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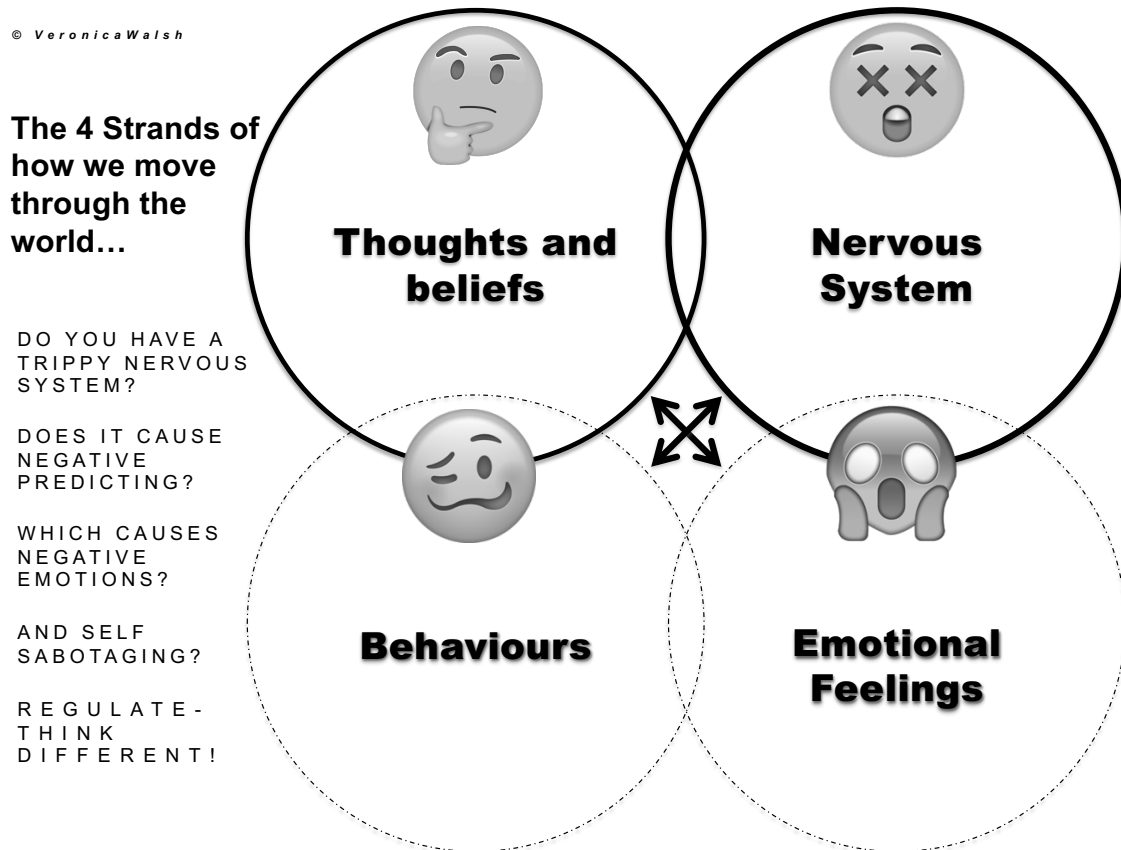
An  
introduction  
to my  
'New CBT'

*or as I like to call it:  
'It's your nervous system, stupid'*

*Can be used as stand-alone, or recommended as an add-on to classic CBT*

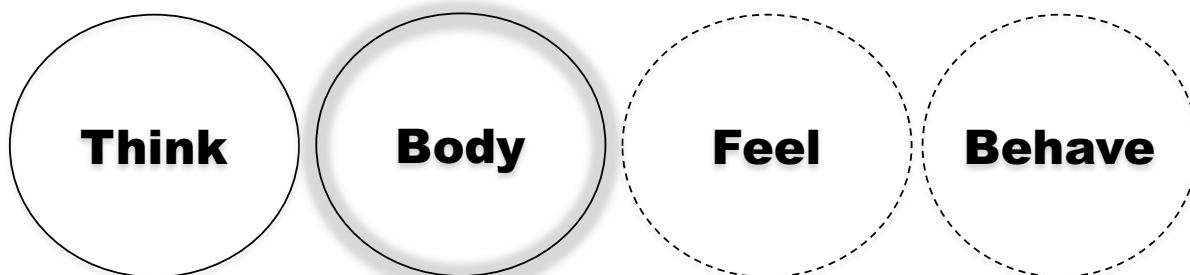
An introduction to my New CBT (it's your nervous system!)

Neuroscience is disrupting traditional psychology models – teaching us that **our mind is our brain which is attached to our nervous system**. We humans are ‘predicting machines’, assessing and processing everything in real time. If we are hypervigilant (with an overactive nervous system wired for threats), it can influence overly dramatic thinking, which activates our threat response to pump up with stress hormones, as if we were preparing for a *physical threat*. This is anxiety – and is a nuisance. It is not ‘all in your head’ – humans are biological beasts, always assessing and responding to our environment with our whole being. So... which came first, the chicken or the egg? Did the exaggerated thoughts turn the threat response on, or did the exaggerated threat response cause the thoughts? When stress becomes a disorder, it is safe to assume they’re working together in real-time – and that you are *dysregulated*. So, who is going to regulate you? You are! Your thoughts are your headquarters.

