A Quick Guide to Primitive Reflexes & Practical Ways to Integrate Them

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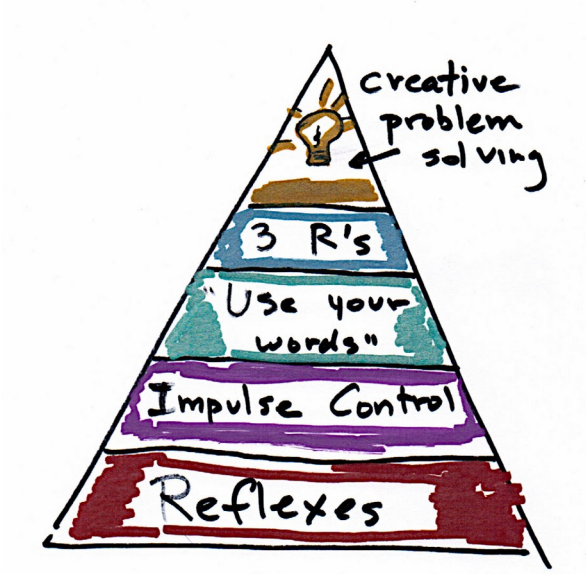


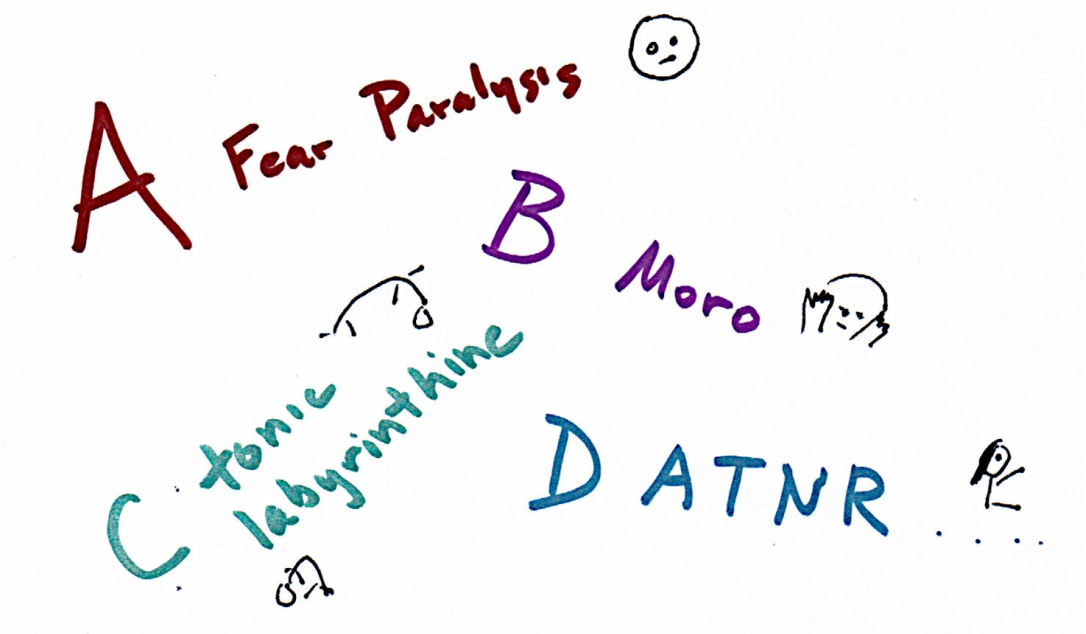
What Are Primitive Reflexes?

We don't develop our movement. Our movement develops *us.* The ways we move, from conception onward, grow our brains and bodies into the forms we recognize as babies, toddlers, kids, adolescents, adults. *People.*

Our movement is part of our biological make-up, and just as universal. Embryos and babies can't think about how to turn over, wiggle out of the womb, take their first breath and eat their first meal. They instinctively know how to move to get what they need. These pre-programmed movements are called ***primitive reflexes***, and they are the basis of everything we know and do.

Reflexes are our Movement Alphabet

All of the ways we move begin as instinctual movement patterns. These reflexive movements are the "letters" with which we write the words and sentences and stories of our lives.

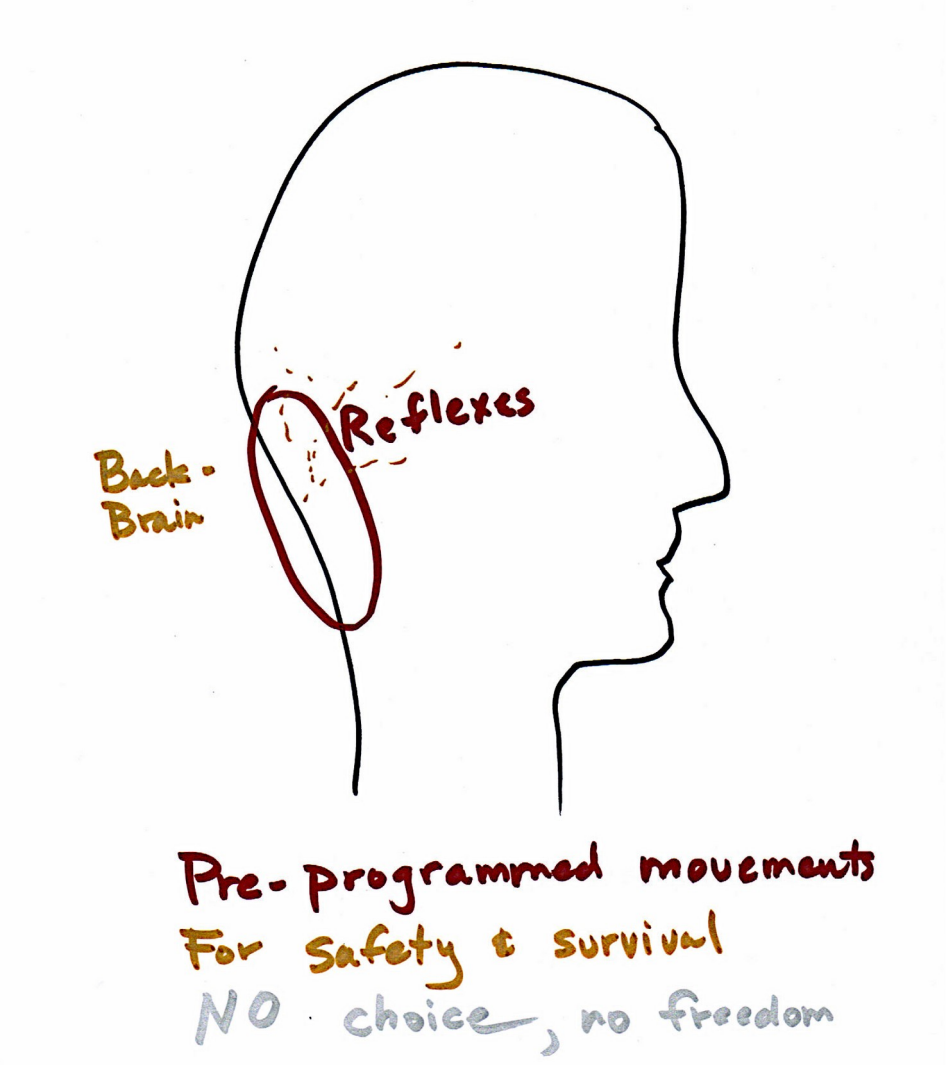


Understanding the language of primitive reflexes can help us in many ways:

- Each reflex movement has a particular purpose. Recognizing a reflexive movement pattern can help us understand what the baby/child/adult needs, but can't tell us in words.
- Each reflex movement has its own particular signature and trajectory.
- Recognizing the movement can help us know where a baby/child/adult is stuck or under-developed, and what movement is needed to release the problem and encourage natural growth.
- Reflexes are simple. Don't be fooled by jargon. Reflex integration can happen in a heartbeat, using techniques that mothers and others have known for millennia. You probably already know some of them instinctively.

Where are Reflexes located?

