

A QUICK AND SIMPLE WAY TO THINK ABOUT THE BRAIN

Paul D. MacLean, MD, developed the concept of the triune brain in *The Triune Brain in Evolution: Role in Paleocerebral Functions*. Rick Hanson, PhD, author of *Hardwiring Happiness: The New Brain Science of Contentment, Calm, and Confidence* built on this original concept.

In many ways, the brain is considered the most complex of human organs.

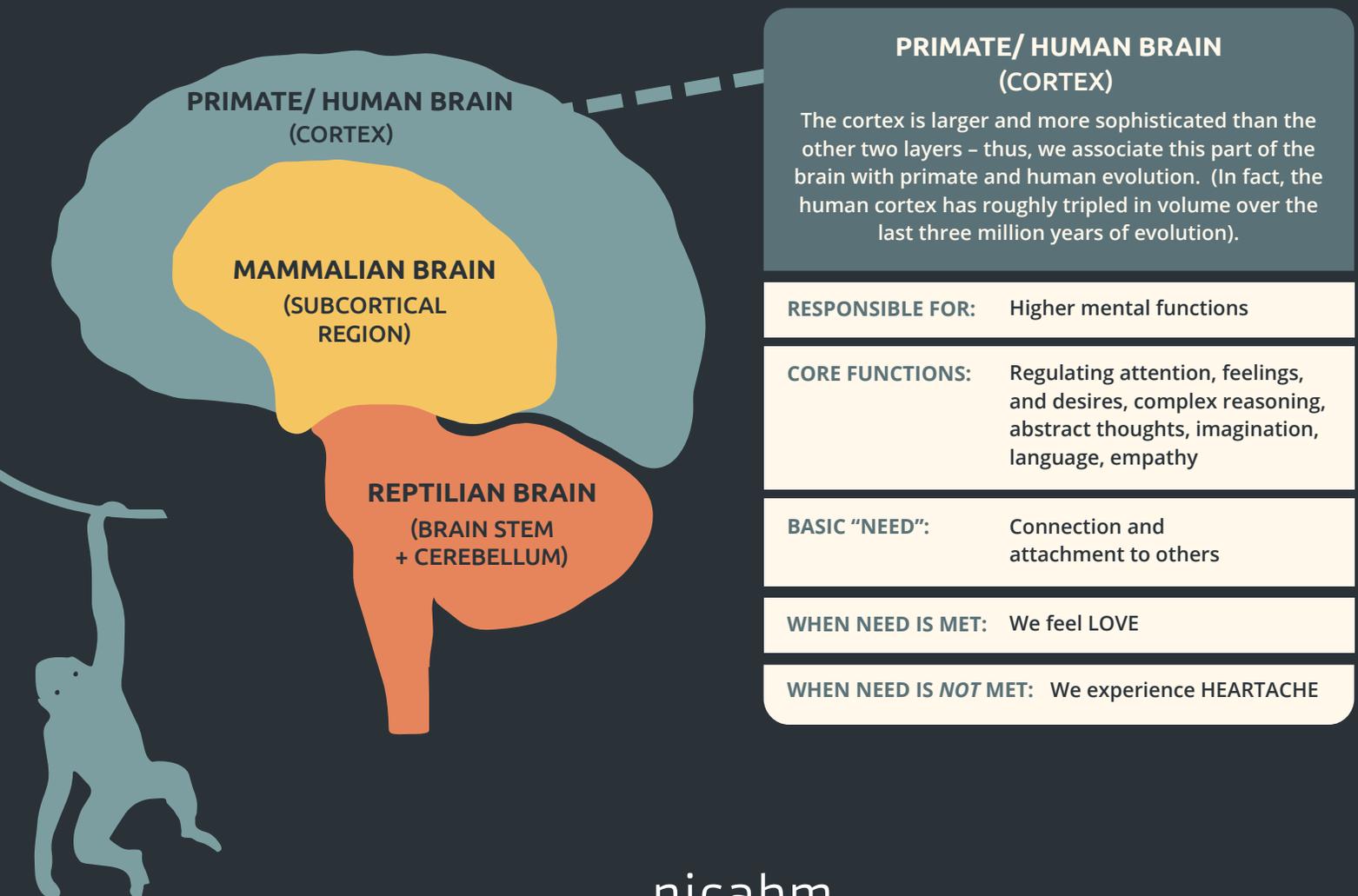
And when it comes to something this complicated, it helps (for practitioners and clients alike) to be able to cast the brain's inner workings within a more simplistic framework.

According to **Rick Hanson, PhD**, we might think of it something like this . . .

