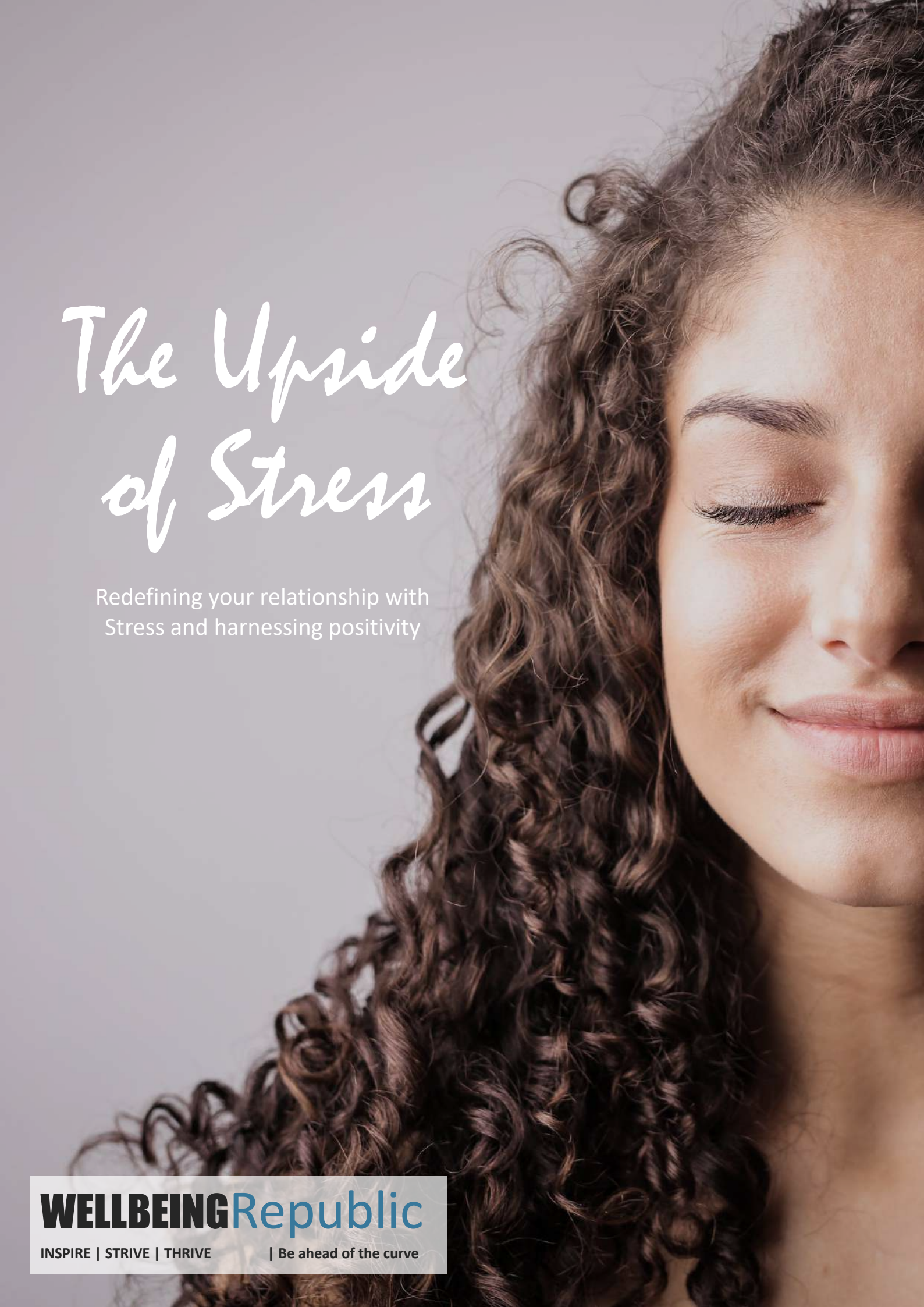

The Upside of Stress

Redefining your relationship with Stress and harnessing positivity

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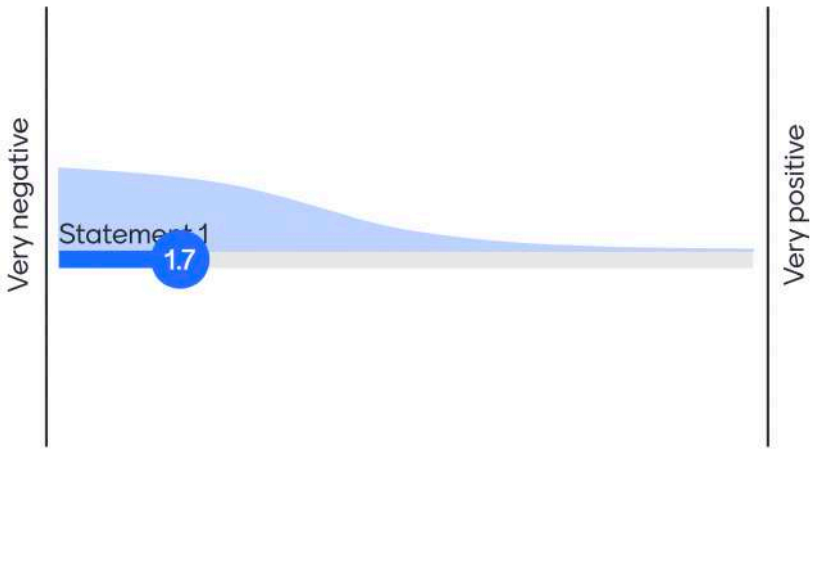
As part of this CII session on the upside of stress, I ran two interactive polls. The first was a temperature check to understand how you have been feeling these past four weeks. While optimism remains relatively upbeat for most, so too do levels of exhaustion and anxiety. Too few of you have been feeling calm and relaxed, while a large number of you have been feeling overwhelmed. Hopefully the upcoming holidays will provide a chance to recharge and reset.

