TOTAL BRAIN

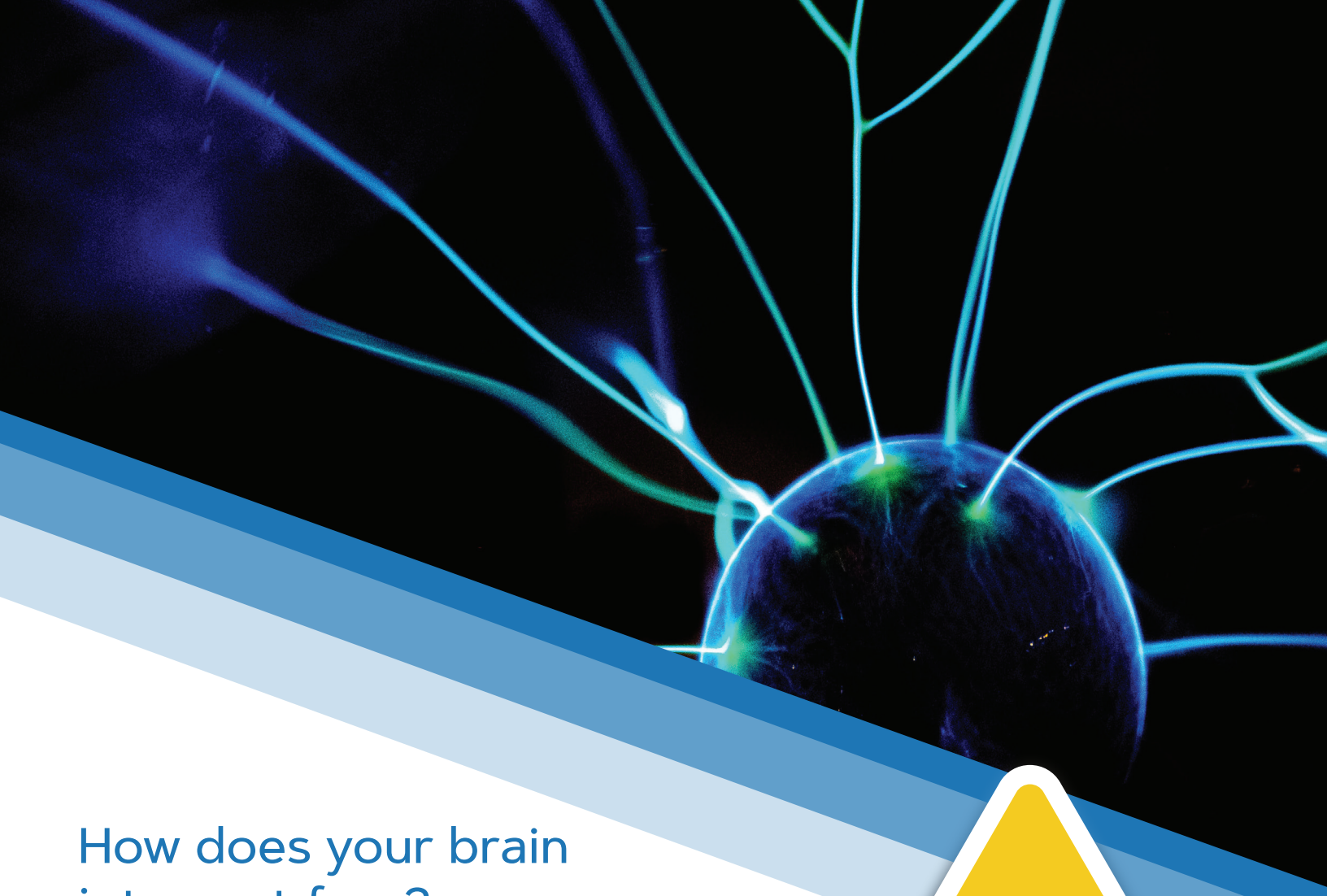
How the Brain Responds to Uncertainty and Fear

Dealing with the impact of COVID-19 (Coronavirus) on your mental health.

As COVID-19 (coronavirus) continues to dominate the news, anxiety levels are continuing to increase.

