HOW TO SUSTAIN MOTIVATION AND HACK POSITIVITY

Using the science behind motivation, positivity and neuroplasticity to become the happiest, healthiest, most successful you.



Table of contents

Chapter 1 - My Story, and how Reasoned Optimism, or Logical Reframing helped m how it can help you too	e, and - 4
Chapter 2 - Depression, and how other people are necessary to ensure success	- 28
Chapter 3 - The Science. I show WHY this works, so you don't have to BELIEVE it do	oes - 34
Why taking a step back and self distancing works - 35	
Where and how Neuroplasticity falls into this - 42	
How long does it take? - 48	
Letting yourself be HUMAN leads to higher likelihoods of success – 49	
Chapter 4 - How to be a more Successful, Dangerous, Better You, though this.	= 51
How to use this process To become the most dangerous you 52	
Creativity is NOT an inherent trait. You CAN think outside the box WITHOUT "tale	nt" - 52
Using this to maximise performance in LIFE - 59	
Getting your EMOTIONS on your side - 64 Making your emotions work for YOU - 6	55
Making learning from failure your norm - 68	
True mastery - turning fear into motivation – 70	
Chapter 5 - Becoming the Fittest, most Healthy version of You WITHOUT TRYING	- 73
Chapter 6 - Becoming the Most Self Confident, Content version of You	- 92
Chapter 7 - Overcoming Chronic Pain	- 99
Chapter 8 - Dealing with Loss	- 108
Epilogue Thank You	- 116
References	- 116

Foreword

My name is Nikhil Autar. I was diagnosed at 17 with acute myeloid leukaemia, and given a 10-20% chance of surviving. But despite the pain and struggle, what kept me going - what kept me smiling, happy and kept me hopeful during treatment, wasn't the usual motivational drivel you hear when you are diagnosed with something... but rather a simple, logical process of looking at things. This ultimately made me realise that you'll ALWAYS have a second way of looking at things, and that taking that path was the only thing that made *sense*.

It isn't positivity, or optimism.

It's REASONED Optimism.

A process of constant **Logical Reframing** of a situation, to discern the best possible attitude, mentality and action to take.

By maintaining that over time, I hacked my own brain's processes of learning, memory and habit formation - its neuroplasticity - to ensure I ALWAYS processed things THROUGH this framework.

And because I DIDN'T do what most motivational speakers tell you too... Because I let myself be human... I didn't have to be Brave, spend huge amounts of Willpower I simply didn't have, or courageous during any of this.

Because this is based on REASON and LOGIC - ANYONE can do this for ANY situation they find themselves in.

I talk about how I used this to smile during cancer, and stay happy despite tragedy after tragedy. I show you how you can do the same, if that's what you need.

But this mentality, and process, of always finding the most optimal path to take... The one that leads to you being the happiest and healthiest version of you, can also be used to optimise your response and give you the best chance of succeeding in life too.

I used it to lose over 20kg twice, while on the highest dose of steroids, by CHANGING the way I *thought* about food and exercise, rather than forcing myself through horrible diets and exercise regimes I couldn't maintain.

I used it to optimise my startup, and position ourselves for maximum success and impact. We're Australia's Student Startup of the Year, have won numerous grants, and were about to launch our first product, before I got into hospital. I know that once I'm out, we will generate at least 6 figures through early sales and marketing data we've collected.

I've talked about how pro athletes, and executives can use this process, and hack themselves, to enhance their performance and make being focused and productive, automatic. Their NORM.

I use it to remain objective, and make the best decisions when playing poker, something I started as a hobby, but have thus far profited something in the early 6 figures, in my spare time (I used this capital to fund my startup).

I use this to keep improving myself, no matter what. And I think you can use it for your challenges too.

This surgery I'm getting is gonna be tough. It's open heart surgery. It'll take months of recovery, and there's a chance that I'll have died on the table by the time you're reading this.

If I do... well... I won't be able to complain. I'm honestly not worried as I go into this. I'm using this mentality to calm myself now, as I write this. I know I'm in the best hands. I've gotten second opinions about the graft versus host disease that complicates my procedure more than most. I've got the best doctors on my side, in one of the best hospitals in my country. What more can I do?

I just hope that this helps you, and that what I've done makes an impact in this world.

I've written this up in a way that you can benefit from what you seek most. I ensure that the science chapter isn't too sciencey or nerdy. That anyone can read it - and highly recommend you check that out. By understanding *how* the thought process I used to do all this works, I think you give yourself the best chance of benefiting from it. You don't have to believe in *me*, because this is backed by objective, hard data and science.

But if my story helps convince you it works, or gives you examples as to how to, well, that's a bonus.

I don't plan on charging for this book, unless a publisher ends up being the best way to get this to the most people. But if you want to help me out - only do it if you tell me HOW this has helped you. Send me an email, or find me on my social media profiles or YouTube (just google/search @NikhilAutar and you should find me - or check out nikhilautar.com).

I dunno how to do this - but I think paypal will work – Nikhil.autar@Gmail.Com is my paypal (my business email). If I don't need it for treatments/other vital things, I'll be looking to invest it into medical research and eventually, charity. What I've dedicated 100% of my startups' profits into.

But yeah guys... I just hope this helps.

Thanks. And Enjoy.

Nikhil

Chapter 1 - My story.

The gentle swish of gum trees' leaves swaying into the breeze was all that could be heard, outside of the occasional grunt of a car engine, the squeals of delight of children playing in the distance, and my puppy, Bonzer's, steady pants.

I sat there, my fingers running through thick fur, lazy as the pine's motions through the air, languishing in the calm.

A storm was coming. I could feel it.

The past few months had been hell.

For the usual reasons of worry, and stress in my end-of-school pressure on driven Year 12 kids.

But also more...

It had been weeks since I'd gone to school now.

Weeks since I'd even mustered up the courage to flick through the mountains of notes that had gathered on my desk. This, from a guy who'd thrown all-nighters MONTHS before university entrance exams.

A flash of anger seeper through me. All of that effort, for what?

Barely top-40 marks. The absolute benchmark of my goal. The bare minimum required to get that enviable 99th percentile university admission score that would open up doors to my dream of becoming a doctor.

All of that sacrifice, my genius plan of starting early and studying smart, not hard - for this?

The disappointment was always close to boiling up to the surface, dismay a mere instant from erupting through the calm façade of a teenager's awkward smile.

But ultimately, the thing I felt most, was disappointed.

Disappointed that my dreams were an instant away from withering away. Disappointed that all this was for naught. Disappointed that I'd done all this work, and just given up at the end.
That's what I regretted most.
When I should have been finishing off the last few past papers, guaranteed to hold 5, maybe even 10 precious marks in repeat questions alone, I slept. Sometimes, for 16 hours a day, to avoid them.
When I should have been doing those last minute practice essays, I stalled by looking into my plate for hours, to the point where I'd be sickened by the thought of taking another bite.
In the hours before the exam, the precious moments where my peers were scrambling about for every scrap of knowledge, I stood there, blank faced. Not caring.
And now, despite my marks being salvageable, I couldn't muster up the energy to even <i>read through</i> the new modules of physics and chemistry work, the latest chapters in math, the next essay in English, yet alone excel at them.
And this bloody cold on top of all this, wasn't hurting either.
Who gets sick for 6 weeks in the middle of finals?
Me, of course.
This all sucked. I needed to get up and work.

I grimaced as I shifted up the pool chair, the protesting groans of the now years-old hinges a piercing cry in the otherwise still air. Bonzer sighed next to me as I swung my legs around and made to get up.

It was a good moment. It was nice to get away.

But that's all it was meant to be. A moment.

But as soon as I heard that phone ring, I regretted moving.

I wished that moment could have lasted forever.

Too soon, I heard the click of the phone being put down, and the creak of the shutter door being pried open.

Dad's head stuck out over the pool, and even as he said it, I knew something was wrong.

"Nikhil, your blood tests came back. The doctor said we have to go to the emergency room.

"Now."

The ride through the twisted streets of Liverpool seemed to pass in moments. Before I knew it, I was ushered out of the door, and into the chaos of a Monday afternoon ED. I was checked in and held there.

People on the verge of collapse were waiting patiently outside, while I was seen first. Even 17 year old, barely medically-literate, me knew something was up.

Nurses hurried by. I answered the questions asked of me, barely noticing my own voice above the deafening noise of my heart pounding as if it had just been told how many beats it had left.

Dad and I were left alone for a few minutes. In the distance, I heard the concern and urgency in the doctors' and nurses' voices. It felt as if it was all for me.

A few things jumped out at me.

My gratefulness for the old nurse's kind smile, and her insistence that she give me the numbing crème before an injection.

The concern as these actions, at ends to/against the grain of the usually dismissive, uncaring ED, become more and more suspicious - it was all too conspicuously inconsistent to the norms of the dismissive, chaotic EDs I'd seen on TV.

The whispers of someone saying, "but he's only 17," in the distance, echoed in my mind endlessly.

When the nurse wasn't looking, I snuck a furtive glance at my files behind which they seemed to take great effort in hiding, as they came in to record my vital signs.

A phrase leapt out at me towards the bottom of the thoroughly scribbled on page.

"Bone marrow failure," I murmured.

"Wait... Does that mean leukaemia?" I asked Dad, tentatively. Vague memories of the story of '1000 paper cranes,' the tale of a girl who'd fallen ill after the bombings of Hiroshima, pieced themselves together in my brain.

He looked at me dead in the eye, as memories of an uncle who'd had something similar 10 years back came flashing through both his and my mind, and pronounced, "No."

The whole of tomorrow, I laid in bed, clutching my aching back in one arm, my sobbing mother in the other, hoping against hope that the marrow they'd taken from my hip came back with anything but that callous, clinical word.

Eventually though, a man I'd never seen before entered my room, sighed, and said,

"Nikhil, the good news is you're 17 and you have leukaemia... But the bad news is... You're 17 and you have leukaemia." I cried. For ages. The cliched feelings of devastation, shock, confusion, and fear were no less apt in describing what i was going through. Confusion reigned supreme in the moment, giving way to anger in the next. But between these, interspersed constantly under the surface, was unsurmountable, complete and utter devastation. Everyone around me was either in their own void or trying to lift me out of my own. "Nikhil, you're strong." "You're brave." "You'll get through this!" But no matter what they said, the hollow tones of a voice echoing, "10 to 20%," my 5 yearsurvival odds, rattled on in my mind. I was 17... and told I probably wouldn't live to see 21. HOW COULD THEY KNOW WHAT i WAS GOING THROUGH?

I tried pulling myself out of it. In moments of clarity through the haze of tears and fear, I tried revving myself up. I watched Kobe Bryant basketball highlights, in the hope his sheer will and determination would pull me up. That soon melded into me watching, remembering - being told by family and friends of these amazing individuals who'd climbed

mountains without oxygen, who'd had limbs cut off, yet still completed triathlons, who'd surmounted inexorable odds and lived, no, *THRIVED* despite that.

But though they'd hold me up, give me something to smile about, for a few minutes... The same thoughts would spring up again, and pull me back down.

After a while of having those stories thrust upon me, a cacophony of tales told by well meaning, but distraught friends and family, I'd had enough.

So what if some girl who'd sufferred burns just ran a marathon?

A yogi could control their digestion through the power of their mind?

Who cares?

At that time, all I could see was pain, suffering and imminent death in my future.

Irrelevant tales of triumph didn't erase that reality. Their encouragement to "just be positive," to "be strong," "brave," to "not give in" couldn't hold a candle up to my reality.

No-one told me HOW to get through this. WHAT to think about instead. WHAT I could cling into. If anything... they made me feel *worse* about myself. As if I was *weak* for not being able to do the same.

For god's sake... I WAS 17, AND TOLD I PROBABLY WOULDN'T LIVE TO SEE 21.

How did *ANY* of that help me?

It's not like I wasn't trying to find something to feel better about.

I pondered their circumstances, looked at these 'inspirations,' and asked myself, what could I do? What *should* I do?

But no-one had an answer. No-one gave me a path to follow. These 'inspirations' just seemed to tell their own tales of glory, but ignore the kid sitting there, pleading for an answer.

After crying for days, feeling desolate, frustrated and afraid - I realised that I needed to do something.

I hated that feeling. The wet pillows. The sweat as I anticipated what was to come. The omnipresent feeling of eternal doom. I wanted to break free from that. But I couldn't see past those words... '10 - 20% that you'll be alive in five years.' The fact that chemo would start in 3 days.

I felt like I'd done everything. I fell asleep, hoping this was all some bad dream, or a terrible joke, each night. I tried digging through others' stories of triumph, looking for something I could cling to. I begged God for some sort of guidance.

But in the end... it turned out that a simple little thought experiment would be what got me out of that feeling for the first time.

What got me out of that mess was this.

I took a step back. And pretended that what had happened to me had happened to someone else.

When I did that, for the first time, the emotions - constant fear, dread and despair - they all dropped away. And from that objective position of control, I was finally able to contemplate what had happened, and question what I was doing, and what all of that was accomplishing.

From there... for the first time in days... I was free. I could see things more clearly. With calmness and reason.

And it was from there that I realised that no matter how much it sucked... I couldn't change the fact that I had cancer now. No amount of begging, pleading, prayer or willpower could change that.

So why was I torturing myself with all these thoughts and feelings?

After seeing, and accepting that I had this now, I realised that all the fear and depression was coming from ME.

MY brain. MY mind.

No-one could come into my head and force me to feel those things, right?

What was it accomplishing then? Other than making me feel worse about everything, and possibly making my chances of survival even slimmer than it already was?

Nothing.

So why was I doing that to myself?

I had no answer...

From that step back... it didn't make any sense.

Sure, feeling bad for myself was something I couldn't help. We're only human. When we get told something momentous such as this, we can't help but feel horrible about it all.

And it wasn't like after I took a step back ONCE and questioned all my doubts and fears ONCE, that this all fell into place either. I walked through many scenarios, pretended to be in many people's shoes - even looked through forums of people who actually HAD gone through cancer (as opposed to motivational influencers) before I broke things down to the basic, fundamental assumption my brain had made for me - That feeling bad was what I should be doing right now.

And now that I had asked myself, "Why was I feeling so bad? What was it accomplishing?" I could finally start producing answers to the next thought... "What should I do instead?"

An answer to that wasn't apparent right away. My slim odds, the fear of imminent pain, and my angst at being diagnosed so young, kept erupting uncontrollably in my mind.

So I decided to do the same thing I did with that original shitty piece of news, to my doubts and fears.

I took a step back... and I questioned them. Until I saw a second, better way of looking at things.

So chemo was starting in 2 days' time.

But why was I, why does everyone, just look at it as just something that brought pain, and misery? I mean, wasn't it also a medicine? The very thing that could get me out of this?

Why not look at it for what it could do, rather than focus on what came with it? Of all the ways of looking at it, wasn't *that* the one that would leave me happiest and healthiest? Why not look at it in that way, instead?

My chances... they were slim.

But wasn't it also just that? *A chance*? An opportunity to pull myself back up. A shot at a second life, and normalcy. Ruminating over the odds... if anything... only made them slimmer. Feeling doomed would only make me more likely to end up that way. The placebo effect is a thing, right? Why not focus on THIS instead -

That in the end, they wouldn't be doing this to me if they didn't think it could work, right?

And it was on the back of that thought, that my doctor's words came back into my mind.

So I got cancer young. I was unlucky. Cursed, you could argue. I certainly thought I was...

But didn't that also mean I could get the hardest treatments possible, and get back up, faster?

I didn't have any comorbidities like heart or kidney disease that would make treatment worse, or impossible.

I didn't have a family to look after and worry about... on the contrary, I had one behind me. I had friends, these amazing nurses, and one of the best medical systems in the world behind me.

So maybe the bad news was, I was 17 and I had cancer...

But the good news was... I was seventeen when I had cancer!

It may seem superfluous. It didn't change anything, objectively. What was to come, would come.

But to ME, it was everything.

It was the difference between being dragged, kicking and screaming into this, and walking, if not proudly, then at least assuredly into the Colosseum.

YOU WILL ALWAYS - ALWAYS - HAVE A SECOND WAY OF LOOKING AT THINGS.

This process, of taking a step back, questioning my doubts and fears, and asking myself what I should do, gave me back something I'd lost. Control... Of the one thing that really mattered.

ME.

It made me see that *I had a choice* in how I viewed things.

And when I took a step back from that... making the decision to focus on the perspective, to walk the path that led to me being happiest and healthiest, **didn't take courage**, **bravery or strength** - something I'd tried and tried to bring myself to emulate through all those "positive," "motivational" "heroes" that were thrown in my face at the time -

It became the only *logical* thing to do.

The only thing that made sense.

To be honest... because I'd taken a step back and looked at things *objectively*, and with *reason*, it actually became *EASY* to follow. .

ONCE YOU SEE THAT BETTER PATH TO TAKE FORWARDS, IT ONLY MAKES SENSE TO TAKE IT.

And following it, and looking at things in this way all the time, was only a matter of TIME. "If you think one way long enough, it becomes habit, right?" thought 17 year old, high school topping me.

26 year old award medical student, award winning medical researcher, entrepreneur and poker player KNOWS this is the case.

I KNEW that by doing this, over and over, I would become someone who would always do this.

For ANY challenge I faced. Cancer, OR otherwise (as you'll see soon, I HAVE used this for much more than just cancer).

But "beating cancer" was almost easy, once I saw this.

I wasn't smiling during chemo, radiation and surgeries. But the vast majority of the time when I wasn't going through pain, I was.

And the more and more I did this with more and more obstacles that came up in my path going forwards, the easier it became to find that second, better way to look at things.

But it's that last point that I want to emphasise.

I didn't *smile* during the diarrhoea, pain, vomiting and screams of chemo. Things will never be as easy as they seem. There was still pain and suffering to come.

The words of one of my nurses, the night before chemo, at first, shocked me.

Where everyone was assuring me that I could do it... that it wasn't so bad... that I'd get past this in time... this lady came up to me and said,

"NIkhil... chemo is going to be worse than the worst thing you've ever had. You're going to be vomiting your guts out. You're gonna be going to the toilet 10 times a day. Your gut while ache like it's never ached before, and you may feel so sick you'll want it all to end. Prepare yourself."

At first, I was shocked.

"Why the hell would you say that to me, now?" I screamed in my head as I nodded politely, watching my parents recompose their own shocked faces.

But later that night, I pondered that too.

I was in this euphoric state of unbridled positivity, after realising I had so much on my side.

But when I took a step back, and thought about Nurse May's words... I realised that this too was something I had to acknowledge.

The path going forwards WASN'T going to be clear and uneventful. The chances of that being the case was slim. But as the fear and despair threatened to seep back into my forethoughts... I took a step back, and asked myself WHY she'd told me that.

It seemed cruel, crass and certainly, abrupt, at first. But it was no less true, despite all that.

These obstacles and hurdles were gonna be there anyways. But I had a choice.

I could either linger on the pain and suffering, pretend, or hope that it wasn't going to come, OR, I could *prepare* for when it did, and ask myself now, rather than when I'd be clutching my knees to my chest in agony, what I should be focusing on to help pull myself out of this.

Acknowledging my suffering, and the obstacles in my journey didn't mean I'd collapse in a heap, or that they'd exert some dominating power over me.

No, by *accepting* truths that couldn't be avoided anyways, I'd give myself the opportunity to prepare myself. A higher chance of bouncing back up after I'd get knocked back down. And I'd also get more satisfaction when I ultimately did so...

Because I'd *show myself that I could* still smile, no matter what my circumstance. Every time I did, I'd build up my own belief in myself that I could. I didn't have to look forward to the pain and fear. I'm not crazy. I knew I wasn't gonna enjoy it.

But I knew that when it did come - I'd focus on what all of this was doing for me.

During treatment, it was this that I clung onto most - *They wouldn't be doing this to me if they didn't think it could help.*

The struggle we go through doesn't happen for a reason. But we can always change HOW we look at it to get ourselves through it, and take pleasure from keeping that spark of hope alive, and bouncing back up, after it's passed.

It was the PLANNING that came before this, the acknowledgement that this was going to be hard at times, but also me allowing myself *to feel bad and crap* about it all that actually ensured I maintained this mindset.

If I'd "just been positive." If I'd forced myself to "be strong," and "think past the pain and suffering" that the cocktail of poisons pumping through my veins would bring... each time I couldn't do so, each time I'd find myself screaming "WHEN WILL THIS END!' into my own brain... I'd lose faith... In myself.

I'd start to doubt my ability to resist or be strong.

I'd lose faith in the treatment itself.

Each of the numerous times that something would come to knock me off my perch, I'd be forced to balance precipitously on that thin pilon of strength and courage by forcing myself to feel or be something I couldn't.

On the other hand, by *LETTING MYSELF BE HUMAN* and acknowledging the challenges that would come, and telling myself that I couldn't expect myself to be this "Happy, yolo, optimist" right away, or all the time... By telling myself that I WOULD fail every now and then, but that in the long run, I COULD get to this point, where I WOULD pull myself back up... ensured that I would.'

By letting myself human, I made myself MORE likely to learn, and rise after failure. By acknowledging that it'd take time... I gave myself NO WAY to fail.