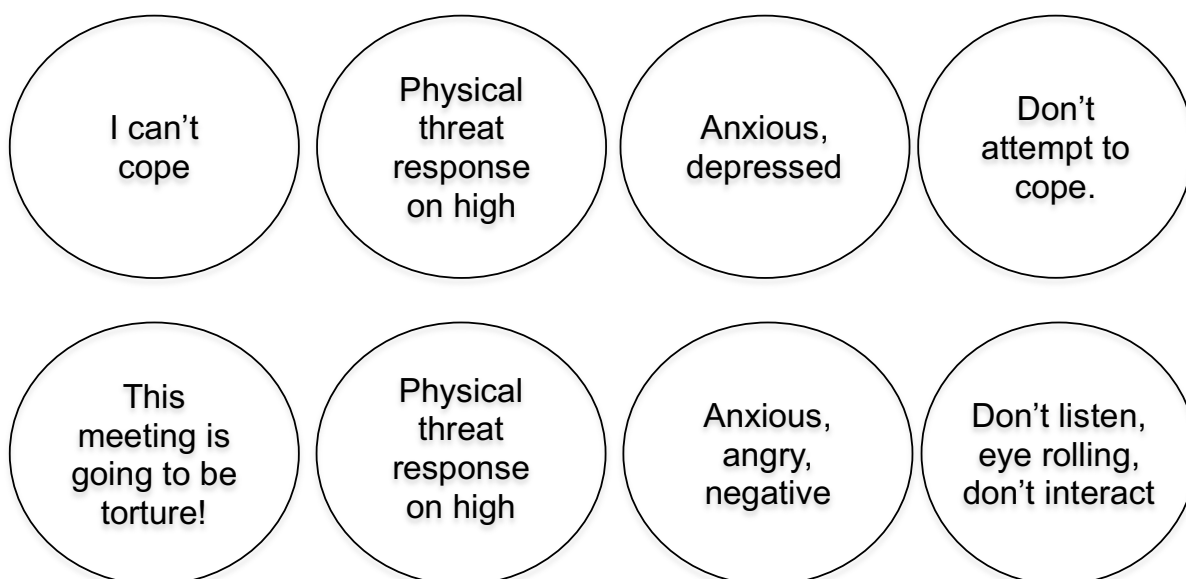


**Anxiety is real, it is physical** – so it is a mistake to mainly focus on our emotional feelings, and to try to make sense of the world through how we are feeling emotionally. Feelings are not facts. Adrenaline sizzling, hearts racing, thoughts racing, oxygen overloading... these are not ‘emotions’, are they? **Key idea:** stress and anxiety are not simply emotional feelings – they are stress hormones pumping up our physical nervous system, which can jumble and exaggerate your thoughts and emotions and behaviours unhelpfully. **Learn how REGULATE through awareness and self-management.**

## THOUGHTS + THE THREAT RESPONSE = FEELINGS AND BEHAVIOURS



<sup>s</sup>  
SUMMARY: when stress becomes a disorder, it causes dramatic thinking *and* dramatic physicality in response to life situations and events. Check out the following examples:

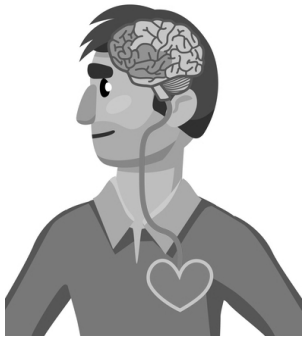


Key: if you have anxiety, moderate to high, you may be simmering in and out of the threat response (fight or flight) much of the time, influencing how you think, feel, and behave – you have a ‘trippy nervous system’! Your body thinks it’s being helpful, (nothing is attacking you, I really dislike the term ‘panic attacks’), it’s a nuisance neural wiring issue that can be understood and managed. According to cognitive scientist Gary Marcus: we humans were ‘haphazardly cobbled together through evolution’ and ‘the brain is not a rational thinking device’. We are not perfect predicting machines, but we are king of the beasts!

Regulating your perception, how you ‘predict’ things, can help to regulate your body - after all, if you view something rationally/moderately, if you no longer view something as a dramatic threat, your threat response won’t be fired up so much. Create a toolbox of no-drama mantras to dial you down.

Note - if you have high physical anxiety, you can speak to your doctor about a prescription for beta-blockers (adrenaline blockers, a simple blood pressure tablet) that can help as part of a CBT care-plan.

**Task – become body aware** – identify the patterns of your threat response modes.



**Key: we pump up physically in response to negative events.**

- Rest and digest mode – safely watching a movie at home
- Excited / challenge mode – first day in a new job
- Threat response mode – dumped by text

Typically **stress hormones** (adrenaline, oxygen, and cortisol) **surge** to action your organs (brain, heart, lungs and stomach) - low, moderate, or high – depending on the situation and your **perception** of the event. This is useful for physical threats (tigers!), but is not helpful with psychological and social stressors.

REST & DIGEST - SAFE MODE	EXCITED / CHALLENGE MODE	THREAT RESPONSE MODE
Low resting heartbeat.	Adrenaline spike, slightly faster heartbeat.	Adrenaline surge - <b>heart racing</b>
Breathing normal.	Lungs take in more oxygen - slightly faster breathing	Oxygen overload – results in <b>faster shallower breathing</b> / hyper-ventilating.
The digestive system and immune system are quietly doing their jobs – no disruption.	The digestive system and immune system are slightly disrupted, butterflies.	<i>Cortisol</i> temporarily shuts down the inessential systems (digestive and immune) to divert energy elsewhere for physical efficiency [causing <b>butterflies or nausea</b> and/or need to poop - diarrhoea]
Temperature normal.	Temperature slightly elevated.	Body <b>overheats</b> – so it efficiently <b>sweats</b> to regulate it's temperature.
Veins at normal capacity, no blushing.	Veins slightly dilating - flushing.	Veins dilate for efficient blood transport, so <b>blushing</b> at surface of skin may occur
Muscles relaxed.	Muscles slightly tensed.	Blood and oxygen supply to the <b>muscles</b> causes contraction / <b>tension</b>
Body steady.	Body slightly shaky.	Oxygen / cortisol / adrenaline surge stimulus can cause <b>shaking, trembling</b>
No throat sensations, muscles relaxed.	Slight throat sensation	<b>Throat closing</b> may be due to the overload of oxygen in muscles
Saliva levels normal.	Saliva levels slightly depleted.	<b>Dry mouth</b> may be due to cortisol shutting down the digestive system.
Brain evaluation normal.	Brain evaluation a little scattered.	Oxygen and adrenaline overload compromises <b>brain</b> activity/thinking (' <b>not thinking straight</b> ')
Voice box / oxygen level fine.	Voice box / oxygen level ok.	Oxygen overload makes <b>voice shaky</b> .

