Counterintuitive Productivity

Minimizing Waste, Willpower and Wishful Thinking

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Introduction

If you are or ever were in the corporate world, you might hear the words “improving productivity” and hear the crap of a whip. Leave those days in the past, in the dark ages, where they belong.

When productivity comes from desire instead of demand, it’s an entirely different story. It becomes about completing your work efficiently and effectively while still having a life. It’s about finding and doing what you love and tackling more of it in less time without getting bogged down or burnt out. It’s excellence meeting laziness in the best possible way.

Improving your productivity is about getting more done in less time, with less effort and fewer resources, generating less waste, using less willpower, and not drowning in wishful thinking.

Multitasking is counterproductive, and self-discipline only goes so far. We all share forgetfulness, procrastination, and distraction problems. You will also learn proven tools and techniques to outsmart these aspects of your human nature.

Improving your productivity improves your life, no matter how you’d like to fill it.

From Efficiency to Effectiveness

Opportunity abounds for all of us to become more productive.

When you are ready to create genuine improvement, it’s a matter of working on the right things more than getting them done quickly. Productivity is knowing what to work on far before you start doing it quickly.

Get ready to say goodbye to trivial stress-inducers, wasting your time serving your ego and worrying about scores and agendas. One thing is sure: spending time on prediction and prevention will give you all the time you’ve been looking for.

Accomplish your productivity goals with the only thing you can control – yourself, as a manager, an employee, an entrepreneur, or a living, breathing, striving human being. Even if you have the option to lean on others to get more done, when you start with yourself, you lead by example. You reinforce your words with what you do instead of creating the impression of hypocrisy.

Instead of chaos, create flow. Instead of frenzy, find calm. Instead of reacting, take control.

1: The Biology of Your Reality

Your world is your own: you made it all and share it with no one.

Reality, as you know it, is your own, resulting from how your human brain is built and what you’ve been doing with it your whole life. If you can think of DNA as a menu of potentials, that’s how you came into the world. Since then, you’ve been making choices, and your unique perspective continues to attune, absorb, and act uniquely between your potential and your preferences.

While you are the only one who can know your inner world, scientists know much about human brains and their functions. Embracing the truth about reality, not the one you want to believe in is the first step toward becoming counterintuitively productive.

According to scientists, eighty to ninety percent of decisions are emotionally unconscious. Using data and analysis to navigate critical decisions is expecting the remaining tiny fraction of the one to twenty percent to lead the rest. As an engineer trained in statistical analysis, that's exactly what I was doing.

As someone who spent a career in data-based decision-making methods, I have experienced that the tiny fraction only gets to lead as it does in politics—when the alternative is so fractured, misunderstood, and vague that the coordinated few take the lead.

It's not the power of the data that leads; it's the power of coordination, clarification, and vision. You know it, with all the decisions you've made with your head that proved wrong, regrettable, and maybe even cringe-worthy. Perhaps it rings true for you because of all the decisions that were too important to let the data decide.

The New Reality

There are still believers in the rational world, the old world. In the new world, decision-makers prepare themselves by learning how emotions, relationships, progress and the environment have more power than conscious will.

Some people come to this realization academically, have siblings, and know that life's decisions aren't always fair. Parents aren't omniscient. Games are to be played. Perceptions are to be managed. Such is life. Play the game, get played, or get out of the way. Bob Kegan says that in most companies, people do two jobs: their actual job and managing others' perceptions of how they do their job.

When we learn to manage perceptions, we know that perception is individual and doesn't necessarily reflect reality. Reality is one thing. Our perception of it is another. We are all operating on a version of reality that is all our own and only a tiny slice. We all have individual blind spots and misperceptions.

Changing perception is sometimes much more straightforward than doing the work of changing reality. I don't have to be good, right, and moral; I must make you think it. It's a shortcut that extracts a high price in the end.

To be counterintuitively productive, eliminate blind spots and misperceptions before they can infect decisions.

Emotional Power

Your ability to regulate your emotional response is directly related to your degree of success in life – no matter how you choose to live it or express it.

The new reality is that emotions matter. This is not a fuzzy concept but one grounded in neuroscience. The important feelings are those tied to what other people think about us and how we feel about ourselves.

As human beings, we all need to be introduced to that power. We certainly don't want to think we look calm, cool, and collected, while others sit there in shock and awe while we do shockingly awful things.

When it happens, one of the hallmarks is hearing the word 'should' – expectation clashes with reality, and you want reality to be the one to change. Things should be different, or so we think, and the more invested we get in that idea, the more emotional we get. It's always the correct emotional response – the trick is to extract the correct information coded in the emotion.

We all have a human brain, which works the same way. We live in an illusion of rationality because that is what we are aware of while we execute seamless and invisible pre-programmed circuitry.

It all starts with the chemical of an emotion. Emotions are designed to capture our immediate attention so that we can take notice of something around us. They are chemical reactions and sensations. As adults, we tend to ignore this information. It continues, amplifying efforts to get your attention until it does.

For animals, emotions function smoothly. Fight, flight, or freeze—they have options and use them, and then the emotion is gone. Not so for humans. We are blessed to have an awareness of emotions. Once we are aware of an emotion, we are driven to try to interpret it. As reason-seeking beings, whenever anything happens to us, good or bad, we seek to explain it.

Interpreting emotion and seeking to explain it require language.

Architectural Separations

Your brain is made up of three parts. The oldest part of the brain is called the reptilian brain. It's responsible for the instinctual decisions that keep you alive. Next is the mammalian brain governing feeling and emotion. Finally, you have the neocortex, the part of the brain which controls cognition and language.

These parts of the brain are indeed different. Emotions and feelings are in the mammalian brain, and language is in the neocortex. This separation means we do not have conscious access to the origin of our emotions while trying to label them and find causes for them. It also means there is a lag between the chemical creation of the emotion and our awareness of it.

In this game of blind catch-up, we often lose. More often than not, we get both the cause and the label wrong, and there you have your fundamental irrationality. Through many creative experiments, researchers have found that we find reasons for our behaviour that are rational and internal even when we've behaved just as researchers designed us to act. All they have to do is manage the external environment, and we think we behave as independent, thinking, rational people.

In 1974, researchers had male subjects walk across a bridge and talk to a female researcher posed at the other end. In one condition, the bridge they had to walk across was stable. In the other condition, it was the rickety bridge that some people wouldn't even attempt to cross.

The researcher engaged the subjects, providing a cover story and her phone number should they want more information later. The subjects who crossed the rickety bridge followed up with phone calls. When the bridge was stable, the subjects weren't nearly as interested.

What would account for such a difference in the propensity to make the phone call? How do you feel after you cross that rickety bridge? Likely, your heart would be beating quickly, your palms sweaty, and your cheeks maybe even red. Researchers concluded that these physiological reactions can be attributed to two emotions: fear and arousal.

Inaccurate Translations

When you don't realize that the bridge created this physiological reaction, you think you are attracted to the cute person you just met. From inaccurate translations, you get erroneous logic, such as "I should

give her a call." If it works out, they can thank the environment and the architecture of their brain for hooking them up.

As Dr. Joe Dispenza says, "Your personality creates your reality." We also easily confuse anxiety and excitement. If you feel butterflies in your stomach before a speech, call it excitement instead of nerves, and you will perform much better. Just naming it differently improves your performance. Your language reflects, or can change, your perspective and your attitude. As H.M. Tomlinson said, "We see things not as they are, but as we are."

Our emotions are influenced by history and the environment. Still, we find reasons for our behaviour that are internal and rational—even when we've behaved just as researchers designed us to act. When you are an automatic program, anyone can pull your strings and get you to behave as they want while you think you are a free agent. Being terrible translators and abysmal antecedent finders is essential to our irrationality.

These two errors appear in all our behaviour: the quick automatic reflexes and the well-thought-out plans. We react instinctually instead of taking a deep breath and believe we behave rationally.

Inaccurate translations lead to thinking that we've learned about causes and effects while missing the lesson entirely. Being unaware of irrationality also means being unaware of the lessons we did learn, while these latter lessons become unconscious and automatic.

Imagine what is possible when you stop the narration and labelling that is constantly going on in your head—instant rationality. You become present and start to notice what's going on. Knowing that your reality will determine which way you lean when you decide on a label for an emotion gives you all the power to choose to label it differently.

You, as a Driverless Body

We are almost in the age of driverless cars, and the late Clifford Nash was worried about how that would work because, in all likelihood, it would stop working when you need it the most.

Let's say you wanted to go to the airport. You get in your car, and it does ok in your neighbourhood because it's always there, and you settle in, take out your phone, narrow your focus, and drown everything out. On the highway, traffic gets a little thicker, maybe rain sets in, and you haven't looked up once. Suddenly, something happened, and the car goes, oh no, over to you now - you're on!

Like in high school, all of a sudden, the teacher calls on you, and you don't hear the question.

Maybe the cars won't be like that, but you are, and life is like that. If you've ever had a passenger snap you out of it, you have been a driverless body at some point. We all are; the question is how much time we spend doing it.

Absent Minded

Losing things, being absent-minded, and being absent are ways to waste your time, miss lessons, and cause problems. When thinking about the past or the future, you are not present.

Instead of seeing the reality in front of you, you are looking at what already happened and what might happen in your mind anyway, and while you do that, your attention isn't on the present in front of you.

Your perception can only be on one at a time. This reality is virtual multitasking, and it doesn't work just as multitasking in real life doesn't work. Even my cat can tell when I am present with her and when I am present but minding something else.

When washing the dishes, does it matter that you are looking back and forth between the plate in your hand and the meeting that took place earlier that day? Perhaps not. Does it matter when you are behind the wheel? Most assuredly.

Creating Moods

Humans seem to love getting in moods. What is a mood? It is a reaction to an event long ago—far longer than the chemical experience was designed to last. Moods are likely rooted in fear, loss, and pain, as opposed to joy, abundance, and love.

There is a story about two monks who arrive at a river. A woman needs help crossing, so one monk picks her up and safely carries her before they all go.

Hours later, the second monk says, "I can't take it anymore! Why did you pick her up when we are forbidden to touch women?"

"You point at me?" the first monk says, "I might have picked her up, but at least I put her down a long time ago. You've been carrying her this entire time."

Many of us have been carrying our stories this entire time, reminding ourselves of our moods and why we have them. A mood is evidence of mental baggage, unprocessed histories that remind you that you failed to notice something important about the event at the time.