Because i knew i'd fall every now and then... I also knew what I needed to tell myself to get back up, keep going, or at the very least - I knew that after the pain and misery ended, I'd pick myself up.

Because I was looking at things in the long run, I'd only have to do this twice in a row, and focus on those times I DID do it, to assure myself that I COULD keep doing it.

Because I had a system - this 2 step process of taking a step back, and breaking all my problems down into bite sized pieces until I saw the best path to take going forwards, I'd be able to overcome any *new* challenges that inevitably come in life.

The outcome didn't matter. I'd even prepared myself for the worst.

If the doctor came in one day telling me I only had 3 months left, I knew I could (and probably would, for a while at least - we're only human after all) wallow in the misery of it all... feel cursed. And depressed.

But I knew that eventually... I'd get to a point where I could tell myself... that I had 3 months left...

To LIVE.

To savour every moment possible with my family and friends.

To linger in the feel of cool water slaking my throat. To smile, and laugh. And to enjoy every single second of every single moment I had left.

I actually was told palliative care might be the best option at one stage during treatment... And when I was, I found myself doing this.

But I also told myself that I'd do everything I could to improve my chances. That I wouldn't resign myself unless I absolutely had to.

And I did. In fact, I found, and pitched the drug that's probably kept me alive to my doctors, successfully. It's probably why I'm still here today. Instead of wasting precious time I had scrawling blindly through databases that held literally decades of mankind's every advancement in biology, I took a step back, and realised that *clinical trial databases* probably held the most promising, front line treatments within them and focused my searches there. Successfully too.

But that's a whole other story.

In the end, no matter what, by doing this, I ensured that I'd give myself the best chance of being happy and healthy by always taking that step back, focusing on what I could control, giving myself time, and letting myself be human.

I'd planned for, and knew, over time, I'd get better and better at adapting to the hard months that were to come. I knew I could get myself through this, no matter what came up.

But by using this mindset, of taking a step back, walking through all my options, picking the one that left me happiest and healthiest - I've also used this mindset to get through so much more. To get through problems. To make myself someone who *AUTOMATICALLY* looks at what I CAN do, rather than focus on things I CAN'T.

When I relapsed, and was told I had less than a 10% chance of surviving, that palliative care might be my best option, I found something to smile about 10 minutes later - I saw that this wasn't over, that I had a year of medical school knowledge at that time, to find help. But even if it was... that I could still choose to focus on the things that made me happy.

As I sat in the car, going to hospital, seeing flashing lights that had blinded my left eye one morning, facing complete blindness myself... I found myself automatically telling myself that whatever happened, as long as I could think, I'd still be able to enjoy some aspects of life, as many many people in this world do.

As I sat in hospital, getting told I had a third cancer, my mind was already telling me to not panic - that nothing was confirmed yet - but that either way, I had a fighting chance. And that I could, at the very least, still choose to focus on what I COULD do, and what I DIDhave, no matter what.

And as I sit down in my bed, typing this up, before open heart surgery - a surgery I'd only find out I'd need only a few days before going in - I'm already telling myself that though there are additional risks to this thing in me... surgeons are great. And though pain would come... it wasn't happening now, and that I wouldn't remember it afterwards.

Why make it any worse than it needed to be? I am still human, I can't help but be afraid. So why not put that angst towards something useful? Like finally writing this book.

I surprise myself sometimes by how calm I've been during this. But again... in the end, it's not something innate or sensational in me that helps me do this. This mindset is scientifically shown to help ANYONE overcome things, and to overcome them easily.

I honestly think anyone can do this for anything they're going through because in truth - it's so simple to do.

When I find myself facing a new challenge, all I do is:

- 1. Take a step back, and look at what had happened to me objectively, as if it had happened to someone else.
- 2. From that step back, I'd question all the doubts, fears and obstacles in my paths, and broke them all down into manageable pieces that I could deal with.
- 3. I'd look at all my options, through all perspectives (or look for ones people used in similar situations) and pick the path that led me to the happiest and healthiest version of myself.

Then

4. I tell myself it'd take time. I give myself a long term goal of becoming whoever I want to be.

And most importantly,

5. I let myself be human. I didn't have to succeed all the time. I could let myself fail, and be human in the process. As long as I kept my eyes on that long term goal, by letting myself human, I'd be prepared for the worst, and I'd KNOW I would get there.

I didn't wanna just be told to "JUST DO IT" or be "pumped up" for a few moments and hope I'd stay that way.

That last step in particular, which allows me to LEARN from failure rather than ruminate on it - is what helps me KNOW that I'd could get to a point where I could become a better version of me - whatever my goal was.

It's not "positivity". It's not even hope. By giving myself a process to always find something to be positive about, I take out the guesswork and know I'll succeed.

It's based on logic, so even those who feel cursed, and helpless, will be able, and willing to grasp it.

It's reasoned positivity.

It's not "motivation". Motivational media often fails people who need it most. If it's not for them, or else gives people fleeting moments of drive when what they really need to succeed is something lasting, that ensures they succeed, it fails them.

It's sustainable motivation.

This is not a "winning mentality". It's a process where you'll always be able to pull yourself up. Where you constantly self optimise, and question your thought processes, your actions and plan for your future, so that you always taking the path that leads to the highest chance of success.

It's a winning process.

And the best thing about it... is that it's something ANYONE can do. For ANYTHING too.

I've already told you how this process, because it relies on logic and reason, and because YOU create this YOURSELF, means it doesn't require some innate trait of bravery, or courage to do.

I've alluded to the things it's helped me do OUTSIDE of survive too. You'll hear about that more soon, and how YOU can use this for the challenges YOU face, no matter what they are soon.

And because these basic principles are backed by science, you don't *need* to believe in anything or anyone too.

I'm not writing this to pump you up. I don't want you to believe I'm some super being.

I'm writing this you that YOU can pump YOURSELF up - and make yourself THE BEST VERSION OF YOU.

Similar to how Intrinsic motivation, a desire to do something because you'll be pleasing YOU, is shown to create more sustainable outcomes than external ones (Fischer, Malycha et al. 2019) - (ones that are motivated by a reward or pleasing others), when you do something because you believe in it, you're much more likely to benefit from it.

The end goal isn't necessarily an accomplishment or trophy. It's you becoming a better version of yourself which RESULTS in *more* accomplishments and trophies.

Self distancing, the act of actively taking yourself away from scenarios and reflecting, leads to lowered firing in the emotional, limbic centres of the brain, and increased firing in the logical frontal cortex. This means that just by making yourself taking a step back, you not only halt emotions, you think more logically *automatically*.

Taking a step back makes you physiologically more likely to think smart.

Neuroplasticity is the basic concept that underlies memory formation and learning. When neurons fire together, they wire together, and create stronger and stronger cortical maps that

relate to mental thought processes (more consistent approaches to solving challenges) just as much as physical ones (gradually improved performance as you master a skill in a sport).

Because you're using that process of taking a step back, and reminding yourself why the path you're taking is the best one, you don't need willpower to keep walking down that path.

It takes around 6 weeks to form a new habit through this, and good habits are just as hard to break as bad ones. At 6 weeks - your new thought process becomes automatic - your norm. Meaning it won't even require willpower.

Long term potentiation, the strengthening of your brain's transmission signals that comprise these thought processes, grows the moment you start thinking *with* a new thought process meaning after your first few attempts to walk down that path that leads you to a better version of you, the easier it becomes to keep walking it. *It won't even take 6 weeks to start forming those habits. It becomes easier and easier to maintain it from day 1.*

Thus, taking a step back and reminding yourself why you're going where you're going makes getting there *easy*.

And finally, by giving yourself a long term goal, you rig your brain to release more and more dopamine - the "reward," or "happiness" neurotransmitter - the closer and closer you get to your target. Dopamine is literally responsible for the reward pathway of addiction. If you focus on achieving something, the closer you get to it, the more satisfying it is.

Thinking long term makes you obsessed with constantly improving.

Neuroplasticity and giving yourself this long term goal compliment each other. As you get better at being the better you, the more happiness you get, the easier it becomes to keep walking down that path.

But when you doubt yourself, or feel that your end goal, the ideal you, is still so far away, neuroplasticity ensures that getting back on track is easier. If you get to that 6 week point, you no longer have to think about it. It's automatic.

And finally, letting yourself be human along the way doesn't only minimise the pain that comes from forcing yourself to do something you hate... When you're taking a step back, and walking yourself through *WHY* you're doing all this through this process, it leads to you learning from your failures, and indeed, ensures you improve how you look at the world as you go.

Being human makes you more likely to succeed

This process creates a positive feedback loop that ensures you get absorbed with achieving your end goal. By positive feedback loop, I mean a process that keeps activating, and hence, repeating itself, as opposed to what some hipster wannabe yogi would interpret it as in your regular self-help book.

Many talk about positivity being proven to be effective by the placebo effect.

The placebo effect is not well understood, but is very damn real.

The placebo effect, is real. But placebo *treatments*, ones that don't actually have an impact, don't product a placebo effect. They <u>are not so successful</u>. (Linde, Fässler et al. 2011)

Just as blind positivity or hoping to the universe (despite what people who hold things like "The Secret" on a pedestal) won't work to improve your outcomes, what I talk about... #ReasonedPositivity, or #ReasonedOptimism, which will allow you to gain maximum placebo effect benefit, not only because you actually receive an effective intervention and are TAKING STEPS TO GETTING TO YOUR GOALS (whether that be taking STEPS towards making content that makes your business more likely to go viral, or reading about negotiation habits and psychology, as opposed to hoping things go well), but also because you have a REASON to believe it works.

<u>A personality trait of absorption</u> (Owens and Menard 2011)- someone who becomes completely absorbed by their mental imagery, or beliefs - often someone who's more likely to be religious or believe in general - is one that's most associated with people who benefit from a placebo effect.

But personality traits need not be *innate* - <u>you don't have to inherit them</u> (Fischer, Malycha et al. 2019) (hopefully the above has shown you that you CAN change how you look at things). This means that you *CAN* become someone who *does* benefit from believing you're doing what you need to do to get better. It's just a matter of time.

While this process may not change an outcome, contrary to what people who read "The Secret" once start screaming (the Secret essentially says something to the tune of if you be

"positivite" and create "great vibes," the universe will become "your bitch"), what this *process* does is *ensure* you give yourself the highest chance of not just psychologically, but *physiologically* benefiting from self-belief.

Positivity alone can do that, if you're doing the right things.

But giving yourself something to be positive about *ENSURES* you *WILL* gain the maximum possible benefit. The science behind HOW that process that got me through cancer can help you do this, I'll explain in chapter 3.

But this thought process, of taking a step back, questioning all your doubts and fears until you see the best option going forwards, isn't limited to getting yourself through tragedies. It can be used for ANY challenge you face too.

That process, if you use it enough times, becomes a habit. An obsession. Your automatic way of thinking will be to find and follow that path that leads you to the most success. Science, and neuroplasticity ensures that It doesn't require willpower, or even thinking through things. You'll find yourself improving your outlook, your outcomes and YOURSELF by doing this, all the time.

And just as I'd used this to get past tragedy after tragedy, I'd also used this to take that path that leads me to the happiest, healthiest, and most successful version of myself.

I used this to overcome social anxiety and become happier with myself.

After losing a lot of my old self, including my looks, to cancer, I realised that my lamenting losing the 'old me' was causing me to be sad. But when I took a step back and thought about it, I realised that I, and pretty much everyone else in this world, spends so much time and effort focusing on the opinions of other people. Why was I, was does everyone, stop themselves from being happy because of what others are *thinking* about them, when (a) most people aren't thinking anything bad of you at all and (b) even if they were, why kill yourself for someone you don't even like. Someone you wouldn't wanna be friends with?

I used this to choose the most optimal pathway for my startup in the long run.

My company, <u>Get to Sleep Easy</u>, powered by my machine learning powered app, <u>Centered Around You</u>, is creating medical devices that bridge the gap between home and healthcare. After losing 2 friends to a fall and preventable infection within a week, I needed to make change, and figured a hospital bed which could prevent the most common, preventable diseases and monitor patients remotely would be the best way to go about it. But after

taking a step back, and a few months of product development, I realised I needed to reevaluate our product and our customer. Instead of trying to spend years developing a product that had billion dollar competitors who were more capable of doing it (and likely to just copy our design when I was done), I focused on the home market – where 95% of seniors and disabled people who'd benefit most from our product lived – where most people who needed a hospital bed couldn't afford one – and where most falls, pressure sores and pneumonias occurred.

We pivoted to an affordable hospital bed alternative that converts any bed into a hospital bed and monitors users for under \$500, and since then won Australian Student Startup of the Year, established relationships with the largest nursing homes in Australia and a beta-testing user-base of 300+ people interested in pre-ordering our product. We've received over \$150,000 in non-equity grant funding alone (and are ready to launch our first product, which we are forecasting 7 figure revenues from in 12 months time) soon!

I used this to lose weight without trying.

Instead of restricting myself to diets that I knew I didn't *want* to maintain for life, or exercises I simply couldn't sustain post treatment, I focused on changing my mindset on food. By looking at *WHY* I wanted to eat so much (I loved food, but I often just chugged down those last bites to finish off that place), and focusing on *slowly* reducing my portion sizes (we're talking over MONTHS), while eating what I wanted, I figured I'd lose weight while eating what I loved, and doing what I wanted.

That I wouldn't even notice it. And through this, I lost 37kg in 7-8 months, WHILE ON HIGH DOSE STEROIDS (which make you hungrier and more likely to gain weight) and have kept it off for over 6 years. The app my startup has created will test this against other weight loss strategies, to establish with evidence how this could be a more sustainable way of losing weight and staying fit. Sign up here to get walked through this process and help power medical research today.

I used this to **win essay competitions**, to **think creatively** so my research could improve patient outcomes best, and to **win numerous grants**, **scholarships and prizes**. By looking at *everything* I have to do to stand out, *before* I'd even start, I'd give myself the best chance of succeeding. Ensuring every word and opportunity is used to show why my approach is best, I'd not only deliver the best results I could, but also keep improving my work to ensure it *was* the best.

I used this to **overcome chronic pain**. After struggling for years with these constant, horrid, painful spasms that were taking over my life, I decided to look at how chronic pain worked.

When I realised that pain rewires your brain to become more sensitized and affected by it, I focused on doing the opposite processes for a while, until those same, maladaptive neuroplastic cortical maps, created a just as hard-to-break habit of ignoring pain. Despite having more pain than ever, despite being clinically depressed and suicidal in the past, I'm the happiest I've ever been today, and starting to help others do the same too.

I used this to **become a winning poker player**. Before coaching sites become easily accessible, I'd constantly assess why people were doing what they were doing, and work OFF the felt to ensure that when I played ON it, I was losing the least while winning the most. I've made a 6 figure profit playing poker, because I focused on learning the game, rather than hoping I'd learn by playing it more, and am investing all of that into those medical device and research startups, and eventually, charity, where it belongs.

I used this to find my own cure when I'd relapsed.

When I had relapsed, of course, I couldn't help but feel down again. But by this point, I had a year of medical school knowledge under my belt. I read up, through journal articles, but mostly Wikipedia hopping (a method of learning I'd invented of clicking all the hyperlinks in a Wikipedia article, until I understood the whole thing), all that I could on my cancer. And then figured, in the time I had left, it'd be wiser to look up what treatments were at the forefront of treatment in my disease - given how low my chances of succeeding were.

So I looked up my disease, and possible treatments on Clinical Trial databases instead of blindly searching through centuries of research in generic medical databases, and found one which was not only being trialed often (meaning it was more promising) but also the one which applied most to my specific condition. I pitched it to my doctors, after they'd said no when I asked about it the first few times, and eventually, they agreed it could work in me. That drug, azacitidine, is probably why I'm able to write this today.

I used this to overcome loss, depression, and accomplish so much more.

Every time I face an obstacle, or challenge, of ANY nature, I take a step back, look at all the options I can take, until I see the one that leaves me happiest and healthiest.

I then tell myself it's going to take time, allow myself to be human, but reaffirm this process over and over again, until it becomes a habit.

And once I do this for one aspect of my life - for me, that was cancer - for you, that could be anything, small or large that you can make yourself feel pride for - looking at things in this way becomes easier, and easier, and *faster* to do as well. I've talked briefly about the science behind this above, but will explain it in more depth in chapter 3.

You don't have to take my word for it. You can see why and how it can help you for yourself through this (don't worry, it's not too nerdy or hard to read either!).

This thought process, this new way of thinking, becomes your norm. You *automatically* seek the path that leads to you having the highest chance of happiness and success.

I've used that process to do all this. And because it's based on reason, and demonstrable science, I hope you've seen that YOU can do this to become the best version of you too.

In the next few chapters, I'll further discuss the science behind, and show you how you can use this mentality to

- 1. You're already in chapter 1...
- 2. How depression makes everything I've said useless, but how you CAN and SHOULD climb out of it too.
- 3. Understand the SCIENCE behind this all, which shows you HOW this works so you don't have to BELIEVE in anything you'll KNOW it works.
- 3. Become the most creative, pragmatic version of you that's most likely to achieve their goals. Here I'll give you examples of how to become the best student, to think creatively, to improve your performance as an athlete, a more efficient thinker whatever you want to do.
- 4. Become the most happy, self-content version of you. Here I'll show you how I became more happy with myself, and overcame social anxiety, and how you can too.
- 5. Lose weight, and stay fit without trying. I think this one's self-explanatory. But I've lost 20kg twice, and stayed at my target weight, while eating decently healthy, without trying, for years by just changing how I thought about food and exercise.
- 6. Overcome chronic pain, and even depression. It worked for me. And I hope it can help those of you suffering out there too.
- 7. Deal with loss. Including a personal message to my loved ones in the midst of this crisis. But one that could help you when you least expect it, or help someone you know too.

And hopefully, through this, you'll be able to achieve whatever goal you want to accomplish through improving the most powerful weapon you have on your side in life. YOU.

I believe I've already shown you how you can use this to overcome major tragedies, and to give yourself a better way of looking at things. But in case you can't, please do reach out - whether it be to me, or someone else - including a professional.

And on that note, I'd like to close this first, opening 'chapter', by telling you that though this attitude is strong, and though it has changed my life and made me who I am, sometimes... it simply can't work.

Chapter 2 – When You're Depressed - even when you're not - You Shouldn't Do This All on Your Own.

I talk about dealing with many things, including loss, and depression, later on in this 'book'.

Particularly with these two though, but also with anything in life, we have to remember that we're human.

Sometimes you won't be able to find a second way of looking at things. No matter how much you take a step back, or how much you wrangle your brain, or look at other similar scenarios.

When your brain is rigged to make you feel down all the time, or when you're facing something you've never faced before for the first time - sometimes you need help.

Sure, if we're talking about how to overcome a tragedy, or get through an obstacle, asking someone else who's been through something similar, could be the best way to get through it. When we're overwhelmed, it can often be the ONLY way to pull through. But even when we're not, asking someone for help could be the best way to get through something.

I mean, let's take a step back and think about it...

A friend or colleague or someone you hope to emulate or learn from already has a second perspective, or way of looking at things, built into them. And it's one that's most likely to fix your scenario because they've already done it. They've proven it works!

Depression is a very real thing that we need to take more seriously.

I've been through both.

And I actually think depression was worse than cancer.

At least with cancer, there was an end in sight.

When you're depressed, there is no end. Your mind is chemically rigged to feel like the world around you sucks, and that there's nothing you can, or should do about it. And many do walk around in this state, forever.

Even I, after years of using my own thought process, and years of learning about and advocating for people with depression, didn't realise I was going through depression when it struck.

That's right. Despite being someone who found a second way of looking at a probably death sentence at 17 (in just 2 days), who got into medical school the very next year, who's played poker in some of the toughest online games, and with some amazing live pros. Even I, someone who's created a multi-million dollar valued startup despite literally debilitating spasms and pain, and someone who found something to SMILE ABOUT 10 MINUTES AFTER BEING TOLD I MIGHT BE DEAD IN MONTHS... couldn't outthink depression when it struck.

Even I felt like there wasn't an end to my suffering.

Even I felt like there wasn't a way out. That I couldn't keep going.

Even I wanted to end it all. For a long time.

Indeed, I almost acted on it, on more than one occasion.

The thing is, the first time I faced depression, it wasn't because of anything to do with cancer, or my health at all.

It was because I lost a friend.

It doesn't matter what the root cause of it is – sometimes, there is no root cause – some people are chemically rigged to feel less optimistic about things normally...

Pain is pain.

It's subjective.

Who's to say the pain I felt when going through cancer is worse than the pain of someone who's struggling to pay the bills for 4 children week by week? Or the pain of someone who hasn't felt *good* about *anything* for decades. Indeed, trauma psychologists suggest the levels of trauma experienced by child soldiers is similar to that of Northern Sydney children whose parents haven't hugged them for years (Dawkins 2013).

Anyone can feel depressed at anytime. We're often programmed, by society, and often, ourselves, to feel like "we've got to move on." That "we've got to be strong." That "we should just get over it." But depression is something that will affect ½ of us. Some of us are more prone to feel depressed all the time. And when you are depressed you often can't snap out of it yourself. No matter how amazing some dude's motivational help book may seem.