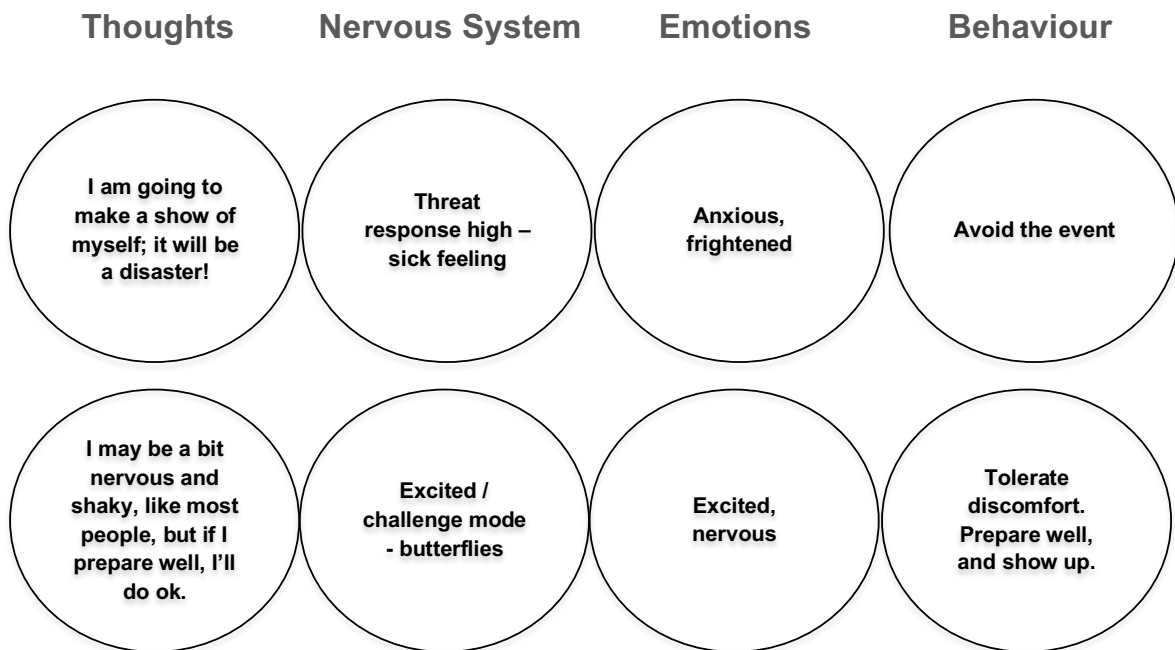
Get it? Nothing is attacking you – your body thinks it's helping you. Of course we're going to have a negative response to a negative event, but, we humans are 'wired stupid' for the modern world in many ways – we pump up for all stressors as if it was a physical threat, and that can be a nuisance. Do you pump up too high? Anxiety is physical. Dial it down, get perspective. Regulate your body by being rational and reframing the situation.

*Thought-stop, breathe it down, and reframe: 'THERE IS NO TIGER HERE, I'VE GOT THIS', and breathe...*

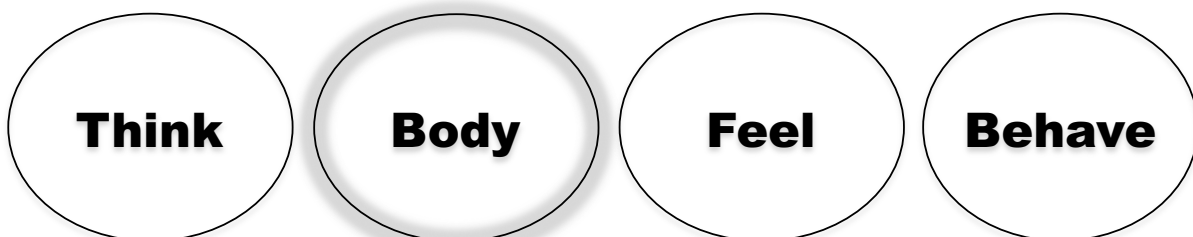


**Summary:** dramatic negative predicting turns the threat response on, which drives emotional upset, and self-sabotaging. So, it stands to reason that you can dismantle this cycle if you get out of the bad thinking habit, building a 'rational-you' to navigate difficult situations. This is your journey, your movie - you set the narrative.

**Consider this classic Public Speaking Anxiety pattern:**



We humans are driven to avoid DISCOMFORT (stress hormones), and to anticipate and avoid bad outcomes if we can help it. Many of our worries and perceptions are inaccurate and out of proportion, but we can develop awareness and reframing skills, to calm the threat response down - to *think straight*, and to feel good and be present, to show up. This is necessary if you have anxiety, where the body is simmering in the threat response pretty much all the time - but you don't realise that, you think it's just how it is, or just how you are; that it is your 'fixed personality'. It is not! Think different. Regulate. Change.



## Understanding and regulating the threat response / fight or flight

**What happens when we perceive a threat or challenge?** Our threat response pumps up. Low, moderate, or high – depending on the perceived ‘threat level’.

