missing out on by not maximizing your potential through creating good habits and establishing intentional routines?

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YOURSELF FOR SUCCESS”**

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and

**“BIG OR SMALL YOU NEED TO BRING MORE VALUE
THAN YOUR COMPETITOR”**

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Wayne Brown,

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About the Author

Hi, I'm **Wayne Brown**.

I work with executives to help transform their careers by developing elite talent across four of the most critical needs for any professional today: communication, facilitation, education and coaching.

After 45 years in six companies, living on four continents and working in more than 85 cities, I've engaged with people from diverse cultures and groups, leading, facilitating and coaching thousands of executives on topics from leadership through to operational excellence.

In addition, I have experienced the rigors of starting and running businesses and companies, learning along the way through success and failure. My journey has been supported by mentors and coaches who have helped me to stay focused and dedicated to my purpose of helping others.

As a lifelong learner, I've studied through many of the world's leading institutions and have learned from incredible professors and leaders. Today, I continue to develop and grow alongside my clients as we co- create the future together. From my years of playing competitive sports, I learned early on that life is a team activity and that we cannot succeed alone. It takes encouragement, the perspective of more than one, and collective effort to reach our lofty goals.

To find out more about my personal story, visit our website, www.coaching4companies.com