The science behind my process of reasoned optimism is based on normal minds.

Sure, you can bust through depression yourself. I did, after all, use this process to beat through, and start ignoring chronic pain, that was largely made worse BY depression.

But ask yourself this.

Why should you?

Similar to the logic above, why NOT try and access someone else's advice and inputs? It only increases your chances of getting out of a slump, and reduces the time you're in it.

Hell, if it wasn't for medicines, the depression I suffered from due to chronic pain could have killed me, at the beginning.

Depression is a fickle beast. It makes you feel like you're alone, when you're not.

Think about it this way, if you're feeling pain, and down, and knew a friend was feeling what you were. Wouldn't you wanna be there for them? Well, in that same way, they'd wanna be there for you too. So ask them.

Seeing a professional may seem weird. It did to me, the first few times. But the very thing that makes them weird is the thing that's best about them.

They're strangers. You don't have to see them every day. Which means there's no fear of judgement. You can tell them anything you like, and not care about what they think. They're literally, legally, not allowed to tell anyone what you told them. So there's no fear of reprisals either.

And finally... they're literally professionals at what they do. They've likely seen someone like you, or someone feeling like you are before. Why make yourself suffer any longer than you need to?

When I saw a pain psychiatrist for the first time, I'd already overcome my chronic pain for a while, and taught myself methods of ignoring it through learning about chronic pain, how psychiatrists manage it with CBT, and using my process to give myself a second, better way of looking at things.

When I talked to them, they were suggesting the things I was already doing. But that doesn't make my approach better. This means for years, between 2014 to the end of 2017, because I didn't even contemplate that a psychiatrist was someone I should see to help me deal with my pain, I suffered unnecessarily!

What could have been some of the best years of my life were some of my worst because of that.

Don't deny yourself the opportunity to feel better, and don't put off doing so, if you don't have to.

If you can't find someone to help get you out of your misery - sign up to my email list at <u>Centered Around You (caroundyou.com)</u>. Alongside being an app that tests the efficacy of wellness interventions and things like CBT and what I advocate for in this book, powered by machine learning, it'll also be a place where you can learn from others who've been through similar things.

And don't fall into another of depression's traps of making you feel like it's your friend either.

Depression becomes your new norm. Self pity, sadness, and feeling down, though it seems weird to those on the outside, actually becomes comfortable. Your set point. Where you feel comfortable. And breaking free of that doesn't just feel uncomfortable, or seem impossible - you don't even *want* to *try* it.

But when you're feeling at your lowest, the next time you are, I hope you remember these words. It's something that helped me decide that I HAD to find a way out of this dark hole I'd found myself in once and for all.

Life is a LONG thing. Why make it any harder than it needs to be? Why not enjoy the parts we want to enjoy most?

If nothing else in this book sticks. I hope that this does for some of you.

And now - to the rest of the chapters. Skip ahead to what you'd like me to explain most, or feel free to keep reading on.

- 1. Preface
- 2. How I used reason to Justify Optimism, rather than used Optimism to give myself Reason.
- 3. The Science behind Neuroplasticity, Self Distancing, and "Reasoned Optimism".
- 4. Becoming the Most Successful YOU
- 5. Becoming the most Self Content YOU
- 6. Becoming the Healthiest, Fittest YOU
- 7. How to Overcome Chronic Pain
- 8. How to Deal with Loss.

Chapter 3 - The science;

I know what you're thinking. For a so called "evidence based" book, there hasn't been THAT thorough an evaluation of scientific principles displayed thus far. I mean where are the easy to read EndNote references?

Well, I'm in hospital. Unfortunately, I only get to download EndNote onto 1 device, and I ain't about to spend a chunk of what could be the rest of my life doing Vancouver Style referencing. I hope these links to papers' abstracts on databases will help you find answers to what you're looking for if you're interested in something, but believe me, you won't need scientific training to understand this chapter.

Giving you something solid to justify your belief in this whole process working makes you more likely to choose to adopt it.

What could be more solid than scientific papers?

That's WHY this chapter exists. And that's why I'm making it easy to understand.

Of course, as this is a process that happens over time, you may be wondering, "Why isn't there an app that can help me walk through these processes?" Well, there is.

In case I don't make it through the surgery, I've left my engineers with a roadmap of how to use machine learning to power such a thing. You can sign up for that at CAroundYou.com

But yeah... Of course... at 17, I had no idea that this process that got me through the trauma that facing your own mortality brings had any scientific justification behind it at all. At that time, it was the only thing that made SENSE to do. The basis of science is logic after all. And taking a step back allows your logical frontal cortex to take the fore.

That's what's beautiful about this process. Because it's based on reason, it doesn't require belief, something people at their lowest simply don't have.

But it was when I was struggling with what I feel is the hardest thing I've had to deal with – chronic pain – that I realised that almost all of what I was doing was backed by neurobiological science, and psychological principles. Off science that can be visualised, and LITERALLY SEEN, in the lab.

This process that got me through emotional distress, I'll call REASONED OPTIMISM. Unlike the usual Motivational, Positivity BS, it's not just hollow words thrown at you... reasoned optimism is a process that gives you something to be positive about. A process that you can apply in any situation. One that, as I'll show you, you can make a habit - your norm, your "go to". Automatic, in time

But this doesn't just confer optimism. Self distancing - taking a step back - questioning all your doubts and fears and then taking the path that leaves you happiest, healthiest, and most successful, is a thought process that is also shown, scientifically, to work too. Though I haven't given this a name yet, neuroplasticity engrains this process of constant Logical Reframing (is that a title?), into an automatic process that you'll find yourself using to break down ANY challenge you face into basic, bite sized, beatable pieces. The more you use it, the better you get. This chapter shows you HOW this process forms, and then how you can use it to your advantage best.

Why "Taking a Step Back" Works.

This whole process of taking a step back, breaking things down until I found a second better way of looking at things, can be visualised in the lab.

A self-distanced perspective is described as that of someone looking at themselves as if they're a fly on the wall. (Ayduk and Kross 2008) In the short term, this stops you from reacting emotionally, (Ayduk and Kross 2008) it reduces blood flow to limbic centres - it makes you more logical - and in the long term, it stops you from ruminating, or lingering over, things you can't control. (Kross, Ayduk et al. 2005)

When you do take that step back, your medial pre-frontal cortex, which, when firing, is associated with feelings of negativity, fires less. (Leitner, Ayduk et al. 2017). It's shown to increase the ability for depressed people to think more broadly, and fixate less. (Travers-Hill, Dunn et al. 2017) It's shown to make you more objective - you're more likely to understand, and be realistic about things like understanding your chances of winning the lottery (Sun, Zhang et al. 2018) by doing it. Older adults, demonstrate lower blood flow to emotional centres of the brain (Mather 2006) and because of this, are what we call wiser - more logical, less likely to react emotionally, and they're also more likely to have higher happiness scores.

That's right. I JUST GAVE YOU THE SCIENTIFIC REASON WHY OLD PEOPLE DON'T GIVE A F***.

But reducing your reactivity to emotion makes you more likely to pick happier outcomes. And the act of *self distancing* from a scenario or thought process or construct leads to you reacting less emotionally. THAT is how self distancing makes you more resilient. It's what allows you to see the best possible path for you going forwards.

<u>Decreased firing of limbic, emotional centres, seen on functional MRI brain scans</u>, (Leitner, Ayduk et al. 2017) is seen along with increases to prefrontal, logical brain activity. When self distancing, <u>your blood pressure also lowers and stress responses decrease</u>, (Leitner, Ayduk et al. 2017), which ultimately increases your ability to work through a problem.

Looking at things from afar, from a time perspective, a similar principle, and extension of this model of 'self regulated thought', describes when someone places themselves in <u>certain scenarios and evaluates their options consistently</u>. (Henderson, Trope et al. 2006). It is demonstrated that this broad minded way of thinking led to better outcomes, and more resolutions in negotiation exercises, and better overall performance in general.

It's a "winning" way to view the world.

Even the *physical* act of distancing is shown to improve your capability to think more broadly and accomplish more tasks. When participants in this study actively leaned back in their seats, they were able to accomplish more challenges set as part of a study. (Thomas and Tsai 2011).

That's why, when you take a step back, you become

- a) Less emotional.
- **b)** More logical.
- c) Better able to bounce back from a problem. And
- **d)** Better able to negotiate your way through challenges.

But what next? How do you FIND that second way of looking at things?

After taking that step back, putting yourself in numerous scenarios, and testing assumptions by questioning them over and over again, comes next.

That process seems overwhelming, but breaking down the multitude of potential options into smaller and smaller chunks makes it easier to visualise a target. Over time, by doing this over and over again, you not only get better, but also get faster and more efficient at going through this thought process. How exactly this happens, I'll explain when talking about neuroplasticity (this comes next).

Taking that step back makes this whole process easier though. It makes you more LOGICAL.

And as I talked about in that section on depression above... when you look for options outside those your own brain can conjure, you allow yourself the best chance of success in whatever you do.

Don't limit yourself to what you know, and what you can learn.

Learn from others, where you can.

Whether it be looking deep into what markets your competitors target on Facebook ads to sell the same product more efficiently, you researching how people target a species of fish and combining that with local knowledge to make your trip more successful, or you ASKING SOMEONE ELSE (other human beings come with an inbuilt second perspective), you give yourself the best chance of succeeding by skipping the hypothesizing-self experimentation process - and and focusing on what's already shown to work.

It's similar to reading a review rather than looking for random answers on numerous databases when trying to find out how to treat a patient with an interesting condition.

It's similar to asking for a second opinion, or taking free consultations with law firms before proceeding with one to explore all your options.

I mean, why spend 3 hours trying to cast, and estimate how deep a channel you're fishing in is, when you can find the best spot the night before using Google Satellites and free Marine Navionics maps which literally map the ocean floor in front of you?

This isn't just logic. It's proven to work. Collaborating on a task, especially when combined with <u>instructions to think things through objectively</u>, (Henderson, Trope et al. 2006), led to better negotiation outcomes in complex team tasks, and better scores in puzzle like challenges.

Though sometimes you have to, and though learning to react and make optimal decisions on your own to various scenarios is important, often, you stand to save yourself hours, resources and pain by looking for answers elsewhere first.

In general though – if you find yourself stuck on a certain obstacle... Something you, even when taking a step back, and engaging the most logical, objective, and astute version of you, can't find a way to surmount, just ask yourself WHY? HOW? WHERE? Over and over again, until you do.

OR – JUST ask a friend.

The longer you do this, the better you get. The more easy it becomes. The more automatically you'll do this... for whatever struggle you encounter.

Some examples; How Self Distancing Works

To live, or die?

Recently, literally 2 days before open heart surgery that prompted me to up the timeline of writing this, my cousin, a cardiologist, told me to urgently get the opinion of a heart transplant physician. A bypass surgery is risky enough as it is. But with someone with a rejection like disease process like me (graft versus host disease, a side effect of my bone marrow transplant)... the risks are even higher, as the vessels which supply my heart are likely narrowed, and will continue to narrow, over time.

Unless you work at a transplant hospital, you may never comprehend the importance of this.

My disease, graft versus host disease, is rare too, making it even less likely it would be considered. My cardiologists at my treating hospital were certainly not too concerned and a little dismissive of it and intent on proceeding with surgery.

Heart transplant hospitals are rare, and their doctors really busy. It was gonna be a challenge to get seen. But as I was told myself of this risk, which could restrict future heart transplants as an option or kill me if surgery didn't work, I immediately took a step back. Instead of panicking, from there, it made sense to instead, focus that angst and anxiety into what I should be doing.

I focused on all the paths I had in front of me and evaluated them.

Yeah, the doctors weren't concerned, but I got my haematologist, who coordinates my care and is my treating specialist, on my side to ask the senior cardiologist to ask for a second opinion. Get a doctor on your side (so it's not just a scared medical student talking to very experienced doctors)? Check.

I asked my cousin, a cardiologist in America, to formalise a letter to me with the opinions he had from himself and 2 colleagues who are also transplant doctors in the US (again, so instead of looking like a panicking patient who'd read something on the internet, it was an expert team expressing their concern). Get an expert opinion to back your claim up? Check.

I looked up the doctor my haematologist recommended is best, found his email, and summarised my concerns, with the letter from my cousins attached, and then called up his private practices to see if I could book an appointment. Alternative routes of seeing him? Check.

When told he was booked for months, unintentionally on the phone, the secretary reacted to me saying I was a bone marrow transplant patient. I used to be treated at the heart transplant hospital (they do bone marrow transplants too), and with a bit of luck, she immediately saw it was more concerning because it was, a "transplant." A bit of luck on my side? Check.

I also got my general physician to write an urgent referral, after convincing her of my situation's importance. Get the secretary on my side? Check.

I could have gone down many other paths, and these did cross my mind.

I could have Panicked.

But why? That would have gotten me nowhere.

I could have left the hospital and entered the transplant hospital's ED.

That is disrespectful, but given how major an operation that is, perhaps reasonable.

But I'd spend a day having results shifted from 1 hospital to the other, have to wait for another surgery slot, which could be dangerous (I literally can't walk to the bathroom without panting and being in pain), and not have my concerns taken seriously by doctors because of this drastic action.

I could have given up and resigned myself to the surgery.

But that could lead to a dangerous surgery.

I'd done all I could in the most reasonable manner. Even if they did go ahead with surgery without that second consult - I knew these guys were good. So I was in good hands regardless.

I was scared. I mean bloody hell - someone was cutting my chest open in a few days.

But when I took a step back, I realised I'd done everything I could do. Worrying and stressing was only gonna hurt now. Why not focus on something productive, and spending time with family and friends instead?

And then I waited. Eventually, between all these systems, we got a response.

And now my surgeon here, at the non transplant hospital, has chatted to the best heart transplanter in Sydney. He's aptly prepared for the surgery, in case things do go wrong. I'm in the safest hands possible, in one of the best hospitals in Sydney, and under the care of one of the best surgeons for this particular "open heart bypass" procedure in the country. It all worked out.

To go clinical, and publish impactfully tomorrow, or cure cancer?

Similarly, when it came to picking my topic for research... I had options.

Go down a guaranteed path of doing work on immunotherapies, particularly in melanoma, but looking at the effects of a drug in clinical trials - something I could publish and have written in journals in MONTHS - or try looking deep into PD-1 inhibitors inhibitor biology, and tumor vaccines, which aren't going to show immediate clinical outcomes, but for which I'd have to look deep into HOW immune cells worked against cancer instead?

Given my long term goal of wanting to develop a system which recognises cancer cells and creates targets of them THROUGH cellular immunotherapy, I needed to look into the biology of the immune system. I want to help cure cancer. Not get known and get more fees if I ever became a clinician. So I chose the latter option instead.

To take on Investment or wait it out?

When I found myself thinking about whether I should take on an investment in my company a year in, I also had options.

Take the money, and use it to accelerate product development and leverage their contacts to get into nursing homes quicker, or not take it, develop the product on our own, and sell to the general public?

I chose option 2. Not only was our product's development timeline affected more by bottlenecks in testing and verification (as many medical devices' timelines are) than by our lack of cash, but option 2 also reduced stress on me both personally, from a health perspective, and also for my end goal of wanting to make an impact. We could experiment more with different features we want to add to our non invasive movement, and vital rate sensors, and integrative nurse/caretaker alert system, rather than be forced to enter the market prematurely, and limit our upside, and our potential to reach our end goal of bridging the gap between home and healthcare.

That path also let me be more flexible, in case my health got in the way. Which it clearly has.

You'll always have a second way of looking at things. Numerous paths that you can take.

And self-distancing, breaking down all your options and evaluating it from that more objective, logical place makes you more likely to pick the most successful option.

So always take that step back when you find yourself in a pickle! And I hope it helps you start overcoming your challenges.

But this isn't the final step. I didn't become an optimist and suddenly forget that I was getting chemo overnight, or pivot an entire business and create a new product overnight. No - staying the course - and indeed, adapting, so that you'd be most likely to achieve the end goal you actually want - requires *just a bit* of repetition at the beginning to make it a habit.

The science which underlies this whole process of making something a habit, or a goal, a reality, is based on this concept central to learning, memory and habit formation – neuroplasticity.

Where neuroplasticity, and long term planning, comes into all of this.

Key to this whole process's success, is *reinforcing* this. Walking through that thought process over and over.

Neuroplasticity, as I said earlier, can basically be broken down to this principle. "Neurons that fire together, wire together."

Your brain sends signals in coordinated patterns. A thought is merely the combined, coordinated firing of a chain of connected neurons. (Bergado-Rosado and Almaguer-Melian 2000). The connection points are called synapses, junctions, into which pour 'neurotransmitters'. Neurotransmitters attach to receptors and basically enable electrical signals to pass between two neurons.

The more these synapses fire, or the more these junctions have neurotransmitters ooze into them, a process called "long term potentiation" (Lüscher and Malenka 2012) occurs. Neurons become more and more likely to fire together, because an increased exposure to neurotransmitters leads to less neurotransmitter being required to mount the same response next time ('refiring' lowers the threshold to allow a connection to fire), and also creates a larger impact when a signal is given.

Over time, a group of neurons firing together which underlie a movement, a habit, or a thought process, solidify into a <u>cortical map</u>.(Bergado-Rosado and Almaguer-Melian 2000) <u>This video</u> outlines this in easy to understand principles. If you're keen – go watch it (remember, the reason why I outline all these things is so that YOU understand, and thence, can SEE how this process will work in you, making YOU more likely to succeed).

When you practice something, be it learning to shoot a basketball, a ditty on the piano, or to create a new habit, it's hard to even coordinate an action at the beginning. But the more and more you do it, the easier it becomes. At a cellular level, this is because those synapses that create the desired effect – of you getting a shot in, playing the right notes, or remembering to put your keys in that one spot – as you're *trying* to do them, become stronger than that of you missing, stuffing up or forgetting.

The self assurance you give when you get something right plays a part – <u>dopamine</u>, the <u>reward hormone</u>, increases, and is shown to focus the formation of stronger cortical maps. (Nitsche, Kuo et al. 2009). So make SURE you pat yourself on the back when you do succeed (even mentally). It helps you get there faster.

But this neuroplasticity also forms because you simply repeat correct actions more.

There's a theory, most used in sports called the 4 stages of competency model. (Higginson and Hicks 2006) When learning a new action, there are 4 stages –

- 1) Unconscious incompetence you have no idea what to do and how to do it.
- 2) Conscious competence you're failing, but you know why and how to do it.
- 3) Conscious competence you're succeeding, when you think through it
- 4) Unconscious competence you're succeeding without even thinking about it

Though disputed, and though many suggest there are additional stages, (Higginson and Hicks 2006), that last stage is achieved best when you think *systematically*, in *processes*, like this one.

You simply can't prepare for every scenario all the time. There are an infinite amount of possibilities in life... Whether it be when looking at how many ways the defence responds to a drive in basketball, how an opponent will respond to every bet in a hand of poker, or how a market will react to a piece of news about a venture. We can't KNOW what happens.

When you can't even comprehend how many outcomes you have, yet alone plan, and *reinforce* how you react to those plans through neuroplasticity, the most efficient way of <u>succeeding is to reinforce a THOUGHT PROCESS</u> that helps you deal with all possible scenarios. (don't worry, the science behind this is explained in literally the next half page or so too).

And when you reinforce it enough... you create a positive feedback loop, where you're always trying to improve yourself, relishing in your success when you do, picking yourself up those times you do fail, so that you keep on trying to improve even more.

But when you've accomplished mastery of a skill, or habit, or thought process... stage 4, of applying it *automatically*, becomes important.

The great thing is, when you work on a thought process for everything, as I did during cancer, but also as I formulated a different mindset and approach to losing weight, as I devised winning strategies in poker and as I do to this day, wherever I can, you incite so much long term potentiation between synapses that it goes from a thought process to an *automatic* reaction.

It doesn't require bravery. It doesn't require willpower. It won't even require extra thought.

Taking the path to you *succeeding* the most, and striving to always *improve* becomes your path of least resistance.

Our body is designed to conserve as much energy as possible. And your brain is responsible for as much as 20% of your body's energy consumption. If you make thinking about what you CAN do, as opposed to focusing on what you can't, through habitually taking a step back, and objectively picking the best route you can take going forwards, this mentality WILL become your path of least resistance, (Askenasy and Lehmann 2013), and you'll be able to accomplish whatever goal you set your mind to, even more easily.

And when it's automatic, it doesn't require effort.

It means you're even more likely to succeed because you're constantly, quickly doing tasks in the most efficient manner, and you're able to spend more brain-power on things that matter, and on REAL decision making too.

The difference between an IQ of 100 (average) and 140 (close to genius levels) is how many things you can juggle in your mind at once in your mind. If you think more about something, and use your working memory (on how you reason through a process using what's in front of you, and comparing it to your previous experiences), you can actually improve your IQ.(Jaeggi, Buschkuehl et al. 2008).

Hacking your brain to solidify these thought processes, and to always think deeply about something, whatever it is, as your norm - your automatic (remember, if you make this a habit, it actually requires LESS willpower to constantly think this way), leads to you being more likely to succeed.

Some examples; Neuroplasticity in Action

How this works in tragedies, I've already explained above.