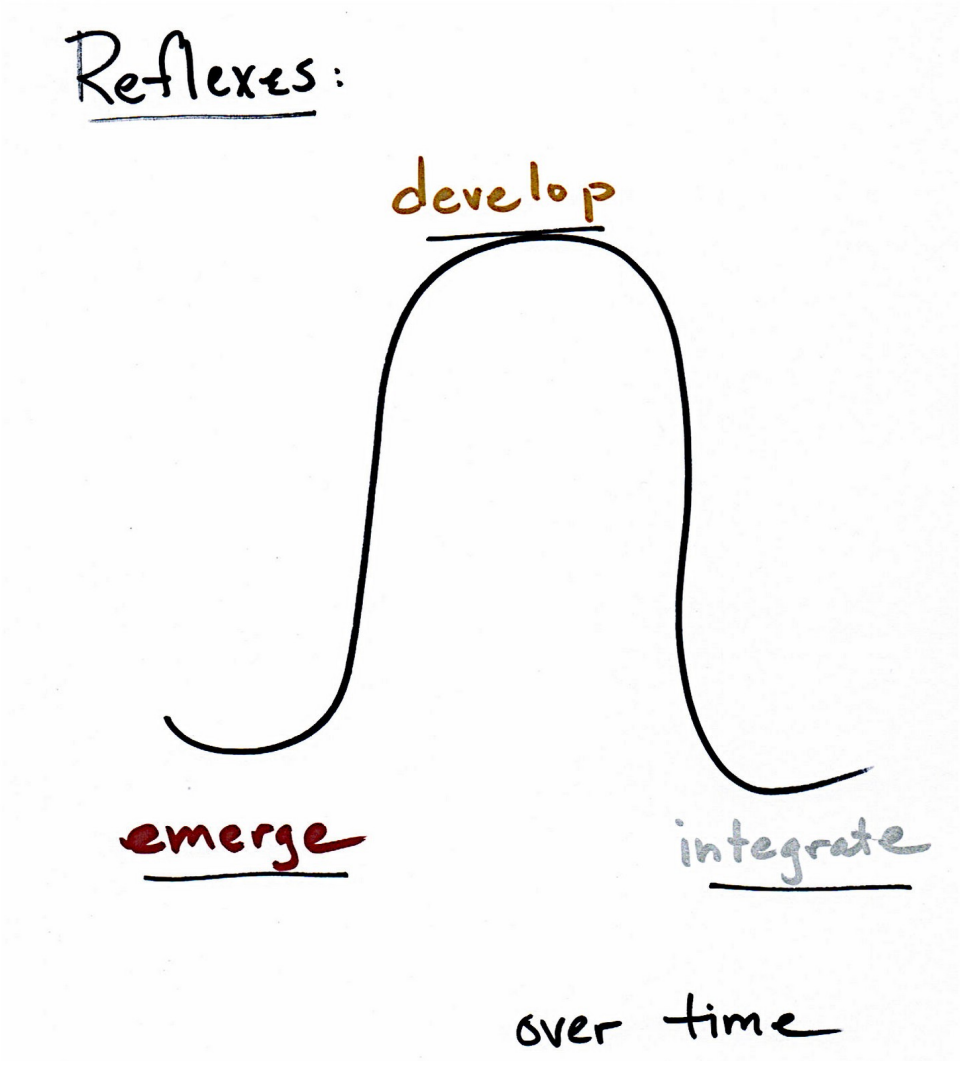
Primitive reflexes are located in the oldest parts of the brain. When you place your hand on the base of the skull, you are touching command central for reflexes.



Reflexes are GOOD!

We need our reflexes. These movements are essential building blocks to our physical, emotional, cognitive and spiritual selves. If we had no reflexes, we simply wouldn't *be* at all. We would be unable to do the basic things a human being needs to do to survive.

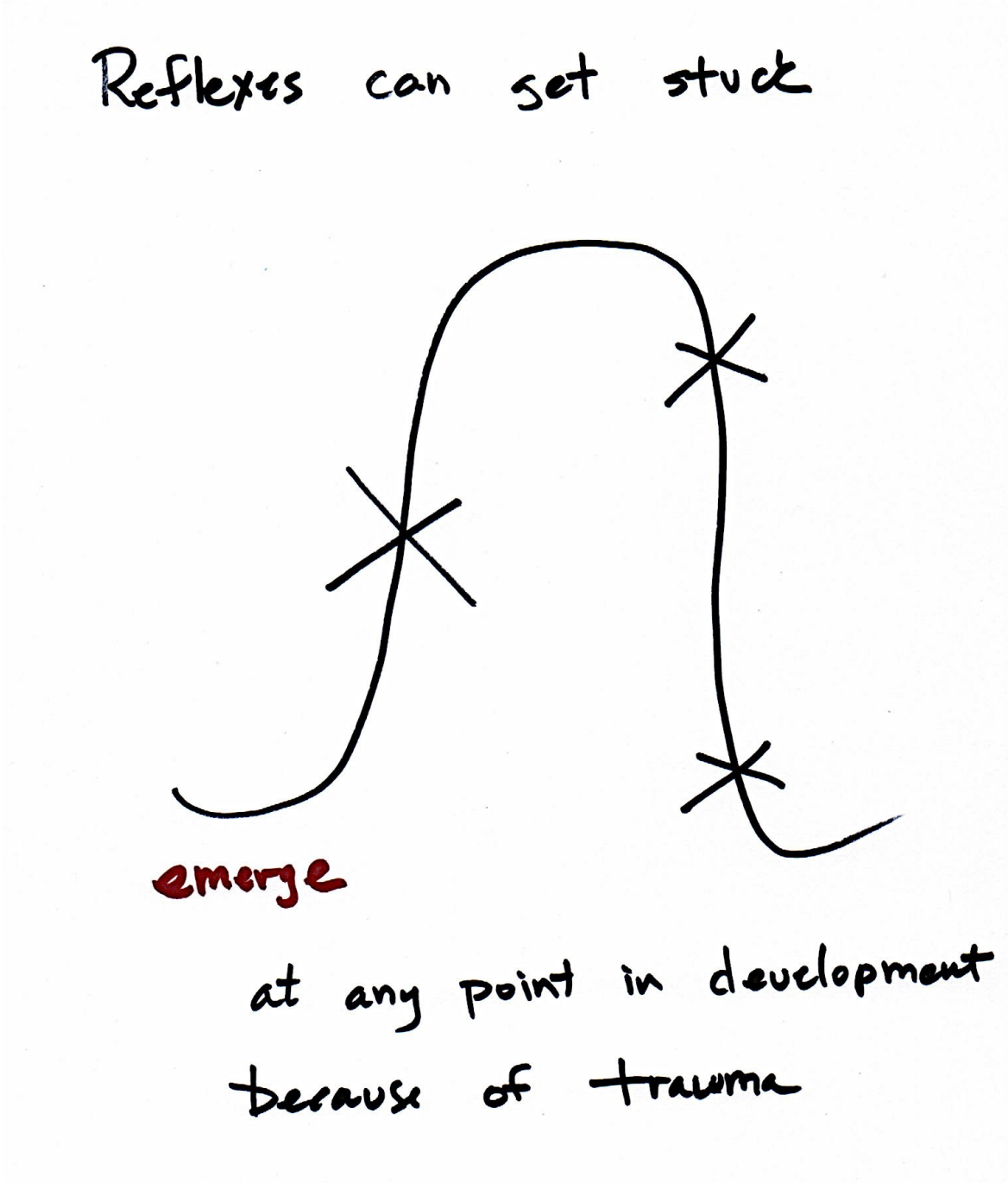
As we explore the world, our pre-programmed responses lead us to more complex coordinations and understandings. As our reflexes integrate, we have more choices about ways we can respond to the world.



Reflexes have a normal life span. Some integrate even before we are born; some in the few years of life. But the movement language of reflexes is always available to us, and we often return to them – even as adults – in stressful situations. Sometimes they are helpful – as when we jump away from a bus that has come too close before we even think about it. Sometimes they are not – as when we "see red" and react in anger.

Stress and Trauma Can Interrupt Our Developmental Flow

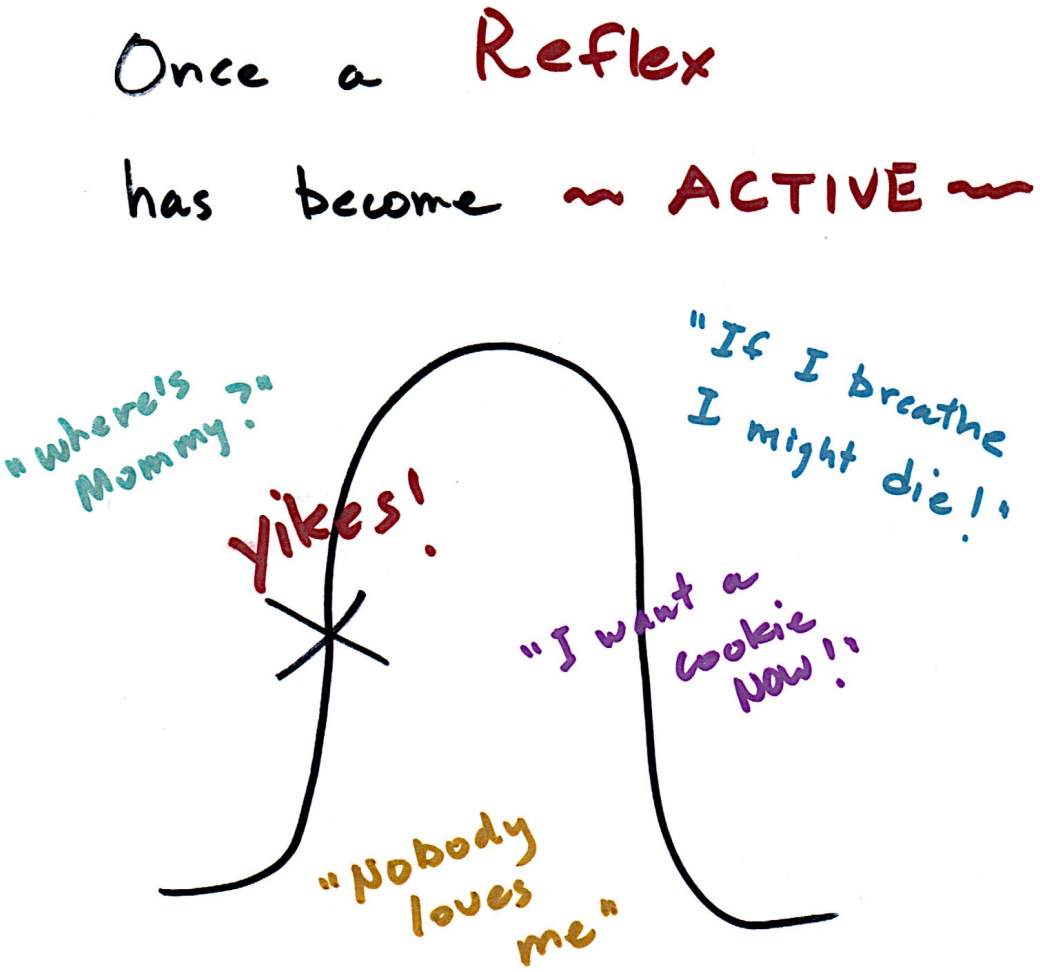
The embryo/baby/child can take care of reflex integration simply through the normal unfolding of life. But life isn't always normal. If there is stress and trauma – and there is always stress and trauma of *some* kind – it can sometimes be too much to for the system to handle. It's as if the stress trips off an alarm in the brain. Until the brain is satisfied that the danger is over, the alarm continues to sound, and the person gets stuck in a repetitive, reflexive movement pattern.