This was obviously a great evolutionary adaptation that helped humans to survive and to create our world at the top of the tree – but in many instances in modern life, it can be very unhelpful, e.g., when it is a psychological or *social challenge*, not an actual *physical threat* that would benefit us to be pumped up physically.

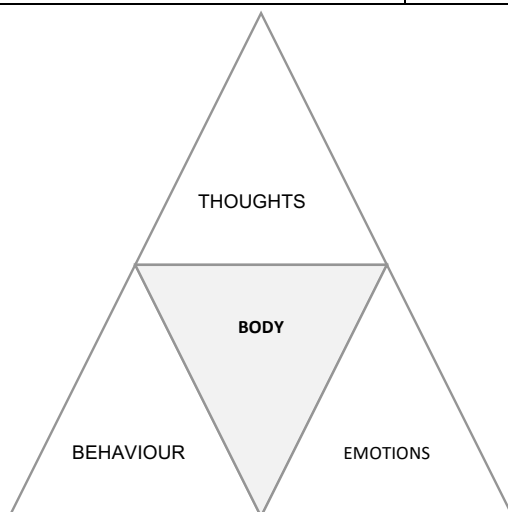


When stress becomes a disorder, we develop trippy nervous systems, and are often pumping up unhelpfully in response to neutral events or situations – receiving a text – opening bills – people’s behaviour that has nothing to do with us - and so on... And we don’t even realise it. *Be body aware.*

### An example table of situations and events

– some are safe/neutral, some exciting/challenging, some unsafe/threats...

Watching TV at home.	Lunch with a loved one.	Snuggling the dog.
A first date	First day at a new job	Bumping into an ex ('the one!')
A job interview	A work performance review	Public speaking
Taking an exam	Ignored in a WhatsApp group	Friend avoiding you
Receiving negative exam result	Ghosted on Tinder	Realise you lost your phone
Caught in a traffic jam	Late for an important meeting	Partner acting weird and distant.



**Key:** your body will likely be in ‘rest and digest’, and ‘low heartbeat mode’, for the safe situations, and will pump up with stress hormones at different levels for the others - **depending on how you perceive them, and how your particular nervous system is wired.** You can see that none of these situations would benefit from our bodies pumping up to full-on threat response mode – in fact they would be better served if our body cooled down so that we could think clearly and cope well with

challenges and adversity, but nope, humans pump up for all stressors as if it was preparing to deal with 'a tiger' - these are called *paper tigers & invisible tigers*. When our stress is a disorder it can cause dramatic misperceptions, paper tigers everywhere!

Get it? If your stress has become a disorder, you might have a trippy nervous system, and your threat response might be pumping up in an exaggerated way in response to situations that are not in fact threats. This causes negative emotions and self-limiting behaviour. You can learn to regulate yourself by building awareness and self-management skills – identify where you are comfortable, and where you have discomfort, low moderate or high – then thought-stop and reframe: “There is no physical threat here” – and breathe it down... and explain the situation rationally to yourself.

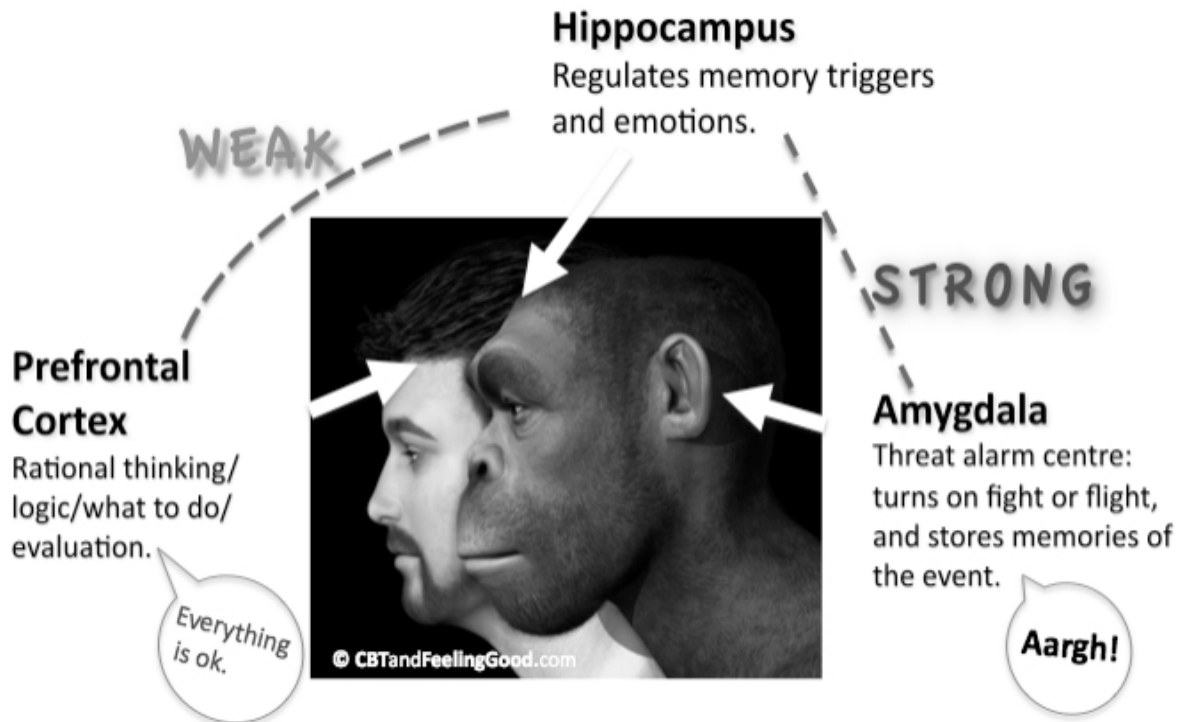
**Task:** make a table of your safe situations and your tricky situations):

SAFE	EXCITING/CHALLENGING	UNSAFE/THREAT

**Key ideas:** when does my trippy nervous system activate unhelpfully?

## The Amygdala explainer: Is your inner ape the boss of you?

The **Amygdala** (your alarm control centre) is the part of the brain that turns on the threat response (also known as Fight or Flight) – it works closely with your **Hippocampus** (memory creator) so that it can create automatic neural pathways using the information you pick up through life, to keep you safe, to help you to make efficient evaluations and choices in an instant, to pump you up in an instant.