But when I was told even more dire news... When I was told I relapsed, at first... my mind immediately jumped to the fear of that word... "Again?". I'm human. We all are. Fear is a natural response to a threat.

But after a few seconds that thought process I always use kicked in.

Yeah... This sucked. Yeah my odds were lower even than at diagnosis (I was told palliative care might be a preferred option)... But first off, I wasn't told that this was the end. I had a year of medical knowledge under my belt, a family of doctors, an amazing healthcare system, and the time to find something that could work (I eventually <u>did end up finding the drug that's kept me alive</u> myself, pitched it to my doctors, and convinced them to get it!).

Even if I couldn't find the cure though, why spend my last days languishing in pain and misery a second longer than I needed to, when instead, I could focus on spending every single moment with my family, friends and enjoying the world for what it had to offer. Even if they told me I had 3 months left to live... In the end... I'd have 3 months left... to LIVE.

Wasn't choosing that path the one that made most sense?

When faced with an opportunity to get a prize that adds credence to our business for my startup, Get to Sleep Easy, winning Best Australia's best Student Startup of the Year, I found support on Facebook and other posts, soliciting votes, not generating enough traction. We only had ONE WEEK to get hundreds of votes. Every second counted. Given the commitment a voter has to go to click a link, find the page, verify an email, etc., I realised personal content that struck home more to people would lead to higher uptake. So I pumped out personal content that related to the business – why I was doing it, how awesome the business was, and linked everything else – even memes I usually post on my blog - back to what I was doing and my engineer.

When a particular post of mine on <u>my blog's page</u> about vaccines went viral, I linked it back to our voting link.

This not only won us the prize, but signed up 13 more people to our committed to buy Kickstarter email list (which should convert to over \$5000 in revenue when we launch) in the meantime!

But this process also works in more immediate, less traditional settings too.

On the basketball court, when down by 4 with 30 seconds left to go, instead of spending one of the 5 – 6 tasks you can juggle in your head at once on the fear of missing your shot, you'll instead be focusing on figuring out what defensive matchups the opposition has used and thinking about how you can maximise your chances of getting the ball in a good position off an inbound play.

You'll focus on what coach had told you about the play, and then beyond that, what to do if a particular screen failed to get you open, and which spaces would likely get you a free shot.

AND IF YOU WORK ON THIS ACTIVELY OFF THE COURT - IT'S SHOWN THAT YOU'LL ALSO IMPROVE YOUR IQ (Jaeggi, Buschkuehl et al. 2008), AND HOW MUCH YOU CAN JUGGLE ON THE COURT. If you're thinking in this way all the time, habitually, even when you're watching highlights - you'll increase the likelihood of you making the correct play when it's your time to shine.

The fear of failure, you'll be mitigating by focusing instead on that second way of looking at things that actually benefits you – instead of fearing you'll miss that shot, or hesistating, you'll instead be thinking about how winning would feel for your teammates, how it elevates your chances of a championship, of you getting featured on Sports Centre for your career, of becoming the most complete basketballer you can be.

If you can do this – you'll give yourself the best chance of succeeding. And that's what this is all about.

HOW these thought processes are formed and solidified.

Neuroplasticity is the foundation of learning, memory and habit formation.

But its uses aren't limited to learning movements, as in sports, as many believe.

It's used to develop thought processes too. And it works best when you give yourself a GOAL to accomplish, and get there by reaffirming BEHAVIOURS (Berkman 2018), which eventually solidify into THOUGHT PROCESSES (Popper 2013) that become your habit. (Askenasy and Lehmann 2013)

That's where reinforcement of the above 'process' of

- 1) Taking a step back and then
- Breaking down your major obstacles into chunks that you can counter and follow Is one that you need to practice.

Sure, it's easy enough to visualise a goal of increasing your first serve percentage in tennis. But when talking about implementing behavioural change, or the cementing of a new thought pattern or response, planning out your journey on how you can make this a habit, can seem harder to do so.

But remember, <u>self rewarding</u> is key to focusing the effects of neuroplasticity. Though a GOAL of "becoming more motivated and less lazy" may seem hard... you can plan for it in advance, by taking that step back and looking at all the paths you have to take. From there, the BEHAVIOUR of walking yourself through that process again and again - of reaffirming why that path you believe will lead to you being the most productive version of you - will help cement this THOUGHT PROCESS into your brain's very neural circuitry.

And as stated earlier, not only does self affirming, rewarding yourself when you get closer to your goal with a little "YES," (Nitsche, Grosch et al. 2009) lead to dopamine firing which focuses neuroplastic map formation, the closer you get to a goal, the more dopamine you fire (Howe, Tierney et al. 2013) as you get there. Meaning it actually becomes easier and EASIER the longer you do it.

When you combine this with you not being too hard on yourself... it creates an amazing feedback loop of you continuing to pump yourself up, pick yourself up when you need to, and you relishing as you grow and grow and grow.

When you do put your keys on the rack, or make a good, strategic decision that helps you eke out the answer to a tough question, or do stop yourself from getting angry at a family member, or colleague - you feel good about yourself. You start thinking more about how you'll do this next time. You'll relish in the fact that you're an improved version of you. And soon, you won't even have to THINK to keep doing this. It WILL BECOME your norm!

How long does it take?

Generally, estimates of 6 weeks are given when talking <u>how long it takes to form a new habit</u>.(Shaffer 2016)

But it's not like we flounder about unable to make a lay-up in basketball, or miss kicking a goal constantly from 10 feet away for 6 weeks...

We get better at this over time.

Similarly, when reinforcing a new thought process, or way to process an action, you don't need to keep taking a step back and asking yourself "WHY?" or "HOW" over and over. Over time, it becomes easier to do.

Long term potentiation's effects occur much sooner. Some studies show cats form quite solid cortical maps in 2 days.

And as talked about above, by self rewarding the closer you get there, and creating that positive feedback loop of always focusing on what you can control, you accelerate the development of long term potentiation, (Nitsche, Grosch et al. 2009) and make it easier to get there. You release more and more dopamine.

When I used this to overcome chronic pain (I talk about that in a few chapters), I expected it to take that 6 week period before I'd begin to be able to regularly ignore it. But when I started ignoring it a week in, and beat back the beast that had been on my back for years, the next 5 weeks felt like 1. I felt I was kicking this beast's ass. I may well have actually made the

process take just 2-3 weeks by focusing the development of a cortical map that helped me step away from pain by rewarding myself with hits of dopamine every time I did so!

But just as important as that, is ensuring you don't burn out. That's why the last, arguably most crucial part of Reasoned Optimism is allowing yourself to be human.

WHY Letting yourself be human = a higher chance of success!

Failure. It happens to everyone. Cliched as this may be, it's undeniable that it's also one of the best opportunities to learn too.

Preparing for it, is shown to increase your ability to bounce back, to be resilient, post failure. (Levine 2003) And though I can regale you with examples of how acceptance commitment therapy holds most central to its philosophy, the idea that you should confront fears, and potential barriers to improve your likelihood to demonstrate resiliance, (JG, Davis et al. 2015) and how this actually adds to the effect of developing a process that neuroplastically helps you bounce back... in the end, it just makes sense.

If you're not forcing yourself to be superhuman, you're less likely to miss potential pitfalls, and less likely to break down. If <u>you have reason behind motivation</u>, (Webber, Gabriele et al. 2010) you're more likely to maintain it. If you're happier and more accepting of yourself and your failures, <u>you're more likely to succeed in behavioural change interventions</u>. (Ruiz 2012).

That idea, of acceptance commitment therapy, is better than CBT alone, broadly speaking, because it embeds in it, planning to get past and through obstacles. (Ruiz 2012)

And by NOT forcing yourself to be an amazing inspiration, strong, to work 120 hour weeks, and "grin and bear" hardship, you demonstrably have a lower chance of burnout, (de Oliveira, de Alcantara Sousa et al. 2019) and even score higher on exams than someone who doesn't, (de Oliveira, de Alcantara Sousa et al. 2019) by performing self care. Sleep deprivation is also shown to have similar effects to being drunk. (Williamson and Feyer 2000). Letting yourself be human and RESTING when you need to leads to you being more likely to succeed.

Falling every now and then isn't weak. It actually leads you to be stronger and increases the likelihood to succeed.

And though I hate HOW people like Gary Vaynercheuk (an influencer, but admittedly highly qualified, successful digital marketer) scream at people to LOVE FAILURE – it's no

less true that by using this process, you automatically, in time, begin to crave it. You genuinely see it as something to learn from.

Feeling bad isn't weak either. Sadness is one of the 6 basic emotions we feel, as humans, we're going to feel it. But it's also shown, by science, that by looking in the <u>long run, we increase our chances of success</u>. (Leitner, Ayduk et al. 2017).

I'm a poker player. Over the course of a hand, a tournament, hell, even 1000 hands – 30-40 hours of poker – against an opponent, even the worst player can beat Doug Polk or Phil Ivey at their prime, on any given day.

But if I were to play 100,000 hands against them, I'd lose, every single time.

As most people would lose, every single time, if playing against me.

If you dwell on the short term, like many, you will either try and chase your losses and lose everything, or wanna give up and quit. The former is something that happens to a LOT of poker players. It is gambling after all, and you can lose everything.

But the ones that succeed focus on playing well every time they do. They often get satisfaction from that, just as much as winning big - the consistent growth. Despite sometimes losing money on a play, I'd often smile and pat myself on the back if, when looking back at it, I found that it was the correct one to make (my opponent just happened to have what we call, one of the stronger hands in his range at the time).

And by focusing on the long term, on the process, you not only keep yourself sane, but allow yourself the best opportunity to move up stakes in Life.

As long as you're on a general trajectory towards success, you'll eventually get there. It only becomes a matter of TIME from there on. And by looking at things in the long run, you give yourself the highest chance of getting there.

Chapter 4) - How to be a more successful, dangerous you THROUGH Logical Reframing.

That's the science behind this process of Reasoned Optimism, and Logical Reframing.

But can you use this 'optimism' to be successful in day to day life? In your career? To achieve your goals?

How can this process even help you become a better version of you?

Well central to this process of reasoned optimism is the idea that you can always change yourself for the better. You can always improve.

And as the science above just demonstrated, by:

- 1) Taking a step back
- 2) Questioning all your doubts, fears, and obstacles, and evaluating what path is best for you.
- 3) Repeating this, and reinforcing your motivation for a few weeks and
- 4) Rewarding yourself when you succeed, and focus on learning, and the long run, when you don't

You give yourself the best chance of making yourself the most happy, healthy and successful version of yourself.

In this chapter, I'll talk about how you can use this method to always keep improving, to hack the pathways and principles of neuroplasticity to optimise your thinking, to ultimately, always keep improving.

To become the best version of you, and to give yourself the highest chance of succeeding, no matter what your goals are.

I'll use some personal examples, and some hypothetical ones. As I do when I talk about this to corporates or sports teams.

Whatever the case, I hope they can help you out too.

How to use this process To become the most Dangerous you.

Creativity is NOT an inherent trait. You CAN think outside the box WITHOUT "talent"

For my first example, I thought I'd talk about what I've done in just over a year with my company.

So I've founded a company called Centered Around You that has the promise to shake up how we monitor patients at home. Together with my engineers, we've identified gaps and holes in current products, identified the major pain point hospitals and nursing homes faced, and designed our own product which fills that gap and will hopefully make life safer and easier for our most vulnerable (while also reducing work and hassle for healthcare workers and caretakers).

And it does this AFFORDABLY too - so we can get to where we wanna go. Where the market is largest. Where the problems of falls, pressure sores and preventable illnesses happens most.

At Home.

The first product is "The Smart Inclining Bed," a device which performs one simple operation - that of a hospital bed lifting someone up - but is designed to work with your current bed. Indeed, it works with ANY bed frame, and with all major mattress brands, to do this. All for less than \$400 retail.

You can check that out here. Hopefully, we'll be able to launch this once I get out of hospital. I'm definitely going to be using it (and have been for a few weeks prior to this) in rehab, as for 6 weeks, I'll be restricted to only exerting 1-2kg of force from my arms post surgery. It's a huge coincidence, but I look forward to benefiting from my own product!

The main innovations are the design of the frame, as it fits to, and works with any style of mattress and bed frame, adjusts, if required to, while not weighing too much. This eliminates the major hurdle for people who need a hospital bed most - cost. It's also easy to set up, safe, and more comfortable, because it uses YOUR OWN BED rather than some cheap, flimsy, hospital bed mattress. We've even generated pre-sales from users who just wanna Netflix in Bed because it's so cheap and intuitive.



We were gonna launch this on Kickstarter, but as I'm in hospital, we may just launch it straight away as a product in the next few months. <u>Sign up anyways to be alerted of its progress at GetToSleepEasy.org/Kickstarter</u>

This could reduce rates of falls, and help people at risk of severe pneumonias get well faster, by helping people sit up.

But though it seems amazing, and so intuitive, we didn't start off this way.

After losing 2 friends in a week to preventable illnesses - one to falls, and one to pneumonia - I originally set out to create a feature packed hospital bed that would do it all. Current ward beds cost a chunk - \$3000-5000 - but through the implementation of specialised compression massage prongs, extra lifting functions, and things like hospital trapezes and sensors which could detect movement and heart rates that would be embedded in, I figured that this integral part of hospital furniture could be used to prevent things like blood clots, falls, and pressure sores while saving nurses precious time!

I'd looked into the research. I'd talked to nurses about it. It wasn't a bad idea... and would make a difference, if we could pull it off.

But then I took a step back, and thought about the market.

Like many who want to start something up, despite my spending years learning, passively, about finance, economics, market forces, and marketing - I rushed in with passion, trying to create a solution - without thinking deeply about not just IF people would buy it (if I could develop something like this, they likely would, though it'd take MILLIONS to get there), but what would be involved in getting there.

Maybe hospitals would buy it if I could raise millions to create something like this.

But not only did I realise it's MUCH harder to develop something from scratch in the medical device industry than you'd think, what's to stop any competitor from copying us?

Right now, the hospital bed market doesn't innovate in general ward beds, even though 8 - 10% of people who are admitted to hospital over 65 will fall, and even though that alone costs hospitals millions - they make MUCH more money investing into the research and development of surgical beds and theater equipment, which sell for HUNDREDS of thousands (as opposed to \$5000 for a ward bed).

Though patents and future medical device approval protect OUR product, any hospital bed manufacturer could add these features on as side products and find ways of getting around these for themselves.

So instead, I went back to square 1 and asked ALL parties about this. I took a step back and looked at all my options.

Nursing homes and assisted living facilities WOULD get a hospital bed, or adjusting bed, for all their clientele (they do reduce the chances of falls, and make life easier for elderly and vulnerable people, after all), but right now, they simply cost way too much to make this feasible.

Hospitals will require almost a decade, of R&D, for you to establish your brand, and then a few more years before they enter larger government tenders (not to mention, half a decade for their current beds to pass use-by dates), before they'd commit to buying.

And people at home - where 95% of elderly people lived - who experience these problems most, simply couldn't afford a full-fledged hospital bed. Even if they could, other barriers, like them not being able to install these, or families not being able to justify the effort and resource commitment to bring them home, makes having one rare. Even when they would help.

All 3 of these parties - hospitals, nursing homes and patients and their caretakers - cried out about another problem too. There was no way for 24/7 staffed hospitals to know if their patients were safe, yet alone even more burdened, and less staffed nursing homes, or those of us who just wanna keep our loved ones at home safe.

Given this, we went back to the drawing board, and decided to focus on creating an AFFORDABLE, AUTOMATIC solution that can fix BOTH of these problems.

Our Smart Inclining Bed is cheap.

It works with your current bed.

You just have to plug it in and play.

And the sensors underneath this - our <u>Smart Sensor Alert System</u> - fix the even bigger problem and allow us to scale too.

Our sensors use stretch fabric, AND traditional point pressure sensors, to map your whole body's movement patterns, as well as breath and heart rates, non invasively (the mat lies underneath a user), for just a few hundred dollars (current solutions that do this cost at least \$6000). The latter fixes a problem faced by hospitals every day in and of itself - even as I lay in this hospital bed writing this, I know that in an hour, as I'm just getting to sleep, this poor nurse will have to come in and wake my grumpy ass up, to take down my vital signs.

But the ability to map user movements is what has every hospital and nursing home we're partnered with excited.

Pressure sores, which develop when lying in the same position for a long time, after oxygen is deprived from your tissues leading to the formation of a wound, can last for years. They cost \$49,000 - 120,000 to treat, depending on where you're from. And over ¼ nursing home residents in Australia have one when they come to hospital.

35% of people over 65 will fall any year. 8-10% of people in hospital over 65 will sustain a serious fall that leads to further hospitalisation. 60-70% happen when getting out of bed. And over 20% of people who fall won't be seen for over an hour.

One of my best friend's cousin passed away after falling in hospital.

She wasn't seen for over 20 hours.

She was 28.

Our sensors have the ability to change that.

And by connecting it to an app, which monitors all these parameters, and uses machine learning, and literature reviews, and doctors' insights to provide updates to health professionals and carers of patient status, we have the potential to scale and become something bigger and better, altogether.

These innovations are pretty cool, if I do say so myself.

But when taking a step back, taking the emotion away from things, and thinking about the strategy behind them - I knew that though we'd made a dent in the development of that hospital bed thus far, by pivoting, and creating, instead, the Smart Inclining Bed (the affordable hospital bed alternative + sensors), we'd be entering a completely new, larger

market (the hospital bed market is worth \$7bn a year, the mattress/pillow market is worth \$70bn), that's growing (the aged population is set to double by 2040), with a completely new, disruptive product that we wouldn't have competitors against!

The development we had done, the regulations we had looked into - it wasn't wasted. Instead, it ensured that we're developing a safe product that complies with medical device regulatory standards worldwide – something that'd give us a competitive edge. I mean we'd pretty much designed half a hospital bed to these standards. There wasn't much left to do.

Changing to address this larger market made so much more sense though.

The sensors - when it came to developing the technology, we used Elon Musk-esque strategies of examining the base economics of a problem and solution, and hypothesized, tested, and developed a solution that could do the same thing, or better, for a fraction of the price. Elon's principles are remarkably similar to my own process of Logical Reframing.

When examining the <u>first-principles</u> of a Space Ship, in other words, taking a step back and breaking down the operations to their base levels, Elon realised that materials only comprised 2% of the cost of a spaceship, and that development, management and other factors increased price. But a large portion of the costs incurred could be saved by making essential components of a space ship reusable.

He designed a launch system with systems that could indeed be reused.

After a few test and trials, that company is set to be a large player in the private space industry for decades, already winning billions of dollars of contracts.

Our strategy, to also create an app which can connect to other devices, not only fills a HUGE gap that can create a massive impact - of monitoring vulnerable people at home and tracking their health status, and progress, over time - but also makes us more attractive to investors.

Right now, when you come into emergency unconscious... If you don't have a family member nearby who knows your medications, and history (not always the case, as most people who are older and prone to hospitalisation live independently), there's no easy way for them to know what's wrong with you, or what could make your condition worse.

When you go to your primary care physician for a checkup, and happen to be super relaxed, or extra stressed, your blood pressure reading may be higher or lower than normal, and you may be started on therapies that aren't necessary or ideal.

And of course, when you're at home, and fall, you literally don't make a noise, unless you happen to have a sensor which can detect your body's movement, and track, over time, how much force you use to get up out of bed, and which also listens for thumps and screams.

In essence, there's a HUGE gap between home and healthcare.

<u>The CONNECTIVITY of our devices via our app</u>, though this will take us longer to develop, is what will allow us to REALLY succeed.

Creativity doesn't need to come from a spark. Indeed, the best innovations, the things that have made the biggest difference over time, have often come from looking at problems, evaluating solutions, and picking the one that is the best one for you in that circumstance. It comes from thinking SYSTEMATICALLY and LOGICALLY about a problem, looking at all the possible solutions that are out there, and picking the one that makes most sense - whatever your goal is.

You don't need to be a genius to create something amazing these days.

Startup theories of Lean Canvasing, and then developing and testing products iteratively through LEAN/AGILE methodologies, though they seem 'constrictive' and 'not cool' or 'bureaucratic' to many (including me, for a while) - when you start something up... it works.

Instead of wasting time and resources trying to build something that may not ever be used, why not build to what customers need and add features as you go along, generating revenue on the way?

You cut your losses and figure out things you may never have seen before by doing so.

Reasoned Optimism, or, in the case of NON optimistic applications, "Logical Reframing," my thought process of always taking a step back when you face something new, and finding the second, third, fourth and ultimately, best path to follow going forwards, *makes you someone who does this as your norm*.

If you do it enough, you'll not only get these 'sparks' of creativity more often - you'll also find yourself optimising your life through the little things.

When looking through your emails, and noticing that you're spending everyday mostly deleting the spam email newsletters for things you signed up for years ago but never even open today (though you've always meant to), you'll automatically start unsubscribing, knowing you'll save yourself an extra few hours a year by doing so. Unsubscribing from everything but the email list of this amazing guy's book that you happened to have read, that is (check out nikhilautar.com/signup to never look at my emails!!!!).