When Reflexes are Activated

When the “alarm” goes off, non-dominant parts of the brain shut down. That is because, in a situation of danger, we don’t *want* to be confused by choices. If we are running away from a sabre-tooth tiger, we don’t want to be distracted by whether to take the right or left fork in the trail.

So when we are under sufficient stress, we don’t have full access to everything they know. This is why it is useless to tell a stressed-out child to “use their words.” That part of their brain isn’t likely to be working. Even as adults, under stress, we can forget the simplest things. At a basic level, we don’t have choice about our movements. Once stress activates a reflex, we can get into negative thought and behavior loops - and then we can’t seem to get out.



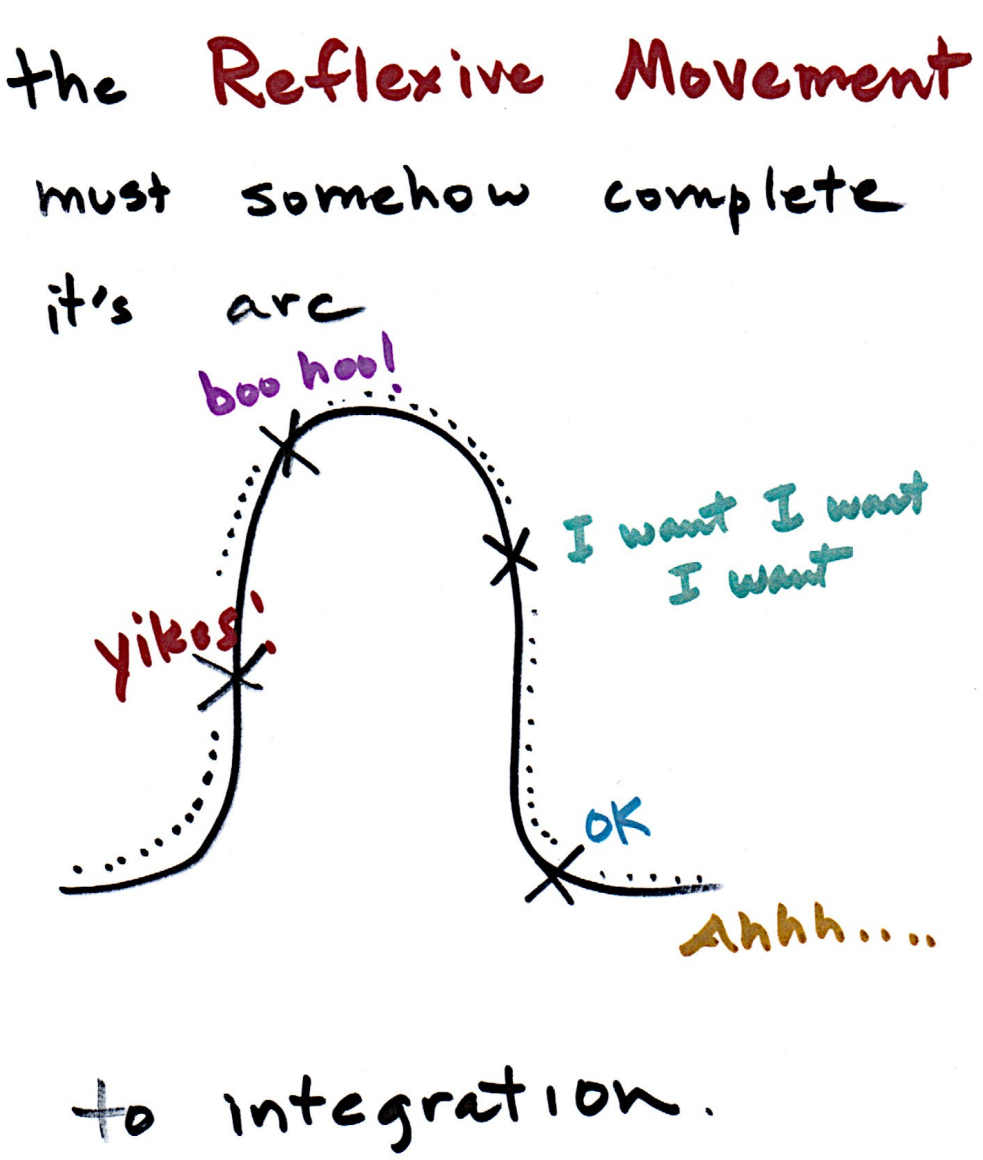
Restoring Flow

We turn off the "alarm" through some kind of integrative activity that specifically addresses the "stuck" place in the reflex arc, and allow it to move through to completion. Often, the integrative activity takes the movement pattern that has become stuck, and finds a positive way to move it into flow.

For example, giving a hand drum to a child who is about to beat his hands in a tantrum. Or clapping hands with a rhythmic chant. This can capture the attention and move the negative expression of stress into a positive expression of rhythm and energy.

Once the tantrum is in full expression, it is usually necessary to do some whole body large movement to regulate it – like rocking or swinging.

In both cases, we are finding the "stuck' place in the arc of reflexive movement, and finding an organic way to move it to completion.

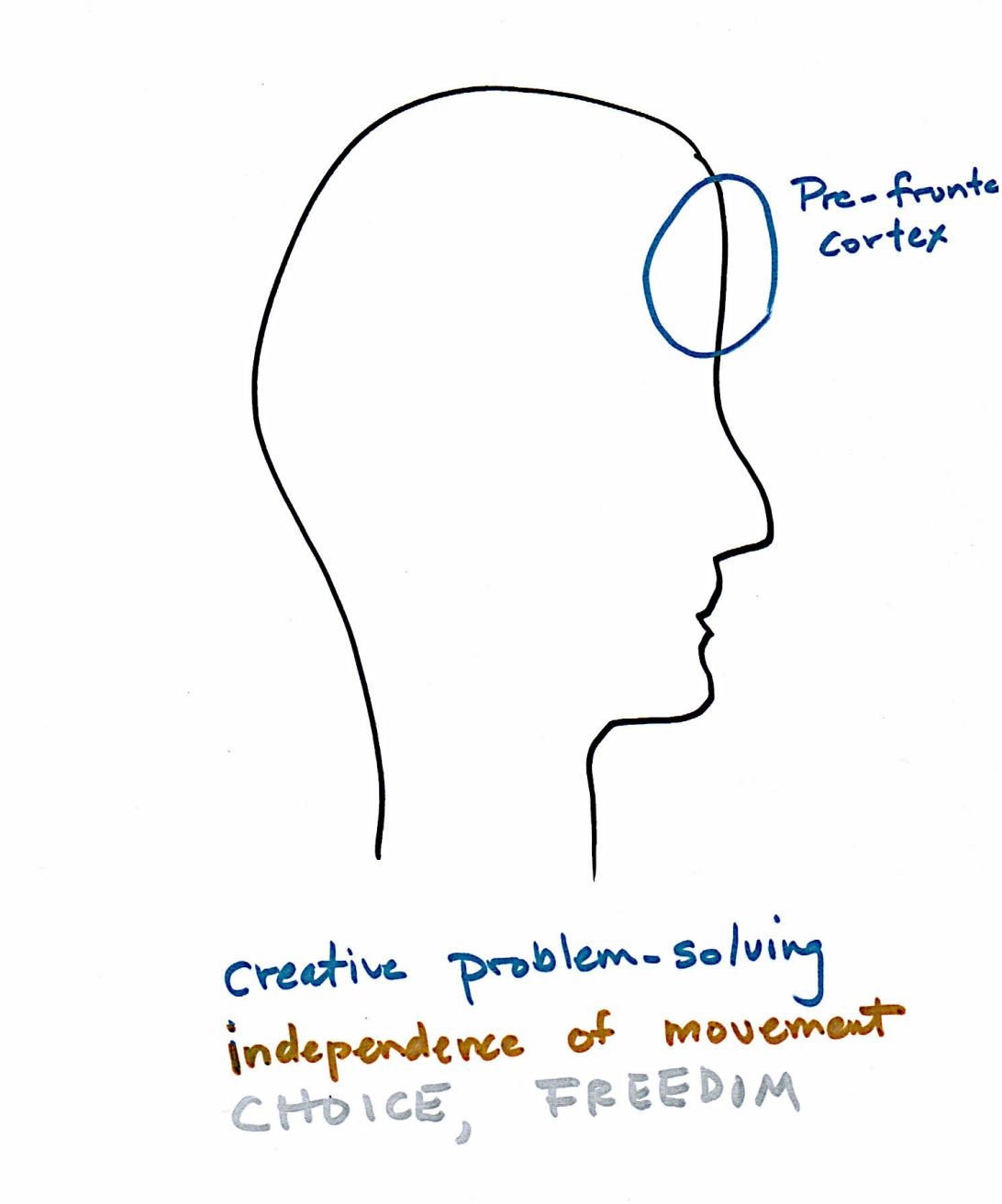


Where is Creative Problem Solving Located?