A mood creates a personality. A personality is a collection of moods that play on loops throughout our lives. Your personality determines how you name those confusable emotions because it drives your perception.

You've been taught that your personality is fixed, and that's true. It's fixed because of our fixation on our time-wasting dramas.

Time Wasting Dramas

The drama itself is addictive. We create attachments to the feelings of specific emotions, even if they are bad ones, especially if they are bad because pain and suffering are worth our attention.

Moods and dramas make us feel like our situations are beyond our control and the result of someone else. They give us excuses for why we are where we are when we know we have more potential than that.

You have to decide what is real and what you want to do about it, and then move forward with a good plan. You can't be delusional about it. You may not be able to be immediate about it, but you can achieve a reality with much less pain and suffering when you embrace the truth of the present.

If your mind is a prison, where you sit doesn't matter. Be able to sit with yourself by breaking your addiction – your conditioning – to the drama.

Early Experiences

These programs result from early experiences. Like a road map, your brain consists of networks and pathways created and strengthened through use and time.

As babies, we come into this world as relatively blank slates. The first five years of your life were instrumental in laying down these networks. In the early years, you weren't yet burdened with language. All you had to do was stay alive; your brain came with that programming. Programming like breathing, keeping your heart going, and monitoring millions of constant chemical reactions working to keep you alive.

As you developed, you developed ways to get what you needed. Those repeated needs and tried-and-true strategies set you up for repeated behaviours, which create the same moods and reactions from others.

Maybe you learned that you wouldn't get what you needed and gave up instead. Perhaps the word "quitter" was a stigmatized one, and you knew the activities of insanity – doing the same things over and over and expecting different results.

Patterns on Repeat

However dysfunctional it might be, as long as nothing extreme knocks us off course, we keep the pattern on repeat. We do it internally and externally. It happens to people, businesses, and institutions; wherever people go, they feel safe and create safety because predictability feels like safety.

Over and over, like cement, you harden into someone people have come to know and expect, just as you create a lovely, safe, comfortable world of familiarity. Familiar doesn't usually mean happy or productive, but rather what has been familiar to you. Then, by middle age, you've decided the window for personal change has slammed shut.

For most of us, this program is solid and running without interruption by the time we are 35. Thanks to technology, we can build a fortress around it. We can block out new information, new people, and all hope of interrupting the program.

Creating change, whether to become more productive or toward a different goal, requires changing the circuitry. You can't do that when you don't even realize it's happening.

Perhaps this is the onset of the crisis, which is known to result in hazardous spending, reckless socializing, and unnecessary suffering.

A Cycle of Confirmation

Brain scans indicate up to ten seconds between deciding and when we know we've chosen.

In that lag, your brain is not looking for reasons why you might be wrong. You are not doing an analysis. You are looking for proof of why that decision is the right decision. Your brain is very good at this task. It will find whatever proof it needs. The name of this effect is called confirmation bias.

We can find proof for our beliefs, even when they are wrong, even when we don't know what they are, and even when an overwhelming amount of evidence that we are wrong is available. It's called confirmation bias because we have the hardwired ability to confirm, validate, and approve our irrationality.

It's an instinctual reaction. We looked for information about why that was the right thing to do, and we chose language descriptors that matched our perspective. Then, that became our awareness, and we found logical reasons for being wise and right. This strengthens the emotion, creates the feeling, leads to the mood, executes the personality program, and manages the perception of reality.

Your Orientation of Attention

If anything is true about quantum science, anything is possible until someone looks, so attention is a powerful energy source.

The demands for your attention are enormous at the moment. We would like to know if you read our post, opened our email, or read our text. If you want to see if you live in the past, let me ask when you book your meetings. Two weeks from now? So, it is two weeks in the past when it shows up.

Scheduling your present into the future because you can't act now costs you your future opportunities – and you don't yet know what they might be. If opportunity showed up right now, how much would it take to handle it? Rescheduling, cancelling, and otherwise doing whatever it takes to answer the call have costs of their own, and it's a balance you have to manage when you live in the past actively.

Flexibility frees up more resources than you think it will. Sometimes, being able to deal with things right now means catching up. Sometimes, it means delegating and getting practical about what you can and should handle and how timely you can handle it.

Attention as an Industry

Your attention is a powerful source of commerce. You may be aware of the power of your attention, but you may not know where you are squandering it.

If there is one way to be more productive and rational, it is managing your attention. It sounds pretty straightforward, but experience proves otherwise if you have ever tried to meditate, teach students, or do anything because you thought you had no choice but no interest.

More than ever, technology has allowed us to tightly control what information we allow into our worlds and how we act. We let it make most of our most important decisions, like who and what to let into our lives.

If you want a different future, you must let new information and new people across your bow, and technology manages all of that on your behalf. Like your mind, technology can be a delightful servant but a terrible master.

The Collective Loss of Attention

Today, everyone seems to accept that attention spans are decreasing. The standard advice is to make shorter posts and videos because people are busy and have things to do.

This is advice that I will fight every step of the way on humanity's behalf because I believe that power is something to be honed, not something to give away or give up.

When we ruminate about the past, we are giving it away. It's hard to influence things that have already happened. Why are you spending your energy on things you can't change? Because it's familiar, that's why. Habit. You just aren't aware of your options.

To merely accept this loss is to give up.

The Power of the Present

When you aren't present, you miss a lot of important information. If you stay in the present, you have the power of your attention to influence what is happening right in front of you. You can listen to what is being said, pick up on intuitive clues, and know in your heart what is right.

Knowing better means we will do better. It doesn't happen because we are irrational creatures of habit. It helps to understand the science behind why you are no different. I am not immune, and we all have this practical and point-able reason why we are irrational.

Since it's human nature to think that knowing better means doing better, you must ensure that you know better than trusting your perception as an accurate and complete reflection of reality. Those perceptions include your feelings, your moods, your personality, and those of others.

It's tough to stay present when we learn new things. We must teach the brain that we want to build a new path and not use one already there. We also must remember to repeat because new novel things capture our attention, and we haven't yet finished what we've started.

When you know that, your counterintuitive wisdom comes from being present with your attention to see as much of what's potentially accurate as possible and less of what you are sure is true.

The Benefit of Your Attention

Irrational behaviour is natural, but it doesn't have to be conclusive. Being present with your attention is the fastest, easiest way to crush your irrationality.

Knowing that your reality is your own, and everyone's is their own, should start to liberate you from conflict, struggle and strife. The ability to observe your thoughts as you have them and notice the bias, inherent mislabeling, and potential miscommunication. Being able to do that is a skill you want to develop if you'd like to break out of irrationality and become counterintuitively wise.

If you find it challenging to quiet the constant chatter and maintain a state of objective, nonjudgmental awareness, the practice of meditation will help you take control of your thoughts. When you flip the switch on attention, a few things come into focus.

One is that it's hard to do. You have many things on the go and lots you have to get done. Your attention gets snapped out of the present moment because of all the things on your to-do list that aren't done. Those constant reminders are productivity robbers. Until you've completed something, your brain will keep bringing it to your attention. It's called the Zeigarnik effect.

Instead of allowing this mental game of hide-and-seek to continue, please write it down. You may not know what to do about it, but ignoring it doesn't make it disappear. A solid plan might, but you don't make a solid plan until you have the time, interest, and priority. All good plans start with a list.

Julia Cameron teaches artists to write a three-page-long hand each morning about whatever. Stream of consciousness writing. That noise in your head, get it on paper.

As someone who has done the work, I can verify that there will be no more reminders once it is out of there. Peace of mind is called silence, and focus is possible.

2: The Pain of Productivity

Slowing down when you want to go fast can be a pain. Drivers get irate, and people lose their minds.

If you let unconscious survival-oriented decisions guide you, you are handing control over to pain, fear, and loss. You will make easier and faster decisions, but you could also look mean, lazy, and stupid to those prone to negative evaluations and collateral damage.

The pain of productivity is doing what requires effort, patience, and understanding in a society that praises action, bravado, and entertainment. It sure is entertaining when it's not your career, business, or people in the way, but it's all our planet, and someone has to say enough is enough. Maybe a few of us.

After you see what you need to do and how to do it, the next trick is having the courage to be accountable for it, knowing that there are trolls everywhere, your intentions will be misunderstood, and you are the only one with skin in the game.

If you want to make yourself proud, you can't be minding the back seat.

The Embrace of Uncertainty

Saying I don't know is a superpower, as you are about to learn. Try saying it: I don't know. It's a pretty applicable statement to every one of us about something. Try saying that when it's within your domain of knowledge.

I'll tell you one thing: what you hear instead are opinions, posturing, made-up statistics, excuses, and all other ways to fill the air, but what you don't hear is "I don't know."

When it happened to me, I had forewarning; I wrote it on my hand, and it still took willpower to force it out. The first time is difficult. After that, you realize the power of that sweet truth and the counterintuitive wisdom of saying and hearing it.

It was during one of my training sessions. We were each told to prepare a lesson on a specific aspect of the subject we were learning and present it to the class. Each person would talk for no more than five minutes, and then they would field questions about it. This was the kicker: You would be allowed to sit down and take your seat as soon as you said, "I don't know."

The day started badly. By three people into the day, we were almost an hour behind. By eleven o'clock that evening, we were willing the know-it-all on stage to admit it! It demonstrated the productivity lost in the corporate world to spin, dance, and run out of time.

Answering a Different Question

Now that you know how hard it is to say it, listen for it. Listen for when people should be saying it but are filling the air with potential traps should you confuse their answer for knowledge.

Especially try it yourself. You will find what I did – that when you embrace what little you know, the world of infinite possibility is one of limitless potential. The only thing holding you back from the wonderous amazement of your desire to hold on to something, anything.

When you embrace the silence that starts by saying, "I don't know," you can begin to listen for the truth. Ray Dalio credits most of his success to the hard way he learned that he didn't know as much as he

thinks he did. One of his principles is to watch out for people who think it's uncomfortable not knowing everything. His lesson was a shift in mindset from "I know I am right" to "How do I know I am right?"

The second mindset of curiosity instead of confirmation allows room for the reality that you can't know everything. While Dalio forecasted a depression in the early eighties that didn't happen, he saw the crash in 2008 while other institutions were still declaring strong buy positions on banks about to go bankrupt.

You can find out as much about the truth as you can or need to as is relevant to the decision at hand. It starts when you can say, "I don't know." It requires separating knowledge from noise and the courage to face the illusion of pain in saying it.