**Anxiety** creates TOO STRONG a connection between the Hippocampus and the Amygdala, which together often label manageable situations as big negative dramas – and it WEAKENS the connection between the Hippocampus and the **Rational Prefrontal Cortex**, which is the part of your brain which evaluates situations in a calm logical way, which would, if left to its own devices, calculate that the situation is manageable, and that there's no need to pump up dramatically - that 'there is no tiger here'.

**Fear learning and predicting:** we humans will do anything to avoid the discomfort of fight or flight - it's how evolution happened, it's how we survived – always assessing: *'is this good or bad? is this safe or dangerous?'* But when stress becomes a disorder it causes us to mis-label things as overly bad, to over-assess risk and bad outcomes, all the while assuming that we are rationally anticipating and problem solving. We may attempt to micro-control our environment, ourselves, other people, the world - developing 'rules for living'; *demand thinking* of how things should, must, and ought to be. We don't like unpredictability or surprises or change. We cause ourselves (and others) lives of unnecessary drama. But you can help regulate your body by building awareness and regulation of your thoughts and beliefs – be more rational consciously, to be happier. (Note: it's nobody's business but yours, many of the great creatives were trippy, it can be a gift if you unconditionally accept and manage yourself.)



## Paper tigers and the dysregulation of the threat response:

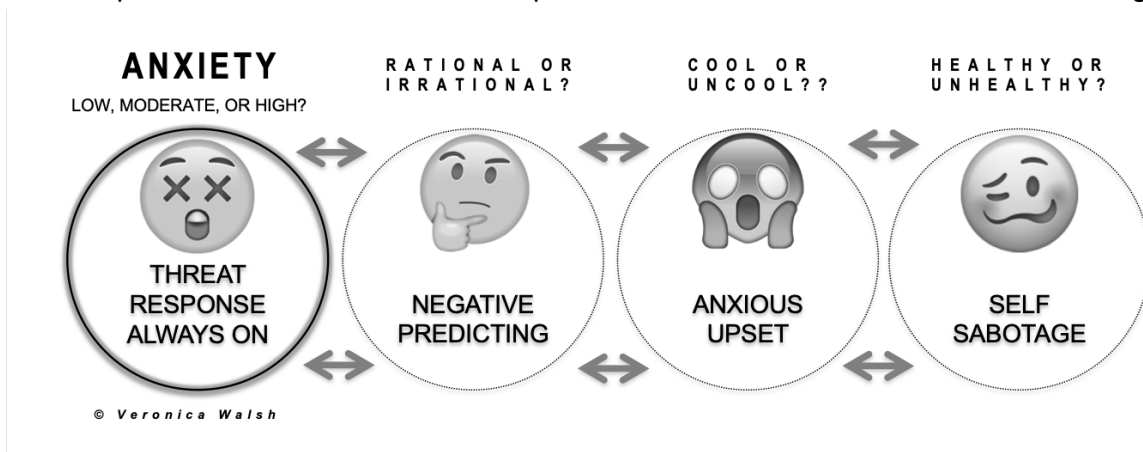
Constant exposure to stress hormones can cause a dysregulated nervous system, which causes stress to become a disorder. This is a **shift in physicality** – which literally restructures the brain and body, so that we are **simmering in and out of the threat response mode** – low moderate or high – to physically prepare for a physical threat - when it is unhelpful and unnecessary. This is also known as ‘hypervigilance’ and being ‘hyper-alert’. We are wired for threats - war ready and crisis ready when there is no real war or crisis. We call these threats *paper tigers, or imaginary tigers*.



## The General Anxiety ‘Hypervigilant’ model:

**A hyper alert body drives negative predicting: which drives emotions, which drive behaviours:**  
Build body awareness and tools to thought-stop, and monitor the four strands.

Let’s move the imagery model around **to show a body in a constant state of alertness:** pumped up, either for particular situations, or generally / all the time. This ‘messes up your data’ - it creates a dramatic version of you. You are a hammer looking for a nail. ‘I feel bad so it is bad!’. Drama! That is appropriate for wartime or fighting and escaping from actual tigers, but stops you being present and resilient to cope well in real life. The threat response becomes the threat – dial it down and regulate.