As part of the session, I also asked you about your relationship with stress. Specifically, what kind of impact might experiencing 12 months of high stress have on your health and performance. The vast majority of you believed that lots of stress over a 12-month period would have negative repercussions. As we explored in the session, that underlying belief is perhaps more important than how much stress you experience.



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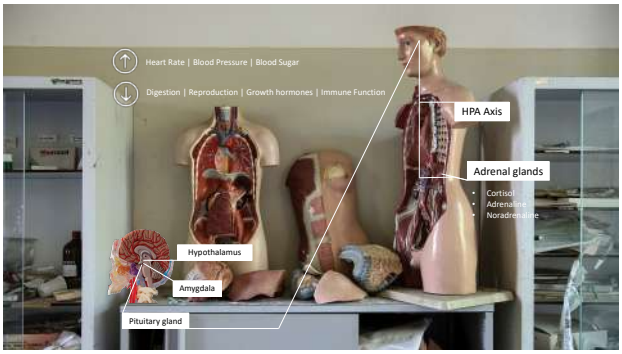
Understanding your relationship with stress

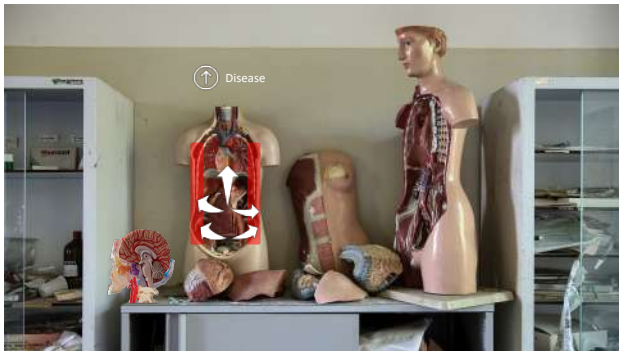
Redefining Stress

The different sides of stress

When we think about stress, most of us conjure up images of overwhelmed, short-tempered and burnt-out individuals with high blood pressure, an elevated heart rate and a higher risk of a stroke, heart attack or diabetes.

'Stress' at its worst can certainly be damaging to our health. Prolonged exposure to cortisol and adrenaline together with increased levels of inflammation, produced by our bodies as a result of the triggering of our fight or flight response, can prove toxic to brain cells and wreak havoc with our hormones, blood pressure, immune system and digestive system, substantially increasing our risk of disease and mortality – not great news!





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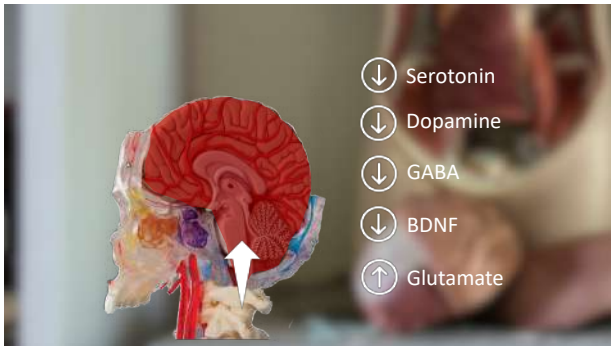

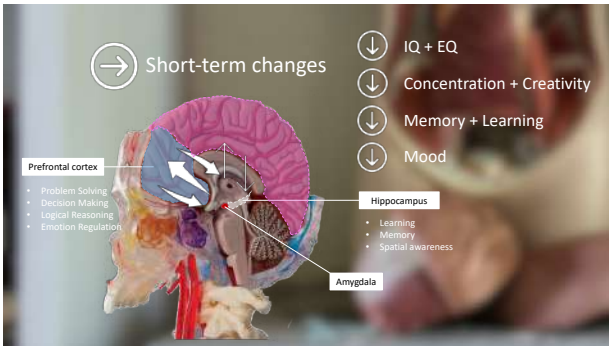

The short-term implications of our fight or flight response are well documented, perhaps a little too well. Fight or flight can result in lower IQ, lower EQ, reduced ability to focus or concentrate, reduction in creativity (we become very narrowly focused), reduced memory and learning capacity, as well as lower mood. However, the longer-term implications on brain health have not been so well documented, until recently.

We now know from advances in neuroscience research in the past couple of decades the impact that inflammation has on neurotransmitters in the brain, negatively affecting our mood, confidence, concentration, motivation and anxiety levels. A thought-provoking book titled the Inflamed Mind by the head of Psychiatry at Cambridge, Ed Bullmore, makes a compelling case that a significant number of people develop depression due to experiencing chronic unmanaged stress. In addition, research suggests that the long-term effects of experiencing chronic stress can physically alter the structures in certain brain regions, which can negatively impact resiliency and mental health in future. This adds further fuel to the narrative that stress is bad.

Longitudinal studies that have tracked large populations and checked-in with them on the levels of stress they have experienced in any 12-month period, generally conclude that experiencing significant stress over a prolonged period is not conducive to optimum health. Indeed, most news outlets remind us on a regular basis that stress is the cause of most of our ills.

