

## Rerouting Processing Centers

The parts of your brain that process emotion and logic are different.

We will eventually get into much greater detail on this. But the quick version is that you have a part of your brain, the prefrontal cortex, which is more responsible for "executive functions" -- self-discipline commands and logic and control -- and another part of your brain, the amygdala, which is fight-or-flight emotion.

Some people call the amygdala the "lizard brain," because it is so old we share its basic design with birds and reptiles.

The amygdala is about core primal instinct -- the thing that helped us survive before we had the ability to communicate, often through fast movement (running away) or violence (physically defending, fighting, killing).

The prefrontal cortex, as far as we know, is more responsible for "executive functions" which are described (via Wikipedia) like this:

Executive functions (also known as cognitive control and supervisory attentional system) are a set of cognitive processes – including attentional control, inhibitory control, working memory, and cognitive flexibility, as well as reasoning, problem solving, and planning – that are necessary for the cognitive control of behavior: selecting and successfully monitoring behaviors that facilitate the attainment of chosen goals. Executive functions gradually develop and change across the lifespan of an individual and can be improved at any time over the course of a person's life.

And here is some color on the amygdala, two "almond-shaped groups of nuclei" located deep within the brain"

There are functional differences between the right and left amygdala. In one study, electrical stimulations of the right amygdala induced negative emotions, especially fear and sadness. In contrast, stimulation of the left amygdala was able to induce either pleasant (happiness) or unpleasant (fear, anxiety, sadness) emotions. Other evidence suggests that the left amygdala plays a role in the brain's reward system.

Each side holds a specific function in how we perceive and process emotion. The right and left portions of the amygdala have independent memory systems, but work together to store, encode, and interpret emotion.

So different parts of the brain have different jobs. There is one part of the brain that processes emotion, and another that processes logic.

This is a key point -- the brain's emotional processing center has a direct line to the senses and reflexes. It reacts much, much faster than the logical processing center.

This makes perfect sense from a survival standpoint.

If one of your ancestors walked into a clearing and saw a leopard standing there, it wouldn't do much good to stop and think. Fight or flight instincts would need to be engaged almost instantly -- as quickly as possible -- so as to make a timely decision whether to run off at top speed or prepare for a life-and-death battle.

So the brain is biologically designed for fight-or-flight instincts to kick in with no delay. This is why it is possible to register fear or anger before the conscious mind even fully comprehends what is happening.

But of course, in the modern world this feature has become a bug. We no longer have the need for instant priming of the muscles and senses with a surge of adrenaline to prepare for physically running at top speed or bashing a leopard's skull with a rock.

Instead, our instant-emotion priming becomes a liability when it disturbs the day's equilibrium as a result of something in an email or some other form of emotional distraction.

So one of the principles behind radical cognitive behavioral therapy -- and behind the seven models and their acronyms -- is doing a kind of router switch inside the brain, forcing a hand-off from one processing center to another.

Here is an acronym example:

#### **FEAR -- FIND / EXECUTE APPROPRIATE RESPONSE**

Say there is a hard conversation coming up on your calendar. Whatever it is, you do not want to have this conversation. You are worried about it. You may know it isn't a big deal, but you are feeling fear.

Fear of confrontation, fear of feeling stupid, fear of hurting someone's feelings, fear something will go wrong, doesn't matter. Some kind of fear that is a low emotional undercurrent. It can be very low key, not necessarily intense. Or it could be intense indeed. Either way, it is a negative emotion.

That negative emotion is a result of signaling from the emotional processing center of your brain. A telltale sign of this may be the lack of articulation, just a sort of "feeling" without clear definition or justification.

So if you engage the FEAR acronym -- FIND / EXECUTE APPROPRIATE RESPONSE -- this is a sort of route-switching program.

To think in terms of logical responses, you have to use the logical processing center of your brain. And the more you do that, the less you are using the emotional processing center.

Imagine being extremely upset about something, and then having someone ask you to do a crossword puzzle out of the blue. You likely wouldn't be interested. But if they offered you a thousand dollars, you might give it a shot. If you did, and started getting into it, you would find it is hard to stay emotionally disturbed with the mind switched into emotional processing mode.

Most of the models work in this manner.

When a negative or undesirable emotion arises -- served on a platter by the emotional processing center of your brain -- having a sort of logic puzzle to work through switches things over to the logical processing center, damping the emotional flow.

Except the logic puzzle isn't arbitrary or random, but instead directly relevant to the situation or the emotion, in terms of usefulness, practical application, motivation, and so on.

With enough practice and a wide enough and deep enough repertoire of models, the re-routing becomes automatic. This results in compounding positive effects.