**“Oops, I’m malfunctioning. There is no tiger here. I’ve got this.” \*and breathe...**

*Regulate your trippy nervous system with new self-talk and a controlled breathing routine:*

Take a long slow breath in through the nose – feel your belly go in and your diaphragm go up – hold for a few beats, then let the breath out long and slow through your mouth... and repeat... *You are the boss of you.*

## Key idea notes and ideas about anxiety – highlight what you like, take what you need:

- We are ‘predicting machines’ and ‘sense making organisms’, who tend to try to make sense of things through how we feel emotionally, so traditional talk therapy was a model of ‘How did that make you feel?’ ‘Where in your past do you think that feeling came from?’ - when actually, neurobiology now tells us that the physicality of stress is the prime driver of anxiety. ‘It’s your nervous system, stupid’ is my own particular favourite phrase for myself that makes me laugh. It turns out that the predicting machines are predictable! Of course our past and patterns matter, but endlessly excavating that is not efficient – it does not give you the right information about your life experience, and how to change it. (Some people became wired for threats by trauma, others are just born hyper-vigilant, which will make them more prone to disorders.)
- What is your body doing? When you are upset and anxious you are not flooded with relaxation hormones - you’re pumping with stress hormones. You are not in low-heartbeat mode, you are not in ‘rest and digest’ mode - you are in threat response mode, which activates ‘threat lenses’, a vicious circle of simmering in and out of adrenaline. That would be useful in wartime, or an episode of the walking dead, but is not so useful in general life. It causes too much time spent irrationally planning for the worst outcomes. Being full of adrenaline all the time can cause chaos - from the obvious; fatigue and not sleeping well, being too fast, to ‘on’, to being aggressive internally and/or externally. The lens we view the world through, and our choices of action, become compromised. We are ‘dysregulated’. What happened when we removed regulation of the banks (with no government oversight)? Chaos! Regulate yourself out of chaos with oversight.
- When stress is a disorder: you are not typically in ‘rest and digest’ low heartbeat mode. Not in the ‘I am safe, and everything is good’ mode, unless you have absolute certainty – with no discomfort or threats or variables. That’s kind of normal, everybody moves through different physical modes, depending on the circumstances – for instance, it might take a few weeks or more to adapt to a relaxed mode in a new job - collecting information that you are ‘safe’. Or in a new relationship - (one day you’ll be taking each other for granted, and those butterflies will just be a memory). *We adapt as we collect new information and become comfortable...* But when stress becomes a disorder, we don’t do that so well – so building awareness and self-regulation to adapt consciously is smart.
- Self-esteem and being present: did some people win the genetic lottery or the life lottery when it comes to regulated nervous systems? Sure. Good luck to them, I hope it stays fine for them. If you didn’t win that lottery, and are not either super relaxed or ‘neurotypical’ (average), well that’s just you, and it’s nobody’s business but yours. You are of value. You matter. You’ve done your best based on what you were thinking and feeling at the time. This work helps you to think and feel differently. imagine a time machine with ‘sliding doors’ alternative versions of bad situations you’ve been in, (what am I saying? Of course, you’ve imagined them a hundred times!), well with CBT you can develop skills to aim for the best of those scenarios in the future. To learn from them and to regulate and moderate yourself to have a better life experience. Being ‘always-on’ and hyper engaged can bring gifts as well as problems - if you can learn good humoured acceptance and self-management, to be present and to manage yourself well.
- With a dysregulated (trippy!) nervous system some people become quiet and shy, others aggressive and loud - and lots of variations in between. Some have situational anxiety in a particular situation, others have general ‘all the time’ normalised anxiety. It is not your ‘fixed

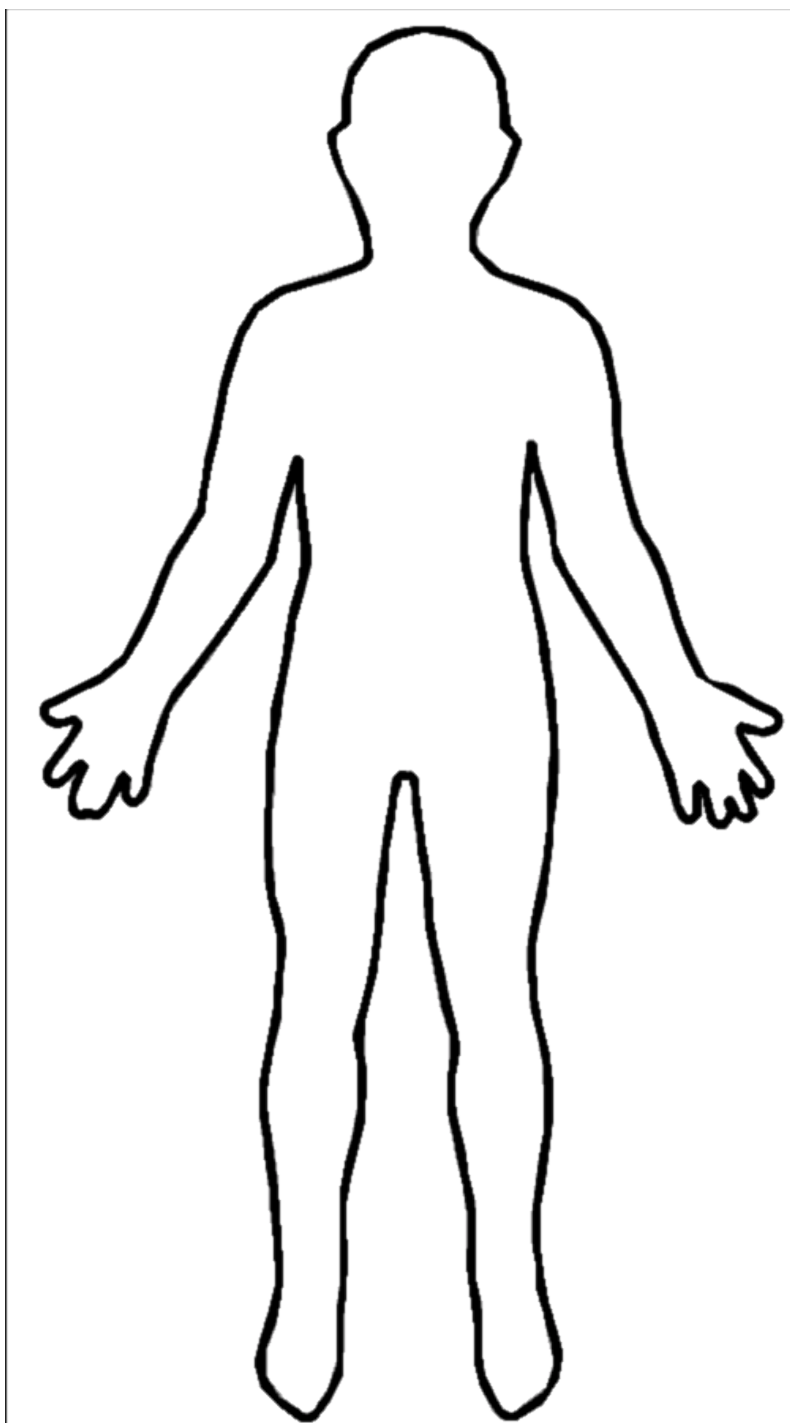
personality' - it's a biology thing, a wiring issue. From Social Anxiety to Public Speaking Anxiety, the threat response IS the threat. Picture it as sparks coming out of your lovely head sometimes. Malfunctions. Blips and skips and quirks. We've all got them. We beautiful messy machines. CBT skills will help you to manage it - you and your therapist can literally 'change your personality'. Keep the bits you like and edit the bits you don't like. Your brain habits are not 'fixed circuits' – the brain is plastic' and flexible, ever changing through learning and doing..