If stress is indeed bad, then the best we can hope for is to manage it effectively. Cue time management training (which can indeed be helpful) and other stress management techniques. One technique, which I believe can be particularly effective is to identify what we are able to control and what we can't. The aim being to write down the things stressing us out in two columns. In the first column we include those things we can control, in the second, those things we cannot. We then need to give ourselves permission to focus our attention on the first column and let go of those things which we just identified, as we can literally do nothing about them.

If we don't learn to let go of the things outside of our influence, it will continue to fuel unhealthy stress. I think the other somewhat helpful thing to remember is that, according to the research, very few of our worries ever materialise and, of those that do, worrying most likely renders us less able to tackle the ensuing challenge, because we've run ourselves ragged worrying about it.

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But is there a positive side to stress?

A study conducted in the US, which tracked 29,000 people over a period of 8 years, found that those who experienced a lot of stress in any given year were 43% more likely to die the following year. To clarify, it was not 43% of the people, but rather the percentage increase in risk associated with experiencing lots of stress. While that may help reinforce any pre-existing beliefs that stress is indeed bad for us, there was a caveat to that statistic. Only those people who believed stress was harmful to their health were more likely to die as a result of experiencing a lot of stress. Those who experienced a lot of stress but believed that the experience was enhancing and something that they could grow from didn't suffer the same fate. In fact, that group were less likely to die than those who experienced only a small amount of stress but believed that stress was bad for them.

A not dissimilar study in the UK, called the Whitehall studies I and II, which tracked various different metrics of civil servants over several decades, found that those people who thought stress was having a negative impact on their health were twice as likely to have a heart attack, even though the amount of stress they experienced was similar to others whose health was unaffected. These studies tell us that there is far more to the concept of stress than we might think. It turns out that our belief about the impact that stress might have on us matters. Indeed, it is not the stressor but our response to it that plays a significant role.

We evolved our fight or flight response to prepare us for life threatening situations. An adaptive response to a life-threatening stressor might include running away from a lion when confronted with one. Essentially, our fight or flight response was designed for short bursts of additional resources to help us survive in the moment. Today we rarely find ourselves in an actual life-threatening situation, but we still trigger our fight or flight response quite often and, for prolonged periods, which is where things can go wrong over time.

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What types of things cause you to feel ‘stressed’ ?

Overwhelmed
Frustrated
Angry
Anxious
Worried
Disgusted
Panicked

It can be helpful to pause and reflect on the type of situations which cause you to feel ‘stressed’. Situations in which you notice your heart beating faster, muscles tensing, excessive sweating or stomach aching. What types of things cause you to feel overwhelmed, frustrated, angry, anxious, worried, disgusted or even panicked?

The second question to reflect on is: why does your brain treat them as life threatening? Invariably, your brain is trying its best to keep you safe and provide you with the resources it thinks you need at any given moment in time. It is wired to trigger fight or flight in situations when you feel as if you are lacking the resources you need to survive. As a result, experiencing overwhelm can be a trigger for fight or flight chemicals being released into your body.

It's important to note some of the less obvious triggers of fight or flight. For example, feeling isolated or lonely can cause us to experience chronic levels of stress, which can be extremely damaging for health over time, if left unaddressed. One study likened the impact of loneliness and isolation (not to be confused with solitude, where we actively choose and want to be alone), to the equivalent of smoking 15 cigarettes per day on our health. This can be a real concern for people who work in an environment where they feel that they don’t belong – it’s stressful.

A third question to ponder is: how does your brain identify what to class as a threat? How does it know that you don’t have the resources to deal with something? How does it know that your life is in danger? Whether we recognise it or not, we are the ones that inform our brain of what poses a threat to our survival. It might not necessarily be in that precise moment, in fact it’s most likely conditioning from earlier in our lives, but we are the ones who primarily condition our brain to identify what poses a threat to us or not.

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1 **Initial response** – Emotion (+ Thought)

2 **Secondary response** – Thoughts + Behaviours + Emotions

If we break down our response to the stress that we experience, we can identify two aspects to it. The initial response, which is automatic, instinctive and mostly unconscious. The initial response sees our fight or flight response kick into action together with perhaps one or two accompanying thoughts. Our secondary response initiates when we become consciously aware of our initial response and results in us adding more thoughts and emotions into the mix together with some helpful or unhelpful behaviours. It's this secondary response that keeps our fight or flight response engaged for far longer that it evolved to be.

Whereas 10,000 years ago a threat was rare and fleeting, the threats we perceive today occur multiple times per day and can sometimes last for hours, days if not months. And yet, these threats are not life threatening, but our brain and body engages with them as if they could pose a physical threat to our survival, which triggers our fight or flight response. The problem is that we continue to feel threatened (be that overwhelmed, angry, frustrated etc) long after the initial appraisal of a seemingly stressful situation has occurred.

In the right context our fight or flight response is adaptive. If we experience a stressor, overcome it and then recover from it, we get physically or psychologically stronger (or both). However, much like a breathable rain-proof jacket is great at keeping us dry for an hour or so (unless you happen to be caught in a typhoon), the longer we stay out in the rain, the greater the risk of the jacket letting water through. Allow it to dry out and it's good to go again. In some ways, our ability to buffer stress is similar. Our body was designed to be impervious to stress hormones up to a point. However, prolonged exposure to the same chemicals starts to negatively impact both our brain and body over time. We can often adopt behaviours that compound matters further, such as attempting to regulate our stress with alcohol or other harmful substances, or other unhelpful behaviours.

Worse still, because feeling stressed can feel unpleasant, many people become fearful of experiencing the symptoms (such as rapid heartbeat, sweating or trembling) of the fight or flight response itself.