The trustworthy source of pain is the inability to admit what you do not know.

What Knowledge Is

Knowledge is a collection of shared beliefs. Common knowledge is what everyone believes. Part of the overwhelming feeling for many humans today is thinking they must keep up with all this stuff.

When you click, like, post, check the box, and move along with rapid and surefire productivity, you are wasting your time and serving your lowest purpose. Your brain has you hooked on dopamine, your phone has you hooked on the buzzes, and news has you hooked on fear. Your service to society as a consumer is complete.

Common knowledge isn't knowledge. The lure of the trivial keeps you from noticing that the grand truths have changed. Laugh all you want about the flat-earthers; there are many more models of reality that you still think of as knowledge that has been disproven. Today, you've got better things to do with your time.

Knowledge is created through a scientific method. The scientific method is created because we know humans are irrational. You've just learned how hard it can be to say "I don't know" and how we waste time and risk misinformation and wrong action by filling the air with opinions, conjectures, stories and assumptions. We use scientific processes to ensure we don't fill the textbooks that way.

The scientific process constantly challenges, revises, and sometimes wholly rewrites what we call Science. There was a rewrite when we realized we weren't the center of the universe, but the sun was. There was a complete rewrite when we realized it's not a material world but a quantum one.

However, updating textbooks, institutions, teachers, and society takes a long time. So far, it's been three or four decades, and knowledge of it is yet to be shared.

The Scientific Process

The scientific process is observing reality and finding a way to explain it.

If that explanation works to predict things, then we keep it. It is purely driven by experimentation and a quest to understand Nature. Predictions have to be able to be made by more than one person. This is where repeatability and replication enter the picture.

Peers who have the same skills try to mimic the results. This is called peer review. If someone who isn't skilled can't use it to make a prediction that becomes a reality, it doesn't mean anything. It's that person's skill, not the actual process.

It's not a perfect process, but it's what we have.

Science is designed to remove us from the equation because we are egocentric. We care about status, materialism, rank, and other people, and we know that drives irrational behaviour. Take all those things away, and the truth can be found. Truth is what we call it when there are no lies, opinions, power, or wishful thinking—all these societal tricks—and truth is left when they are all removed.

If it can be taught and learned, skill and knowledge move forward. They move forward together. As you might imagine, this means that knowledge isn't a stable thing. Learning is never a done deal because of the reality of taking skill out of the equation.

What Constitutes Truth

Historical knowledge included such facts as the world is flat, women are incapable voters, and no one would want a personal computer. At the time, few would have argued. Now we can see our spherical planet from space; we saw a woman in the presidential race, and no one can see just how far computers will take us.

Your grandparents were taught things in school and didn't have to worry about whether those "facts" would remain throughout their lives. Your parents had no idea that would happen to them. Kids need to learn more about finding and testing truth than they do to memorize and repeat it. Thanks to technology, curiosity and the scientific process, the only stable truths are those where we can find evidence of absence. We cannot use the absence of evidence as evidence of absence. The implication is that you can prove something not to be the case, but you cannot prove something to be the case.

What you were taught as ultimate truths were temporary models that did a good job explaining a lot of stuff but didn't explain everything. We now know they only explained 0.0001 percent of everything, which is NOT true for the rest.

When you are pushed to go forward anyway, you make an assumption. Problems happen when you don't make the assumptions obvious but try to hide these uncomfortable truths. Saying "I don't know" is a superpower.

Power Trumps Scaffolding

About a hundred years ago, human nature trumped the collective scaffolding put in place to protect science. That process you learned about, about seeing reality and finding a way to explain it, got contaminated by man. Here's what happened.

There was a dude I will call the founding father of command and control. He looked at what happens in nature and said, "I forbid it."

He was in a place where that's exactly what he could do. And you think Hitler did some horrid things. Or that the Lancet should have caught the report before publishing the article that caused the whole anti-vax misinformation.

Temporary models marched forward disguised as ultimate truths. As you can imagine, they continued into the education, medical, and political systems.

The temporary nature of the models was terrific. What wasn't fine was convincing all students that there were no remaining questions. Today, many professionals protect the status quo.

An Entirely Different World

Rupert Sheldrake says, “It’s almost as if science said, “Give me one free miracle, and from there, the entire thing will proceed with a seamless causal explanation.” The one free miracle with the sudden appearance of all the matter and energy in the universe with all the laws that govern it.

Finally, we’ve figured out better models, but the old temporary models still hold up much of society. This is the importance of the difference between the truth and what you believe: The temporary models describe 0.0001 percent of the world.

What if you were taught nothing about the 99.999 percent?

Talk about inequality. The new science knows you can do things you currently think of as superhuman, and even how they are done, like breaking out of the lure of the trivial stuff distracting you and chewing up your time.

People worry about being out of the collective common knowledge but don’t worry enough about being out of the collective ordinary skill. In the last lesson, the skill of directing and focusing attention requires changing one's mind.

The knowledge kaleidoscope turns out because some people debate, see things differently, and imagine outside the boundaries of what exists today. This is wonderful. A voice to all these people, yet for these voices to find coalescence and not conflict, we must remember our irrationality.

Pre-Mature Warning Systems

As you also learned, the number one goal of the brain is survival, and it’s programmed for the times when we lived in caves. Back then, risks were much more significant. There weren’t hospitals and lifesaving technologies for when things went awry. Minor pain could spell big doom.

For you, that means warning signals go off much earlier than today’s conditions require and in disproportion to the level of comfortable risk you are capable of taking as a twentieth-century human. Nowadays, it’s like having the gas gauge indicate that you are almost out of gas when there is still a quarter tank.

Just as you don’t need to fear rejection as much as you are programmed, you don’t need to fear pain nearly as much. Your brain doesn’t know; it’s up to you to tell it that you are good to go.

A little discomfort is not worth raising the alarm bells and running away.

The Science of Automatic Action

Pain is the emotion that gets you acting before you can reflect. Or rather, the fear of potential pain and the objective to avoid it.

Avoiding pain is a hardwired motivator. It’s your brain trying to protect you. You must only tell it once; the trigger mustn’t be huge.

We know the pain can be minor, yet it insidiously continues to drive behaviour because of a trick played by Dr. Edouard Claparède. In the early 1900s, he was treating a woman who had suffered a brain injury. This injury prevented her from processing new information. Even though he worked with her daily, he had to introduce himself whenever he met her.

One day, he placed a thumbtack in the palm of his hand. This time, when he shook hands with her, she suffered a painful prick. After that, she refused to shake hands with him for every subsequent appointment.

A pin-pink was enough to create complete and automatic future avoidance.

A Smokescreen of Activity

According to what you've already learned, Claparède's patient couldn't articulate why. She gave reasons – but never mentioned a tack. You already know what creative explainers we can be, and this patient was no different—internal rational reasons when external environmental conditions were the cause.

Just like Claparède's patient, you might have suffered some painful surprises in your past, and you've avoided them for reasons that make perfect sense to you, even if they are not factual.

When we know that we are avoiding something, we call it procrastination, but what do we call it when we don't know that we are doing it? You may not even realize that you are avoiding something; you may only perceive that you are very busy.

Hyper-efficiency is a smokescreen of activity. It's being busy, so you don't have time to do what you know you should be doing. Staying busy allows us to avoid acknowledging painful truths. Sometimes, what we know we should be doing is introspecting. We are trying to prevent realizing that we know what we know.

Our Collective Distraction

We say we don't have enough time, and that's acceptable as an excuse to the majority.

Not having enough time to do something is a statement of priorities. We can never have more time; we can only choose our priorities of how to spend it. Instead of saying you don't have enough time, what changes for you if you say it's not a priority?

Technology has proliferated the number of trivial things we can do. These things allow us to check things off our to-do list, giving us the feeling that we are progressing. As Daniel J. Levitin says, "Instead of reaping the big rewards that come from sustained, focused effort, we reap empty rewards from completing a thousand little sugar-coated tasks."

You might be spending time and energy on things that are small and simple when the complex things are what will lead to unimaginable breakthroughs. You might be too busy to see them. And that might be on purpose. It is not your long-term purpose to thrive, but your brain's short-term priority is survival.

The Pursuit of Hyper-Efficiency

Efficiency is getting things done quickly. Hyper-efficiency is reactive behaviour that looks and feels like we are being productive but wastes time.

There is such a thing as going too fast. Maybe your grandmother told you, "haste makes waste."

When we head off running, we're twice as likely to avoid losses than chase potential gains. Running from pain instead of accomplishing important work might explain your packed agenda, short attention span, and penchant for immediate gratification.

Losses are tangible, which makes them painful. You had something, and now it's gone. You can feel the emptiness of where something used to be. If you want to see this in action, watch the reaction of the auction house when Banksy's painting starts to self-shred after being sold for $1.4M. That's a loss in action until the buyer decides they have gained a unique piece and a story to go with it.

We work harder to avoid losing something we already have, more so than to gain something new or better. Gains are abstract. You have no idea what they might be or feel like. In your brain, the tangible draws our attention, not the abstract.

If you have all the productivity in the world to gain, you might have to give up some diversions or low-value activities to get there.

The Ability to Endure Pain

Stanford psychologist Walter Mischel gave preschoolers the choice of one marshmallow now or two if they could wait for a short time. Then, he followed these children through their lives.

The children who proved to be able to wait carried that success through life. They had better relationships, more stable lives, and reported higher degrees of satisfaction. Those who didn't or couldn't wait had higher obesity rates and below-average academic performance.

Mischel concluded that the ability to delay gratification leads to success in life. Importantly, it's what they did while they waited.

One kid licked it but did not eat it – a highly creative if dubious solution, and he might have become a lawyer or a politician. Others knew that out of sight, out of mind was a great trick, and they did all kinds of things to avoid seeing the marshmallow.

They demonstrated creativity, self-awareness and proactive behaviour.

Manage Pain

Acknowledging a weakness and making moves to avoid confronting a weakness is a self-aware act. It's impressive throughout life. It doesn't come naturally with age, but it can be developed.

It's the ability to endure a little bit of pain when you look in the mirror and decide you don't like what you see, and it's enough to change it.

Pain is discomfort. It's the boredom of waiting. It's the frustration of someone or something getting in your way. It's the uneasiness of facing whatever you are attempting to avoid. Yes, it's the broken bones, too, but emotional pain shouldn't be dismissed or minimized.

In caveman days, getting rejected from the group meant certain death. You couldn't survive on your own. For that reason, the pain from social rejection is ingrained.