- The prince and the pauper are of equal value - the CEO and the homeless person are of equal value - made from stardust, here on this earth for a blink. Each waking up, breathing, and predicting their world and making their choices - doing their best based on what their experience, circumstances, information, privilege and biology is - based on what they are thinking and feeling at the time. Unconditional acceptance of yourself and others and the world is something we aspire to in CBT and indeed any human philosophy. "I matter. I am of value". "What is rewarding and stimulating today? Can I be present? Give without demanding to get? Love without demanding to be loved?" Be mindful. Live in the present. Build a life of meaning and engagement and purpose, by you, for you.
- Stuck in the past? Did you have joy but lost it? Focus on the privilege of having had it. Make your memories a pleasure not a pain – thought-stop and derail negative visualisation and mental time-travel. Get in touch with your inner buddha. Focus on the positives. Be present for the journey of your one and only life – reinventing yourself every day – rewiring, doing your best, and making your best better each time. It's a science, practice it all day every day, bake it in.

*GENERAL SELF-TALK REFRAME TOOL: Am I amped up physically right now? Does this situation warrant that? How am I explaining this situation to myself? Am I anticipating and problem solving, or am I 'negative predicting'? Is that a bit dramatic? Is that helpful or unhelpful? Rational or irrational? What is the evidence for my thoughts and beliefs? Am I about to cause myself and/or others unnecessary upset? Can I reframe to a more realistic rational narrative? And can I make different choices in response to this situation? \*breathe it down*

**What did I learn?** (jot down key ideas and takeaways)

**Task: make a brain and body map of your anxiety:**



Our brains love learning by discovery through imagery and understanding.

Map your physical anxiety – use coloured markers if you have them - what is happening and how do you describe it?

e.g. 'draw an arrow to the heart on the body silhouette, and write 'racing heart' or an arrow pointing to the face, and write "blushing"– (use your own natural language and style).

Refer to the previous table of the 'physiology modes' showing the science of what is happening and why... and write that down too, in your own words.

Build body awareness and regulation. Skill up!

**Practical body awareness and regulation mantras:** (try creating your own statements, dial down the drama):

<p><b>Whoa, this is just my trippy nervous system – it’s ok, I’ve got this, there is no tiger here...</b></p>	<p><b>Feelings are not facts – and these ‘feelings’ are primal &amp; physical... I’m actually ok...</b></p>	<p><b>My body is pumped up for danger, but there is no danger... I’m ok, I can cope.</b></p>	<p><b>The threat response IS the threat. That’s meta. I will re-evaluate &amp; breathe it down.</b></p>
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**Use imagery and humour,** practice sighing patiently and rolling your eyes to accompany these ones:

<p><b>My heart is ramped up to turn me into a fighting machine – knock it off heart - that’s not helpful.</b></p>	<p><b>These butterflies are because cortisol is shutting down my digestive system, thanks for nothing cortisol! *Sigh*</b></p>	<p><b>My lungs have taken in extra oxygen for some imagined threat *belly-breathe it down*</b></p>	<p><b>Whoa – I am too ON. This is not cool. Not now inner ape, I will re-evaluate and regulate *do stretches*</b></p>
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**Belly Breathing – the essential self-regulation tool: learn the skill and habit of controlled breathing**

– when we overload on oxygen and adrenaline and cortisol, lowering and managing the intake and output of oxygen will help stabilise our body:

- Take a 5-second-long slow breath in through your nose – feel your belly go in and diaphragm go up
- Hold the breath for a beat of 3 seconds
- Let the breath out through your mouth in a long slow 5 second breath, feel your belly go out and diaphragm go down.
- Repeat in a rhythm...
- Combine with new self-talk mantras...