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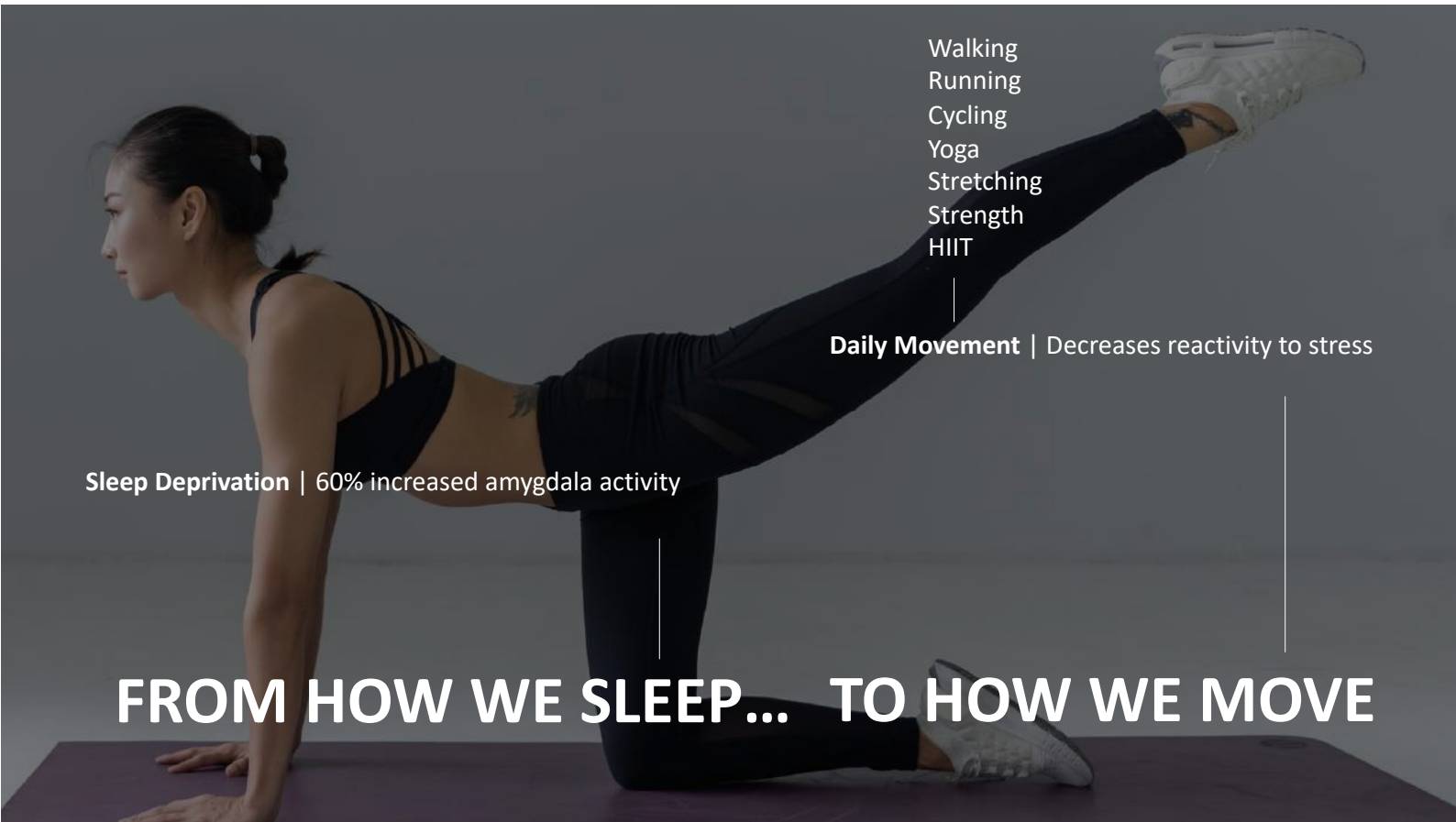
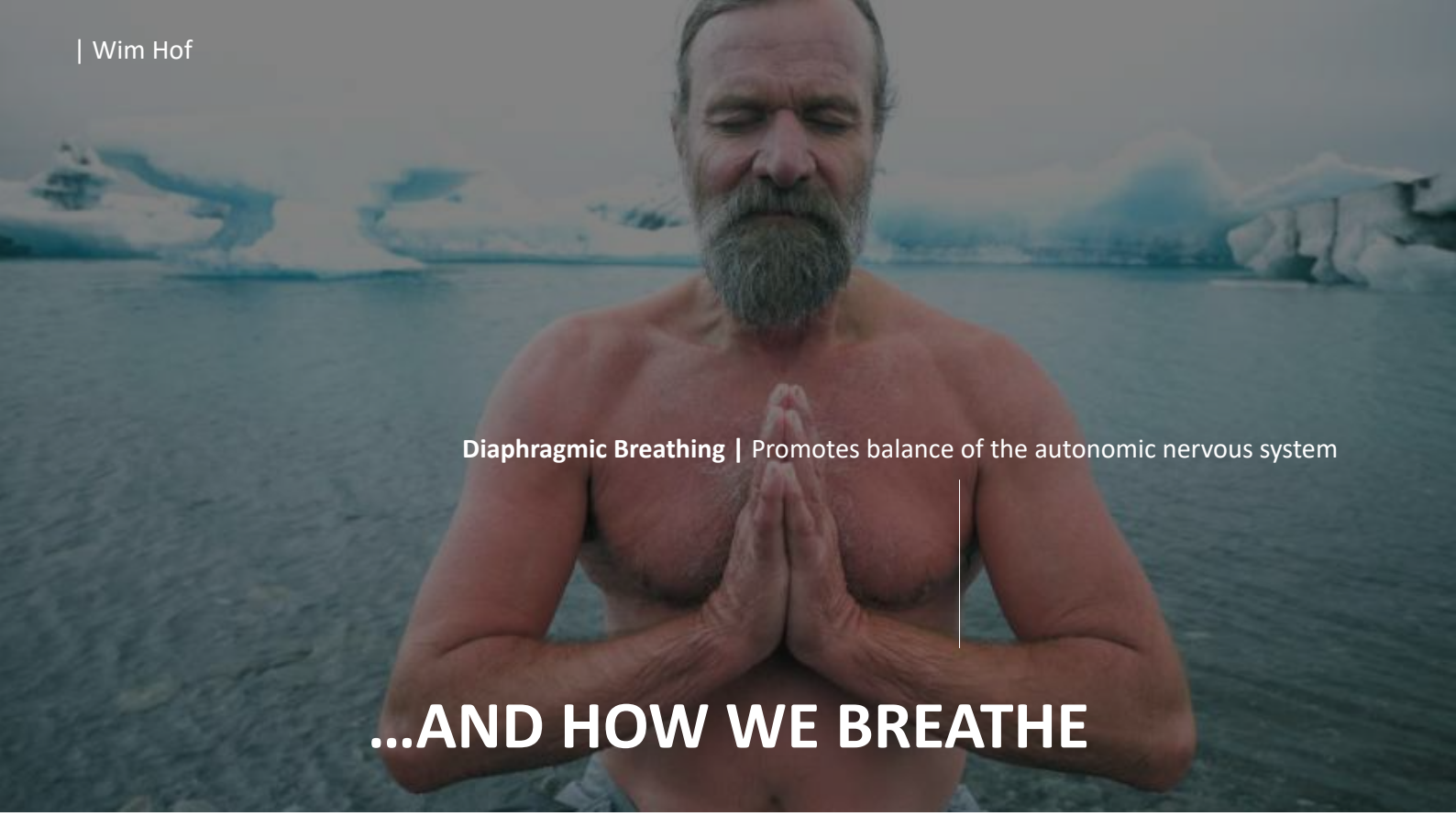
Those physical sensations result from the release of chemicals such as cortisol and adrenaline from our adrenal glands, as detailed above. Those chemicals are released to facilitate our ability to fight or to flee and they result in significant shifts in both our physiology and our cognitive processes. Experiencing the above symptoms isn't something we need to be fearful of, they are a natural biproduct of engaging our fight or flight response. They are the brain's way of signalling for us to pay attention to a *possible* threat in our immediate environment (not necessarily an actual one – better safe than sorry etc).

