



## My Lizard Brain

Fight or flight? That's just one of the questions.

**A**t the core of the human brain, near the base of the skull, is a clump of cells often called the “Reptilian or Lizard Brain.” They are called this for good reason. This small part of our brain looks a lot like the entire brain of present-day reptiles as well as lizards, crocodiles and birds. Over 200 million years ago, this brain structure evolved in dinosaurs that existed long before mammals. Over time, the brains of mammals, particularly humans, developed additional parts supporting rational thinking and speaking. But when it comes to breathing and pumping blood, love and hate, fight or flight, it's our old lizard brain that is still in control.

# The Lizard Brain in All of Us

Do you ever wonder where that uncontrollable rage comes from—when you're OK at one moment and then suddenly you're capable of hurting others and yourself?



## Anger doesn't just happen

There are many things that make us angry. Our reactions are generally quite reasonable, but not always. Somebody does something we don't like and we get angry. That's just how it is. Right? Not really.

Sometimes our anger gets out of hand. It goes way beyond what is reasonably called for. We behave in ways that we can't really explain. For some people this happens a lot. For others, not so much. But we all have moments of irrational anger.

These moments are controlled by the smallest and oldest part of our brain, the part we share with the dinosaurs.

A green dinosaur with its mouth open, holding a white sign with black text. The dinosaur is standing on its hind legs.

**Lizard  
brains are  
good.**

**We all  
have one.**

## **Fight or flight or falling in love are primitive responses**

As the first part of our brain to develop, the Lizard Brain controls our most basic aspects. It controls what are called “autonomic responses.” These are things that we do not have any control over, like breathing, sweating, and heart beat.

It’s where we decide to fight or flee from danger. When a bigger animal is about to pounce, there’s no time to consider what’s the logical thing to do. You have to react quickly or die. The fight or flight response is critical to staying alive.



Falling in love or lust—procreating—is essential for our species to survive. So it makes sense that these instincts are located in the most primitive part of the human brain. We often can’t explain why we fall in love with a particular person. We just do. That’s because the feelings associated with love don’t live in the rational part of our brain.

## **The Lizard Brain is where we store memories of emotional events and our deepest fears**



As we grow from infancy, we experience many things that are new and often scary. It may be a fight between our parents or a dog chasing us, or being trapped in a closet.

We may experience fear or hurt or depression because of these incidences. Sometimes these events are so painful, our brain blocks their memory. Even if we cannot recall a specific event, it is still stored in the Lizard Brain—along with the feelings associated with the event.

Later in life something might happen that triggers a hidden memory in the Lizard Brain. We may not remember the original event. But we may feel pain, fear, anxiety, or anger as it was felt in the original event.

When we find ourselves over-reacting to things, it’s a clue that these irrational feelings are coming from our Lizard Brain. If we understand that our reaction may stem from something from long ago, we may be able to better control our actions in the present.

## My Lizard Brain | Key Terms

autonomic response	These are automatic controls over body functions such as breathing, heartbeat, and sweating. Our body does these things without our having to think about it and tries to maintain a steady state.
fight or flight response	When the brain senses a threat, it responds quickly to immediately deal with the danger. The early, most primitive part of our brain controls much of this response.
Lizard Brain	This is a common name for the oldest part of the human brain, the brain stem. The Lizard Brain controls breathing, vision, bodily movement, lust, and rapid response to threats. It also stores feelings related to trauma.
mammal	Warm-blooded vertebrate animals that nourish their young with milk. Dogs, cats and humans are mammals along with many other animals.

### Discussion Points

1. Have you ever felt very angry about something that later didn't seem like such a big deal? Were you able to recognize where the strong feeling came from?
2. It's strange that love and anger reside in the same place in the human brain. Can you think of times when these feelings became confused?