You also couldn't choose who those people were. You were born into a group and needed that group to keep you alive. For this reason, we are all built to feel pain from rejection. Your fear of that pain is designed to keep you alive.

Whether on the grade school playground, in the high school gymnasium, or at the yearly performance review, the pain of rejection is deep and feels just as accurate. Neuroscientists have discovered that the pain of social rejection activates the same brain regions as physical pain.

However, it might be a hardwired instinct we no longer need. These days, you have 7 billion people from whom you can choose your clan.

Override Instinct

Researchers have proven that the learned fear-of-pain response can be repressed. We can relearn because we chose to. We use our conscious will and determination, our stores of courage and confidence, and we try to persist until we achieve our goals.

That's the luxury of being human. We can question ourselves, observe our actions, and test our thoughts, as you learned and mastered after owning your attention in lesson one.

Getting hooked on anything is a result of the chemical dopamine. If you stop and feel the emotion right before you do what you try to avoid, you will feel the effects of dopamine. That itchy, anxious, focused anticipation of something is the unsettling urge causing you to act.

Dopamine is a neurochemical that helps us see rewards and act toward those goals. Researchers who were pivotal in discovering dopamine planted an electrode in a rat's brain, gave it control, and watched it repeatedly activate it.

Derail Empty Pursuits

Initially, they thought they'd discovered the pleasure center. Then, they made the rats cross an electrified grid to activate it. The rats would do so at the sacrifice of their feet. What kind of pleasure do we chase at the price of pain?

Now, we describe that behaviour as addictive. It's not pleasure they were seeking, but the promise of pleasure—a very different thing from absolute pleasure itself. Cigarette smokers are chasing the first high of the first cigarette, which, paradoxically enough, they can only recreate after they've quit for a substantial period.

Since then, people who want your money and attention use dopamine. Malcolm Gladwell calls the rise of digital technology and the business of keeping us hooked the most troubling phenomenon of modern times. It might be due to dopamine if you can't put down Candy Crush, put away your credit cards, or keep junk food out of your shopping cart.

To derail dopamine, you have to believe you can. Then, work on convincing your body that your mind is in charge. Be the boss of you.

Knowing better meant doing better; it might be how you spend your time compared to how you state your priorities. You want to raise that information to your consciousness as you use your attention on the present moment to observe yourself and ask why you are doing what you are doing.

You wouldn't invest your money without expecting a benefit. Don't treat your time any differently. Know it, check it, and manage it as you would your money – to make it grow and work for you. How you spend your time will tell you volumes about your priorities, values and future.

Please pay more attention to your time and how you spend it, and make it pay you back.

3: The Biology of Collaboration

Collaboration comes with many challenges for humans, who are wired to judge others based on their first impression and hold onto that impression. We want to think that two heads are better than one, even if it takes work and commitment, but the studies show that the result is more commonly worse than any individual would have done alone.

With complex problems facing us, the opportunity to assign whole and complete jobs to an individual is dwindling. When that's the case, we need to be effective and efficient with the work and commitment required to work together for the better. When you find the courage to be accountable for something worthwhile, you will quickly realize you need others to complete your picture of reality.

At work, most of us are spending our time managing change. It might be customers through a turnstile, projects, or updating procedures because policies have changed. More than anything, when things change, we can't see all of it, and that's when we need others the most.

When it came to change, I trained corporate employees to think about and approach it. They were annoyed to be in the class; in their view, I was holding them up. To get on with it, I'd ask them to write down precisely what they would do if I released them at that moment.

We seal those answers in envelopes, and at the end of the training, when they open them up, two things happen: shock and relief. One, they are shocked they ever held that thought. Two, they are relieved they were forced to sit down and see reality, not their skewed perception of the situation. You've learned how we do that individually; now get ready for how we do it collectively.

The Inability to Handle the Truth

When you go forward without the truth, you have the makings for irrational decisions and probable bad outcomes. When you refuse to say I don't know and instead hold on to these inadequate offerings, here's what is going on: ego.

It's ego at work when you hold on to your beliefs in status, rank and competition while wondering how these things are impacted. Your ego fears that it might get bruised, exposed, or discovered.

You've seen other people do this. We call them mean, lazy, or stupid. The reality is that change will create some predictable automatic reactions.

Trained by Dogma

Being told what you are supposed to see is very powerful. Someone wrote the children's book **THE EMPEROR'S NEW CLOTHES** so that every child would know the lesson.

There was a time when all the doctors were trained that there was no way bacteria could exist in the stomach. It took 104 years for someone to say something. As soon as they did, thousands of others stepped forward to admit that they, too, had seen it. It took two years for the team of Barry Marshall and Robin Warren to shake the bedrock of medicine with proof, for which they won a Nobel prize. In hindsight, it was clear the bacteria were there all the time.

Unfortunately, it's much easier to trust in a higher power and accept the status quo rather than rally against it. It takes courage to trust your experience, raise your hand, and ask the teacher to explain the claim.

In Steve Jobs's 2010 commencement speech at Stanford, he implored the graduates to live their lives. "Your time is limited, so don't waste it living someone else's life. Don't be trapped by dogma – which is living with the results of other people's thinking."

Man writes laws, but humanity serves justice. The results of other people's thinking are reflected in our education system. The long list of things you've been told you should be, do or have resulted from prior generations and ages. There is no time like now to question and decide for yourself.

What does dogma sound like? It's the should police. It's when people tell you what you should be doing, thinking or being. Society as a whole has a set of "shoulds." You should not kill people; you should pay your taxes, and you should mind the dandelions on your lawn to prevent their spread to the neighbours.

From prominent moral doctrine to small ways of being in the world, standards are adopted that become voices in our heads, documents in our government libraries, and textbooks in schools. Do not confuse dogma for truth.

Next time, catch yourself in your defensiveness and ask to hear the other side. "Tell me more" and "Why do you say that?" are handy phrases in crucial conversations between teachers and students because it's always tricky to tell who is in which role.

Giving Up Power to Authority

In 1961, Stanley Milgram demonstrated our willingness to submit to authority in his search to understand how ordinary Germans could have done such horrible things in the Second World War. In the experiment, participants had to administer a memory test to an actor on the other side of the wall.

When the answers were wrong, a person in a white coat would tell the participant to deliver a shock to the actor. For each incorrect answer, the dial went up 15 volts. The end of the dial was labelled "XXX." Healthy, well-adjusted people were quite willing to inflict massive, even deadly electric shocks. At the instruction of the researcher in the white coat, participants turned the dial right up to the end.

Even while the participants demonstrated what we might term passive-aggressive behaviour, they ultimately complied, and isn't it the result that matters, not doing what we are told?

When you are in a position of authority, controlling the use of authority takes willpower. It takes willpower to take the higher road of empowerment and to let go of attempts to influence others toward your agenda. When you do, you will find it easier to create influence because others will start to notice and realize that you aren't influencing them for your benefit but because you have their interests at heart.

Primed with Choice

Letting someone else tell us what to do means we are absolved of responsibility. It's significant energy-conserving behaviour but also not an accurate perception. "I was just following orders" does not get you off without a punishment.

How can one break free from the grip of authority? When subjects objected but were told, "You must go on; you have no choice," the subjects refused and did not go on.

The word "choice" may have helped them realize they had one.

He found that breaking authority requires seeing the effect of what one is doing with one's own eyes. A second way revolt happens is if one exerts personal force.

A third way subjects could resist was watching authority break down, such as witnessing an argument between two authority figures. Parents who fight before their kids may be training future rebels and revolution leaders.

Unanimous Voices of Knowledge

For excellent execution, we need everyone to bring their best. We need everyone to be thinking, ready to act, and engaged with what they are doing. We need the best ideas, relevant experience, and the closest experts. Sorry, but brave souls willing to go along with what other people want from you, we need your perspective, input, disagreements, and hidden resentments. We need you to speak up.

Children are truth tellers but learn to lie. They learn stigmas and what people like to hear and start guessing what people want to hear before they even have a chance to know them. When everyone is playing these games, who is telling the truth, the whole truth and nothing unless they are on the stand? And sometimes, not then, either.

Society has told everyone to stay mum if they have nothing nice to say. We protect hierarchies. We are afraid of consequences. We aren't sure how to show our respect while also pointing out that the emperor has no clothes, so we don't say anything.

A Societal Order

We've created progress because we have the smarts to know that we must organize to survive. To that end, we look for different models and ways, and they all include a form of rank. Rank relies on dogma to exist, so a population that teaches and rewards obedience is both cause and effect. Obedience to order is the nature of society.

You give the answers to the teacher; you obey your parents when your mind isn't big enough to be allowed to wander on its own. It's preconditioning that you have to rebel against, and that's what teenagers are supposed to do. For society to progress, children must become more intelligent, skilled, and suited to society than their parents. Outgrowing them is required.

As society's pace of change accelerates, we must be able to let old paradigms fall gracefully and quickly as new ones take their place. However, that's a tall order we can better surmount when we know what we face.

Because when it happens to you, first, there will be that ego. You will be looking at the potential losses of a career invested, gone, or a reputation vanished. It may be future income or status at stake. There will be excuses. The more creative someone is and the more they stand to lose, the more excuses the mind can create.

One thing is for sure: It is easy to point fingers at the people in the Establishment who stand to fall and aren't taking action. It's another thing when it's you. I hope that when it's you, you take it with the grace and ease you expect you will. I hope it didn't catch you unprepared.

Cognitive Dissonance

Psychologists call it cognitive dissonance. It is the inability to hold two conflicting thoughts without finding a way to merge them into one.

For instance, you can't believe you are a good person or a bully. When you hit someone, you explain it away by finding reasons why it was their fault or that they deserved it.

As Carol Tavris and Elliot Aronson explain in Mistakes Were Made (but not by me), we have the unconscious ability to spin-doctor facts to reinforce what we already believe, even if our beliefs are self-destructive or downright erroneous.

Cognitive dissonance ensures that our identities remain intact, to ourselves at least. They may be invented and inaccurate, but we can find creative ways to explain information or ignore evidence so that they remain unmarred.

Since much of our identity is based on these debatable descriptors, we are talented debaters who win every time. In our heads, anyway. To the casual observer, it can look like we're nuts. That's why we need trusted naysayers and the courage to face reality.

The Love of Our Own Opinions

When we collaborate, our opinions get in the way, sometimes deliberately, sometimes insidiously.