However, what happens if you have an overzealous amygdala (guard dog), which means you are more reactive and trigger your fight or flight response more readily than you might otherwise like? Is it possible to actually change what does or does not cause us to feel threatened? In short, yes. We will likely all be able to remember times when we have been more easily agitated or overwhelmed. Whilst most of us will just assume it was a coincidence, there will have been things we did in the hours and days leading up to that moment in time, which influenced our reactivity to stress.

For example, scientists have known for some time that sleep deprivation (sleeping less than seven hours on a regular basis) can cause the amygdala to enter a state of hyper-alertness. One study found that the amygdala became 60% more reactive, meaning that people were more likely to feel anxious, irritable, angry or overwhelmed following a poor night's sleep, where thy got only a few hours' sleep.

Similarly exercise plays a pivotal role in making us more resilient to stress. Research has found that when we exercise, we produce greater levels of GABA, which make us less sensitive to stressful stimuli, enabling us to remain cool under pressure. In addition, mounting evidence over recent decades has demonstrated how exercise can reduce the risk of depression and help people who are in depression to recover. Once we appreciate that the mind and body are intrinsically interconnected and that it is our brain's biochemistry (which is influenced by our thoughts and actions) that affects how we feel, we can appreciate why regular exercise is important to help maintain optimum mental health and reduced susceptibility to anxiety and overwhelm.





Diaphragmic Breathing | Promotes balance of the autonomic nervous system

…AND HOW WE BREATHE

Our breath also plays an important role at reducing our susceptibility to stress and recalibrating our nervous system. One of the most powerful ways to instantly shift your mental state is to engage with your breath. For those of you that practise yoga or mindfulness, you will already be familiar with the brilliant power of your breath to help regulate your emotional state. For those of you who don't, re-learning how to breathe has the potential to transform the way you experience your life, as well as improve your performance and long-term success. It isn't just a short-term solution either, it can readily help recalibrate your nervous system and reduce your sensitivity to stress in future.

A great example of how powerful our breath can be in regulating and permanently being able to shift our emotional state, was a study conducted by researchers at Stanford in the US. Army veterans experiencing post-traumatic stress disorder (PTSD), were able to reduce their PTSD symptoms by 40% by taking part in a seven-day intensive breathing programme. What that study and other research demonstrates is that, over time, it is possible to recondition your nervous system to specific stimuli and rewire your brain to have a different and more helpful response, whether that be giving a presentation, having difficult conversations or generally stepping outside your comfort zone. The caveat: it takes practice, perseverance and the right mindset.

The reason the breath has such a powerful influence on our state is because it is intrinsically linked to our nervous system; the sympathetic branch of which is responsible for fight or flight. A calm state engages the parasympathetic branch and when we consciously choose to breathe more deeply and exhale more slowly from our diaphragm area, we stimulate the parasympathetic nervous system via the Vagus nerve. This fairly rapidly shifts our mental state from fight or flight to rest and digest. A potent breathing technique to practise is called boxed breathing. Boxed breathing involves breathing in deeply for a count of four, holding for a count of four, exhaling for a count of four and then holding for a further count of four. If you repeat this cycle of breathing for several minutes, you should notice a significant shift in how you are feeling.