We grow our brain/body system through movement. As the baby/child/adult moves through life, moving and learning in new ways, our brains develop a system of neural pathways. When we have access to our whole brain, we can find alternate pathways to solve problems.

Command central for creative problem solving is in the pre-frontal cortex – the part of the brain behind the forehead.

When we integrate reflexes, we bring the awareness of this "executive functioning" forebrain to the pre-programmed survival responses of the backbrain. This allows the thought and behavior patterns to become unstuck, and for something new to happen.

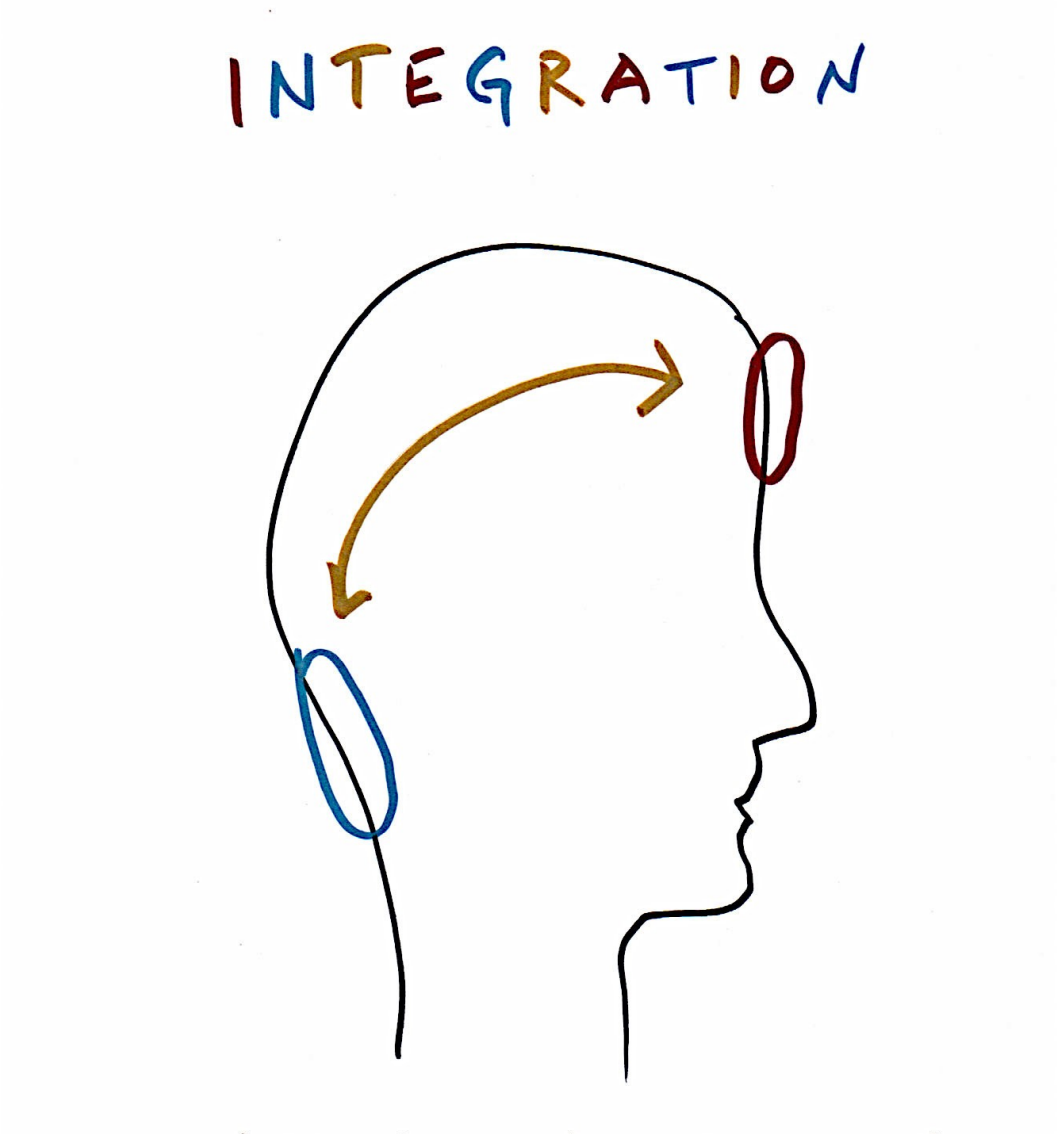


Turning off the Alarm and Restoring Calm

1. Holding the Head

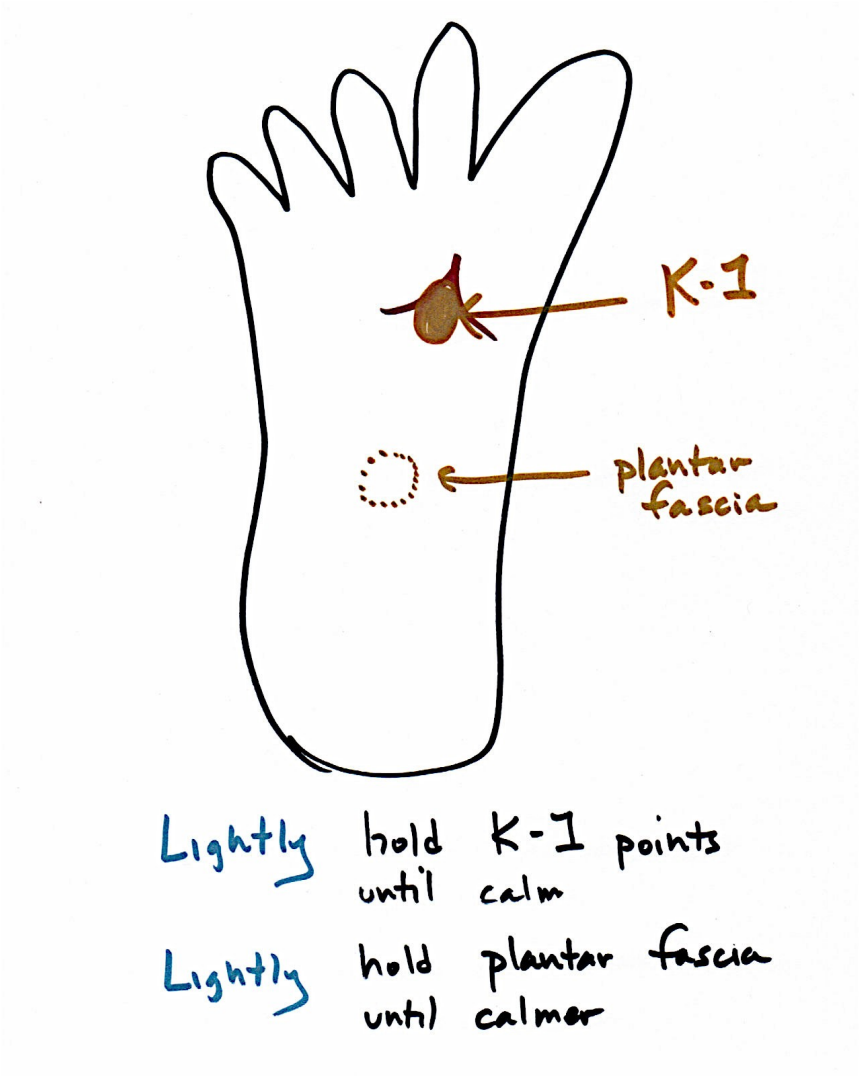
There are many ways to bring consciousness and choice to a stuck behavior pattern.

- One simple way is to gently place one hand at the base of the skull or *occiput*. This is where the alarm is going off.
- Place the other on the forehead, the *frontal lobe*. This is where our creative problem solving capacities lie.
- Imagine an electrical circuit moving between your hands.
- This technique – called *frontal/occipital holding* - activates the neural pathways of consciousness and choice.



2. Holding the Feet

- Another simple integrative technique is to hold the feet.
- *Gently* touch the bottom of the foot, about a third of the way down the sole, close to the middle.
- This is a powerful point known as “bubbling spring” or K-1.
- You can hold one or both feet. Holding both feet, you may feel a pulse between them. When the pulse regulates, usually you will hear the breathing release and deepen. Then you can let go.
- Another place to hold the feet is dead center, at the *plantar fascia.*
- Gently holding these points on the feet is a wonderful technique to use at bedtime.
- It helps relax the leg muscles.
- This tells the survival brain that there is no need to run away – it is safe to go to sleep.