The problem doesn't care who is the most charismatic, loudest, tallest or biggest. The people in the room do. Guess what else the problem doesn't care about? The wealthiest person, the reporting hierarchy, and the power structure. If the problem doesn't care about those things, why do we think the best idea does?

We love our opinions, even more so when they've been shaken. If you've ever tried to play reverse psychology on someone, you know that there are times when heavy pressure can lead us to take the opposite stance. Researchers show that after we've been rattled, we go on longer about our point of view.

To characterize this propensity in an updated way, taking up the air so the other person can't speak is the move of a bully. Providing evidence to discredit the other person is gaslighting them from the truth. When we stigmatize anger, we remove the victim's natural defences.

When we come together to collaborate, our natural defences create a problem.

The Conservation of Energy

Joe Medina, author of **BRAIN RULES**, says the brain is hardwired to conserve energy. The most energy-conserving thing you can do is stay still, but you also have needs to fulfill, such as food and comfort.

At some point in your development, you realize there is a future. Or instead that there are causes and effects, and something you do right now can impact your future. You throw your food on the floor and watch the adults freak out and laugh because you caused it. You made something happen.

As a baby, you learned a very efficient energy-conserving strategy. You learned how to fill your needs by getting everyone to do everything for you. If you wanted something, you wailed, and you got it. You knew many ways to get other people to do what you wanted. From pouting to temper tantrums, they are unpleasant but effective.

Laziness might be natural, but it doesn't have to lead to lethargy, co-dependent relationships, and narcissism.

The Penchant for Control

You get better and better because you are hardwired to want to control things. The mere act of exercising control is sought after as soon as we realize we can affect the world. Babies make messes and laugh because they enjoy the experience of making things happen.

Daniel Gilbert, author of **STUMBLING ON HAPPINESS**, says that we are hardwired to want to control things. The human brain seems naturally wired to make things happen and get things done. He says, "Much of our behaviour from infancy onward is simply an expression of this penchant for control." As he says, "People find it gratifying to exercise control."

More than anything, your desire for control will undermine your productivity. Because of our energy-conserving predisposition, we seek to control in all the wrong places. When we do that, it's a waste of our time, money, and energy. Let's look at these wastes and what we should be doing differently.

The Lure of Manipulation

The easiest way to exercise control is not over yourself – we know that's hard to do – but over others. Particularly those with less power. It's the most energy-efficient way to exercise control. With a brain that seeks energy-conserving strategies, getting other people to do things for you is one of those ways.

While this is natural in infancy, you are supposed to grow up and realize that these behaviours are childish. We learn to use our words. We might even know that the most efficient ways to get things aren't always practical.

Efficiency is all about the speed of getting something done, while effectiveness is getting it done right. They don't always go together. You learned about hyper-efficiency and doing things too quickly, creating a smokescreen of activity to mask the actual work you know you should be doing.

Relying on others is short-term efficiency, but in the end, it's not productive for them or you. As you grow and develop, you learn "please" and "thank you" and what those words can get you. Adults start asking you what you want to be when you grow up, and the timeline you associate with all things related to the future starts to get longer and longer. You learn better strategies to get what you want, including reading up on how to be more productive.

The Counterintuitive Rule

According to Jim Rendon in his book **UPSIDE**, the environments in which we flourish are those in which we have warm, loving companionships, the space to grow, and relationships in which we are not being controlled.

Productivity is about discovering the things that stand in your way and learning to move past, around, or through them…your choice. The journey is yours to design. When looking for that satisfaction, we get from control; this is precisely where to find it.

When we exert our lazy influence over others in an attempt to control them, we are preventing their growth, which is not loving behaviour. The Golden Rule asks us to consider treating other people as we'd like to be treated.

Learning to stand on our own two feet is a healthy part of becoming productive in society. When we aren't leaning on others, we all get the opportunity to flourish. The counterintuitive rule is standing up

for what you've got covered and relinquishing what you know you can't, won't, or don't want to cover. Authenticity is knowing what to delegate.

Flourishing happens when we prioritize everyone's needs as equal and essential, not just those at the top or with specific attributes. Division and separation create an us versus them mindset that destroys teams, organizations, and countries from within. What's best for everyone is usually what's best in reality, and pursuing that is your most productive path.

The most productive exercise of control is over yourself; it can be far more energy-efficient in the long term. Yes, you. There are things in your life and your job that are your decisions alone. You don't need permission, authority or timing when that's the case.

For that matter, you can try as many times as you like and keep it to yourself. No one has to know. When it's in your circle of control, you get to try and fail without any witnesses, judgments, comments or criticisms. You won't get lost in excuses, false truths, and half-told stories that mask the real lessons when trying something that doesn't work. When it's all up to you, it's only your shortcomings on the table.

Determined and Misdirected

Willpower is your last resort, but most of us turn there first. Will might be the smallest energy reserve, but we expect it to save us. Determination and willpower go hand in hand. When we are determined to change, we use our conscious mind. Unfortunately, that's using a tiny fraction of our power available.

The thing with willpower is that you think it's there until it's suddenly gone. Willpower is like a muscle except for this silent disappearing act. Scientists can tell us that willpower is like a muscle because we have an individual baseline available. Also, like a muscle, we can strengthen it with practice and use, growing that baseline.

However, when you use a muscle, you feel it. You know when you've weakened it and when it's exhausted. That's not the case with willpower. With willpower, you are using it without realizing it, and then when you need it, it's not there. You know it's gone when you are in the throes of the what-the-hell effect.

When you need willpower, you are the most likely to throw in the towel altogether.

The Nature of Willpower

Willpower is the mental ability to exert more than you want. In other words, we use willpower when we aren't 100 percent committed to our endgame. That is, if 90 percent of you want to be in shape, and the 10 percent don't enjoy the warm comfort of your bed as your alarm goes off, the 10 percent will trigger habit and win.

This is worth pointing out. When you are of one mind, 100 percent committed, you don't need willpower. You need willpower when you are of more than one mind about something. Waffling happens a lot in life, as we weigh short-term over long-term, ourselves against others, rights against wrongs, and needs versus wants. You use willpower whenever you waffle on any decision throughout your entire day.

Willpower is handy once you know when and how to rely on it. However, there are many alternatives to employ first.

The number one alternative is insight. When you aren't aware that willpower is a fickle friend of everyone, you might think that it's just you and that you aren't trying hard enough.

It's time to stop beating yourself up. Instead, it's time to get a lot more curious about yourself. It's time to start paying attention and building self-awareness.

When things don't go as you anticipated or wanted them to, it's an opportunity to learn. Introspection, whether through internal reflection, talking it out with others, or journaling, will help you understand your role in the events and how to create different futures going forward.

They keep repeating when you don't learn the lesson, and you think that's just how life is. No, it is not. Stare at your perception until you can see a different angle.

A perception rooted in survival is not helping you. When you eliminate that, it takes all stress, overwhelm and determination.

The Power of the Few

The fewer decisions you make, the more willpower is reserved for when you need it.

For people like Steve Jobs, who became known for a specific way of dressing, almost to a uniform, it's one less decision to make in the morning. Productivity guru Tim Ferriss of **THE 4-HOUR WORKWEEK** fame talks about eliminating as many unnecessary decisions as possible, right down to his diet. Greg McKeown wants you to undertake a disciplined pursuit of less in his book **ESSENTIALISM**. Undoubtedly, those who get the most done are very selective about what they do and how they do it.

Psychologists tested people attempting goals in two different ways. One group set out with determination. "I WILL!" they said. A second group set out with curiosity. "Will I?" they wondered.

The second group far outperformed the first. A mindset of curiosity opens you up to possibility. The way of creation is all about relaxing, letting go, being in a state of flow, and worrying about your stuff before anyone else's.

Collaborate in an Idea Meritocracy

If there's one good use for your willpower, it is to keep ego, status, and laziness at bay and embrace curiosity and a more inclusive group of people who will benefit from the solution. When we skip that step, we try to take the reins and ensure it works out the way we want. Or we play other games, but one thing is sure—it becomes a game of politics.

Every culture will have some politics; the idea is to notice which wins more often: merit or privilege.

When we all lead by bringing our unique perspectives, contributions, and questions to the table, better solutions can be found. Excellent execution requires everyone to operate as a leader. Leaders let the idea's merit win instead of allowing the idea's origin to matter. Leaders know when their opinion is irrelevant and unwarranted and stay mum when that's the case. They seek to listen and understand, not to explain.

Some of us need to follow Marquette's lead and turn followers into leaders, and some need to better understand our inner Rosa Parks, our intuition of resistance, and our insight. Will we find a rational solution together? It might be the only way.

You want individual accountability with collective alignment, where everyone is an independent actor while being transparent about their responsibilities and performance to everyone else.

4: The Science of Improvement

When you find the right people to help you complete your picture of reality, you will quickly realize that many things are broken or could stand improvement.

When I was deep in silent research mode because someone told me, “Don’t tell me about the problems until you have a solution!” I came across an article published by MIT, and I couldn’t help but share my progress. I was the first to comment and left my contact information.

It was an article detailing how to use data to make business decisions. I wrote that I agreed but that it never works because we have confirmation bias. We create infographics instead of doing analysis. When we don’t know we are doing this, we take the action indicated, but it doesn’t work.

Big surprise. However, the surprise is that no one notices, thanks to cognitive dissonance, and they use data to give someone else’s opinion weight and try again. It’s an endless loop of random trial and error. And suffering. People get fired, new opinions are found, and the wheel spins. This is politics in business, and frequently, these businesses go under.

A consultant I’d worked with left a comment after mine. Whenever I needed to feel a shot of confidence, I clicked my bookmark to read her words of confirmation. She’d never seen a data-based decision in her entire career. I’ve seen two and had to walk them through a gauntlet. Moneyball was a third instance you might have heard about if you are a baseball fan, Brad Pitt follower, or movie buff.

The author called me. I explained my comments. He asked what I would do differently. I told him about this project. He took the post down.

I was disappointed to see that, not just because of my ego. The world continued, believing in data and thinking they were analyzing while making pretty charts. My comment helped many people. However, this is one of the faults of science. When we realize we were wrong, we are very quiet about it.

Now you know better.

Foundations for Disputes

They can know better in manufacturing, but data doesn’t always work there, either. In service, Ray Dalio’s company Bridgewater leads with its operational model, combining individual talent with data-based insights.

In manufacturing, concrete things like ball bearings are tangible. You can pick them up and hold them. When you pick them up and hold them, we must agree on certain things, like weight. You and I should get the same number when we put them on a scale.