Instead of spending hours looking at what brands of food you eat to figure out which is healthiest, and driving miles to get that special brand you've determined is best (but may only help you a tiny bit), you'll find an app which finds that for you and gets you good deals, delivered to your door.

Instead of always finding yourself stressing, and running around for 10 minutes before an important appointment, looking for your phone, wallet and keys, you'll take about a week to keep reminding yourself of WHY you're putting your keys and wallet on the hallway table or by your bedside (instead of on the dining table one day, and the sofa the next etc), rewarding yourself with a wry smile when you do find them in seconds as you're walking out the door, and soon, be able to find them without even thinking about it because it will have become a habit.

Hell, if you do it as much as I have, when cooking, you'll automatically be telling yourself, "Hey! Why not put the water on boil, and add tea leaves and sugar into the pot, while putting peanut butter on my bread, and create 2 cups for Mum or Dad too, rather than waiting around idly for 5 minutes, or trying to do all that AFTER you add milk (where I used to find myself scrambling to butter my bread before it all boiled over the top)!"

Efficiency, and choosing the best option becomes your NORM.

Doing things – everything - quickly, and thinking more logically and efficiently, in any scenario, becomes second nature.

And the more you make this habit, the more it helps you in everything else.

It can DEFINITELY use this to make an impact on other activities in life that require rapid bursts of problem solving. Just as I used it to become a smarter basketball player (despite being nowhere near as athletic post treatment), I also used it to make an over 6 figure profit playing poker – a game where you have to evaluate and account for up to 10^67 possible outcomes in 30 seconds. And that's what I'll talk about in the next section of this chapter – how Logical Reframing makes efficiency your norm.

Using this to Maximise Performance.

Practice off the pitch, to improve your practice ON it. It's a phrase some coaches use. But that very idea, of using this mindset for EVERYTHING - of always looking for the most efficient, optimal option, whatever you're doing - will help you use this in high pressure situations FASTER.

Remember, neurons that FIRE together, WIRE together.

And that <u>using your working memory</u>, and thinking <u>logically and deeply about things</u> <u>MORE leads to you INCREASING YOUR IQ</u>.(Jaeggi, Buschkuehl et al. 2008)

And as this is a process, the more you do this for anything, the faster you make this thought process a habit, and the more easy it becomes to do. And in moments of stress and panic, if you make this your go to - the path of least resistance, your automatic reaction... You'll make it impossible for you NOT to use this when you need it most.

I've spoken to professional sports teams and corporates about this. Some of the largest teams in the world, like Liverpool FC, to hedge funds managing 9 figures.

And though you may argue that in a games or arenas where contracts or championships revolve around "something more,"... I'd say that in these games, where milliseconds can mean the difference between first and second, by focusing on something which *saves* you those precious milliseconds and makes you the SMARTEST person on the pitch, boardroom, or felt, you give yourself the best chance of succeeding.

Before I got ill, I used to play basketball. I wasn't the best. I was decently athletic. But I was decent. And I was a great shooter.

The thing is, I didn't used to play or think *smart* back then. Though I was by no means going pro (even though, like any kid, I'd dream of playing in the NBA), I was decent in my league.

But for the amount of hours I put into training - I used to train as much as the kids who would turn out to be professionals did during school (because I just loved the game) - I could have made so much more of myself. I could have been so much better if I'd taken a step back and THOUGHT more about how I used my time, rather than just practicing.

My shot was great. But though I used to practice spot up shots, and even shoot as high a percentage (with quite a quick release time) as a division 1, NCAA college player from the 3 point line (ndeed, I used to shoot as well as the best 3 point shooter in division 1, NCAA basketball, the second or third best league in the world, arguably) I only ever got 1 or 2 shots up PER GAME because I'd never actually think about *the game* when practicing.

I guess the young me didn't really care so much. I loved just getting better at the game, seeing myself get better, and just playing against, and with, friends.

But in the end, if I had just spent 10 or 20 minutes on YouTube looking at the drills professionals use to shoot better in game, and implemented THAT into practice (when I was practicing anyways), I would have gotten so much better. If I took the next step, and asked myself WHY they were doing these drills, and, when watching games or highlights, looking at how those drills translated to scoring opportunities, I could have been great. I would have scored so many more points. Given myself more opportunities. And *enjoyed* the game even more.

Hell, I never used to WATCH basketball, despite spending upwards of 20 hours a week training for it! A bit of that was because I was a kid, in Australia, where basketball isn't on free to air TV.

But had I done so (highlights, beyond just the daily top 10 plays that were easily available on YouTube), I would have been a MUCH better player than I am now.

There's a difference between active learning, and engagement, and watching highlights.

This thought process, is EXTREMELY powerful, and makes every second you put into training, on your business, or in professional development 10x more impactful.

if you start taking a step back and asking yourself, "How often does Lebron use that little hesitation do to give him an extra step that LEADS to his amazing passing off screens," or "Why does Danny Green wait for defenders to lock their eyes onto drivers, or more obvious, dangerous threats on offence, to start his sneaky baseline cuts that lead to open corner 3s," or "How that amazing screen, and cut by a shooter opened up the lane for that AMAZING dunk" - every second you WATCH basketball will equate to a second you're getting better AT it.

When I came out of chemo and radiation and a bone marrow transplant, and lost all my athleticism to both not being able to exercise and the side effects of treatment, I actually played better than I used to because I was THINKING about the game better. I'd average around 10 points, and importantly, 3 - 4 assists - and even scored 20 points one game in 15-20 minutes of gametime (with running clocks, and against a junior national level centre who made getting a layup VERY hard), because I was a step ahead of everyone now.

It doesn't take huge amounts of "talent" or "basketball IQ" to become the smartest player on the court either. Sure, IQ, which is largely genetic, helps. But as I said before, the difference between the IQ of a genius and a regular joe, is only that you can juggle one extra thing in your mind (you go from being able to do 5 things simultaneously to 6). You can indeed IMPROVE your IQ by engaging your working memory – doing things like thinking about the game - more often too. (Jaeggi, Buschkuehl et al. 2008)

If you're already, in the background, questioning every single play that goes on, thinking about where you'll get open in the offence, how your play off the ball will help your team

score, and how the opposition is defending certain actions and plays you guys are making - you're thinking of 1 less thing when you're taking a shot, or playing defence.

You're a STEP ahead.

Now this isn't just some kid who's played high school basketball (for a national champion team though, I might add).

I've used this mentality to make an over 6 figure profit playing poker in my spare time, in 3 years. I know I could do it full time and make 6 figures a year if I wanted to (but I'd rather spend my life doing something constructive. Plus it's less fun when it's a job, as I found out after going fully pro for a few months straight).

I've played against some of the world's best and held my own - both live, where stress and stakes are higher - and online - where the best technical players, with the best strategies that are mathematically designed to make the most money, play.

The game of poker is one of luck in the short run. But if your strategy is better than an opponent's, or a player pool, and your ability to deduce what's going on in a hand quickly is too, then if you play against them enough, you're virtually guaranteed to make a profit.

It seems super complex. And it IS at the highest levels. But in all honesty, you don't need to be a maths genius to be a good poker player. As long as you can roughly calculate basic fractions (like $\frac{1}{2}$, $\frac{1}{3}$, $\frac{2}{3}$), which anyone can after a bit of practice, you'll be fine.

What makes poker HARD though is not only the work that other players put in to think at a higher level than you, but that you have to calculate your risk:versus reward, assess your opponent and estimate their propensity to bluff or be conservative, and, depending what style of poker you're playing, other factors too (like how they react and live "reads" you can make based on how they react), all within 30 seconds.

You have to calculate whether your investment to potentially win a hand is profitable. Or whether your opponent has enough vulnerable, not-so-great hands for you to be likely to get them to fold a better hand via a bluff. Or calculate the maximum amount you can get them to pay you off if they have a worse hand.

All in that tiny time frame.

You have to do this for 8 - 12 hours at a time, for up to a week, in the longest tournaments.

Indeed, in any tournament, 1 mistake could knock you out.

THAT'S where poker is hard.

The reasons why I was, and still am, a successful at poker - why I'll always have an income source from playing a game I love - is for 2 main reasons.

- 1. I worked just as hard OFF the 'felt' (the fancy name for poker table) as I did playing it. Unlike the young, basketballer version of me, and 90% of players. And
- 2. I also kept my mind focused on *playing well in the long run*. Something you need to do not just in poker, but also, in life.

The first, I could write a whole book about in and of itself. By the way - I actually encourage most people to NOT play poker - it's not THAT profitable a game unless you're one of the top 0.1% players in the world or take big risks - and it's VERY stressful. Even the best players could have losing YEARS, which is probably not what you want to do if you want to have a stable, good life.

But even though more training sites and online videos have come in making the overall player field better, and making money playing this game tougher than ever before, nowhere near as many people work on their game as much as they play it. So you can still eke out a profit, if you play smart, and play enough volume to statistically 'guarantee' yourself a win.

When I was playing \$200 no limit (NL) ZOOM tables on Pokerstars, and taking shots at \$500NL - the highest stakes in the game - I excelled most. It's a non-traditional form of poker where you don't get to make as many player specific reads, as you'd play new people every hand you played (not always the case at the higher stakes, but I digress).

So looking at major hands I played, and objectively looking at general population tendencies, as well as making notes on players I saw regularly, and looking at what they often did against me and other players, led to me creating a strategy where I was guaranteed to win. At my peak, I was making over \$100/hour having fun on my laptop or computer, at home.

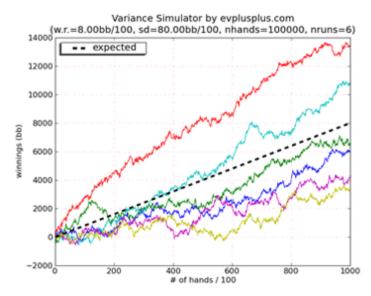
The first aspect, or working off the felt, and improving your mindset, habits and actions, I've talked about above extensively. You can apply this Logical Reframing mindset to competitive scenarios, but also when trying to improve yourself or make yourself more efficient or active.

But the second aspect - of looking at things in the long run - is just as important to succeeding. Controlling your *EMOTIONAL* state of mind, and figuring THAT out is arguably just as important, and made more easy, by thinking in this rational, progressive way.

Thus, if you're focused on improvement in the long run, you're more likely to succeed.

In poker... Luck ensures that on a good day, anyone can win.

You have to put in "volume", or play a large amount, to guarantee yourself a win, statistically speaking. The more you play, the more likely you are to turn a profit.



A series of possible outcomes from playing a certain number of hands, for a decent to pretty good player. As you can see - some of those less fortunate 'series' or scenarios can lead to you losing money for a decent amount of time

But in the short run, if we somehow had a way to mitigate that effect of luck (there are ways that researchers have done this <u>when testing artificial intelligence against some of the world's best poker players</u>),(Listings 2018) on good days, you'll be on your game, making perfect decisions, and, if you play enough, it's almost certain you'll make money.

To be a good poker player though, you have to maintain this over a **long time**.

And maintaining a good habit is what many people struggle with most.

But if you think of things through a process, you make that habit your automatic. It doesn't feel like a 'job' you have to have 'discipline' to maintain – if you're already making the decision that makes you most likely to succeed, well, you're already making money when it comes to poker.

It's not easy to do this every hand. It's impossible to. It's important to remember, we're still human, after all.

But even when mistakes are made in the short term, as long as we keep focusing on the long term outcomes, and, indeed, looking at mistakes as an opportunity to learn, we *will* continue a trajectory towards a net profit. Whether we're talking poker, or life.

Getting your Emotions on Your Side.

The whole process of Rational Optimism and Logical Reframing that I talk about, could arguably be seen as tempering your emotions. It's ultimately the same thing. By taking a step back, you decrease your emotional reactivity, and blood flow to limbic, emotional centres and allow yourself to be more logical.

But from there, making the choice to pick the path that leads to the happiest and healthiest version of yourself is where you get to truly *control* your emotions.

Look at it however you want. Deceiving, or hacking your own mind. Being more objective. Becoming wiser.

In the end, this process ensures that YOU'RE in control. And when you control this emotion, you spend less time lingering in failure, more time learning from it, and you can indeed get to a point where you can reset your set points, when depressed or anxious, to become happier.

By doing this in a systematic manner, we increase the chances of us achieving this. Gratitude is shown to improve depression outcomes significantly more than positivity - why? Because with gratitude, you actually force yourself to FIND SOMETHING TO BE POSITIVE ABOUT. (Cunha, Pellanda et al. 2019)

But telling someone to feel grateful, as many hipsters and yogis will do, feels like a slap in the face when you don't *feel* you have much to be grateful about.

Ultimately, this process outlines HOW to find something to feel grateful for.

Remembering we're human ensures that you don't just ignore things you should deal with such as fear, failure or sadness. This humility and acknowledgement of our own humanity ensures that we don't become arrogant from something like this, and instead, learn from things and constantly seek to improve ourselves, even if we feel like we're on top of everything.

Making your emotions work FOR YOU

If you're in that basketball game, down by 4 points, with 30 seconds left, it's only natural to feel the fear of failure. But if you take that step back, you'll realise you'll always have a second way of looking at things.

Worrying about things like that doesn't make sense, if you ask yourself why you're doing it. All it does is make you doubt yourself more, and make you more likely to hesitate. It encumbers the smoothness of your shot. It allows the defence an extra second to catch up to you, and decreases the likelihood that your shot goes down.

If you're an NBA player, someone who's practiced your craft - whatever that is - you'll be at stage 4 of that competency model - unconscious competence - when you don't need to *think* to make the right play, to take a shot properly, and sink it.

Doubt and worry at this stage - I'd go so far as to say hoping or praying that the shot goes in (it inherently implies you're doubtful it will, but on a more scientific level, hoping in and of itself, IS a thought process that distracts and unfocuses you) - is the only thing that can mess you up.

Telling yourself to "not think about it" is a guaranteed way to get yourself thinking about it (Pagnoni, Cekic et al. 2008). This is shown, scientifically. For most people, it leads to your mind racing, if anything, as a matter of fact. You can't just 'stop worrying.'

But if you instead decided to focus on something else to distract yourself, you'd think that'd give you more of a chance of succeeding. But it doesn't. Distraction therapy is used to control things like chronic pain, but less likely to work, and indeed, more likely to result in less focus (Weeks and Hasher 2014), when performing actions in the short term.

Avoiding the fear of failure, by not thinking about it, is thus, not that likely to work.

Chanting mantras is actually shown to <u>increase performance in attentional tasks</u>, and <u>improve academic performance</u> (Pradhan and Derle 2012). Visualisation and mantras are <u>shown to increase athletic performance too</u> (Slimani, Tod et al. 2016). I'm sure that as Kobe and Michael Jordan rise to take shots, they're whispering "Swish" in their minds.

But to get the best results, you need to practice how you play.

As mentioned above, practice is what reinforces cortical maps that you've programmed through practice for success.

So whatever you do in practice, whether it be rewarding yourself with a silent "YES" as you make a shot (or shoot with perfect balance and form) in basketball, with a nod if you're applying a mathematical formula to solve a problem when practicing for an exam, or by giving yourself a 'self-five' as you walk out of a successful business negotiation - if you reaffirm yourself WHEN YOU PRACTICE, and reaffirm yourself in the same way AS YOU

PLAY, you make it more likely you'll apply that same process, in all scenarios. You'll make yourself more likely to hit that shot, or be successful at whatever it is you're trying to do.

The "Mamba mentality," or "killer instinct" comes naturally to some. But there's NO REASON it can't be taught too.

In the end, all it is, is a fixation on choosing the action that leads to the highest chance of you winning. It's you becoming obsessed with doing so. It's you mastering your mind to the point where you can make any emotion or reaction you have work *for* you rather than against you.

What this process - of taking a step back, questioning all your doubts, fears, obstacles and options (in a game of basketball, questioning which path to take - whether to shoot, drive left or right, or pass), and picking the one that leads you to the best chance of succeeding – does, if you do it consistently with everything you do – is make you someone who does it when they need it most too.

Having that Mamba mentality is EASY when it's second nature.

Now you've mastered YOUR emotions, you can master OTHERS' too.

When you master your own emotions, you free up yet another one of those 5-6 things you juggle in your mind. Once you get to this stage, you can focus on how you can best optimise *others'* emotions and reactions to scenarios.

Once you can control yourself, you can then focus on how you can manipulate others.

People believe that empathy can't be taught. <u>To an extent, this is true</u> (Davis 1990). Some are just more likely to be empathetic than others. But when you become more self aware, and attuned to your own feelings, you automatically become someone who's more able to understand the feelings of others.

Deducing how they may be feeling, is also something you can teach by taking a step back and evaluating responses to those scenarios from their perspectives. I've literally described walking a mile in their shoes. It's central to this whole mentality. And this is PROVEN to be the case too - as people who were able to visualise more, something self distancing can do, were more prone to understanding the experience of others. (Nagamine, Shigemura et al. 2018).

And when you hit that level - yes - you'll be able to sense when someone's made a mistake, or intimidated by you, to allow yourself to get into their heads and "own" them, and help reduce their chance of making correct decisions while you play.

In something like sports, I'd encourage that. Mentality and the "mindgame" is, in my opinion, the most interesting part of a game.

But when you do understand yourself, you're also more likely to understand those you care about. Your teammates, colleagues, and loved ones. And you'll know what they need to hear to bring them up too.

Making learning from failure your norm;

Of course, we must remember that the final shot in any basketball game, just like risky plays in poker that you HAVE to make to profit most (the most money is distributed to the top 3 players after all) in a tournament, the act of arranging and executing (after planning so long) a business agreement, or asking that girl you've had a crush on for a while, doesn't always work out.

Failure will happen. It can't be avoided.

But learning from that failure is one thing we make ourselves prone to do by adapting this mindset of #LogicalReframing or #ReasonedOptimism.

But before that, focus on if we can **correct** that mistake, or miss first.

If you *do* miss that shot, with 30 seconds to go, instead of putting your head down, your mind will focus on what you can still do to win, if you're #Logically #Reframing everything. Yes your odds may have gone down from 40% to 20% to win the game... but in the end, *that's still a chance*.

Focus on what you CAN do rather than what you can't. Always.

If you start using this process in day to day life, in practice, at work, or whatever you're trying to do now, you'll be doing that automatically when you're in game 7 of the playoffs.

If you're a coach, a manager, a leader - instill this into your team, so they don't need you to tell them this when that time comes. So they'll be thinking it already.

In the end, motivation works best when it comes FROM YOU (Turner 2017).

But you can motivate those around you, if you can put yourself in their shoes, and help them become the best versions of them.

The amazing thing about a team is that if multiple people are doing this together - then at least one of you - when times are tough, will know exactly what to say to lift each-other up.

When looking back at a loss, it is important that we examine why we did lose, so in the future, we reduce the chances of it happening again. But it's also important that we don't ruminate.

Lingering over defeats we can't help, is sometimes something we can't help.

We're human after all. When we lose, whether it be a game, or when we lose someone, we can't help but feel bad.

But after a while of feeling bad, you do heal.

Taking a step back, and thinking about other ways we can deal with it is one way we can facilitate this. But sometimes we need help. I talk about how I've dealt with loss later on in this book. It's a deeply emotional chapter, which could really help a lot of you who need it out, and I highly recommend you share this with someone when they need it most, if you think it could help most (the blog post, linked here, talks ONLY about loss, and could well save someone from suffering).

But if you continue to apply this mentality, and this process, you give yourself the best chance of pulling yourself out of instances of loss, and succeeding in the long run.

I've chosen the analogy of a basketball game throughout this chapter. But life is filled with time sensitive challenges. As I said, applying this mentality in day to day life leads to you being more likely to use it when you need it most. So start doing it now.

When thinking of what you need to do next... remember to

- 1) Take a step back
- 2) Question all your doubts, fears, and obstacles, and evaluating what path is best for you.
- 3) Repeat this, and reinforce your beliefs and
- 4) Reward yourself when you succeed, and focus on learning, and the long run, when you don't

When you face a loss, or face failure, and you're doing this regularly, you'll find yourself automatically taking that step back (this does become a habit, after all, remember?), and thinking, "What could, or should I have done instead?" or else, if you had made that mistake before "I should have done that instead!".

If you miss that shot, down 4 points with 30 seconds left, you'll ask yourself why you're spending precious seconds, where someone may have gotten the rebound and driving to your basket (or else where someone switched on is going back to their bench, where they're formulating a strategy or play to exploit your defensive weaknesses), shaking your head when you could instead be defending that play, or figuring out what to do next yourself.

If you fail to get that grant or scholarship, instead of ruminating and thinking about quitting, you'll have taken a step back and asking yourself, "Why, objectively, did I not get it?" so you'll get that next one. Maybe the giving organisation simply wasn't a match for you, or your venture - often, I've seen amazing startups NOT win pitch competitions even when they were clearly the most viable company out of dozens pitching - and often, I've seen teams in early stages give up, or pivot based on that, when in reality, the winner was picked before people even spoke a word. Talk to the judges, people in the crowd, and outside,

objective mentors or parties and if that is the case, learn by not investing so much effort and energy into things that aren't likely to work out, as compared to things that are.