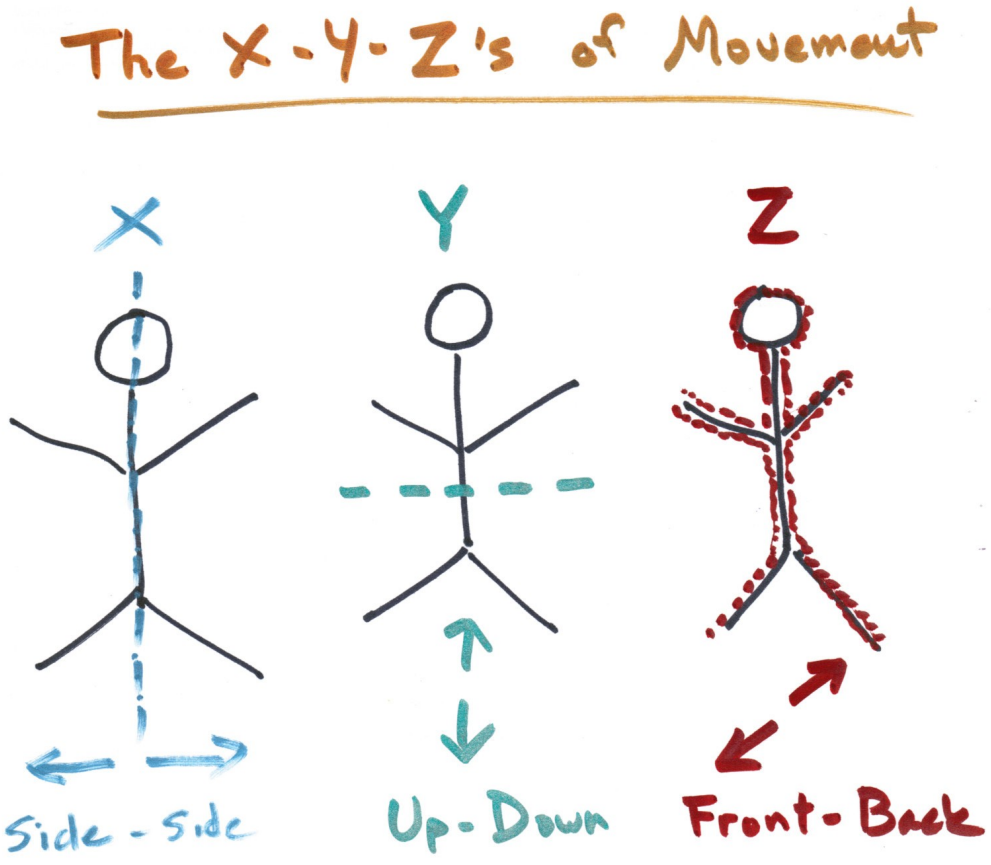
NOTE: some individuals don't like to be touched. You can achieve the same effect by holding your hands above the head, or feet, in the appropriate areas. Or you can have them hold their own heads or feet. Children can hold the "heads" and "feet" of stuffed animals and integrate themselves that way. Even visualizing these energy circuits from a safe distance can have a positive effect.

Nothing has to be wrong

- All these techniques can be used as simply for enhancement. They can help people of any age feel calmer, clearer, more coordinated, happier - at any time.
- These techniques can also be used as prevention. The more time a person spends in a an integrated state, the more stable they are likely to be when stressful situations arise. They will be more able to respond to stress in an integrated way.

The X Y Z's of Movement Integration

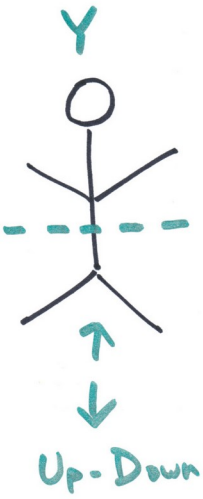
You don't always need to recognize specific infant reflexes in order to help them integrate. Simply rocking, bouncing, or swaying across the three axes of movement – the X, the Y, and the Z – encourage whole brain/body integration. And again, nothing has to be wrong. Who wouldn't like to just be a little happier?



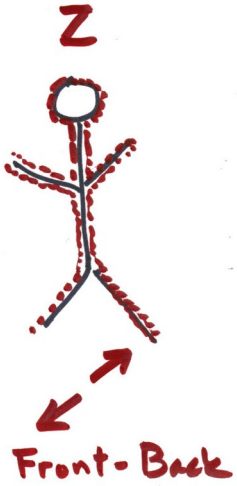
We have 3 Midlines to Cross!

Usually, when people talk about "crossing the midline," they are talking about the vertical line that divides right from left. This is the X axis.

But there is also a horizontal midline that divides up from down. This is the Y axis.



The Z axis is also vertical, but it divides front and back instead of right and left.



Movement in one direction stimulates activity on the opposite side of the brain. For example, moving the head to the right stimulates the left hemisphere of the brain. Moving the head to the left stimulates the right hemisphere. The same recipe works for up and down, and back and forth.

By moving *across* the midlines, we stimulate the entire brain. We can access – and grow – the neural pathways that lead to new learning, consciousness, and choice.

Decoding Movement

Without knowing anything about reflexes, you can still decode the movement patterns of stress.

Begin by noticing whether the main movement pattern is back and forth, up and down, or side to side.

- For instance, a person standing or running with head forward (or down) is moving through the back-and-forth Z axis. So is the person who is leaning back, "checked out," staring up at the ceiling.
- A child bouncing up and down is moving through the Y axis.
- A child swaying from side to side is moving through the X axis.
- These movement patterns can be seen in the whole body.
- They can also be seen in parts of the body – especially by observing head position.

Rule of Thumb

The movement that you see is the movement that you need. If a person is bouncing up and down, they are telling you that that is the kind of movement they need to organize themselves and integrate their brain and body. The same goes for right and left, and front to back movements.

Finding integrative ways to do these movements will release the need to continue them in a reflexive way, freeing up the person to be more creative and open to learning.

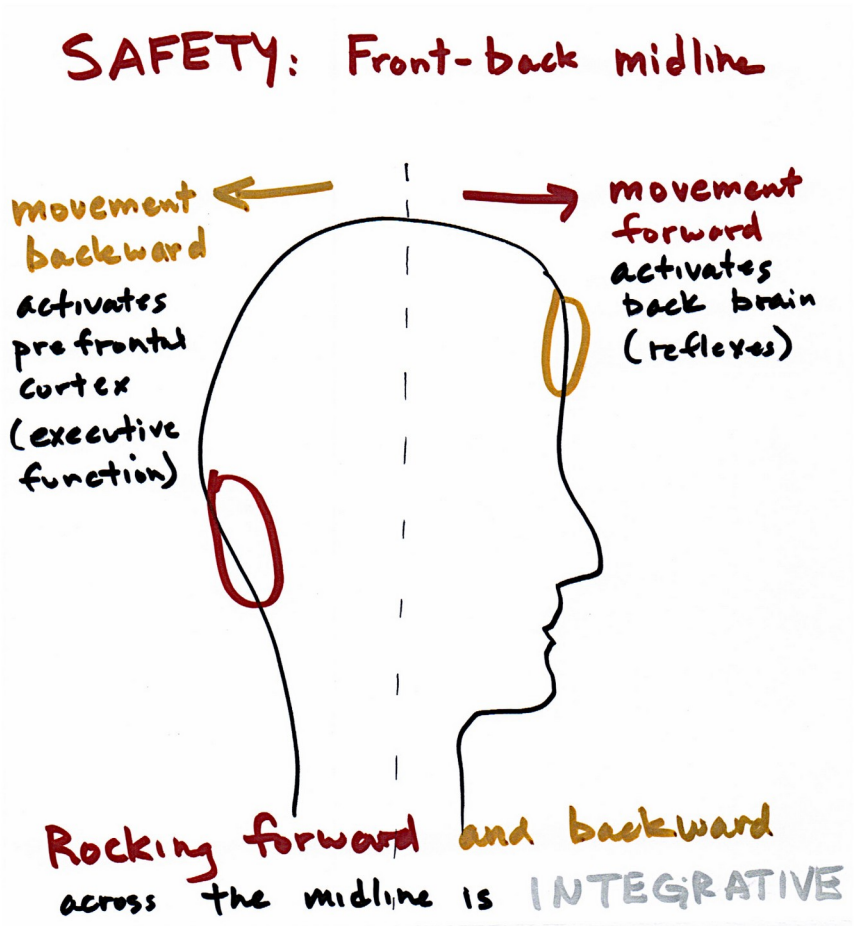
The most important elements of integration are:

- creating an atmosphere of safety and kindness – the "alarm" won't go off unless the person feels safe
- moving all the way across the midline so that the resources of the *whole* brain are available

The Z Axis: Moving Back and Forth

Back and forth movements are about safety. Children running with heads down, getting into things, grabbing with their hands – these children are over-focused. Children who are checked out, leaning back out of the action – these children are under-focused. (Adults, too!)

Their body language is telling you that they do not feel safe.



Rocking across the midline helps to integrate these movements, turn off the alarm, and restore a sense of balance to the system.