Moreover, we should get that number no matter when we do it—last week, tomorrow, a year from now—in chunks of lifetimes, anyway.

Third, things are repetitive. The goal is to pump out ball bearings that all weigh precisely the same. Progress with ball bearings involves increasing the number of decimals. You go from all of them weighing 1.5, 1.55, then 1.555, with that extra digit being necessary.

In service, none of this is true. No one can pick it up, hold it, or take it to the lab to study it. We can't agree on how to measure it. You and I will have vastly different numbers. Moreover, we have vastly different things we care about. It might be your reputation and quality to me.

Try measuring either of those things. Reputation and quality are hard to define, let alone measure.

In service, if you can't get indisputable numbers, all analysis falls apart before it starts. I find myself in a room talking about something as esoteric as employee engagement, and decimal places are being used.

In science, you learn that if you have 'sort of 10' and divide it by 'sort of 2', your answer is 'sort of 5'not 5.134. It's not even 5 points or anything.

An Insightful Debate

It doesn't even have to be esoteric. In another organization, I found myself in a room discussing missed pick-ups. This was a number to quantify the organization's promise to show up and its failure to keep it. I discovered that the number represented the number of people who called to report the lack of accountability. It says much more about the potential customer's propensity to complain than the courier's ability to show up.

If you've lived life, you know that most people don't call you to find out what happened and give you a second chance; they dial the competition instead. And yet, when we set up data collection systems, we forget how people behave. We believe a reality about our business that is nowhere near as dire as the truth. Some people have mothers, assistants, and wives who never shop a day to find out how they might behave, and these are the ones at the top making the decisions.

The number of stories I could tell you about data would scare you. In service, everything is not tangible, permanent, and repetitive; it is invisible, fleeting and unique. When it's the former, we can debate and find the truth.

Visions of Progress

Not everyone is in the pursuit of truth. Other things include justifications for fun things we want to try, protecting our reputations, or building our egos. The list is long and varied.

In manufacturing, what is measurable, studiable, and controllable enables continuous improvement. In service, what is invisible, fleeting and unique enables continuous politics.

It doesn't have to be that way, but that's the reality of the vast majority of service organizations and support departments in manufacturing organizations that lack the foundational knowledge of counterintuitive wisdom.

Finding the truth is hard enough; wanting it a completely different thing and prioritizing the long term over the short term is almost impossible when you operate out of your automatic and unconscious brain.

When you don't know how your brain works, the black and white of numbers makes for comforting clarity, and your brain will never let you in on how it's all just false security, a prison of performance that will keep you rife with mistakes, wastes, and lost opportunities.

Since knowledge must serve the purpose of continuously improving society, continuous politics is not an option. Slowly but surely, the data is appropriately used, and the truth wins. As you've learned, this is slow but sure in science, and the process is called the scientific method.

In society, this is where laws come in, like best engineering practices. As you learned, doors open out. We don't think in panic mode; we run so that when people are in panic mode, run for safety, the door operates without a thought or a hindrance. Society is protected from its irrationality by a best practice. Scientific methods and laws reflect the engineering view of the world. Not everyone was taught this view. Some people picked up a different message when it comes to progress.

Change the People

The alternate view of progress is that people are something to be judged. They are right or wrong; there are various forms of proper and explicit forms of evil. If people can't comply and be obedient, you lock them away, punish them, shame them, etc.

People are classified as weird, regular, and complex, and every time one of these labels is used, it reflects that there are defective people. We know there are practical people, so these must be the opposite. Society puts all kinds of people in this bucket against their will and fights against prejudice.

Some people buy into the prejudice and pick that side. Some people become bullies, but some become teachers, cops, judges, lawyers, writers and politicians. You've heard the saying that the road to hell is paved with good intentions? It's this saying that reflects this view of fixing people.

The other view of progress is based on a fundamental belief that first, you set people up for success. There are problems, and there will always be problems, so you should give people a fighting chance. For instance, you should make sure the doors open out.

An Alternate Perspective on Progress

Giving everyone a fighting chance means accepting that we can roll up our sleeves and solve some problems no matter how they got here and who did what. It is what it is; let's get started.

Blaming, shaming, and pointing fingers reflect a belief that people are fixable—that they choose and can just as easily choose differently. I hope you've learned by now that changing behaviour might be the most complicated way to create progress.

Trust me, problems are a lot easier to fix. It's a complex, harrowing and intensely risky journey when you don't know how to do it and you've been burned once or twice.

I hope that as more people realize their fundamental irrationality and realize we all have the same challenges and limitations, we can see a reduction in judgment and a swell of people who pick up the mantle of problem-solving.

Hey, we are all just programs. I'll work on my bugs, and you'll work on yours while we tackle these big problems together.

How to Fix People

I believe every human's highest virtue is picking and solving a problem. Ideally, it should correspond to your talents, passions, and position. Maybe one that only affects you. Please choose the ones that are yours and yours alone, as no one else will like them.

When we all do that, we all get a chance to thrive.

That's what thriving is—fixing problems. Guess what happens when you do that? You fix people. Sometimes, the way to the solution is through a different journey, and it can look so different and better than you imagine.

As thriving individuals, we turn on genes for repair and growth. We are better able to be creative, see solutions, and have the energy to act. When others need our help, we have more than enough to offer.

A Choice Between Two Personalities

Unfortunately, too many of us are trying to survive. When you look in the thesaurus for the opposite of survival, the opposite is death. There is no such word as 'trivial.' And that's a problem.

A survival-based perspective leads to conflict, competition, and striving. It leads to fighting over a piece of the pie instead of baking a new, bigger pie. Today, we can bake some pretty big pies, especially when collaborating on mutually beneficial solutions.

We need not just solutions that look fair and equal but accurate solutions. We can find one because we can trust that each of us is focused on the solution and the solution itself, not on our hidden agenda. We got together and agreed we didn't know.

Thriving takes trust, and trust takes awareness of competency and character, both of which require experience and exposure. Prove it, not with the luck of a beginner or the fluke of a second success, but with the hard-won victory of the third charm.

A Focus on Growth

It's thinking about the customer or client, not the silos and or helping each other instead of watching our backs and managing our image and relating with each other instead of checking and balancing the history of a relationship.

While this is another fundamental principle in business, taught in all schools and heralded by quality methodologies, putting customers first doesn't happen. Customers are not thrilled, and we aren't even satisfied.

I can tell you how the world is more abundant than ever, but that doesn't help your pile of bills, the fact that you are getting less than your male brethren, or justify your taxes. It also doesn't help if I point to your grandparents and the standard of living and degree of labour they had to give.

I can tell you that we know Darwin was wrong. Nature is in a delicate, exact balance, and that essence of balance is maintained with cooperation, not competition. It requires interdependency, not rank. Take out one piece, and the whole thing falls apart. Earth, the planet, is teaching us that lesson.

Care about the whole and not the fractional part, whether that is the individual, your community, or your friends and family. Leaving anyone out of your definition of better will hinder your progress.

The Courage to See

In the essence of cooperation, now that you know about your fundamental irrationality, the challenge is to realize and identify it in the world around you and your everyday life.

Trust me, you want to laugh at the engineers and bet on the guy who says, "I'll show them."

If you realize this irrationality is a thing, here's what you can't do anymore. You can't take the people factor out of equations like those engineers did. Having worked in the corporate world, especially the service industry, I can tell you precisely what happens. People are treated as if they can be subtracted from situations or dealt with as unthinking lemmings.

The VP then asks me, "Why are they leaving their brains at home when they come to work?"

Personal Alignment as a Goal

What you say and do have to be the same. When they are not, you're telling a lie, and people will follow your actions, not your words. It's that attention thing again; you must watch what you are doing.

If you are trying to solve your problems by worrying about anyone else, it's that attention thing again. You have to look in the mirror at yourself and what you can and should be concerned about for yourself. Have every good intention for yourself only. I permit you to be selfish because it's the first place for your attention.

If you are analyzing data, you must stop and check to see if you are merely proving what you want to establish. When you are worried that might be the case, analyze the opposite, which is part of the analysis protocol—that's why there is an analysis protocol.

The Urge to Act

As a society, we prize action over and above thinking. When someone is thinking, it doesn't look like much. We never say to someone, "At least you thought about it." We say, "At least you did something about it." When we say, "It's the thought that counts," we don't mean it.

In his book **MONEY: MASTER THE GAME**, Tony Robbins explores how the urge to act is costing you high fees in your mutual funds and chewing into your potential for higher returns. Traders are supposed to trade, so trade they do. Every trade extracts a price, which eats away at your gains.

From knee-jerk reactions to staying busy to avoid something, we all have a bias for action when the best way forward is contemplation. Genuine productivity isn't action—thinking and then acting—being deliberate, not driven. The urge to act is emotional, and resisting the urge to act is logical.

One thing is sure: when you spin the numbers and see something, you are gripped by the urge to tell someone to do something. OMG, you can't leave it like that!

The other side of the analysis protocol goes out the window.

Flaws in Scientific Method

As scientists discover more about the flaws in the scientific process, you might want to consider how they might affect you.

Rupert Sheldrake, a scientist noted for his banned and reinstated TED talk The Science Delusion, has a list. In addition to all the reasons you've learned, ego, emotion, and language, there's no motivation to follow the process.

Replications to prove that the published results are valid don't happen. There's no time, money, or glory in it. For that reason, carefully curated data is challenging to catch. Primarily, when you've been taught how to curate it, the audience is amateurs.

Data is often far less reliable than you assume. We need to understand the data source, put opinions where they belong, and ask great questions.

I've learned that reality is reflected in lies, darn lies, and statistics. People, including reporters, love to make up numbers to add weight to their stories. Some do it right, but others rely on too-small samples, questionable methodologies, or sources that don't exist.

Bluntly and obviously, that is to say, if it is right there in black and white, it doesn't make it accurate.

What Caused This?

While we gather information about the problem, we aim to find the root causes. When you understand what's going on under the surface, you will see new doors open you never would have otherwise noticed, and you will know where you are wasting your time on symptoms.

Root causes are the events that happened first, or at least as close to first as possible. Identifying and tackling root causes makes big problems easier, actions can build toward permanent solutions, and convention can be left behind. You can only do that when you use facts about the impact, extent, duration, and symptoms and follow those facts down a trail of facts toward the root of the problem.