But if there is a pattern of this kind of thing emerging, and you do see flaws in whatever it is - from your business plan, to your strategy, to how you convey what you're trying to achieve - take a step back, and work on that.

Putting work into fixing flaws early on is so much more efficient than picking them up when they're gaping wounds. And taking reviews and stock of your situation - even if you feel like you're winning, never hurts. You never know when you could be doing better too, right?

True mastery - Turning Fear into Motivation.

When you're going into an exam... you can't help but stress. What if you hadn't covered everything? What happens if you fail? What if? What if?

But take a step back from the stress and pain. Physically pull yourself away if you have to. And ask yourself what that's accomplishing. Because in truth... all it does is make you anxious, more likely to panic, and less likely to succeed, as your brain enters a suboptimal "fight or flight" response mode where stress hormones make it difficult to think straight.

While stress is something that does enhance memory formation, in processing new pieces of information <u>it reduces its effects</u>, and is shown to reduce exam <u>performance</u> (Vogel and Schwabe 2016).

Telling someone (that someone could be yourself) not to worry is the easiest way to make someone worry.

Instead focus your energy on something that's productive instead.

Revise your notes. If you find yourself catastrophizing and imagining how everything could go wrong, try and chant them out loud - which, as shown above, actually is shown to improve academic performance while also distracting yourself, something that also works well in moments of acute anxiety. It may look weird – but if it helps you succeed in the long run, and leads to you getting into your dream course, or career, why care if someone you barely know sniggers at you for doing so. Meditation, focusing on the now, what many are now turning to – the concept of mindfulness - is also shown to reduce stress, and induce more positive responses (Vandana, Saraswathy et al. 2011). It's hipster. It may look and sound weird. But it does work.

If you can't do it in your head, why not do it aloud?

But the next level of mastering your emotions is to focus the angst, and the adrenaline that stress does induce, into something *constructive*.

We can't help but feel fear. But if we can divert it to something constructive, we make fear work for us.

A complex array of neurotransmitters are responsible for fear and anxiety. But <u>stress also</u> <u>releases adrenaline</u> (Goldstein 2010). And *motivation*, when timed right, can improve stress responses, <u>and induce the release of adrenaline</u> (Berridge 2018). When people tell you they're 'pumped up' from a song, they're not lying. Music is a stimulant. There's a reason why marathon runners are banned from listening to it. <u>It also literally induces adrenaline</u> <u>release</u> (Thoma, La Marca et al. 2013), which in turn, increases blood flow to your brain and heart.

And when you're stressed already, the <u>threshold required to release more adrenaline is</u> <u>lowered</u>(Steimer 2002). It becomes easier to pump yourself up in such scenarios.

Hell, if you were about to get open heart surgery, wouldn't you rather be up writing a book, rather than waking up in sweats, fearing the worst?

If you're panicking before that exam, why not acknowledge the panic, but then focus on what doing well in that exam *could potentially lead you to achieve*. You getting that dream job... You pulling in fat cheques for doing minimal work... You getting your dream girl... Or you creating the most good in the world. Or, as 17 year old me who idolized both Hawkeye Pierce from M.A.S.H. and Hervey Specter from Suits, a combination of all these - whatever floats your boat and gets you going – if you can visualise, and focus on THAT before attempting whatever challenge you're panicking about – you turn that panic and fear into your strongest weapon.

If you, over time, do this often enough, you start processing fear automatically in this way, too.

THAT'S when you have TRUE control of your emotions.

This is how you can master your emotions and make your primitive brain work for you through your logical self.

The best way to do it is to START NOW.

Look at every single interaction as a chance to *grow*.

Take a step back, and gamify your life. Though current research into this space focuses on how literal gamification through things like "rewards" and "badges" can improve the adaptation of wellness interventions and psychological ones in apps, by always taking a step back, you immediately give yourself more control of your life. By thinking of certain aspects of life as a 'game', you help make that self distancing easier and induce more firing in the logical frontal cortex of your brain.

You take things into your own hands. You solidify those cortical maps that lead to you responding to scenarios more efficiently, and you help yourself become the strongest, best version of yourself.

And if you can do this. You give yourself the best chance of being the best version of YOU.

Now for the rest of the book, in each of the following chapters, I'm going to go into distinct scenarios where I personally have used this mentality to improve my life.

I simply don't have time to write these chapters out as much as I'd like to prior to going in for this surgery. I will expand on these later - this book WILL be updating - so make sure you subscribe to my email list or keep checking NikhilAutar.com (or follow @NikhilAutar on social media) to keep getting updated when it does.

But the next few chapters are centered around how to deal with challenges that I've faced, ones you may face too. From how to hack your own mind to make losing weight easy, to being more happy with yourself, to getting through loss.. Something I hope my own family doesn't have to apply in regards to me anytime soon, I'll try and cover everything.

It won't be as flash as the final copy will (remember, this is a draft after all). I've written these as well to be independent of eachother (so those who didn't have time to read the previous chapters, people who may be interested in "jumping ahead" to the next ones won't be lost). It'll likely be similar to pieces you may have seen me written before, on my blog - NikhilAutar.com - personal stories which lead into the message, and science.

Either way, I hope it helps.

Chapter 5: Losing Weight and Getting Fit is EASY

So... I've been on prednisone, a steroid drug that unfortunately, eats away at your muscle, and is rigged to make you eat more and get fat too. People frequently put on dozens of pounds when on this for a few weeks.

I've been on this for 7.5 of the last 8 years.

On top of this, health has gotten in the way of my exercise. Where I used to shoot hoops 6 days a week, for years, chronic cramping and spasticity has limited my ability to even roll over in bed without debilitating pain, yet alone commit to regular exercise regimes.

But despite this, I've maintained a healthy weight for a while now. After my first transplant, I put on over 30kg (around 65lb), but through slight changes to how I THOUGHT about my food, I managed to drop TOO much weight – to the point where I had to put some back on again.

Since that, in 2012, I've only regained too much weight once - after a right rib resection (a consequence of a third tumor I'd developed) left me bedbound for months, I went from my normal healthy weight of 80kg to slightly over 100kg again.

Ask anyone who's been on prednisone for more than a week. It sucks. It's so hard to stop craving food, and so hard to lose weight afterwards.

But to be honest... losing this weight wasn't really that hard at all.

I didn't have to diet, or do crazy amounts of exercise. What I did was change MY MINDSET about food and exercise... And THAT is what's helped me lose all this weight, and keep it off, all this time.

The reason why there's not much great literature on motivation and mindset change when it comes to losing weight is because (a) It isn't a psychiatric disorder that warrants things like CBT (which isn't too effective in weight loss in any case) and (b) If someone tried to make an app that helped people lose weight, they'd lose money every-time they succeeded.

Jenny Craig, and other diet regimes, have a bit of evidence behind them. But they <u>only produce 5% higher rates of weight loss</u> (Gudzune, Doshi et al. 2015), compared to non

treatment groups or food counseling sessions. And 5% was the HIGHEST performer of major commercial brands (Jenny Craig took this honour).

Everyone talks about how they can't stay on a diet and how they can't find the time to do exercise... They talk about how hard it is to make changes in their life and how they just don't have the willpower or ability to be healthier people.

But even while on 50mg of prednisone, a corticosteroid which most people struggle with at 5mg doses (it increases your appetite, screws around with your hormones and energy metabolism, and eats away at muscles), I didn't find it too hard.

You wanna know why?

Because all I did to become a healthier person was change my MINDSET ON food and exercise.

By understanding how my brain, its rewards pathways, and its neuroplasticity, as well as how my body processed foods, I was able to hack this, in an evidence based, scientifically guided manner, to make this 'tough' journey, as easy as possible on me.

It didn't require "willpower", "bravery", or even long bursts of commitment. By hacking my mentality, I made healthy habits just that – a habit.

In truth – it was EASY.

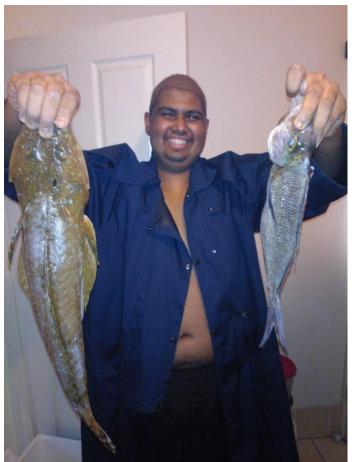
Doctors all tell us that weight loss requires a lifestyle change, rather than drastic, quick-fix 12-day-detox/Biggest Loser boot camp solutions. And they're right. You should look to lose weight AND keep it off. It'll heart problems(Anand, Hawkes et al. 2015), lower your chances of diabetes, (Sami, Ansari et al. 2017), reduces your risk of cancer (Aykan 2015) and also – a healthy diet can make you feel better, more energetic than ever before.

But even the words "lifestyle change" imply that it's hard, that it requires constant effort and struggle to do, and that's a big reason why people aren't willing to make that change.

Eating the right foods, and getting some exercise on a continuous basis IS vital to weight loss. But what's even more important is if you can *maintain* that way of living.

And that's where your mind comes into the picture.

A few months ago from when I first wrote this - in 2014 (a few months after a rib resection I got for a third cancer I'd developed), I was sitting at around 106kg. As a 186cm male, my normal, ideal weight lies around 80kg. I was trying everything to get fit and lose weight. I started juicing, cutting carbs out of my diet and went out, trying to run, get back into my old sprint training and back into the weights. And that was working – as it would for anyone – for a few weeks at a time.



Before: 106kg - I know, it's the same picture as one I use below, but to be fair, they're great fish.

But with my low immunity putting me into hospital with infections every few months, with my treatments lowering my blood counts, I kept getting sent back to where I began from over and over again... and it was frustrating as hell.

I wanted to lose weight and become as fit as I was before I got sick... I wanted to see results... but they just weren't coming.

But after a while of this, I took a step back and saw that I was going through a cycle over and over again. It's the same cycle a lot of fad-dieters, or others wanting to lose weight, go through.

I wanted results and I wanted them NOW. But they weren't coming.

So I changed the way I looked at getting healthy.

I changed my mindset... how I viewed my journey to come.

And the same thing that helped me beat cancer, and helped me lose weight the first time I needed to post cancer, helped me get fit again.

You don't need huge "willpower" to do it either.

All it takes are a few small changes in how you view things.



~4 months later, on the same dose of steroids... I lost that execess weight... AND the fish got bigger.

So what exactly did I do? # 1 - I Reminded Myself that it Would Take Time

-> This is one of the most important realisations you've gotta make. No matter how much we want it to, results don't come in a few days.

But they do come, if you're patient enough.

The trick is to not only remind yourself of this – but to *keep looking at the big picture, on your entire journey* – as this will make maintaining changes easier to accomplish.

Instead of falling down in a heap if you can't resist that desert at a party, and then eating deserts, depressed, for weeks - you'll remind yourself that the amount of times you had been good, and that in the long run, you were on the right path.

That lessened burden alone will make you SO much less likely to quit. But also key is to give yourself a LONG TERM GOAL. Something to strive to. Your mind is <u>rigged to release more and more dopamine the closer and closer you get to one</u>, (Nitsche, Kuo et al. 2009), meaning over time, this becomes EASIER to accomplish.

The science only helped me further believe that I could, hell, it made me KNOW I could do it. But I mean it only made sense... I was only beginning my journey to get healthy – I was starting from scratch. It would take time to get to where I wanted to go. It wouldn't happen overnight.

But that wasn't a bad thing.

I mean, it's simple statistics. If I did things generally right, over a long period of time, I'd get to where I wanted to be. And by looking at it this way, I wasn't forcing myself into doing something I didn't want to – I was ALLOWING MYSELF TO BE HUMAN. I knew I wouldn't give up, or worry, or hate myself if I had a few slip-ups on the way either.

That's exactly how you should look at weight loss, or any goal for that matter. It'll give you the best chance of getting there (and of getting there with the least pain too).

And by doing things in this way, you guarantee you'll get there. From there, it only becomes a matter of time before you become the happiest and healthiest version of you.

#2 - I Took A Step Back, and Made SMALL Changes To How I LOOKED At Food

-> Instead of making huge, drastic changes to my diet, or instead of starving myself, I:

Took a step back, and

Questioned my current habits, until I saw

An alternative perspective, or way of looking at things, that would leave me healthiest

The simple act of self distancing is shown to reduce blood flow to emotional centres, and regions of your brain that reference yourself, allowing you to be objective. This is shown to improve decision making.

But from this step back, you also are able to see all your options more clearly. From here – choosing to start looking at the path that leaves you happiest and healthiest not only just makes *sense*, it also comes FROM YOU. Don't just read how I did it – examine yourself from this perspective, *YOURSELF* – walk yourself through it – and you'll get the person most likely to motivate you on your side – YOU.

Motivation works best when it's <u>Centered Around You. That app I'm working on</u> will not only walk you through this process in evidence based ways designed to make you the most adaptive, in control version of yourself, but also improve medicine and research as a whole. Definitely download that – by the time you're reading this, we may well have gone into beta trials for weight loss. A chatbot which will eventually lead to YOU giving yourself messages of comfort when YOU need it most will help YOU lose weight!

<u>Hacking your Stomach (with Neuroplasticity</u> + <u>Biology) - Reducing Portion sizes.</u> <u>SLOWLY:</u>

When trying to reduce how much I ate – I realised that, especially with foods I liked, I was just gulping down food down by the spoonful. But in truth... I wasn't really taking the time to *savour* them.

I also saw that the first 5, 10, maybe 15 spoonfuls or bites (depending on what I'd be eating) were most enjoyable. The last few... even with my favourite foods... well, to be honest, I was really only trying to finish off what was left.

I asked myself why I was forcing myself to do this all the time. And when I had no answer, I made one small change that ultimately would lead to me succeeding.

I decided, if I wasn't enjoying it anyways, why was I forcing myself to eat too much?

So over time, I slowly made small, gradual reductions to my portion sizes. I started savouring my meals and taking time with them, making myself feel fuller sooner. It's shown that this improves satisfaction with meals, and makes you full with less food (Hawton, Ferriday et al. 2018), as ghrelin - the satiety (full) hormone, has more time to take effect. When eating slow, ghrelin is detected at 20% higher rates, and resulted in a 25% drop in calorie consumption!

Once I realised I was full, I'd just leave what was in the plate, put it in the fridge or throw it out, and *next time take out less*.

Over time... the portions got smaller and smaller. I didn't even notice they were... I didn't feel hungry. By doing this slowly, it became automatic.

When going out... if I didn't really feel like finishing off my plate, I'd just leave it and ask if anyone else wanted a few bites. I was brought up on the whole "Finish your plate, there are children in Africa who'd KILL to have what you've gotten!" sort of mentality... and it's true. We waste tremendous amounts of food, and do need to respect it more.

But why was I destroying my veins, my health, my vitality to assuage this preconception, when I could instead just take out a few less spoons, order a medium (and in time, a small) meal instead of a large one, and pack away good meals for breakfast or lunch the next day, and feel better for it?



Your stomach usually has a capacity of 200mL, but can stretch to hold up to 1L in most humans, by relaxing smooth muscle cells which comprise most of its wall. Over time, however, if not stretched to larger limits regularly, the stomach loses the number of smooth muscle cells, and pacemaker cells (those which cause coordinated digestive contractions), leading to a lowered capacity to relax, and hence, a smaller overall stomach size.

Furthermore, levels of neurons which release nitrous oxide, which promotes relaxation of smooth muscles, also reduces in patients who have lost weight recently.

So over a period of just a few weeks, slow, sustainable reduction in meal sizes will cause you to lose the ability to eat larger meals for life!

This is demonstrable through calorie restriction being imposed on obese patients. <u>Treated people saw a 27% reduction in stomach size, in addition to a 9.1kg weight loss in 4 weeks</u>. (Geliebter, Schachter et al. 1996). But men who ate larger meals <u>showed greater resistance to</u>

weight loss (Geliebter, Schachter et al. 1996), despite being recommended similar diets and eating similar calories by doctors, compared to those who ate less (but perhaps more frequent meals) at a time.

It's interesting to note that even after a while of this kind of fasting, even after overconsuming once or twice, <u>average stomach stretchability did not return back to normal levels</u> (Gomez-Pinilla, Gibbons et al. 2011), meaning you'll have the ability to have the occasional splurge without starting back at square 1 again.

But key to all of this working is *the neuroplasticity of your mind*. It's widely conceived that you need huge willpower to resist the temptation to continue eating. But the simple changes in the way you think about food described above is what ensures you'll get to that stage where your stomach adapts.

Neuroplasticity, as I explain further in chapter 3, is the brain's ability to form new cortical maps – linkages between series of neurons – in response to various scenarios. 'Neurons that fire together, wire together," is the basic principle on which this idea is built – so reminding yourself that

You like food, but hate that fatty, full feeling afterwards

You like food, but often shovel in the last few bites just for the sake of it. And that

You enjoy meals even more when you really take your time to savour the meal

If you can remember these 3 things for just a few days in a row, you will start forming these cortical maps that make them habits. In weeks, these cortical maps become so solidified and prolific – they become your *automatic response* in time. Giving yourself time is HUGELY important. This won't help you lose weight overnight. But it will help you lose weight and keep it off for LIFE which is so much more worthwhile.

You won't have to think these things anymore, you'll already, subconsciously, believe them, and may even catch yourself telling yourself these things as I do.

You don't have to exactly think *these* things. When you take a step back, you may feel that you really hate that bloated look you get in the mirror more than "that fatty feeling," or that though you do enjoy the last few bites, you start feeling the fullness and that crappy feeling afterwards as those satiety hormones, and your over-full gut start rearing their ugly heads.

You tailor make, and tell yourself what YOU need to hear to help you lose weight!

It takes a few weeks to decrease your stomach size, and to form those new cortical maps that make this habit automatic. But though weeks of resisting temptation seems hard to do, because it

Is coming from YOU telling yourself these things, and

Because you've set yourself a long term goal, which causes more dopamine to be released each step you take towards it –

it's actually quite easy to do. They're subtle, small changes to how you view food, but combined, they make a HUGE difference. And because you're also allowing yourself to be human (and yes, being human does mean allowing yourself the odd bite cake, or medallions of caviar or other naughty foods every now and then), you're only making it more likely that you'll succeed.

If you can do this, it's HUGE.

It's the difference between going into a diet, hating life and having to exert significant willpower to control yourself, and you enjoying food, and developing systems which automatically helps you lose weight.

And you know what? It worked. In January 2016, I could eat a whole pizza, and I'd go up for second servings when lamb curry was made at home. 5 months later, I can still do a half pizza... maybe more on some occasions (but only when I feel like it). And I barely finish 3/4 of a plateful of curry and rice, where I used to always go for seconds.

That small change in mindset resulted in a huge reduction in my calorie intake per day. And it's a big reason why I've lost so much weight.

Note - that it took 5 months to lose 20kg. But it's been 3 years since I wrote the original blog where I posted this, where I lost 37kg in 8 months, and I still hover between 78 - 82kg to this day WITHOUT TRYING. The only reason I regained that weight was due to my being stuck in hospital for weeks, while hopped up on pain medications and anti-depressants I was on, and eating, admittedly, way too much desert every day.

THIS is how you make lifestyle changes easier. And I highly encourage those of you trying to make a change in your life to sign up to become a beta tester for my app – <u>Centered Around You</u>, at CAroundYou.com – which will not only walk you through this, but provide you with the best, evidence based strategies to accomplish your goals (whether they be weight loss, you trying to get better sleep, being more regular with exercise, or just becoming the happiest version of you).

It uses artificial intelligence to learn from you and deliver interventions that suit you best. We're starting to trial it for people with sleep already. I'm sure that when it launches, it could possibly help you too.

Making Healthier Choices:

Me – I'm a foodie. I like trying different things, new cuisines. And I like variety in my day to day life. I also like my meat, hate salads on their own (chemo's changed my taste a lot – I used to love the taste of lettuce... now it tastes like dirt at times) and I like eating carbs like bread or rice with meals. Who doesn't really?

With these simple changes, I was able to eat all these things and still lose weight.

Despite loving food... I knew I could stand to benefit from eating healthier foods on average... so again, I took a step back, questioned my current habits, and made *small changes* to my mindset on food, which helped me eat more healthily too, without depriving myself of the pleasures of life.

Carbs... I did like them, but what I liked more was what I was eating with them.

So I changed the portions around, added more fillings or curries or proteins (whatever I was eating at the time) and reduced the proportion of that to however many slices of bread or spoonfuls of rice I'd eat with them. Again, I did this over WEEKS, not instantly, so over time, I barely noticed I was eating less and less carbs.

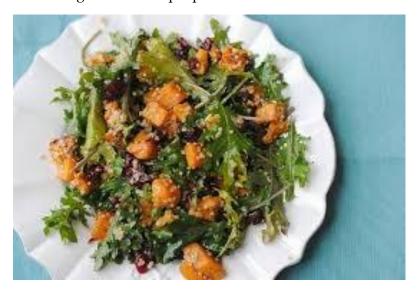
With salads, whose taste I couldn't stand post chemo, I started drizzling, sometimes dumping tasty dressings based in oils (luckily, regular olive oil is good for you as they're filled with healthy fats), and added things like cottage cheese or olives to make them tastier.