- Rocking chairs are perfect for this purpose!
- So are physioballs – lie on the stomach and roll forward and back.
- Swings of any kind are great.
- Rocking forward and back from any position – standing or seated – achieves the same result.
- For children, tell a mini-story or sing a song that can involve acting out forward/backward movement. (No props are needed. It's usually better not to have them). Some examples are:
- Fishing (casting a line)
- Swinging a baseball bat
- Making a whole body wave
- Lying on the belly and squirming across the floor (worms or snakes)
- Getting on hands and knees and bumping the body forward and back

When "Self-Soothing" Isn't

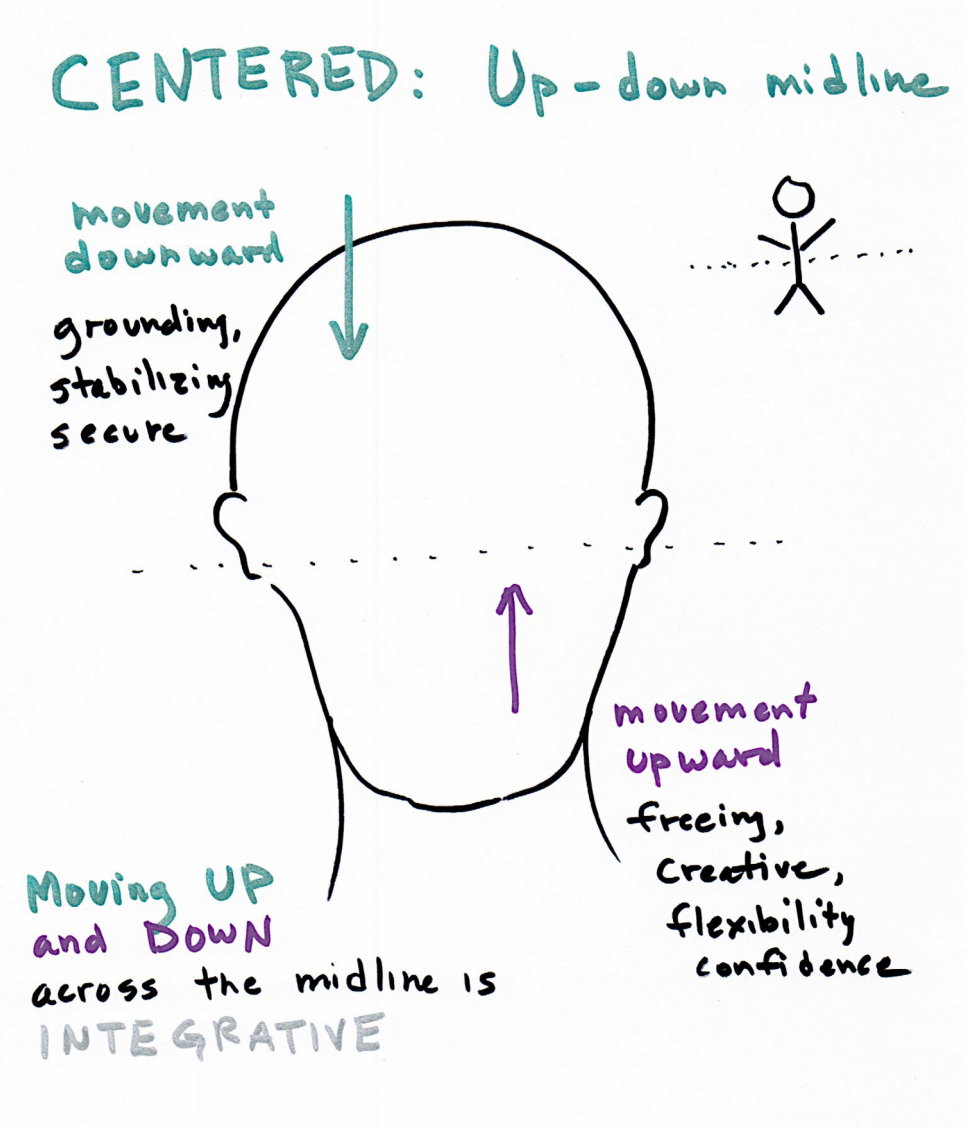
When a child or adult is rocking, make sure that they are rocking back across the midline – even a little bit. If all of the motion happens in front of the Z midline, with the head and body forward, rocking does the opposite of soothing. It simply continuously re-stimulates the alarm system at the back of the brain.

Make sure the person is rocking backwards across the Z midline, even just a little bit. This engages the frontal lobe, whichs begin to de-activate the alarm at the back of the brain. Creative problem solving then becomes possible.

The Y Axis: Moving Up and Down

Up and down movements are about feeling centered. Children who are bouncing up and down do not feel grounded. They are often talking a mile a minute, can't pay attention, are anxious or space-y. Sometimes you can see a child sitting at a seat bouncing a leg up and down – it's the same message. (Adults, too!)

Stretching and bouncing helps to integrate these movements, turn off the alarm, and restore a sense of balance.



- Physioballs are perfect – sit on them and bounce.
- Trampolines are good for standing and bouncing.
- See-saws work great.
- Mini-stories and songs to act out are helpful too. Some examples:
- Bouncing animals – bunnies, kangaroos
- Reach to the sky, touch the ground
- Picking fruit and putting it in a basket on the ground
- Drumming

Two Kinds of Not Being Centered: Spacey and Depressed

When a person is operating mostly *above* the Y midline, they may not seem "to have their feet on the ground." They may flutter from thing to thing, not staying anywhere long enough to focus. They may have their gaze fixed somewhere just *above* whatever is going on – or continually shifting their gaze without ever really lighting upon anything. They aren't grounded.

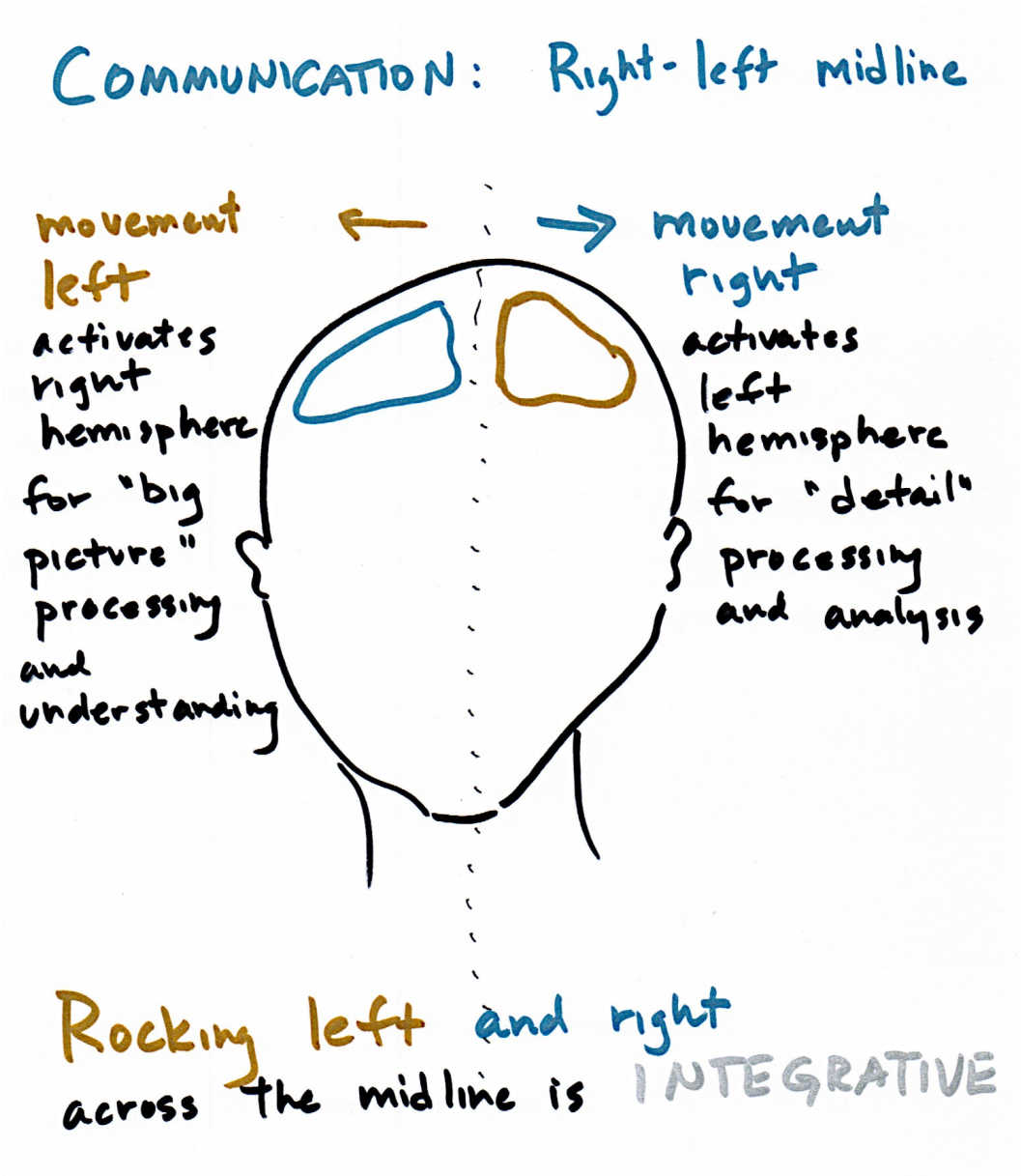
When a person is operating mostly *below* the Y midline, they can be *too* grounded. They may refuse to budge. They won't transition easily to new activities. They may seem stuck in one way of thinking and unable to see anything differently.

When a person is centered, they "have their feet on the ground" but can still *move.* They can hold onto an idea and be able to take in new information. They can look at you without having to look away.

The X Axis: Moving Side to Side

Side to side movements are about trying to figure something out. People who are swaying side to side are having trouble putting two and two together. They are physically trying to move signals from right to left brain and back again, to get the communication flowing. Have you ever seen a lecturer move side to side at the podium?

Swaying side to side helps to integrate these movements.



- Physioballs can be used in a side-to-side movement.
- In pairs or groups, you can hold hands and sway together right and left
- Mini stories and songs:

- Picking fruit with one hand (reaching to one side) and then the other.
- Painting on a big easel, with one hand, then the other
- Painting on a big easel with both hands simultaneously

When Right and Left Are Out of Balance

Our body/brain system is made to work symmetrically. For example, an excellent walking motion is a confident stride, equal distance and force with both legs, arms swinging diagonally opposite the legs. This symmetry activates each side of the brain equally and simultaneously, allowing flow between the right and left hemispheres for cognitive clarity and emotional awareness.