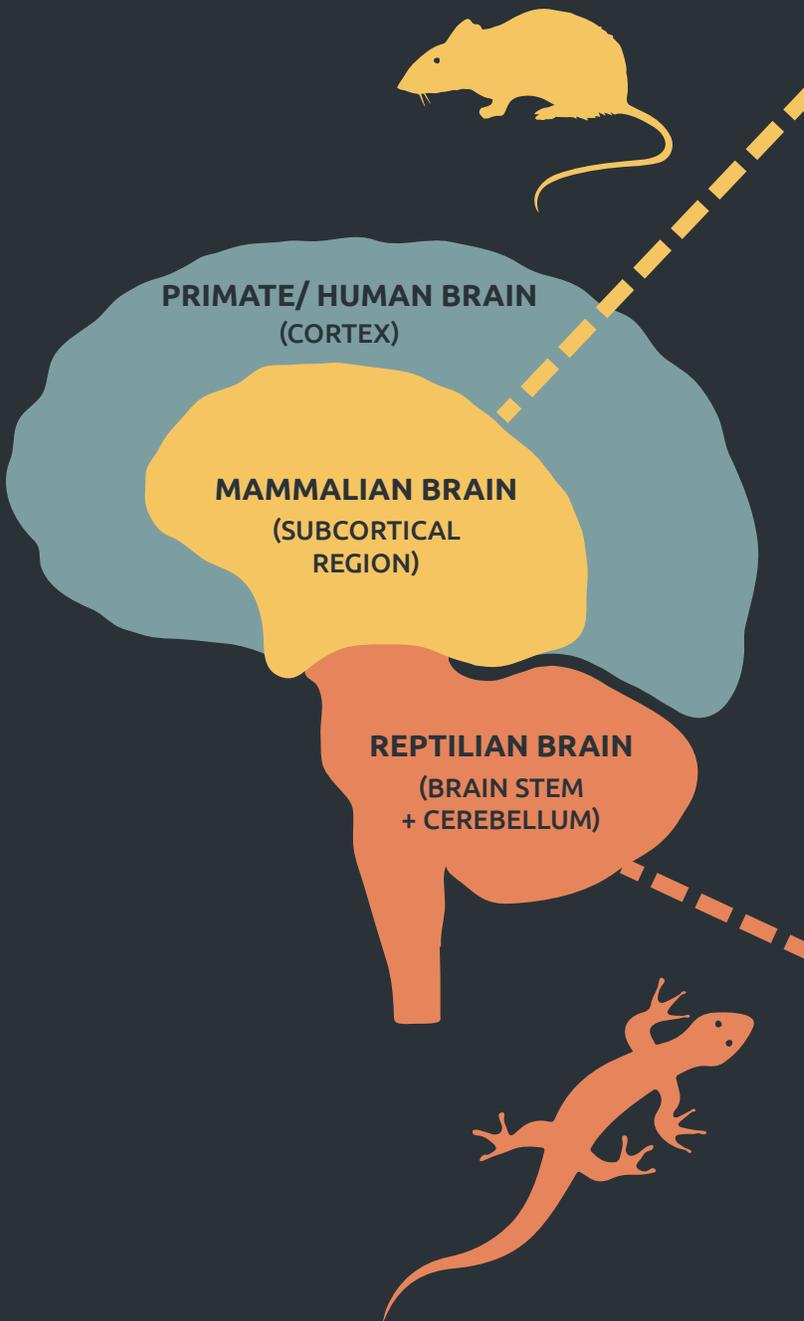
Our brain structure can be divided into three layers – the **brain stem**, the **subcortical region**, and the **cortex**. And each layer can be loosely associated with the **reptile**, **mammal**, and **primate/human** phases of evolution, respectively. So, it's almost as if there is a little **lizard**, a little **mouse**, and a little **monkey** inside each of us.

And as the brain evolved, so did its capacity to meet the three fundamental needs of any animal . . . **Safety**, **satisfaction**, and **connection**.

Here's a visual . . .



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MAMMALIAN BRAIN (SUBCORTICAL REGION)

The subcortical region is associated with mammalian evolution – we might think of it as the little mouse part of the brain.

RESPONSIBLE FOR: Feelings and memory formation

CORE FUNCTIONS: Emotions, learning and memory, reward/motivation

BASIC “NEED”: Satisfaction and approaching rewards

WHEN NEED IS MET: We feel CONTENTMENT

WHEN NEED IS NOT MET: We experience FRUSTRATION

REPTILIAN BRAIN (BRAIN STEM + CEREBELLUM)

The brain stem is the most ancient part of the brain. And because it is most basic and fundamental, we share features of it with very simple creatures, like crabs or lizards.

RESPONSIBLE FOR: Survival and maintenance

CORE FUNCTIONS: Regulating heartbeat, breathing, and other vital organs

BASIC “NEED”: Safety and avoiding harm

WHEN NEED IS MET: We feel PEACE

WHEN NEED IS NOT MET: We experience FEAR

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