Juicing, though it gets good vitamins and veggies/fruits into you, was too much of a hassle to do regularly, especially when you consider how long it took to clean the damn juicer (not to mention how long it took to prepare the vegetables).

I took a step back, and figured, "There must be an app for this. Someone somewhere must already have a solution."

So I started looking around for good fruit/vegetable juices with no added sugar or preservatives and came across cold pressed juices, which uses pressure, as opposed to preservatives, pasteurisation and pesticides to clean vegetables and fruit they use in their juice. It may be healthier, probably is better for the environment, and saves me time too. There's bound to be something similar in your location – and though juices aren't as good as eating the real thing (due to a lack of fibre and highly concentrated amounts of sugar amongst other things), it does allow you to eat more greens with less struggle.

I liked variety in my diet, and that was good. So I picked cuisines to eat regularly that were easy to prepare, tasted good and were still healthy for me – things like tacos or stir fries (which have good amounts of veggies, are easy to cook, low in carbs and have good, but not excessive amounts of meat) and I mastered them. They're like a staple to me now. I don't hate eating unlike most people who diet – so I *maintain* this healthy lifestyle still, to this day.



I couldn't believe this came from CostCo either when I first tried it. But I highly recommend it – their Kale/Sweet Potato/Quinoa cous salad!

Cutting down on Junk Food

To be honest, I haven't taken out all my junk food for most of my life. I probably eat junkfood once a fortnight now, still. How did I reduce the amount I ate though?

Well I mean I looked at junk food, from that step back, and asked why I used to have that crap so often?

I mean sure... KFC does taste good, and junk food in general is cheap and easy to prepare... But I hated that "fat", "oily" feeling I had after eating a packet of chips, some chocolate or a burger or box of chicken from KFC.

I didn't cut junk out entirely, which many people do, instead I only got a few small bits and pieces from fast food places or fish n chip shops, every now and then, and had them alongside other, healthier stuff.

KFC – I made sure I had that with these pre-made salads I found in CostCo which complimented it perfectly. With the chocolates, and chips, instead of gulping down a handful or packs of tim-tams at a time and then feeling bad afterwards, I shared them around with other people, or 'scabbed' a few chips or bites from friends instead of buying a full pack and feeling like I HAD to devour it.

Those small changes made me eat healthier (and also saved me money too – sorry to all my friends who fell for that). I still got to enjoy the taste. But I sidestepped the crappy feeling you get from junk food.

Fast food is easier in terms of cooking, I guess, and many people just don't have enough time to cook—but those meal suggestions I made above — tacos and stir fries - really help with that.

Another thing that makes cooking easier for me is marinating meats and eating them with salad or veggies or a good slice of cheese (which acts as a side dish for me – I love block cheese and it's high in proteins too so it makes you fuller quicker). I marinate a huge amount of meat in tandoori paste, or honey soy dressing – whatever I feel like – leave it over a few days (the longer it marinates, the better it tastes) and cook it in meals with this simple frier/grill which only requires me to flip once and makes meat really tender too. It's done quickly. It's quicker than a drive out to the closest McDonalds, and takes only a few flips in total to make it.

These small changes to how I viewed eating, small changes to my mentality, was all it took to improve my diet drastically.

I haven't cut anything out, I'm not hating myself and making myself less likely to succeed by following strict diets and better meals is a MAJOR reason why I've lost so much weight and why I'm so healthy right now too!

This general change in mindset helped me eat healthier, without feeling like I was dieting. It was awesome. And generally, I have eaten quite healthily since I started doing it (despite me being a REALLY fat, and unhealthy kid up until late high school).

But as I lay here in hospital, about to go in for open heart surgery (the reason I'm getting it isn't because of huge amounts of excessive junk food, alcohol and other such things, but rather a major, chronic condition that's a major reason why I've struggled a lot post treatment called graft versus host disease) – I know that for the foreseeable future, I'm actually going to have to change what I ate hugely to ensure I minimise chances of something like this heart condition happening again.

But as I talked to my dietician, I realised that this needn't be the end of the world too. Taking a step back and trying to research things on your own is unwise in this case – there's a massive overload of information online that's so hard to decipher and customise to you... A visit to a dietician, if you have access to one, is VERY much worth the effort.

I mean take a step back and think about it. Is a \$50-100 consult (which, if you live in my country, can be fully reimbursed by our public health system) worth it when you can save yourself hours of research that may not be correct in the first place?

When I chatted to her, I realised that some foods, I probably would have to give up, mostly. But I also saw that it wasn't all too bad.

Most of us eat way too much meat as it is, 100-200 grams of meat, a palm sized portion is what we should be eating. But considering the muscle wastage that was going to happen due to various risk factors (my being on prednisone, a steroid which eats away at muscles, a muscle wasting condition I had and more), my limited ability to be mobile post surgery (rehabilitation for my disease involves non-strenuous exercises like walking and lifting 1-2kg weights for at least 8 weeks), and my rapidly decreasing appetite (I'm finding it hard to eat enough), meant I really needed to get more protein than most into me.

When she showed me the stats behind some foods though, I realised I didn't have to give up much at all. Indeed, eating heart healthy needn't be tough at all!

Saturated fat, generally speaking, is the major "bad" fat you can consume when it comes to heart health. You're allowed up to 24 grams per day, as a healthy person. As someone who's gotta be heart healthy, that number could be half. Me – I want to show my doctors that I can maintain a low blood cholesterol for life with diet alone, so I don't have to go onto statins (cholesterol lowering) medications, which can have aggravating side effects. So I aimed even lower.

And to help myself do that, while also getting enough protein to help myself recover from this surgery I've started eating fish, prawns, goat and even kangaroo. Most white fleshed fish will have less than 1gram of saturated fat per 100g (indeed, many will have as low as 0.1gram of saturated fat per 100g). Prawns are similarly quite healthy for the heart. Even though they've gotten a bad name for them being "high in cholesterol," (a) most of the cholesterol in prawns are HDL – "good" cholesterols, and (b) cholesterol levels in food has nowhere near as large an impact on your actual cholesterol levels as what types of fat you consume.

Surprisingly, goat only has 1-1.5g of saturated fat per 100g, compared to around 7g in most cuts of beef (the leanest cuts of beef will have around 5.5g), and kangaroo has 0.5g of saturated fat per 100g! As an Australian, this is plentiful, cheap and tasty.

Besides this, eating enough plant sterols is made easy when you can just close your eyes and chug down 3 or 4 pieces of broccoli. But when steamed correctly, or put into stir fries, broccoli can actually be quite tasty.

And I'm not depriving myself either!

When my brother makes lamb curry, or when a slice of cake has been shared around the past week or so, I've let myself have a few pieces, or half a slice.

When at a party, or at an event, why not have a few crisps, or a fancy entrée, if it looks good, when it'll only add a gram to my "bad fat" tally per day.

By allowing myself to indulge, and not forcing myself to be human, *I ensure I'm not torturing myself and that I can maintain this*, which I KNOW I will able to.

2 weeks in, and we've already seen a drop in my total cholesterol towards normal levels. Let's see how 2 – 3 months of this goes. I'm sure I'll get there.

Improving My Fitness/Exercise Habits:

When I started trying to get fit after my second transplant, a year ago, I told myself I was going to take it slow and build up from there.

After my first transplant, I pushed straight into weights and basketball, I didn't even focus on getting any endurance back before doing so and in the end, it didn't help me get healthier... It just made me frustrated (because I wasn't improving much) and probably made me sicker overall too.

After my second transplant though, I didn't have a relapse, and lower blood counts stopping me from improving. What I did have was excuses and laziness and self-consciousness about my abysmal fitness, which made me not train consistently, which made me frustrated that I wasn't getting fitter, which made me lose the will to get fit – initiating a huge cycle where I'd get motivated and exercise for a week or two and then stop, only to repeat it, again and again.

Taking that First Step.

Well, changing how I looked at things helped me get more consistent in my training. Motivating yourself to get off your bum and start is the hardest thing to do when exercising. But by changing your perspective on exercise, from a thing that is painful and excruciating to do, to something that you can build up on – something that gives you more energy throughout the day – something that makes you *feel good* (which it does) – helps get you over that initial hesitation we all have before doing that first set in the gym.

Me... I suffer from chronic pain, and a miriad of autoimmune diseases, so pain is often unavoidable. And sometimes I HAVE to forgo exercise.

Looking at your long term goals becomes *especially* important here.

Remembering to focus on the fact that you will get there – in time – as long as you're doing the right things OVERALL, as opposed to expecting to beat your PB every session, ensures you won't give up when you face failure – instead, as you're prepared for these, you'll be picking yourself up.

It's when you have a bad, or disappointing workout that this patient way of thinking really helps. Instead of getting down and sad about it – you'll be ready to go the next day, because you'll know for that 1 bad workout, you'll have 5 other good ones, and you're still be heading in the right direction.



Another great tip – do something FUN! You're much more likely to commit, and form good habits, if you make yourself accountable. So get a gym buddy, or join a team! 3/4 adults played sport growing up, but only 1/5 play as adults. Why is that?

Start Easy and Build Up From There

When building up from scratch, which I've had to do plenty of times, looking in the long term REALLY helps.

In my case, and that of many other patients who read my blogs, treatments and concurrent infections would bring me back to ground zero.

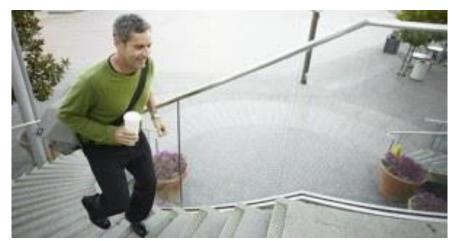
Walking and body weight exercises were excellent in building me up. I started with pushups, squats and sit-ups in front of the TV. Those things gave a good burn and made me feel like I did something and gave good, constant improvements when I did them consistently too.

I didn't just like walking for no reason, so I used my mind and my interests to my advantage and started walking down to the river with a rod in hand, looking at the tides, watching the small fish and how they moved, and getting good ideas and experience to improve my next fishing trip.

Basketball – my favourite sport – always keeps me motivated, and watching a good basketball video or movie would always get me up and ready to have a shoot around.

You can use whatever passions you like. Cycling, rock climbing, diving, whatever you want to motivate you to keep you in the gym or in the pool or on the track. If you don't have one yet – find one!

Make exercise time valuable. I know many students find it hard to sit down and study – so download your lectures and put them onto your music player and go for a walk or run. Same thing goes for podcasts of your favourite radio shows, or just blasting your own music. It makes it easier and even fun to train – in fact, Jana Pittman, a classmate of mine does this to keep up with medicine and still train at an Olympic level.



The power of incidental exercise doesn't just stop at boosting the calories you burn a day, but also extends to formulating strong, neuroplasticity-moulded, attitudes towards exercise. Each time you pick the stairs – you make yourself more likely to pick them next time!

Don't Be Shy, Or Worry About What Others Think of You

Taking that first step was hard for me. After chemotherapies, where I'd have to start from scratch, I'd always feel embarrassed and self-conscious at how little I could do, and also about how weird I'd look.

You may feel the same way when someone racks up more weight than you can squat on the bench press, or when someone laps you in the pool or when someone blocks you on the basketball or volleyball court.

Whenever I wanted to work out, I would always feel the stares of others on me and that stopped me from wanting to go out and get healthy in the first place. When you take a step back and see it in another way though, you'll see that you're stopping yourself from being

the healthiest and happiest version of yourself because of what other people may be THINKING about you. I talk about that below, in the next chapter too. I hope it helps.

Overall – losing weight and getting fit and healthy is NOT something hard. Often, the only thing standing in the way of you getting there is YOU and your mindset.

Getting your mind on your side isn't hard. And it makes the rest of the journey easy. I HIGHLY recommend you start now.

Those fad diets and boot camps can help lose weight and they do work. But they're not easy to maintain – they're not for everyone. Using your mind to your advantage is the best thing you can do to help you get healthy.

Myself – I've gone down from 106kg in November last year to about 80kg as of March.

After this surgery (and as I explained above, even from now), I'll be on aggressive risk factor management - IE - low, pretty much no saturated fat diets.

But I've already been doing this for weeks. And similarly... It's not too hard at all to do this.

The first week, I won't lie, it was hard. But I made sure that in that first week of just fish, no red meat or chicken, and no dairy or, of course, junk foods either, that I had the tastiest meals possible. Peanut butter - filled with largely good fats, with a high carb, low or no fat pancake (or dipped in tea) was breakfast. Lunch was a combination of tasty Indian curries with extra spice, and fish cooked how I liked them.

I had tacos filled to the brim with hot salsa and vegan mayo (trust me, vegan mayo tastes exactly like the real thing but without any saturated, bad fat). And after that week... I got used to it.

When I went to a friend's wedding a few weeks ago (I started this diet about a week after finding out my heart was involved, about 3 weeks before surgery), I didn't deprive myself. I ate a piece of chicken or two and celebrated with the groom and enjoyed. But it's been 3 weeks now. I'm not really missing it. And I know I can maintain this forever if I want. And I will.

You guys can do this to help yourselves become the *healthiest* versions of you too. I hope this makes that journey easier.

Chapter 6: Becoming Happy with Myself and Beating Social Anxiety

I was diagnosed with <u>leukemia</u> at 17 and given a 10, maybe 20 percent, chance of living. And I was devastated... as any human being would be. But after a while I started to dislike that feeling.

The constant <u>depression</u>.

The tears.

The gut-clenching dread.

I wanted this to all be over. I wanted a way out of the hole that I'd found myself in. But with chemotherapy, uncertainty, and probable death in my future, there wasn't much to really look forward to.

In the end, what ended up helping me most wasn't this spark of inspiration or willpower or bravery after watching some inspiring talk or reading some book. The words of everyone around me felt hollow.

What did they know about what I was going through, after all? I was 17, and had just been told I probably wouldn't live to see 22.

What *really* helped me that simple little thought process I've talked about this whole book, after just getting sick of all that angst.

I decided to take a step back and ask myself "Why not take a step back and looked at what had happened to me, as if it had happened to someone else."

From there I guess I saw everything that had happened to me objectively. So I could finally question everything that was going on and more importantly, how I was dealing with it. And I did that through asking *why*. Why was I feeling that way?

I had no answer.

In the end I realized I had what I had. Though it may suck, I couldn't go back in time and change what had happened. I couldn't take away my <u>cancer</u>.

So, what was my anger and frustration accomplishing? Nothing. Other than making me feel *worse* about everything.

Why was I feeling that way then? In the end, it was coming from me, MY BRAIN. Why was I doing that to myself?

I didn't have an answer for that at all.



Photo credit: Analia Paino

But that question alone made me realize one thing that stays with me to this day. Because if all of that was coming from me, my brain, my mind... that meant **I could control that too.**

In the end, we will *always* have the final say on how we deal with things. At the very least, we'll *always* have a second way of looking at things.

But we're only human, right? And with months to years of chemo, pain, treatment - all of which is likely leading to me dying anyway - there wasn't much to look forward to at that point in time.

So I questioned those fears and doubts, too.

Again, one question got me through that — Why? Why was I thinking I was cursed for being diagnosed so young?

My doctor's words as this happened rang through my head as I heard this. When I was diagnosed he told me, "The good news is, you're 17 and you have leukemia, but the bad news is, you're 17 and you have leukemia."

Good news? "Good news? Really dude!" I remember thinking for a while after that.

But when I thought about it, being diagnosed young meant I could get the optimal treatment — I could recover faster. I didn't have a job or a family or kids to worry about. Indeed, I had one right there beside me the whole way!

What I once thought was a curse turned out to be a blessing. But why was I so afraid? I was looking at chemo as a thing that brings pain and misery. And it would. And that sucked.

But wasn't it also a medicine? The very thing that could get me out of this? Indeed, my doctors wouldn't be putting me through this if they didn't think it could work.

Why was I so pissed off, afraid and depressed? In the end, I was worrying about all these things I couldn't control. And that worry and stress were only hurting me more.

From stepping back and looking at my situation objectively I could see the only logical thing to do was to focus on the things I could control.

MY health. MY actions. MY happiness.

Because what this has taught me is you will always have a second (better way) of looking at things. Always. And that you ultimately do have a choice on how you view things.

It's not easy to see that straight away. Definitely not if you're overwhelmed and in the midst of it. Depression makes that harder, too.

But if you can take a step back, talk about it with someone, and just ask, "Why?" You can get yourself through just about anything and become the happiest, most successful version of yourself.

It doesn't take courage. I wasn't brave or inspiring in my "battle" (in truth, it was a beating) with cancer.

I cried, I wailed for it to be over. I still do sometimes. (Beating cancer isn't always the end of pain for many survivors. Depression came, too. It's something I face, and I write about it here <u>as well as on my own blog</u>). But I kept in mind these things — what it was all for — and by doing that I saw something good in the darkest days of my life.

You don't need some superhuman willpower or positivity, either.

Because in the end, if you can take that step back, and ask why... if you can help your friends and family do the same... then it becomes only logical. It only makes sense to take the path that leaves you most well-off.

I hope what I've said can help you do this.



Photo credit: Analia Paino. Sign up to my email list to get my latest blog as soon as it comes out!

One place where I think I've done this after cancer, against something which some of you may be feeling (whether you've had cancer or not), is with my social anxiety post-treatment. You see, before cancer (not to brag or anything) I was quite a hunk (well, at least I thought I was). I wasn't too fussy about how I looked but was a little, just as much as any awkward teen is.

But I was fit. Very fit. I used to train for basketball almost every morning before class, and during breaks, and abide by a strict weight training regimen on top of that too.

But after treatment ravaged my body, I was left bloated out of my mind, unable to jump an inch, yet alone run. I'd lost a huge part of me. I looked like this. And it sucked.



Above is me before chemo.



Without even realizing it, I began using my health as an excuse not to go out. Whenever I did, the glances from people would bore into me, asking questions as to why I had such horrendous features, and when I tried to walk around the suburbs and try to run again, I'd feel ashamed when I'd puff out after less than a football field's worth of running.

As I started my medical degree, I'd made friends but didn't want to go out for fun or to events. I even stopped going out to see old friends at all, worried about what they were thinking. And that made life so much worse.

One day though, I sat down, took a step back and asked, "Why am I feeling so crap?"

And after a few days of thinking about it, I realized I was afraid. Not of chemo, or radiation or bone marrow transplants and other things that could kill me this time, **but from other peoples'** *thoughts* **about me.**

It already seemed ludicrous to me at that point. But when I questioned it, I found no answer as to why I should care so much about other people's opinions about me.

Because:

- (a) Most people aren't thinking anything bad of me or you at all. People have to look somewhere when they walked, and if they happened to look at me, most people wouldn't think anything nefarious so much as to walk on. Many would smile. Most would smile back I'd say.
- (b) But even if they were... **Why did I care so much**? If they were judging me, they'd be pretty shallow, inconsiderate people who I really wouldn't like to be friends with. Why do we all whether we have scars or not try so hard to impress people we don't even like for that matter? Why not instead, focus on what *we'd like to do*. On the things and people that make *us* happy?

Now taking that step back, and questioning my doubts and fears until I saw a second, better path to take - that was the first step.

But it wasn't like I came up with this new philosophy and started becoming this happy #YOLO optimist in one day.

It takes time to form a new habit, or thought process no matter what.

I started small, by first starting to smile at people (most of the time, they *did* smile back) on my walks and jogs, then not shying away from asking people for directions at the university or hospital when I was lost, or asking the workers at the groceries store instead of trying to find everything on my own. Small steps, that I'd slowly start rewarding myself more and more for accomplishing. Steps that led me closer and closer to making this a habit, my norm.

After a while, I did finally reach a point where I could walk around and not care. I was happy with myself. Truly, and honestly.

Now I'm very open about my journey but can also do talks, in front of thousands or just a few, about how I deal with things.

Indeed, I'm the most confident version of myself.

Of course, I'm not TOTALLY shameless, I still get shy and back out of doing some things because of that. But I no longer feel crappy about myself. And ultimately, that's what matters most.



Photo credit: Analia Paino

Most importantly, this helped me become the most *happy* version of myself. And I hope this helps you feel happier about yourself, too.

Chapter 7 - Overcoming Chronic Pain

This has definitely been the hardest battle I've had to fight in the last few years.

As a side effect of my bone marrow transplant, I started developing these 'cramping' sensations in my abdomen and calves, in 2013, 6 months after my most recent transplant. Over time, these cramps become more frequent. Anyone who's had a cramp, knows how much they suck.

I used to get them every night, and by 2015, I used to get them all over my body.

I mean it when I say all over my body...

From my feet, to my buttocks, to my back, hands, neck and even forehead. Every muscle was impacted.

Every night, I'd be glued to my chair, avoiding, being scared of even going to the bathroom, for hours at a time. I'd fear that any movement at night would lead to every fibre of calf muscle compressing all at once, sending stabs of pain that wouldn't stop until I managed to muster up the energy to stretch it out.

But somehow it got even worse.

Soon, these cramps, which my doctors couldn't explain, yet alone treat, were occurring all day. I'd spend WEEKS curled up in a ball, unable to move. And the depression that came as a result of that was even more debilitating.

Soon, pain became my life. My actions revolved around it. My thoughts were clogged up by it. Every second, I was thinking about it.

