

# How the Brain Works: Prerequisites for Sound Decision Making

## **The Three Parts of the Brain**

- The top part of the brain, the Cerebral Cortex, is where thoughts and verbal expression takes place.
- The middle, the Limbic System, is where emotions are regulated and experienced.
- The bottom, the Brainstem, is where automatic processes, such as movement, breathing, swallowing and creating stomach acids takes place.

This understanding of the brain is important, because our brains will not function optimally unless all three parts of the brain are available and working together in a smooth and efficient fashion. Both traumatic and/or highly stressful events, as well as, certain “normal events” can cause disturbed functioning of the brain and challenge sound decision making.

## **How Trauma and Excessive Stress Affect the Brain**

- Trauma and excessive stress can overwhelm the cognitive/thinking (top) and the emotional (middle) part of the brain and trigger an over stimulated and overly localized response in the bottom part of the brain.
- In the above situation, the bottom part of the brain hijacks the top and middle parts. An MRI of the brain in this state would show a lack of activity (largely darkness) in the top and middle portions of the brain and an excessive activity or firing (like pulsating, bright lights) in the bottom portion.
- When the bottom portion of the brain is over stimulated in this manner, we cannot think clearly or make sound decisions. When this happens, the three parts of the brain are no longer communicating with one another and the instinctual/bottom part of the brain has taken control without the aid of its thinking or emotion processing parts.

## Normal Events can also Challenge Brain Functioning and Sound Decision Making when they Resonate in a Stressful Manner with an Individual's Particular Experience or Makeup

### **Possible challenges include, but are not limited too:**

- Aggressiveness
- Instructions from boss or supervisor
- Triggered emotional reactions
- Competition
- Loss, misfortune or stress
- Alcohol, stimulants and medications
- Blows to our self esteem
- Preexisting thoughts: "I'm no good," "I'll get even," "I'm better than him," etc.
- Being challenged or threatened
- Rushing/time pressure
- Life events or environmental factors
- Bodily injury or illness

In order to make sound decisions, one must both identify those traumatic, stressful and normal events that effect our brain functioning and teach ourselves how to slow down and modify this instinctual process so that all three parts of our brain can act in concert. If we do not learn how to do this, we must accept that our brain is not functioning optimally and therefore that we cannot think clearly or make sound decisions.

## **Helpful Concepts/Techniques and Processes that Facilitate Healthy Brain Functioning**

### **Concepts and Techniques:**

- Grounding
- Boundary fortification
- Mindfulness
- Calming mind and body
- Focusing
- Tracking
- Making contact with self and others

### **Processes:**

- Meditation
- Regular Exercise
- Healthy diet
- Resolving personal, family, financial and health issues
- Philosophical/spiritual practice
- Game playing/hobby
- Psychotherapy