## The Anxiety template guide:

### Anxiety ...

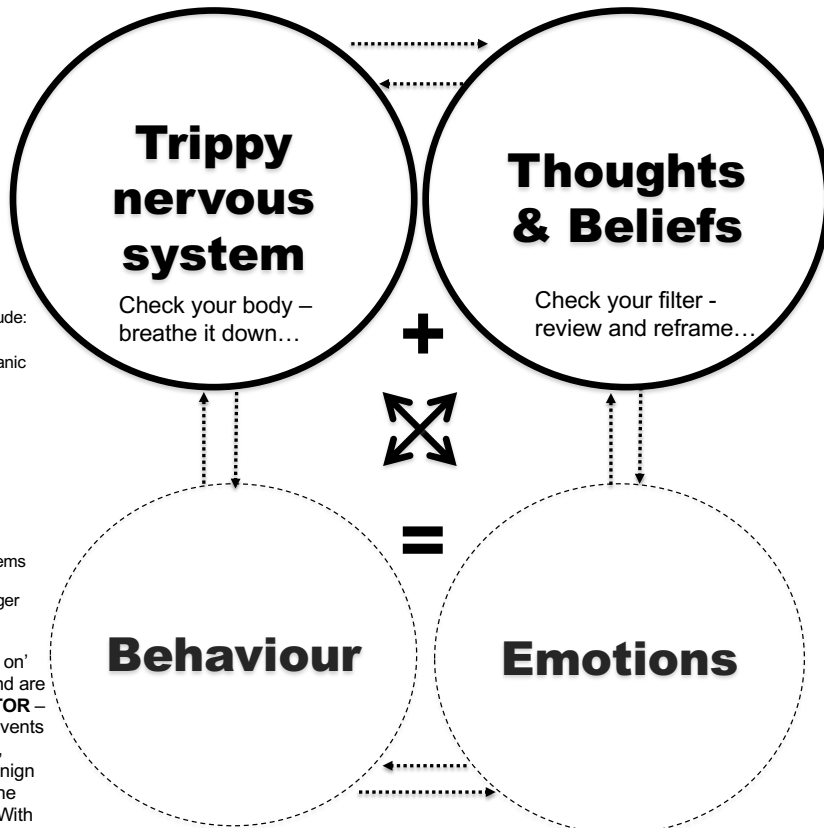
**The Cambridge Dictionary definition:**  
**Anxiety** *noun* (MEDICAL CONDITION)  
 A medical condition in which you always feel frightened and worried.  
**Anxiety** *noun* (US)  
 an uncomfortable feeling of worry about something that is happening or might happen, or a cause of this.

**Mayo Clinic definition:**

Common anxiety signs and symptoms include:

- Feeling nervous, restless or tense
- Having a sense of impending danger, panic or doom
- Having an increased heart rate
- Breathing rapidly (hyperventilation)
- Sweating
- Trembling
- Feeling weak or tired
- Trouble concentrating or thinking about anything other than the present worry
- Having trouble sleeping
- Experiencing gastrointestinal (GI) problems
- Having difficulty controlling worry
- Having the urge to avoid things that trigger anxiety

If you have anxiety, you may be 'always on' with a dysregulated nervous system - and are thus likely to be a **NEGATIVE PREDICTOR** - and to automatically view situations or events as **threats**, (level low moderate or high), when they may actually be neutral or benign or not a big deal.\* Which comes first? The thoughts or the trippy nervous system? With an anxiety disorder they work hand in hand in real time. Regulate - think different...



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What have you learned? (key idea notes):

- *Regulate your body with controlled breathing* - stabilising the oxygen will help stabilise the adrenaline: take a long slow breath in through the nose - hold for a few beats - then a long slow breath out through the mouth - (repeat in a rhythm) - 'I'm ok, it's ok, I'm just a little trippy...'
- *Regulate your adrenaline* and kick start your immune and digestive system with regular exercise.
- *Stay away from too much coffee and nicotine* - you're trippy enough.
- *Regulate by choosing to do things that produce the 'happy hormones'*, dopamine, endorphins, and oxytocin.
- *Regulating your nervous system with medication* - talk to your doctor about occasional use **beta blockers** if you have debilitating physical anxiety - they are a blood pressure tablet that turn down the threat response by blocking adrenaline.





**Brain Plasticity:** neuroscience tells us that our auto pilot ‘thinking’ has, quite literally, burned neural pathways in our brain – but that the brain is not hardwired with fixed circuits, and that it can and does create new neural pathways over old ones. The brain is ‘plastic’ and malleable, so it can be reshaped through ‘learning and doing and reward’ – which tells us that, with work, it is possible to ‘rewire’, to change the neural circuitry of our bad thinking habits into considered evidence based rational good thinking habits instead, and to regulate our nervous system ... no matter what age you are or what

variant of stress disorder you have.

**Note,** you get better and faster outcomes if you engage and put in the work (there is written work in the form of journaling and worksheets, as well as mental tasks) – you can develop the ability to self-critique, and be willing to challenge your automatic assumptions and feelings in real-time. Remember that CBT is something we *do*, not just something we know – of course you get the theory, you’re smart - but that’s not enough, it has to be *practiced*, baked in. A philosophy for living, for all day every day.

Catch irrational unhealthy self-talk, and replace with new healthy rational self-talk, and design new healthy positive behaviors – create mantras to thought-stop and reframe, over and over, until they are your default. Take care of managing and reshaping your amazing brain with cognitive science. The road you’re on is the harder one, this is the easier one in the long run. Literally ‘change your brain’.

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### Quotes to remember:

“The brain is a complex biological organ of great computational capability that constructs our sensory experiences, regulates our thoughts and emotions, and controls our actions.”

*Eric R. Kandel (from "The new science of mind")*

“The brain is designed to grab what input it can and then boil it up into a froth of understanding.”

*John McCrone (from The Ape That Spoke. Language and the Evolution of the Human Mind, 1991)*

“The magic of your mind -- the magic that lets you enjoy family and friends, fun and games, and do all the things you "have a mind" to do -- depends on your private computer: your brain.”

*J. Lawrence Pool (from Nature's Masterpiece. The Brain and How It Works, NY: Walker & Co '87)*

“But I try not to think with my gut. If I'm serious about understanding the world, thinking with anything besides my brain, as tempting as that might be, is likely to get me into trouble.”

*Carl Sagan (from The Demon-haunted World, 1997)*

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