From fear of contracting the virus, to the dramatic drops in the stock market, to closed schools and work from home directives, there is a general sense of uncertainty that is creating angst. Couple that uncertainty with the lack of social connectivity driven by widespread quarantines, and you have a tremendous risk to your mental health.

Understanding how the brain processes uncertainty and fear can provide valuable insights into how to manage the resulting impact. While you can't always control the source of the threat causing fear, you can control the response that your brain and body has to it. This paper will explore the science behind fear, and several things you can do to reduce the resulting stress and anxiety.



How does your brain interpret fear?

Your brain has one key organizing principle that is prioritized above everything else: "Safety first".

That makes you hyper alert to avoid things that are fearful or threatening.

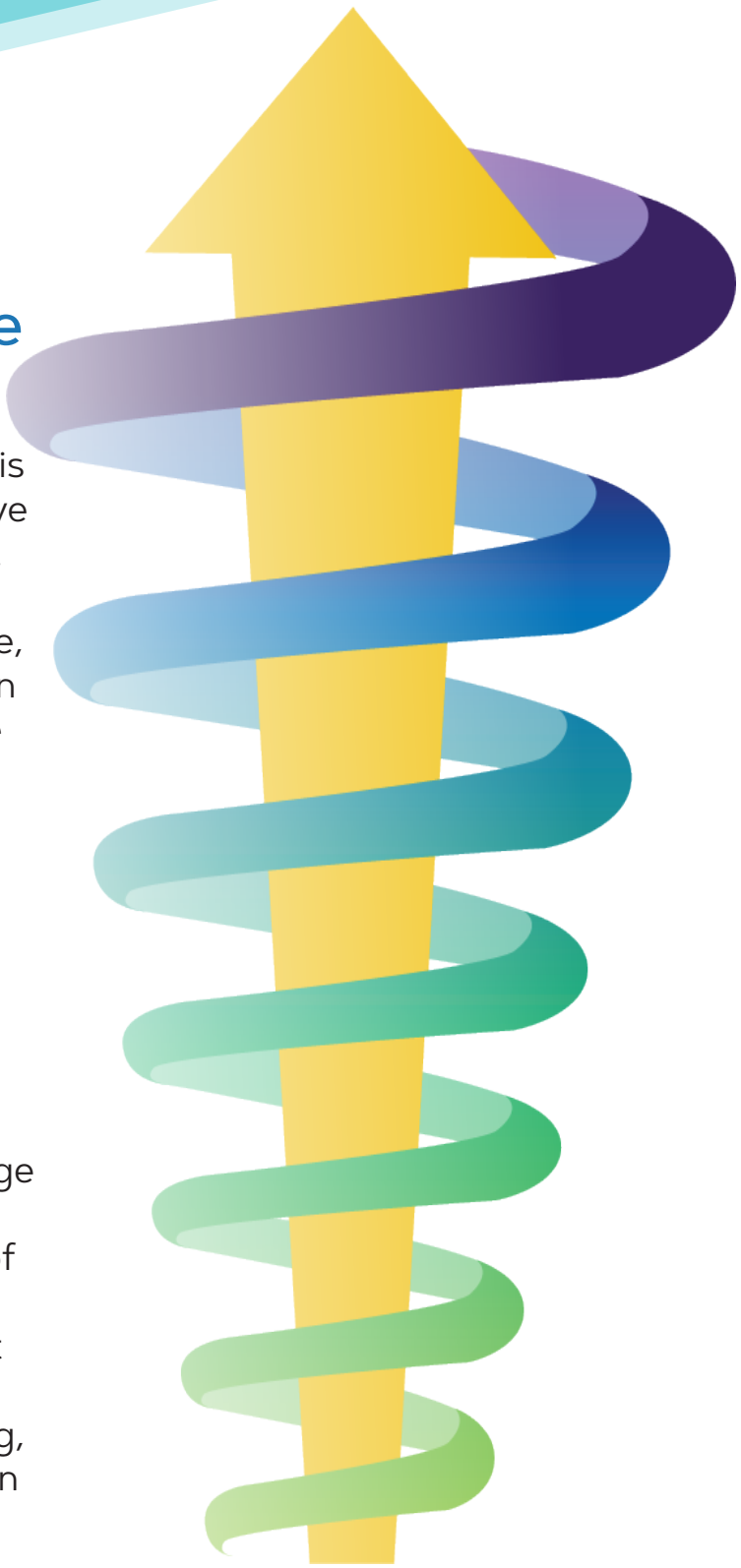
Furthermore, your brain triggers an unconscious response to threat before your conscious rational brain can provide context and probability about the likelihood of the threat injuring you.