In 2016 I wanted to end it all. All I could see was pain, misery, and probably death on my side.

In 2017, I nearly did.

But in the end... I did get better.

When you have something like chronic pain... everyone around you has suggestions. Everyone suddenly becomes an expert. When you're already so drained, physically and emotionally, from the condition itself – being told about miracle cures and being sold things that 'WILL CURE IT ALL' is not only heartbreaking, when you find that measure after measure fails, it's depressing, in and of itself.

So I'm telling you straight up – this isn't a miracle cure.

I still have issues dealing with the sleep and fatigue I get from this chronic pain/cramping/fibromyalgic-like condition that I have (I've gotten much better at dealing with that through knowledge I gained from <u>literature reviews for my sleep and wellness startup though</u> - this isn't me being salesy, it's the honest truth). I still do get frustrated by how it limits me, at times (though I can ignore the fatigue as well, I know it's healthy to respond to REAL signs it needs rest).

Though I have used this thought process to make my pain 95% better, I still feel pain.

But my suffering because of it has decreased significantly.

And it wasn't even hard to do this. It didn't require an ounce or bravery, courage or willpower.

What it did take, was time. But eventually, because I was prepared, I knew I could get there.

And today, I can, and do ignore pain as it comes on, automatically. Without willpower, or effort, or, as I talked about above, an ounce of bravery or courage. I hope it helps you do the same too.

I highly recommend you see a pain team as well - as they'll be most able to deal with your individual pain (and they're often VERY good at dealing with it too. I wish I'd seen one years before. As it happened to be, I'd done what they'd suggested I do myself anyways, but I could have saved YEARS of suffering had I seen them earlier).

Without further ado, I'll go on.

It took a few weeks to get there. But the key to this is that I had this long term goal in mind – of getting to a point where my mind would automatically ignore the pain when it came on.

I knew I could do this because of two things. 1) I was on duloxetine – an antidepressant – for a while 2 years ago, and that helped me, despite it not actually stopping the cramps which initiated my pain. That gave me self assurance. Knowledge that I could indeed ignore the pain.

While I was on it... the pain still happened, I could still feel the deep burning of my muscles as my pectorals seized at once, and the sharp stab of pain as my calves cramped as if I'd just run 10miles at night.

But it didn't affect me as much. This powerful evidence of this working – of me being able to ignore pain – in the past, really helped get through my head that I could indeed accomplish this. That I COULD ignore chronic pain, which really helped me stay on track.

But number (2) was more important... it was also reading about the science of chronic pain that solidified this belief and gave it backing. Pain education is KEY to any psychological pain intervention for a region.

I looked at how greater connections between attentional centres and emotional ones sensitizes us to, and enhances the impact of pain through maladaptive, BAD neuroplasticity, and then how I could reverse that to make it less severe. I'll explain how exactly I did this more in a page or so.

I also read about neuroplasticity in general (the science of habit formation in particular), and the effects of positive reinforcement on strengthening mesolimbic (aka reward) pathways –

which has numerous effects that makes a thought process or behaviour patterns addictive, and hence, easier to maintain – from our amygdala (emotional centre), to the pre-frontal cortex (responsible for planning and attention) to our hippocampus (a vital part of memory).

By learning everything I could about these things, and combining my findings, I figured out how I could hack this process, via positive reinforcement, to make the journey to get to a stage where neuroplasticity would change my reaction to pain, easier.

Indeed, it was when researching how to deal with chronic pain that I realised this way I looked at life, of reasoned optimism, and constant, logical reframing, was based in science.

So how did I do it?

I took a step back and look at the pain I was facing – when it was worst, when it was best etc. and wrote that down. I

Most importantly, I **learned everything I could about chronic pain too.** Pain education is central to the success of pain therapy for a reason.

- 3) I saw that I could, and did ignore pain when I was feeling happy, when I was on that antidepressant (it didn't reduce the cramps themselves, but did help me ignore them). When I was able to attach less importance to a burst. I latched on to that.
- 4) I knew that I could ignore it, and could focus on stuff that made me happy and make that an automatic response, in a matter of weeks, as neuroplasticity could rewire my responses to pain.

Almost mantra like, instead of focusing on the pain once it occurred, I told myself "This is an aberrant, faulty signal that I shouldn't be attaching significance to," that "it would be over in seconds – minutes" that "getting annoyed by it, fretting over it happening again was only gonna make it worse" and told myself that "focusing on something else was more constructive – why not do that instead?"

And finally:

5) I rewarded myself every time I ignored the pain. And I allowed myself to be human – acknowledge there would be times I'd fail along the way – but that in the long run, I would get there.

After a week, as I got better at this, I even started looking forward to cramps coming on as an opportunity to show myself I could do it. I'd addicted myself to getting better at doing this. It became easier to do.

After a month, those reward pathways kicked in and I didn't have to keep rewarding myself – exponentially growing hits of dopamine surged through me as I got closer to my long term goal, and I'd find myself gleefully cheering myself on inside as I ignored a burst of pain, yet again (another observed phenomenon that my research assured me would kick in).

In 5-6 weeks, I didn't have to tell myself any of this at all. I was automatically ignoring chronic pain when it struck. IT DIDN'T EVEN TAKE WILLPOWER – or me reminding myself of those `mantras'-cum-realisations I did in step 1 and 2.

Neuroplasticity made ignoring pain a habit.

One I maintain to this day. 2 years later. DESPITE the cramps getting worse.

How Chronic Pain makes Pain worse. And how LEARNING about it makes it easier to overcome.

Central to this whole process was first off, understanding the beast I was fighting. To give myself a second way of looking at things that would lead me to that happy, healthy version of me, I had to understand what i needed to get there.

Chronic pain doesn't <u>necessarily have to come with tissue damage</u>, (Crofford 2015), aka the activation of pain receptors in your arms, and these subsequent firing, sending pain signals to your brain. Indeed, a large part of pain is neuroplastic MALADAPTION - bad neuroplastic changes which make you more sensitized, and hence susceptible to feeling worse pain. They're false alarms that *FEEL* real but aren't.

Attentional centres fire more, and harder (Lawrence, Hoeft et al. 2011) in patients with chronic pain - when you're feeling pain, it's more likely to become the one thing you fixate on, and pay attention to. Anticipation centres fire more rapidly, and are activated even when not in pain, (Fairhurst, Wiech et al. 2007), making you more anxious and fearful, ALL THE TIME. (Ochsner, Ludlow et al. 2006). Your limbic centres fire more. People who are depressed, and negative, have worse experiences of pain too, while on the other hand, positive emotions are associated with lower pain. (Crofford 2015). Indeed, this often creates a feedback loop. People who have chronic pain, will also often be depressed.

And the experience of pain, the fixation you have to it as a patient due to those attentional centres firing constantly, <u>makes you more prone to functional somatic syndromes.</u> (<u>Barsky and Borus 1999</u>). These make you fatigued, insomniac - it makes your heart race, your breath short, your appearance haggard - the experience of sickness and the psychological impact of depression that many chronic pain patients also suffer, makes it so much worse.

These truths all matched my reality.

But knowing these truths, also helped me match how I could get over them. <u>Educating</u> someone on chronic pain, and how it works alone, reduces the impact and experience of pain (Tegner, Frederiksen et al. 2018).

Because once you see that the main thing chronic pain does is make your brain more susceptible to pain... the ONLY LOGICAL THING TO DO is to not let it have so much power over you.

Due to those attentional centres, and anticipation centres firing so much, giving pain importance is a large reason why it's made to feel worse. Your experience of illness, and fixation on it lessens once you realise its insidious nature.

When you learn that it's just a faulty signal, you automatically start breaking down the core neurobiological pathways which makes chronic pain horrible.

Because I knew that all this was, was an aberrant, wrong signal, I automatically started giving it less credence.

It's easier said than done. It seems impossible when you're in the middle of it and may seem crazy even as you're reading this. But learning that this is HOW pain works is how I key to me being able to overcome it.

Because I knew that chronic pain increased firing of attentional centres... I also knew that not focusing on it would be one of my best bets. I had to undo years of neuroplastic changes to do this. But the good news was, there's a therapy which makes disabling this, and also the anticipational - fear, anxiety and catostrophizing centres of your brain (Schreiber, Campbell et al. 2014), easier too - **Distraction therapy**.

By focusing on something else when the pain was going on, I'd be able to slowly undo those neuroplastic changes that had occurred to make pain so frustrating for me, and replace them with something else.

By doing this over and over, and rewarding myself with an internal self-five when I was able to ignore the pain, but reminding myself that it's all a long race - that I'd get there in the long run - when I had a flare up of pain I simply couldn't put out of my head, I strengthened those cortical maps that I knew would eventually become my norm, faster.

Positive thoughts, as opposed to negative ones, were also affected by pain. But though I couldn't fix depression overnight (looking at things in the long run has helped with that too), I knew I only had to *distract myself*, and do so by focusing on things that made me happy, when bursts of cramps came on.

I'd play music. Give myself physical cues like reminding myself to move my arms around in that weird kinda dance we Indians do (I'd just had an Indian wedding, and seriously, the bhangra is something YOU NEED to do once in your life). I'd put on a sitcom I loved (like Scrubs) until I got to a point where doing this too became habitual.

I focused on all the things I had on my side. The knowledge of how all of this worked, and the science behind why this would help me out most. The knowledge that I HAD done this before, that positive thoughts DID help me with my pain. I even started looking at the pain as an *opportunity* after a while of that - in a second, better light.

Yeah the pain came on often. But didn't that mean I'd have MORE opportunities to strengthen the cortical maps that would help me ignore it too?

And you know what - it did! I overcame chronic pain faster than I'd created and reinforced my habits of eating less and of being less self conscious, because I had so many opportunities to do it!

It took about 3 – 4 weeks. But I still can, and do ignore chronic pain when it strikes to this day.

I really think this could help some of you guys out too.

It isn't perfect. When I cramp these days, I do still cry out and it does still stop me from doing things as it physically takes a lot more effort to do things when you do have issues like what I have.

But I have been able to ignore the pain more often than not.

My psychologist told me "you have to accept the pain". But doing that was REALLY HARD – accepting that and saying "I may suffer like this all the time..." was *impossible* for me to just jump straight into.

CBT - cognitive behavioral therapy - and all that, I mean it could have helped, maybe... but again, that was hard to maintain.

It was the preparation of this mindset – the manipulation of my reward pathways and neuroplasticity – and the knowledge it could – that helped me stay on track. The acknowledgement that it'd take time, and knowing I'd fail and feel crappy some days – but that in the long run, I'd get there – prepared me.

When failure did come, when I felt pain overcome me (I knew I inevitably would in my journey), I'd grit my teeth and bear it, but found myself focusing on the long run, and

taking solace in that I would get there, instead of trying to be this 'brave, strong dude who had to ignore everything' which I could not.

That helped me persist with this and get to this stage I'm at now, where I do ignore the pain, as an automatic response, when it comes on.

I know how much is sucked being told "It's all in your head" when I was really in the dumps because of all this, that's why I don't wanna kid you and let you know that it's not perfect. You can ignore fatigue as well, I've found, but my recent health run-ins made me realise that ignoring legitimate signs your body is suffering (something pain is not) is not exactly healthy.

But I hope my getting there can help some of you.

But ultimately – the thing that helped me most was the realisation that this life can be very long. **Why make my suffering worse by lingering on it?** Why let it take *anything* more than me than it should? That's what really got me thinking about this.

If you're going through pain right now, I wanna ask you this too.

Chapter 8 - Dealing with Loss



This Is Tragic.

Bree and her friend Bridgette were diagnosed with leukemia, on the same day, at the same hospital. They underwent painful, grueling treatment together. They spent the hardest times of their young lives with each-other...

And now that Bridgette's died, Bree can't imagine living without her.

It speak volumes on our ability to love, and how love's power can even outweigh our ingrained instinct to endure.

It's

tragic...

But this kind of loss happens every day. And not just to cancer patients like her and I.

I felt a loss similar to hers not too long ago. The loss of my first "patient".

To be fair, I'm not a doctor, yet. After my experiences as a cancer patient though, my drive to wanna become a doctor – a dream of mine from childhood – only grew stronger. Hugely. But on occasion, I meet people, either through this blog, from a friend, or at hospital, who

are going through hard times. Through my experiences, I try and help them by giving them encouragement, someone to talk to, and, in the case of other cancer patients, who, I guess, make up the majority of people I talk to, trying to inform them of what's to come (all the while trying to get them to be happy, despite what could be a long, hard battle).

Before my first bone transplant, I found that having the words of someone who's been through the process more powerful than those of my doctors. They just *stuck*, there was just more power and credibility to the words that came out of a fellow patients' mouth. And about midway through 2013, I met a patient who was about to undergo a BMT. He'd been going strong for years after his lymphoma was in remission, but it had come back, and this was his last option.

A nurse responsible for coordinating the transplant asked if I could tell him about the procedure. I started talking to him and giving him tips for the procedure. I comforted, consoled and encouraged him when he got scared. I even prayed with his crying family at one point... and continued doing that through the whole transplant procedure, where I could.

I can still remember

his eyes on the eve of his discharge from hospital.

I'd told him of all the things he had to look out for after the transplant – the possible fevers, rashes, diarrhoea and fatigue, amongst other things. I gave him tips on the recovery process, and assured him that he could do it.

I still remember the laughter of him and his family as I left his room.

Despite his shaking, despite his pain, despite the suffering, his eyes were filled with hope for the future.

Hope that he could, and almost would be *normal* again.

That was the last time I saw him...

He died about a week later.

He wasn't old – he was in his 20s, only a few years older than me.

He'd only started living.

HE HAD A SMALL CHILD GODDAMNIT!

When I found out, I was shocked. He was suffering, he wasn't done with treatments yet. I knew that and he knew that too. But he'd seemed so positive, so sure he'd make it, and the doctors thought so too... but he didn't.

After that shock, I started asking myself unanswerable questions.

What had he done to deserve

this?

What would happen to his baby?

Why him and not me?

I was feeling the same thing Bree had after Bridgette died... the pain of sheer and utter loss... the pain of losing someone so close to me. A bit of guilt that I hadn't suffered the same fate too. But mainly, a sense of unfairness about it all.

The next few weeks, I couldn't bring myself to do anything. I didn't wanna read, write, talk to people. All I did, day in and day out was browse pointlessly through the internet, not even registering what I was doing...

It was only later on that I realised, that I was told, that I was going through depression.

Frank's death was a major cause of it, but the <u>frustration of the ongoing treatment</u> and the medications I was on, all contributed to my feeling down... out... and empty.

I could see that something was wrong... I didn't want it to stay that way.

But it was JUST SO

HARD to even break the pattern of doing nothing and not caring.

Especially after the world

seemed so meaningless, so unfair, after all this.

After a while... when I could bring myself to do it I sat down and asked myself, what next?

It was then that I remembered my own <u>blog post about depression</u>. I looked over that post again. And I took my own advice.

I talked to somebody about it.

That somebody, for me, was Dad.

When you're depressed, you often *can't* take a step back and be objective about things. Especially when that depression is driven by something as massive as loss. Though it can be done, you'll often need someone to help you do it.

So I told Dad how I was feeling, and he listened. He didn't know about Frank's death, didn't know about the loss I was going through. But he gave me another perspective of looking at things... and that perspective would end up meaning the world to me.

Me, I was trying my best to help people. And that's not a bad thing to want to do.

But he made me see that I was overdoing it – I was giving up my own happiness, sleep and even food only months after my second transplant, a critical stage of my health.

I was staying up late, talking people through their problems, writing too much too often and pushing myself harder than I should've been.

He assured me that I would help more people in the long run through my being a doctor, if I first helped myself. I agreed. He also convinced me that I'd help others in the short term if I did that too. I couldn't write or study medicine if I was stuck in hospital for the next few years, right?

And that helped me see that I couldn't hurt myself anymore over Frank's death.

A different perspective was all it took...

But the question still

remained.

How could I get over the loss?

This time I looked back to <u>how I used my mind to beat my cancer</u> and again, I took my own advice.

I asked myself why.

Why was I was feeling that way...

After a while of soul searching, I saw it was exactly what that poor girl was going through. Survivor's Guilt.

The feeling of regret after you lose a loved one. It's the same regret when you fail at something at life. Regret that you hadn't done enough, hadn't been there enough. It only adds to the melancholy that is loss.

But why was I punishing myself that way, instead of asking what Frank would have wanted for me?

In the end... I knew that he would want

me to be happy. To do him proud.

Why shouldn't I do that instead?

Why was I blaming myself for

Frank's death.

I thought I'd given him hope.

And then stolen it from him...

And that was what was eating me up, on top of the loss of a good friend.

But after a while of asking myself why again, I realised that I had told him of all the risks, of all the pain that comes during and after a bone marrow transplant. I told him he wasn't done yet – that the recovery process takes years for some.

All I'd done was give him advice for getting through the procedure and speeding up his rehabilitation. And someone to talk to. Someone to visit him, laugh with him – someone to give his brothers and wife a shoulder to lean on when they needed it.

Yeah, he died young, and yeah the last few weeks were filled with struggle. But there was no way I could have stopped that. He'd been unlucky to even get the disease in the first place, yet alone get one the chemo and a transplant couldn't fix.

That reminded me of a quote

from M.A.S.H.

"Rule number 1 of war [or medicine, or life], young men die.

Rule number 2, doctors [, no-one] can't change rule number 1."

What I'd done was give him some happy moments in the last days of his life. I'd done all I could do. I had made a difference.

That guilt I was feeling was only harming me. Something Frank would never have wanted for me. And realising that allowed me to let that pain go...

But I didn't want it to end that way.

The loss of this still stuck. The feeling that this was all unfair was still there... But... sad as that was, I couldn't change that... *So... why was I only focusing on that?*

The best way I could honour his life, and let him live on, past his time, I realized, was to learn from my experience with him and help others get through what I went through.

That's what this post, and this BOOK is about.

SO WHAT DID FRANK TEACH ME?

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He reminded me that no-one can live forever, that no-one always wins in life.

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That when we lose someone or something we care about, we will miss them. But once we get past our grief and failure, we have a choice on how we deal with it.

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That his personality. His spirit. His impact on this world... Still lived on, beyond past his time, by how he'd changed those around him. By how his amazing family gathered around to help each-other. By how he could laugh in the face of much pain and inspire people by hiding his obvious pain from those around him who were distressed.

.

That we can either dwell on the past and close ourselves off to others and to opportunities... Or we can learn from them, from the mistakes we've made on our journey with someone or to something, and use that to *not only get over our loss*, but also to *improve ourselves*.

That way we can be more successful, influential and HAPPY human beings.

Ones our loved ones would be proud of.

It won't happen in a day. We may have to do some soul searching to get there. When you lose someone close... it's impossible to 'just move on.'

If we can't see any other way of looking at it, talk to somebody about it.

I hope my experience with Frank can help you see your way around your losses.

When you lose someone close to you – a friend, a family member, your mother, your father, your son – you will feel loss, and you will feel pain.

Frank was a close friend. He'll always be a part of me. I can only imagine how hard it would be to lose a brother, partner or child to disease, or anything.

But after a while, *YOU* have the choice on how to remember them. After a while, and it could be more of a while for some compared to others, you can LEARN from those you've lost. Let their time on this Earth, let their qualities, their words, their philosophies, or their tragedy, inspire you to be a better person.

They live through you if they've taught you how to live.

They smile on as you smile and make them proud.

Always remember that.

So What does that mean for me as a medical student?

What did Frank teach me?

I've learnt that I can't save everyone...

I'm only human... people live and die, and no doctor or scientist, can change that. I needed to be prepared for that.

I've learnt that I need to take care of myself before I can help others. I need to make sure I get better first, that I don't overstress myself (especially now, while I'm still recovering) and when I become a doctor, that I don't blame myself for deaths or misfortune I could not prevent.

But does that mean that I, like many doctors, close myself off to others and never get close to patients?

NO.

I'm not a person who can or wants to do that... And I'm not going to turn to alcohol, or other drugs, to get over the sadness my profession entails either. Alcohol abuse is surprisingly high amongst doctors, despite their better knowledge, for a reason...

What I will do is remember this story, and remember what I've learnt from it.

I will still care for others, I will still connect with my patients, I will ALWAYS try my best to help them in their times of need.

But when I lose someone, when I miss out on a promotion or fail and exam, when I just feel down and out... I will talk to someone.

And I WILL move on.

Epilogue

If you've made it to this point...

Thank you.

To my loved ones.

Thank you even more.

I hope I can do all of you proud.

NikhilAutar.com

I do offer "Coaching" services to people for various things (I've done so for individuals in poker, and even someone who wanted advice on negotiating in business, but also for sports teams) and speak at events too. Feel free to get in touch with me there, or by shooting me a message at;

Email; info@nikhilautar.com

My speaker card can be downloaded by <u>clicking here</u>; Or visiting NikhilAutar.com/speaking

Paypal; <u>Nikhil.Autar@gmail.com</u>, Only donate to me personally if this has helped you. I may use this for personal stuff like health, but mainly will be investing it into medical research and charity, what I'm all about.

Gettosleepeasy.org

CAroundYou.com

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