When an individual walks with a limp, or with one side of the body moving differently than the other, there are asymmetrical signals traveling to the brain. This goes for any motion or position – crawling, standing, sitting, etc.

It often pays to "practice" a motion on one side – especially the challenged one. Homolateral, or one-sided, motion, is an important step in reflex development. Going back to homolateral motion, gaining security and safety, and then moving it into a more contralateral (two sided) form, is an important step on the developmental ladder.

Sometimes there is a structural problem – an injury, for example. Don't over-exercise an injured part of the body! If there is a chronic problem, it might be time to consult a trusted chiropractor, cranio-sacral, massage, or physical therapist, a kinesiologist, or another kind of practitioner who has expertise in this field.

4 Kinds of Movement

Basically, there are only four kinds of movement.

1. NO Movement.

2. Back and Forth.

3. Up and Down.

4. Side to Side.

All other movements are combinations of these. For instance, turning around in a circle is a combination of forward/backward and side/side. Skipping is a combination of forward/backward, up/down, and side/side.

Quick Fixes

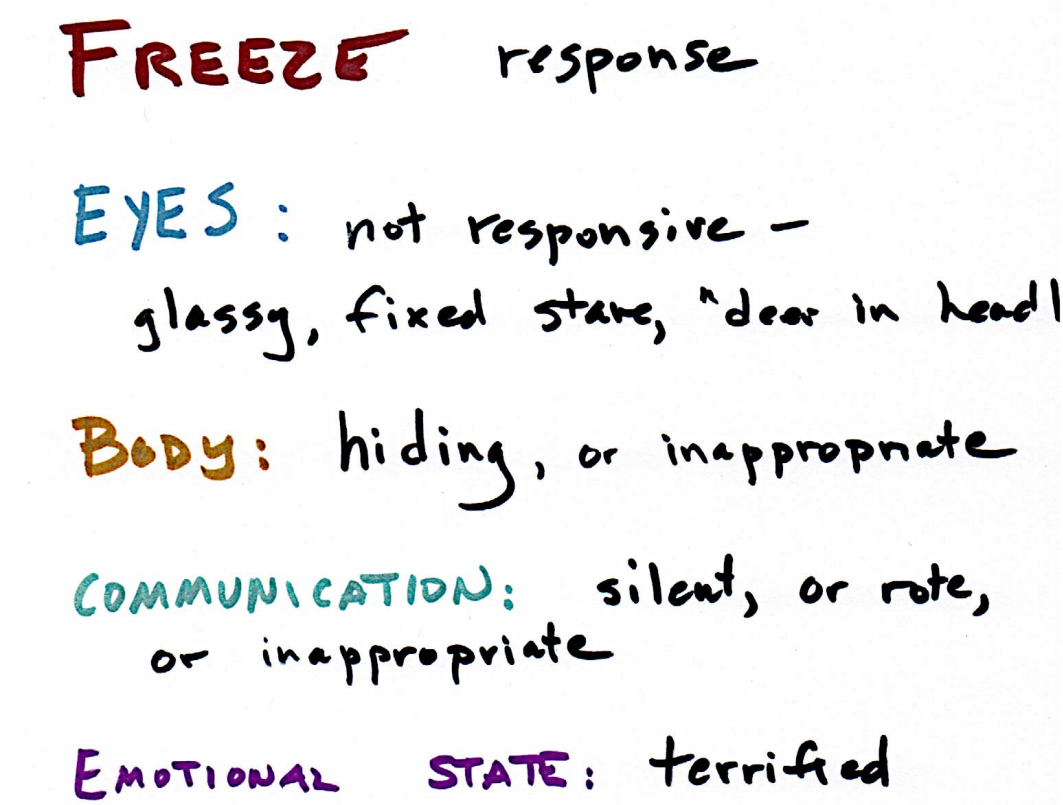
Notice which kind of movement – or combinations of movements – is most prominent in the person's behavior. Remember the rule of thumb: **The movement that you see is the movement that you need.**. *Do* that movement together in an integrative, creative way. Make it fun. Make it safe.

But What About FREEZE?

Option #1, n*o movement,* can be tough. It generally means that a reflex called *Fear Paralysis* is active.

Fear Paralysis is a reflex that emerges very young, when the fetus is only five weeks in utero. The fetus responds to stress by not moving.

What stress can a fetus experience? It can be exposure to chemicals, through drugs or allergens or environmental toxins. It can be experiencing the mother's stress or fear or inability to rest. It can be loud noises. It can be over exposure to electro-magnetic fields, such as cell phones and laptops and power lines. It can be a lot of things. The most important thing to understand about it, from a movement standpoint, is that the individual does not feel safe.



Any time a baby/child/teenager/adult does not feel safe, it can "remember" this reflex, and activating the *fear paralysis reflex* is the result. You can recognize it from a glassy fixed stare, or helpless crying, or a body that seems to be trying to disappear, or a mind that is either not saying anything or is spouting out rote responses to make you go away. An expression of terror is almost always an expression of the *fear paralysis reflex.*

From an evolution standpoint, freezing can be an appropriate response to danger – as when the faun becomes immovable and invisible in its forest hiding place, so that mountain lion won't find it. There are times when becoming invisible makes sense, even for human beings.

But often it doesn't. During a math test, or driving a car, or negotiating a contract, or performing on stage . . . at these times, and most others, *fear paralysis* is not your friend.

Integrating Fear Paralysis: Personal Safety and Compassion

Whenever a reflex is active, the most important thing to realize is that the individual does not feel safe. NOTHING will change in a fundamental, integrative way until safety is achieved.

If the individual is you, use some of these techniques – or any other movements that help you feel calm. It is very difficult to make another person feel safe until you have achieved some degree of integration yourself. It can be as quick as one deep breath in and out – or blinking your eyes – or putting a hand on your chest and consciously relaxing.

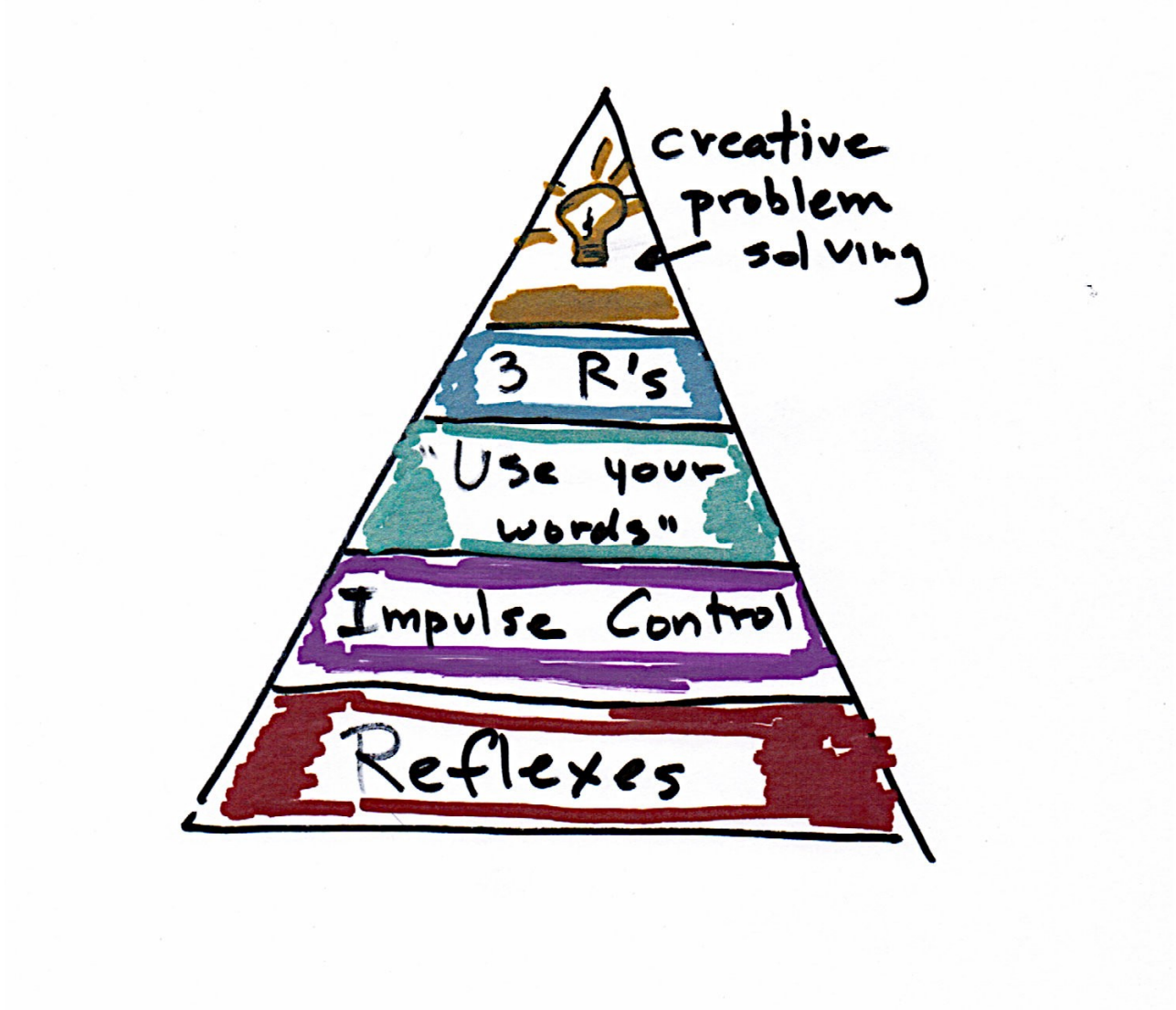
If the individual is someone under your care, compassion – or at least, the gesture towards compassion – is essential. To achieve compassion, it helps to realize that the affected person essentially has no choice about their actions. Their brain/body systems are stuck in a survival loop. Your job is to create an environment that turns off the alarm and gets the creative problem solving capacity working again. If you are angry, or feeling judgmental, they will not feel safe enough to come out of the reflex.