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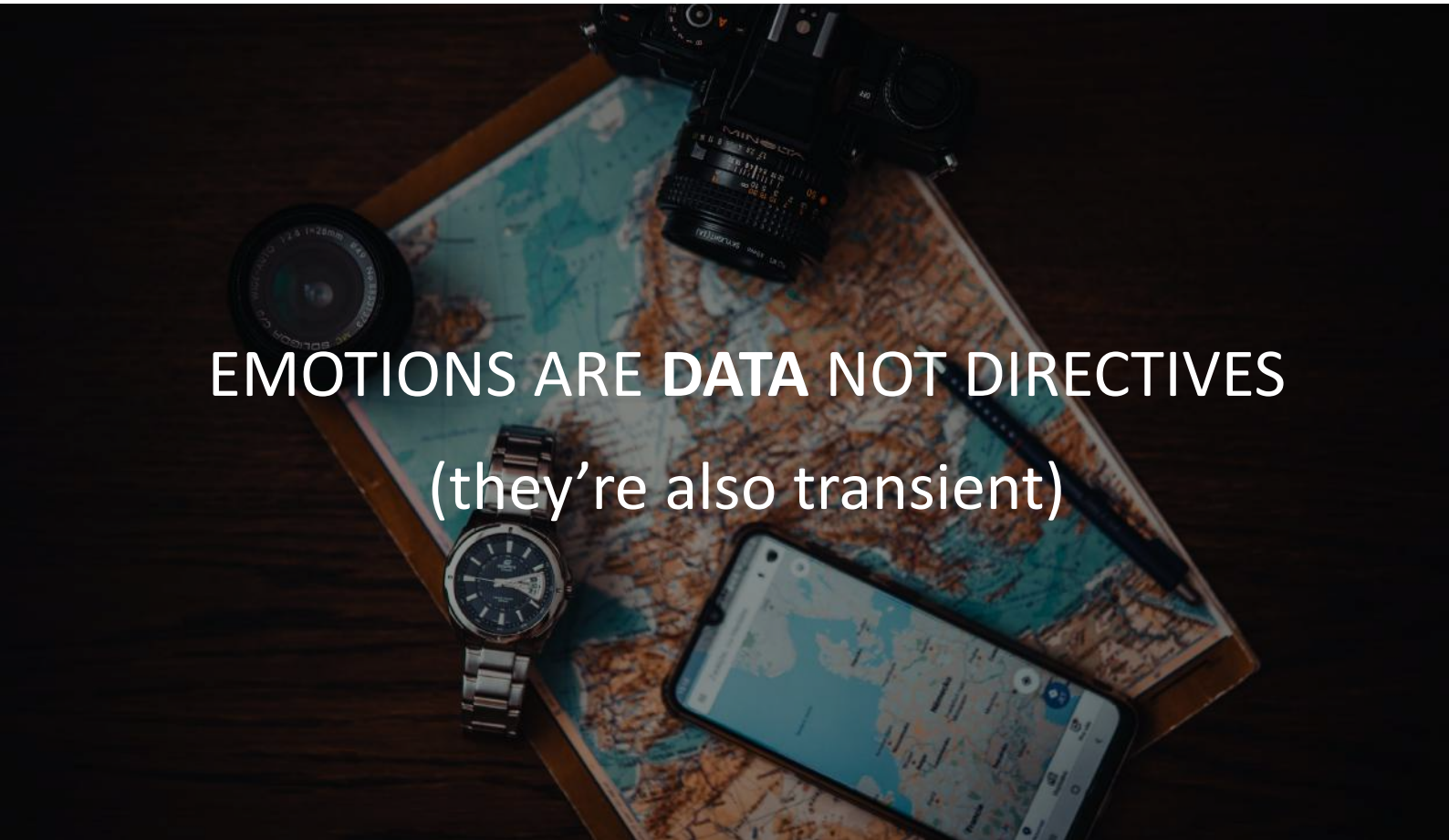
If you are feeling particularly on edge, anxious or angry, you could choose to spend longer on the exhale, as that is the part of your breath that stimulates the Vagus nerve. For example, instead of boxed breathing, you could try and 4-7-8 breathing, where you breathe in for a count of four, hold for a count of seven and then exhale for a count of eight. You should repeat this at least 4 times and notice the shift in your state once you have finished. With most breathing exercises it is advisable to ensure your attention remains on your breath.