The brain networks underlying this automatic fear response activate in a fifth of a second in a huge burst of activity that overtakes your rational brain. Signals from your deeper brain structures flood the frontal cortex executive decision making process.

The Flight-Flight Response

This flood of signals to the frontal cortex is called the "Flight-Fight" response. During this process, your heart speeds up, your digestive system is paused and adrenaline is released. This feels like a surge of panic and it stops you from paying attention to everything else, with the intention of directing your attention toward the source of threat so you can take action to avoid it and not be harmed.

This is a helpful system for survival when faced with life threatening situations such as being physically attacked, but it is not a helpful state to deal with a complex threat. We can't always remove ourselves from the source of threat and stop feeling fearful. When this happens and the fear response continues, your brain continues to be on edge and to overreact to even small things that happen. It continues to look for some kind of "action" to resolve the problem, becoming increasingly desperate to find the thing that will make it better again. And the more you feel your heart racing and your body tingling, the more panicked and active your fear brain continues to become.[5]



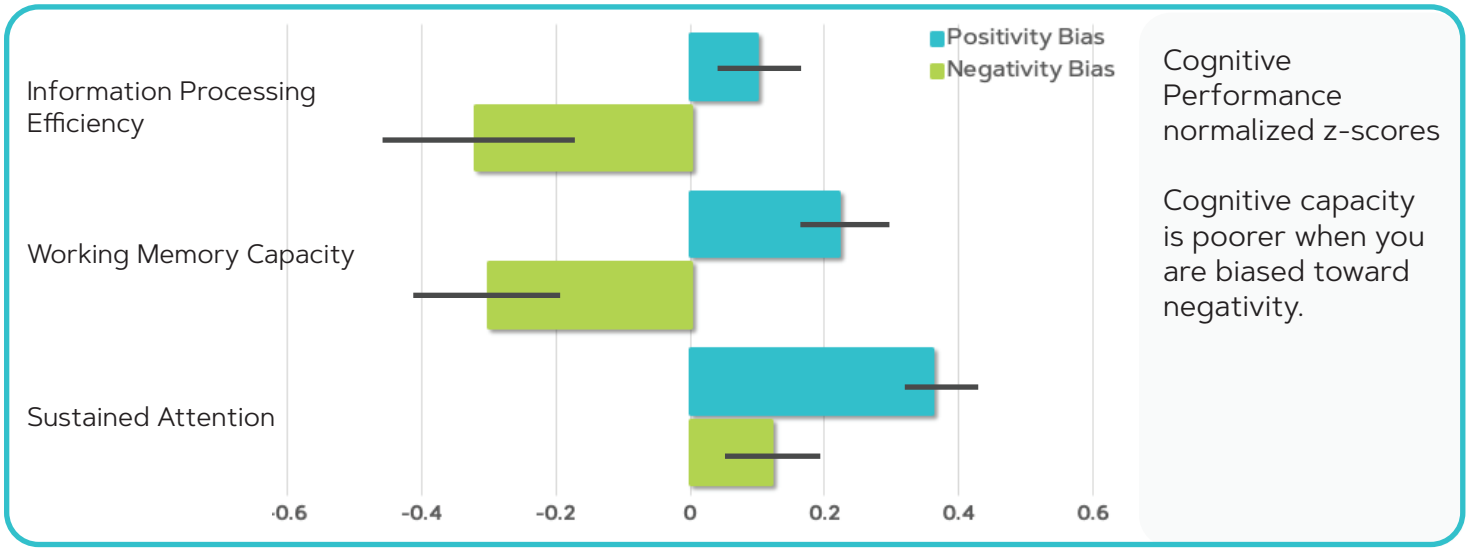
This is an upward spiral into high stress and anxiety.[1]

How Others Amplify Fear

We are also innately programmed to feel fear when others around us are scared, even if we don't know what the reason for the fear is. This is because it allows you to get away from the threat first, and then investigate what the threat was later on once you're safe.[2]

This also means that fear catches on and amplifies among groups of people really quickly, even in circumstances where it becomes an unhelpfully high level of panic.