See how slow this is when people can't say "I don't know" when it's the only accurate and precise answer? Uncommon productivity is cutting through these conversations and getting down to the facts.

In business, we often use data to improve, but relying on data can undermine your efforts, as it did for Target Canada. Business analysts responsible for the store's supply chain were struggling with an inventory system that was new to everyone. The data would be used to pack shipping containers, fill distribution centers and supply stores, but the data was missing or inaccurate.

Managers would pull reports from this system and then contact the appropriate business analyst to determine what was wrong. To avoid that heat, these business analysts could game the system to make it look like their products were in stock. Canadian shoppers were frustrated by empty stores.

Please don't rely on data without knowing where it comes from and what it represents.

The Propensity to Tell Stories

Have you ever stood on the scale, jiggling this way and that to get a lower number to display? Data can be jiggled, adjusted, or manipulated when collected, analyzed, and communicated. Whenever we have an opinion on the outcome and a way to serve that opinion, the farther from the truth you should expect that number to be.

It doesn't take much creativity to game a metric, and the more creativity in a person's job, the more flexible their moral boundaries. "You cheat when the rules are flexible or not very clear and when you have a conflict of interest or reason to have a biased perception of reality," says Dan Ariely of Duke University and author of **THE (HONEST) TRUTH ABOUT DISHONESTY**.

Gaming metrics aren't only the domain of those with bad intentions or ill desires. It can happen quite innocently. Information will transform as it is transferred from one person to another, intentionally or unintentionally. It's called the telephone game.

Stories are the oldest form of information transfer. Knowledge was passed down through stories. They were based on truth but were remembered and shared because they convey emotion, colour, and depth, allowing people to connect meaningfully with the message. And place it to pass it along.

As you know, stories change in the way they are told. We change our stories depending on who we are talking to and when we are telling them; sometimes, this has nothing to do with the reality of the experience.

We tell stories because they work to change our behaviour more than data ever could.

Words Over Numbers

Author John Allen Paulos thinks BP might have been banking on the public's innumeracy when they shared early estimates of the 2010 oil spill. BP communicated 1,000 to 5,000 barrels a day. Paulos shows that an accurate forecast should have been closer to 60,000 through simple geometry and published dimensions.

Science proves that we choose words over numbers. In a before-and-after preference test, participants chose "75 percent lean" ground beef over "25 percent fat." After they tasted it, their preference was more minor, but it remained. Yes, it's the same thing.

Food is one thing, but what about life and death? Imagining they were patients with lung cancer, subjects had to choose between radiation or surgery. If they decided the surgery, researchers told one group they had a 68 percent chance of living, while they said the other group had a 32 percent chance of dying—same odds but expressed differently.

The two groups also chose differently. Forty-four percent said yes to being alive, and only 18 percent chose yes when the choice included the word 'dying.'

Our innumeracy may stem from numbers being evolutionarily new and introduced as a way to understand the universe rather than to live in it. Today, however, illiteracy in math, called innumeracy, is widespread.

Plan for Randomness

Far more things are the product of randomness than we realize, but we also might not appreciate just what randomness is.

Ask people to plot 50 dots randomly, and the organization will emerge. In the 1930s, researchers noted that people could not make up a sequence of numbers that passed for random, nor could they recognize whether a given string was random.

If you've ever thought you were on a winning streak, randomness has fooled you. The hot hand fallacy forgets that each hand is independent. Past performance does not dictate future performance where cards or coins are involved.

Too often, chance events are interpreted as successes or failures. Not for David Picker, though. The former studio executive said, "If I had said yes to all the projects I turned down and no to all the other ones I took, it would have worked out about the same."

How much is a skill, and how much is the luck of random things falling into advantageous places? It isn't easy to determine. It looks like a streak and feels like skill, yet it's just the odds. To combat the odds with skill, you need to develop your ability to plan through the randomness and see it coming.

In the history of automotive manufacturing, there was a time when American-made was all it was about. Then, steadily, this company, Toyota, started receiving awards. A shift started, and people sat up to discover how that happened.

How it happened was time spent planning. Japanese employees, executives, and everybody else would pay 20 percent of their time planning. In life, that's about an hour and a half a day. When they compared this to the Americans, they were far closer to 5 percent, about twenty-three minutes.

Some people don't plan their days, years, or lives. That's not an improvement plan. Make an improvement plan and then work on it. That's how you complete the cycle of being able to pay attention all day long, every day. Think pro-direction instead of rigid milestones, and you are on your way.

5: The Art of Progress

What did they do before the invention of the wheel? When you can keep it going, around and around, so many things get so much easier.

Momentum and the ability to cause an avalanche with a snowflake isn't progress. Progress is the art of directing all that force, standing back, and taking notes for how you'd do it next time. With progress, there is always a next time, whether you like it or not, but you've accepted that you will do something about it.

Artists all experience the chasm of creation. They step back and evaluate the final product against the intention in the mind's eye. Sometimes, the muse had a better plan, and things worked out better than you imagined. Other times, more frequently, there is a gap. The artist doesn't fall into the gap but figures out how to make it smaller.

If you remember, there are two different visions of human progress. One is that problems result from evil people who must be corrected, shamed, and punished. The second view is that there are problems and that there will always be problems. Change is complex, and there are many ways things can go wrong. To help humanity move forward, let's solve problems. As a society, we've done both.

Like seatbelts, there was a time we didn't know we needed them. Technology developed both the need and then the belt itself. Laws made people wear them, and now it's without a thought to put one on before going anywhere. Should you not be trained yet, there is a bell. Technology again.

People are highly fallible. There are many ways to redirect our fallibility, but only when we accept that it's there as a problem to solve and not something that needs to be blamed or shamed away.

Correction is to be applauded, as that is the point of training, finding mentors, and pursuing goals. As long as we are works in progress, there is hope. The hope is to start seeing the potential for improvement as better than the pain it might take to get there.

The Discomfort of Problems

When your experiences with change have all been poor, you are once bitten, twice shy. Would your enthusiasm change if you knew that your poor experiences were all because your irrationality drove you and that you needed a better toolkit?

From the initial "I don't know" through the curve of change, all kinds of traps are waiting.

Part of counterintuitive wisdom is the perpetual nudge to believe that you are far more intelligent, stronger, and braver than you think—because you are. Maybe you don't have the skills yet, but skills can be learned.

Remember, that's the agreement when knowledge moves forward as long as people can come along.

Have you heard of the serenity prayer? It starts with "God grant me the serenity to accept the things I cannot change; the courage to change the things I can; and the wisdom to know the difference." Whether you have a version of God or not, we tend to be far too accepting and overestimate the courage required.

Naïve Action

The problem with taking naïve action is that it just compounds. When it doesn't work, more action is taken, adding more work, unintended side effects, and more work on those side effects. Quickly, you can be overwhelmed with how much work was just created.

To me, it's just physics. Every action has an equal and opposite reaction. When you try to improve something, you will wreck something, too. If you aren't careful about what you wreck or cautious to notice, you've just swapped one problem for a new one.

Worse, gravity happens. Your improvement quickly returns to being a problem, and now, what started as one issue has become three: the original, the reaction, and the brand-new one. Continue like this, and quickly, you will be overwhelmed. I've seen much work created, including many full-time positions, to deal with the ongoing fallout.

It's about quality of action, not quantity.

Problems are the things that concern you, that you don't yet see how you could influence them. They certainly aren't in direct control, or you would have already done it. It might look like it's in direct control, but you can't follow through.

Sometimes, it's the word problem that's the problem. We think of problems as big things. We can call them by words to make them more palatable: challenges, opportunities, or even difficulties. Use whatever word you want.

It's a problem because it's discomforting; it is discomforting because it is a problem. Language doesn't matter; your feelings about it do.

Self-Defeating Behavior

That discomfort gives rise to self-defeating behaviour. If we try not to see problems for what they are, we can be successful.

We are hard-wired to conserve energy, and accepting things for what they are instead of trying to change them is undoubtedly much less work than doing something different. We are social animals, and going against the grain is risky.

One last example of why we accept problems instead of solving them is our gift of cognitive dissonance. This gift allows us to explain away uncomfortable facts.

We must start recognizing these seemingly logical but irrational solutions to solve problems. Since we are adept at eliminating issues in ways that don't solve them, we have to call out our self-defeating behaviour.

When we realize we have a problem, the immediate urge is to get rid of it. This temptation of crisis drives people into action – the knee-jerk kind. You've learned about the bias for action, and it's incredibly tempting when there is a crisis.

Heroic Solutions

Crisis mode can heighten senses, creating a feeling of being alive that is hard to resist while the emotions of fight and flight govern you.

The thrill of stepping up to an immediate, critical, complex challenge and delivering on it is quite an ego boost. It also makes the day go by much faster, makes you feel like you earned your pay that day, and imparts a feeling of gratification, pride and worth.

People love the hero who comes to save the day. What would we do without them?

Firefighting is so time-consuming, energy-draining, and attention-grabbing that there is no energy left to figure out how to avoid it next time. All solutions have two parts: corrective and preventative. Corrective actions are the immediate fixes, and preventative actions are the changes that must happen to ensure they never happen again.

False Starts

When firefighting, we don't get to the preventative work; when we prize firefighting, we don't even think it's worth it. We think of the Maytag man not as a future to hope for but as dull, lonely and stale.

Preventative action is the work to end up like the Maytag man – toward a future that doesn't seem fun. The same problem happens over and over, but it's okay because we've practiced what we are supposed to do when crisis mode hits, and hopefully, it hits when something boring that we were supposed to be doing on the agenda is boring.

All these pain-avoidance behaviours accumulate to create many false starts. When discussing self-destructive behaviour, we want to avoid these false starts. They make problems bigger while wasting and eroding our time, money, and confidence.

Applying the wrong solution is similar. Failure after failure, we try harder and harder until we are backed into a restricting corner and feel like we have no options left.

Waiting for the Epiphany

But is that the case, or have you just run out of pain-avoidance strategies and moved on to energy-conserving ones, such as waiting for the magical day?

Sometimes, we know we need to change, and yet we wait until that last-chance moment when we have to change or else. When we think an epiphany will one day change our lives, we fail to act.

When you think that once you know a particular piece of information, all the pieces will fall into place, and change will miraculously be easy. Maybe it's a special day that will unlock magical power for you to suddenly know what to do and how to do it and have the ability to follow through.

That's not the case. There are no shortcuts here. That's what makes it a problem. Solutions aren't obvious, and issues take work to solve. When you aren't ready to accept that, you wait for the epiphany.