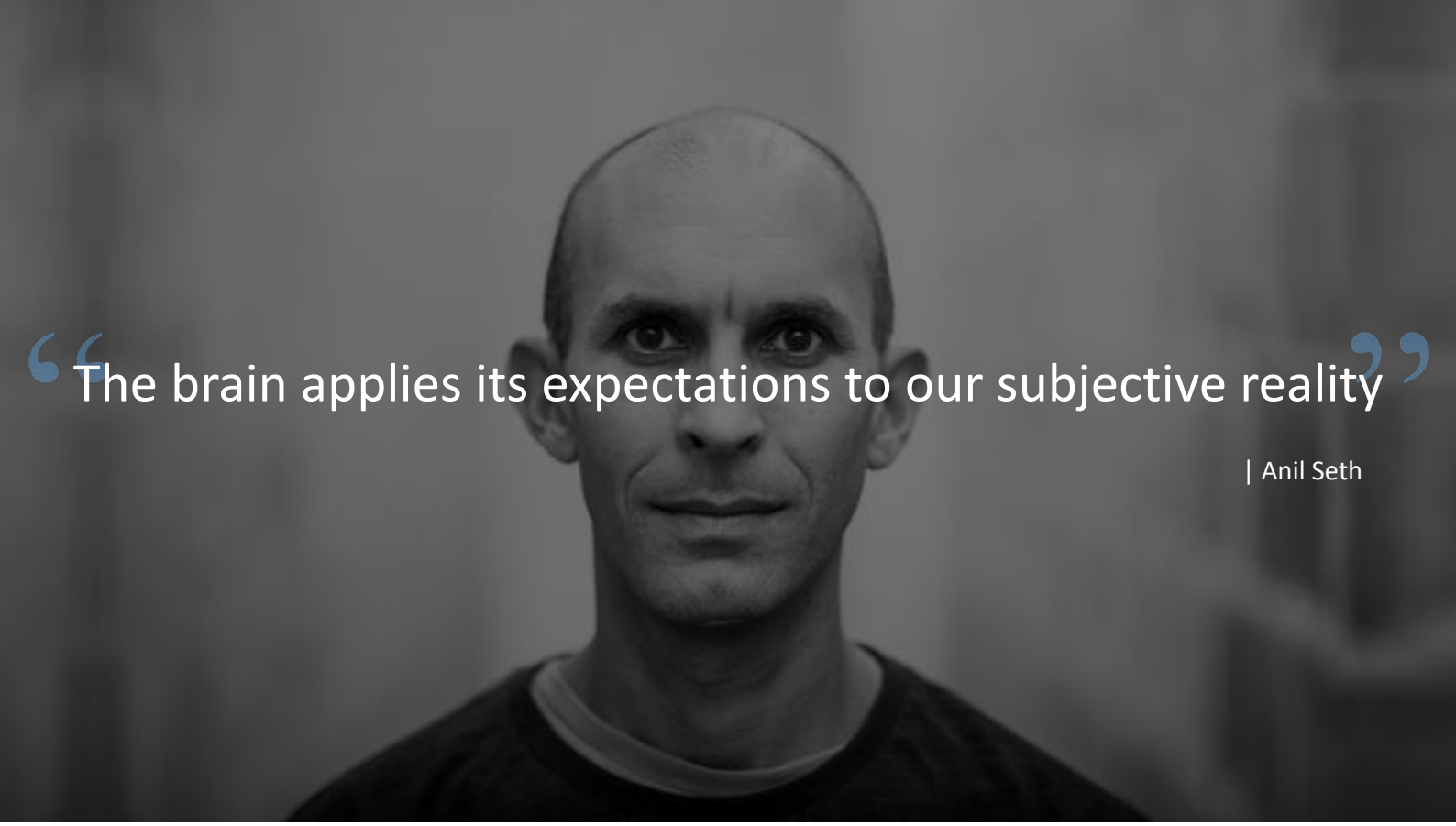
Reframing our relationship with stress

The above examples demonstrate that, when we prioritise our self-care, we can significantly alter our reactivity to stress on a day-to-day basis. However, we can do even more than that. With effort, we can also rewire our brain to help us reframe old stressors into opportunities for growth and become less overwhelmed or anxious in similar situations in future. With practice, we can move from anxiety to excitement or from loathing something to actively enjoying it. Neurons that fire together wire together and the more we immerse ourselves in doing something differently to the way we have done it before, the more likely it is to become our default automatic response in future.

The challenge is to be able to successfully distance ourselves from our emotions and treat them as data rather than directives. When we feel overwhelmed or anxious it can feel all encompassing, yet if we're able to retain some semblance of perspective in those moments, we can choose a more helpful response that will increase our effectiveness in the moment and lead to greater resilience in future.

There is no doubt that our emotions are compelling – they were designed that way. Fear can often feel like an invisible and impenetrable forcefield, yet with the right mindset we can lean into it and step through to the other side. However, our emotions can sow seeds of doubt. When we feel overwhelmed, all we experience is a foreboding sense of overwhelm. Our thoughts turn inwards towards the negative end of the spectrum, as if all the positives have been ripped from the world.





It makes sense that when experiencing an unpleasant emotion, our thoughts are pre-disposed to scan for information that corroborates the emotion that we are experiencing. Too few of us appreciate that it is our emotions directing our attention and our thoughts and not the other way around. It's the reason that research has found that happy people are more creative. Why? Because our focus is much broader in a positive state than in a negative emotional state. In a negative state our thought-action repertoire narrows towards self-preservation – we become far more defensive. Positive emotion, on the other hand, increases our thought-action repertoire. Dr Barbara Frederickson's Broaden and Build Theory of positive emotion, was developed on this premise.

To make things that little bit more challenging, we need to be careful of our own expectations. Our brain is extraordinarily good at making our expectations align with our present moment experience. For example, if you were to drink a milkshake which you believed was low in fat, it's likely you would feel hungrier than if you drank a milkshake that you thought contained a lot of fat and sugar, irrespective of the actual content of the milkshake. That is one of the pieces of research conducted in the past decade, which demonstrates that our brain tries its best to match our initial expectations to our subjective experience, which can inadvertently distort objective reality.

Research published in December 2020, found that the vast majority of unpleasant side effects reported from taking statins, were in fact as a result of people's expectations. When given a mere sugar pill under the guise of it being a statin, patients reported almost as much discomfort as when they took the real thing. With those experiments in mind, it's important to reflect on what our own expectations around stress are. In addition, are there specific situations where we habitually become triggered? Do we have a habitual response to those triggers that is less than optimum? If so, it would be worth thinking about how you could respond differently in future.

