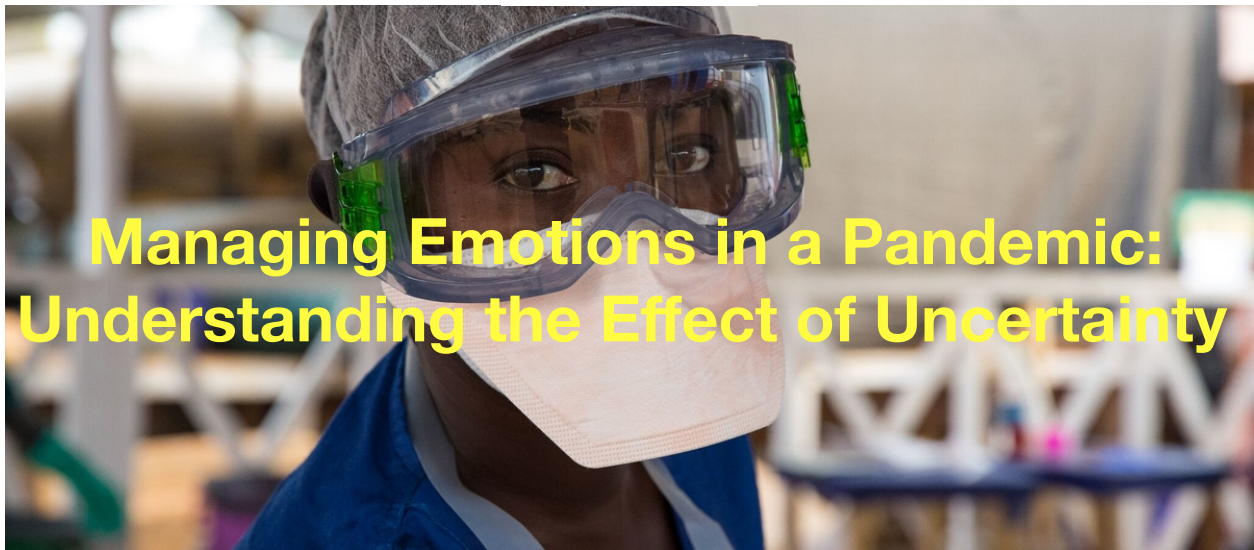




Headington
Institute



The Brain Response in Times of Uncertainty

The brain is the key organ of adaptive and maladaptive responses to stress. It determines what is threatening and potentially stressful and initiates the emotional, behavioral and physiological responses to the stressors, which can be either adaptive or damaging.

1. The Three Primary Circuits Involved in responding to uncertainty:

Amygdala: The Emergency Response



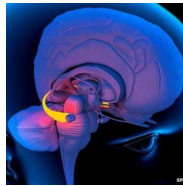
- Initiates a powerful brain and body response to any POSSIBLE threat to our safety. These threats can be physical, emotional or psychological. The amygdala is always active but is not in control as long as we feel some sense of safety and control. Any felt uncertainty lifts the 'brake' exerted by other brain structures and the emergency fight or flight response takes over. During the Covid-19 crisis everyone will likely experience this given the massive worldwide sense of uncertainty.
- Center of emotions like fear, anxiety, and anger. These emotions occur BEFORE we are conscious of them. Most of us will experience a heightened sense of emotion in the current crisis. Being able to keep these emotions under more rational control is the key to not panicking and allowing an 'amygdala hijack' to dominate our response.

The Prefrontal Cortex: The 'Brake' or 'Thinking Brain'



This is the center of our judgement, decision-making, and emotional control. It provides our felt sense of self and allows us to act thoughtfully and not only from more primitive survival instincts. It does this by exerting downward control over the amygdala via neural pathways. We can consciously initiate behaviors to help promote this control.

Hippocampus – The Prefrontal Helper



The hippocampus is located in the same limbic area of the brain as the amygdala. It provides context to the situation the amygdala is reacting to. Through recalling previous memories it tries to give a more complete picture of the situation instead of just focusing on the experience of threat and danger.

2. The Battle for Control: Your ability to make rational informed decisions about your health and others depends on it!

As soon as uncertainty is felt, the amygdala assumes control as the rational 'brake' from the prefrontal and hippocampus is lifted or hijacked. This happens due to the amygdala's proximity to the brain stem which allows immediate access to the whole body. With the prefrontal 'offline', rational appraisal and judgement are compromised. Even though the 'brake' is lifted, the prefrontal and hippocampus continue to try find context and ways to perceive safety to reassert the 'brake'.

3. How can we help to keep the 'Brake' on?

1. Recognize that feelings of anxiety, anger and depression are normal. In the face of Covid-19 all of us worldwide are feeling more uncertainty and lack of safety.

2. Realize we all need to try to 'brake' the emergency amygdala response.

Letting the amygdala keep control of our brain without attempting to slow it down will only lead to irrational decisions and behavior. It will also ultimately compromise our immune system as stress hormones will over time damage our brain and body.

3. Practice slow diaphragmic or belly breathing. When the emergency response is released we automatically breathe quickly and shallowly to get more oxygen to support the amygdala response. This keeps the emergency response in control. Try breathing in through your nose from your belly for 4 seconds, hold it for one second, and breathe out 5 seconds through your mouth. Repeat for a couple of minutes, multiple times a day.

4. Keep as much social contact as possible. This is especially important during this time of social distancing and isolation. The humanitarian community is already well-connected through Skype and other forms of telecommunication. USE IT! Research indicates that good social attachments reduce amygdala reactivity.

5. Manage your information exposure. Try to keep accurately informed by reputable news sources while at the same time limiting constant watching of social media or 'breaking news' feeds. Research following September 11, 2001 indicates that people who were glued to their televisions watching the towers come down over and over had more subsequent PTSD than those who kept informed but limited exposure. By managing our information environment mindfully, we can reduce our emotional reactivity and help to reduce anxiety contagion in ourselves and others.

6. Keep physically active...at a safe distance. While many exercise facilities are closing down around the world we can all keep our exercise going in our own living space or in an open outdoor area that is safe from a security perspective. Exercise helps to lessen our anxiety, anger, and depression and in the long term improves our immune system. If you are feeling ill, even with the common cold, intense exercise is not recommended. However, mild exercise may still be helpful.

7. Maintain a sense of purpose and lean into your spirituality. This becomes even more important during times of crisis. Even as houses of worship close down around the globe, maintain your own practices. Research indicates that having a larger perspective on life helps us cope with times of high stress and threat.

8. Manage your personal boundaries. Our personal boundaries and freedom of movement have become restricted and smaller as social distancing is practiced and travel is curtailed. It does not help to dwell on what activities are now unavailable to us. Rather, we need to bring our boundaries in closer to what we can control. Depending on your personal circumstances or living arrangement, try to focus on activities or tasks you can do, however small. These small victories of intentional activity and completed tasks allow us to feel a sense of control and agency which can reduce our emotional reactivity.

9. Adaptive Engagement. The best overall advice is to try to have a mental attitude of 'adaptive engagement', one of the resilience factors that Headington Institute research has identified as being critical to being resilient. This means remaining flexible to changing conditions around us and leaning into what we can do and what we can control.

**For more information or counseling support please
email: support@headington-institute.org.**