We have a natural aversion to ambiguity. Ambiguity is a total loss of environmental feedback. For humans, ambiguity is dangerous. With brains built for survival in an outdoor world, seeing and scanning your environment ensures that there aren't any dangers lurking. Drivers know that feeling of panic when they can't see where they are going. For some, that's the brain freaking out that there could be danger nearby. Not is, could.

Ambiguity means the odds are not clear. Instead, we lean toward clarity. We pick odds we know over foggy ones, even when the odds are worse. Saying I don't know is saying hello to ambiguity. Like other pains and fears, this one, too, has a premature warning alarm.

Revelling in the Insanity

Sometimes, we have to go through the same experience repeatedly, and although the same undesirable outcome happens every time, we fail to call it a problem and do something about it. We act like it won't happen again and then get upset when it does.

If it sounds wild, it's the definition of insanity – doing the same thing repeatedly and expecting a different result. When you want to solve a specific problem, Google is full of answers. But when it comes to unique issues, you have to know how to solve your problem.

Complex problems seem to have available solutions, but then when you try to apply them, things don't improve. Instead, they change into a different situation. It's expensive and frustrating to keep using Google solutions.

It's a slippery slope to a bad ending. If you've ever played Candy Crush Saga, it's like the spinners who replace the candy with black licorice. They start calm, but in a couple of moves, they start vibrating. Keep going at them, and they will finally explode, but leave them alone, and they will return to a stable state.

Applying the wrong solution is similar. Failure after failure, we try harder and harder until we are backed into a restricting corner with seemingly no options left. Suppose that's where you are, no fear. Game researchers have discovered that the brain likes failure as long as there is a chance to try again.

Your current comfort helps you ignore impending problems. We do this when we forget that winter is coming when we're lounging in our backyards. Instead of saving for retirement, we spend money on things we don't need now. We don't have wills, although there are only three truths in life: birth, death and taxes.

Basking in the Spotlight

Another is the joy of having a problem to brag about.

Sometimes, we think we'd love a solution when we brag about our problems. Yes, I said, bragging, as if telling other people with the intent of building up our self-importance.

This includes first-world problems, such as being so lucky as to have the problem. Those should be obvious. It also includes things that sound like genuine problems, such as how I will get out of this unsatisfactory or abusive situation.

One of our basic human needs is significance—feeling important in some way compared to other people. Unfortunately, some fill that need with a unique, unsolvable problem.

After all, if it were solved, we'd lose our sense of being unique. As adults, we hold on to past hurts because they explain away any failure to live up to our potential.

Yet other people go through the same experiences and can come out better for it. You can replace a feeling of significance from the event with a sense of importance from a self-authored story. It's called post-traumatic growth, and it's always an option.

Learning from Experience

Life would be easier if we could learn from experience. However, as the earlier traps cumulate, this becomes unlikely.

To learn a lesson means accurately interpreting cause and effect. Even military flight instructors succumbed to this trap. When trainees did well, instructors would praise them. The very following maneuver wouldn't repeat this praise-worthy performance. Instead, it would be the opposite. Over time, instructors concluded that criticism is the most effective response to successful maneuvers[i]. Do well, get criticized. Do poorly, get praised. The Nobel winners Daniel Kahneman and Amos Tversky reported that the events indicated a statistical truism called regression to the mean.

We tell the story and miss the facts all the time. Sometimes, it's innocent, like when we don't understand the statistics. Sometimes, it's just our faulty memories.

Mutable Memory

You might think your memory reflects a historical truth everyone would share. Instead, our memories are individual and unreliable.

Of all the cases overturned through DNA testing, it might shock you that 73 percent were convicted initially with eyewitness testimony[ii]. Eye witness testimony is treated with great weight by jurors as accurate. Still, many factors can sway what we think we see, especially in emotional situations and when recalling them.

Researchers have found that "Emotion engraves the brain with vivid recollections but cleverly distorts your brain's record of what took place."[iii]

Recall changes the facts, too.

Each time we retrieve a memory, it changes a bit, allowing it to be added to, modified or even erased. "Memory is more dynamic, more fluid and more malleable than we thought," says neuroscientist Daniela Schiller of Mount Sinai School of Medicine.

New data reveals that only about half of our memories are accurate because of this malleable process.

Forgetting is just as important to memory as committing it there in the first place. Without this ability to forget, the weight of all your memories creates crippling confusion. While forgetting seems to happen only when it's inconvenient, you are supporting a sound state of mind, a shaper intellect, and even a superior memory.[iv]

Useful Information

The things we remember are helpful. They help us make predictions. It seems this is the point of memory: to make connections that allow us to learn, forecast, and interpret the world around us. When something stirs an emotion, it is helpful to remember the circumstances for future predictions.

If you've ever been in a bad accident, you may have felt time stretching out while you notice extraordinary details. What's going on is that heightened emotions are laying down richly thick memories. Ample information is being recorded for you to avoid future recurrences.

The information we store helps us to make connections. Learning something new requires connecting it to something you already know[v]. Connections help us decipher friends from strangers, causes from effects and knowledge from information.

Change for the Better

Making change for the better means not simply transforming it into something else or making it pop up somewhere else, like a game of Whack-a-Mole. It means testing change and observing what happens with a wide field of observation.

Stop and observe if your solution will deliver the expected change without causing new or different problems. This question asks you to consider several solutions instead of the first one that comes to mind. A step in the right direction might be a step worth taking.

As Isaac Asimov said, "The most exciting phrase to hear in science, the one that heralds discoveries, is not 'Eureka' but 'that's funny.'"

You need to find the truth about the impact you think you can create. Will it be changed for the better?

All Out of Answers

The day finally comes when the truth is unavoidable and unexplainable. Sometimes, they call rock bottom these days, and sometimes, it's the day you get a wake-up call.

Suppose that's where you are, no fear. You are finally ready for real solutions when you are out of answers. This is your chance to try again. Solving a problem requires embracing ambiguity. You must accept that you don't know where your problem-solving journey will take you.

Remember the fear of ambiguity? That unknown snowstorm of whiteness with no bearings? Some people clamour for the wheel on a team trying to solve problems. When you are on a team facing ambiguity, there are back-seat drivers, pouters holding critical information, and many hands clamouring for the wheel.

On a team, embracing the facts and accepting that you have to solve a problem, not just throwing a tried-and-true tactic at the wall, is daunting. Problem-solving is for individuals who know how to ask experts for specific help.

You have to hold the wheel and go alone.

Follow A Clear Process

Being able to solve problems is the root of satisfaction. You learned about dopamine-driven behaviour leading to the short-term satisfaction of sugar-coated task accomplishment and addictive habits.

You've also learned how the avoidance of pain does not lead to the achievement of pleasure. You've also learned that not genuinely solving a problem creates overwhelm.

Struggling through a problem and accomplishing something of importance to you does lead to long-term satisfaction. More than satisfaction. The pleasure is in the internal feeling, the external result, and the knowledge that you can do it again. There's nothing like building up belief in a process and the skill to execute it that gives you the confidence to tackle anything.

The clarity you are looking for that gives you comfort is the clarity of the process to follow.

The difference between being busy and making progress is the scientific method. Scientists rely on the scientific method, the highest current bar for knowing where to go when you don't know where you will end up, can't see very far in front of you, and know there will be some treacherous curves. The scientific method is like a map for problem-solving.

Science is associated with rationality, impartiality, fairness, and the pursuit of truth. Just thinking about science triggers moral behaviour. After people are primed with science-related thoughts, they are more likely to adhere to ethical norms and help out strangers[vi].

Science is not the affirmation of a set of beliefs but a process of inquiry that builds a testable body of knowledge that is constantly open to rejection or confirmation.

Pair Up Experts with Amateurs

In organizations and life, our own opinions derail us. We sell what we want to sell, do the work the way we want to do it when we have the freedom to do so or form the opinion that it's more important to do what we are told and wait for instruction.

We know that alignment is required in organizations to be efficient and effective. Yet, the only way to accomplish that is top-down. The CEO sets the vision, the executives form the strategy, the managers create the tactics, and the employees do the work.

Have you ever noticed that CEOs don't talk to customers? Employees do. When organizations follow a top-down approach to alignment, they are selling what they want to sell and not what people are waiting to buy. The information that should be going up channels doesn't happen. The truths aren't heard. To change your reality, you must start letting new truths enter your echo chamber.

Allen's law tells you why you must listen to those employees, especially the new hires. When a distinguished and elderly scientist says something is possible, they are likely correct. But when they say something is impossible, they are most probably wrong.

When solving problems, getting the experts in a room is obvious. Guess what they do? They tell each other what will never work. Committees, project teams, and groups find possibilities that are okay enough, but for transformational performance, real leaps and bounds, you need the amateurs on equal footing with the experts. You need diversity, not hierarchy.

Creating alignment doesn't have to be either top-down or bottom-up. Real solutions don't come from choosing one thing over another; they're about creating a new alternative.

Data and scientific processes do this, and you can do this, too.

Use Consciousness to Question

Have you ever wondered or believed that there is a part of your brain you aren't using, and if you could, you would be so much brighter? Someone once said that we only use 10 percent of our brain, and I thought I'd be a genius if I could figure out how to use 11 percent.

Since then, they have tools to see the activity in your brain and tell us that we are using 100 percent. I call this an inability to observe; hence, evidence is absent.

Science cannot pinpoint consciousness. It doesn't know where it comes from or where it goes when we die. It can't see it. It can only see neurons fire when we think but doesn't know what we believe.

If you can't see it, you can't tell me I'm not using it to its fullest potential. You can see I'm using my neurons, but you can't know I am not using my consciousness.

Preparation that Counts

If you want to be brighter and more productive, it's not about using your brain better; it's about using your consciousness better. It's about monitoring your thinking and eliminating the voices you've internalized from other people you falsely believed. It's about absorbing information through all your senses, listening to your gut, following your heart, and thinking independently with your head.

It's about knowing what you think and not letting a thought slip. That is the sure path to rationality. When using your consciousness, you are smart and look like a genius. Your counterintuitive productivity will give you startling insights and create shock and awe everywhere you go.

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[i] (Dorsey-Palmateer & Smith, 2006)
[ii] (Lilenfeld, 2010)
[iii] (Chen, 2012)
[iv] (Wickelgren, Trying to Forget, 2012)
[v] (Greene, 2010)
[vi] (Christine Ma-Kellams, 2013)