Feeling fearful strongly biases your attention toward seeing further fear and negativity around you. When you're biased toward fear and negativity, you think less clearly and its harder to focus, process information effectively, and remember information correctly, as we have found in the Total Brain International Database.[3]



We currently find ourselves in a time of extraordinary uncertainty. Uncertainty is one of the most fearful situations. It is threatening because it means things can't be predicted or controlled, which triggers the brain's fear networks[1] and a loss of ability to respond based on an optimal rational probability. This can result in a problem-focused rather than a solution-focused mindset.

Stress and Control

What can you do about it?

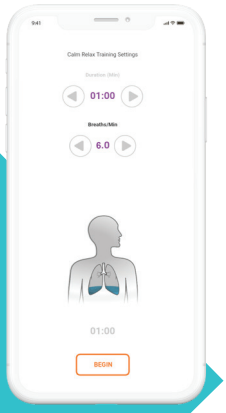
While you can't always control the source of the threat, you can control the response your brain and body has to it.

The brain and body have a system that puts a brake on the Fight-Flight system, increases decision making flexibility, and strengthens the immune system[4]. This is the "Calm-Flexible" Vagus system.

There are many ways to boost this system, most notably breathing at 6 breaths a minute for 3 minutes. The Vagus Boosting Actions provided as well as the 14 minute Total Brain Stress Reduction workout point to the many ways to help take control of your fear and expand your decision making Calm-Flexible brain state.

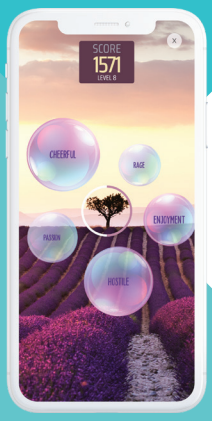
Vagus Boosting Actions

1. 6 breaths per minute paced breathing
2. Meditation
3. Positive visualizations
4. Positive affirmations
5. Laughing
6. Exercise, yoga, and tai chi
7. Singing and humming
8. Cold water on face
9. Social connectivity



Simply being aware of how fear works and being able to separate the subjective experience of fear from the situation itself is a huge first step.

The following are three examples from Total Brain to reduce fear and negativity, and level up calm, flexibility, and positivity in 14 minutes a day.



Time: 3 minutes

1. Switch to a calm state and strengthen your immune system.

By breathing at 6 breaths per minute for 3 minutes, you will slow down your body responses to fear, increase your calm and boost your immune system. Take three minute to use the MyCalmBeat paced breathing bar in Total Brain.

Time: 2 minutes

2. Positive contagion

One way to nudge your brain out of a sustained fear state is to spend a few minutes immersively focusing only on positive things. This helps lessen the on-edge, overreaction of fear networks to calm them down. Positive nudges are as contagious as negative fear. Nudge positivity with Bubbletopia using the associated thought in mind that is causing you fear and focus your mindset on doing what you can to calm it.

Time: 9 minutes

3. Meditate and open awareness

When the brain is in a fear state, we immediately switch to self-defense and protectiveness mode. Combined with high stress over-reactions to things, this often manifests as negative feelings, anger and acting out towards others. The guided Short Meditation and Yogic Breath Meditation can help switch off a cluttered mind and counter a negative fear attitude.

Remember, your mental health is just as important as your physical health.

There are sure to be many uncertain thoughts in your mind when it comes to COVID-19 (coronavirus). While you're preparing physically for the unexpected, remember to prepare yourself mentally as well. Whether you're worried about the safety of loved ones, stressed about your job, or just anxious about when things will begin to settle down, take some time to yourself to focus on keeping your mental health and well-being in check.

About Total Brain

Total Brain is a mental health and wellness platform focused on monitoring and support. Total Brain measures the 12 brain capacities that define mental health, screens for the risk of common mental health conditions, and supports individuals with mental fitness programs that maximize their mental health.

With Total Brain, individuals can improve their self-awareness and brain performance both in and out of work, and companies can improve employee performance and productivity while decreasing healthcare costs across the organization.

For more information, visit TotalBrain.com/learn-more.

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