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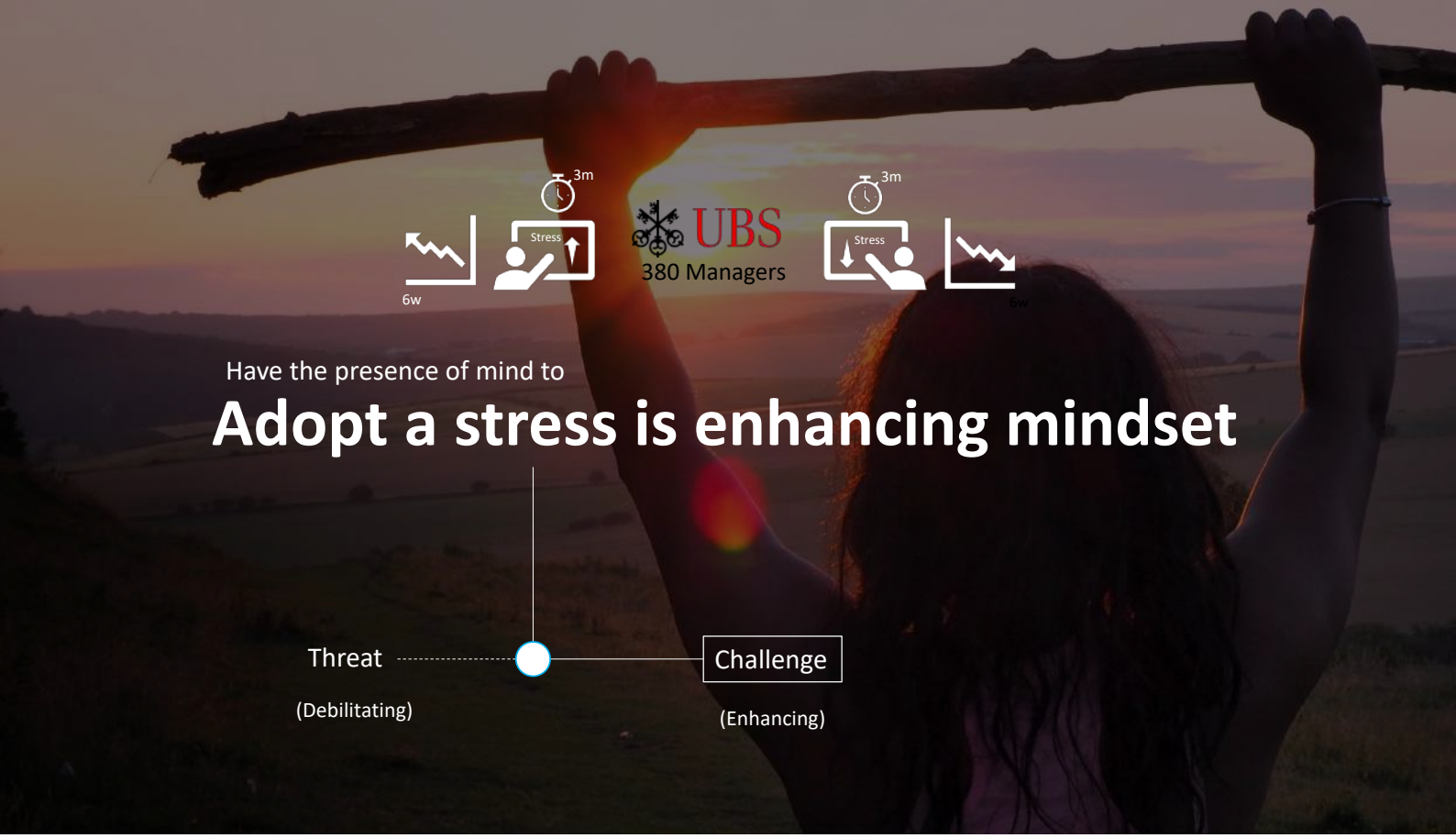

Even a small tweak to how we approach a situation can make a significant difference to our overall experience and resilience. People's expectations around stress were put to the test in a work context when Yale researchers and former Harvard lecturer Shawn Achor conducted an experiment at UBS in the aftermath of the financial crisis. The researchers tracked the performance of 380 managers at the bank over a period of 6 weeks following an initial intervention. The intervention consisted of priming employees to view stress as either debilitating (by watching a short video of how stress can have a negative impact on health and performance) or enhancing (by watching a video that championed the benefits of stress in the achievement of success and high performance).

The results were conclusive. Those primed to think of stress as debilitating saw a significant decline in their performance compared to those who were primed to think of stress as enhancing. Those in the stress is enhancing group saw their performance and health measures markedly improve under pressure. A similar study published in 2017, found that those with a stress-is-enhancing mindset produced sharper increases in positive emotions, heightened attentional bias towards positive stimuli and greater cognitive flexibility in the face of adversity. Those in the stress-is-debilitating mindset had worse cognitive and emotional outcomes.

When we start to notice ourselves feeling overwhelmed and our inner narrative turning inwards on the problem with an incapacity to contemplate a solution, can we retain the presence of mind to ask ourselves 'how could I tackle this'? When we approach a problem as a challenge that can be overcome rather than a threat, our brain retains the use of its pre-frontal cortex (the part we need to find creative solutions to problems). It's worth remembering that there are only a finite number of problems and an infinite number of solutions to any given problem. However, we can only access those solutions when we retain a sense of subjective control over the situation.

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