It can be really hard to come up with a self-integration technique when there is a crisis at hand. But try. Practicing self-integration techniques in the clear, for personal enhancement, can make all the difference. When there *is* a crisis, you'll be ready.

Integrating Fear Paralysis

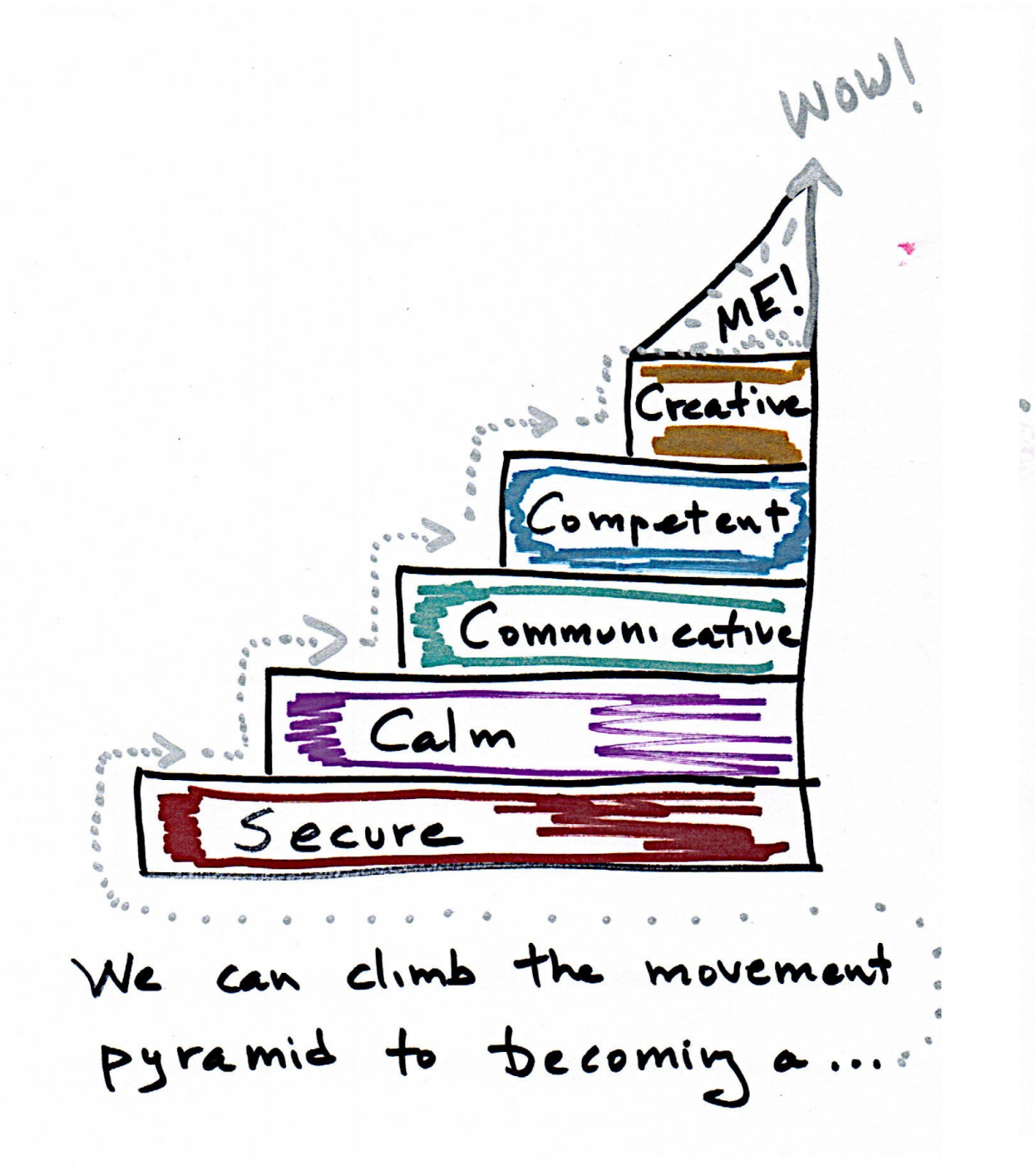
You've already learned many good techniques! **Holding the Head, Holding the Feet,** and **Moving Across the Z Axis** are all integration methods that can integrate the Fear Paralysis Reflex.

The Developmental Movement Pyramid



All movement begins as reflexes coded for survival. As we successfully grow and survive, we create more and more neural pathways throughout the brain. The safer and more nurturing the environment, the smoother this process becomes. For a young child, reflex integration allows for impulse control . . . which leads to the ability to communicate . . . and develop more complex ways to express ourselves . . . and creatively solve the problems we encounter in life.

The more neural pathways we have, and the stronger they become, the more choices we have about our behavior. If one path turns out to dead-end, we have options. We have the ability to creatively problem-solve and find a neural pathway that leads to the destination we were seeking.

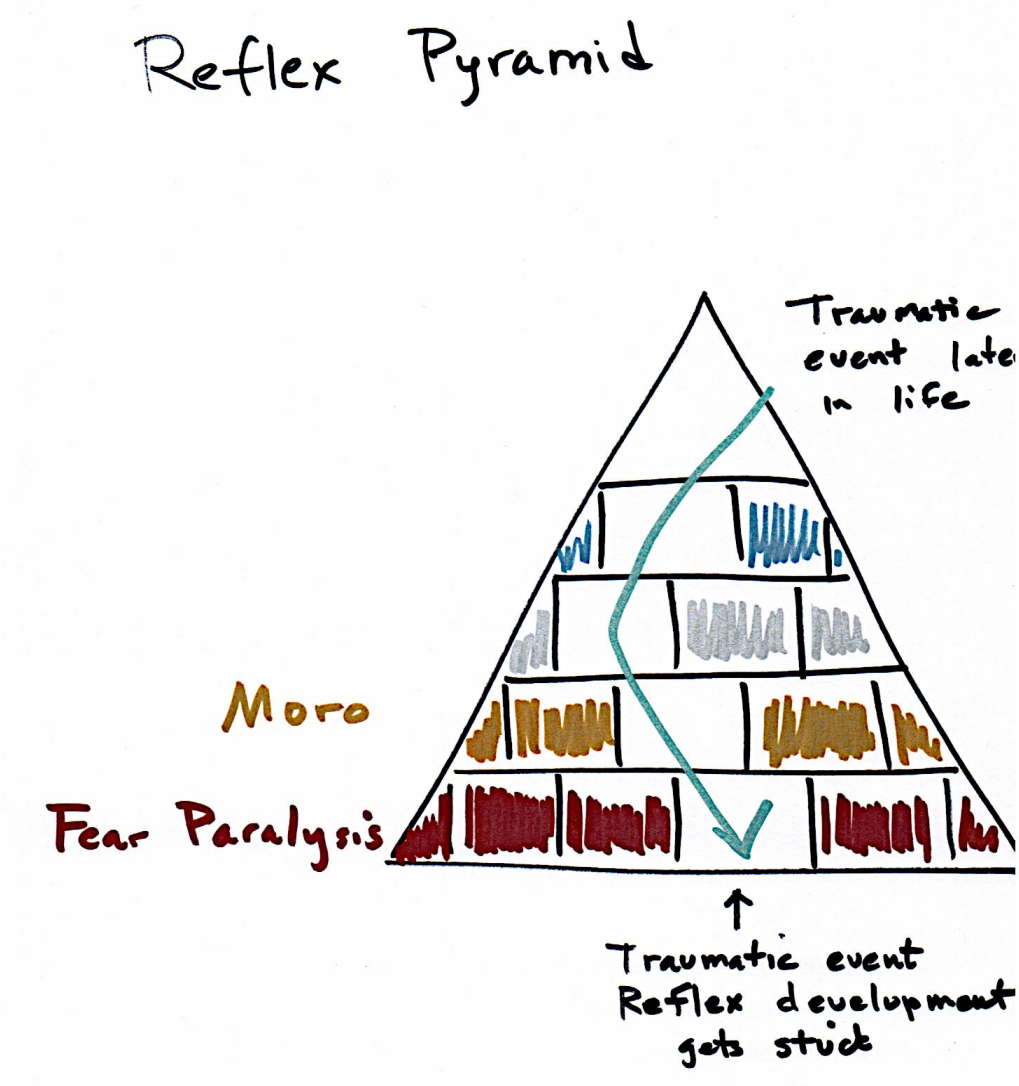


How Do Unintegrated Reflexes Affect Development?

For a growing fetus/embryo/child, the reflexive movements that emerge, become active, and integrate are an essential part of normal development. Movement development is inextricably linked with every other aspect of development, from chemistry on up. When there is trauma to the system at an early age, and the movement patterns do not develop normally, there is a weakness in the developmental foundation. The developmental pyramid has missing bricks, and it is not a solid structure.

How Can a Movement Pattern from Infancy Affect Me NOW?

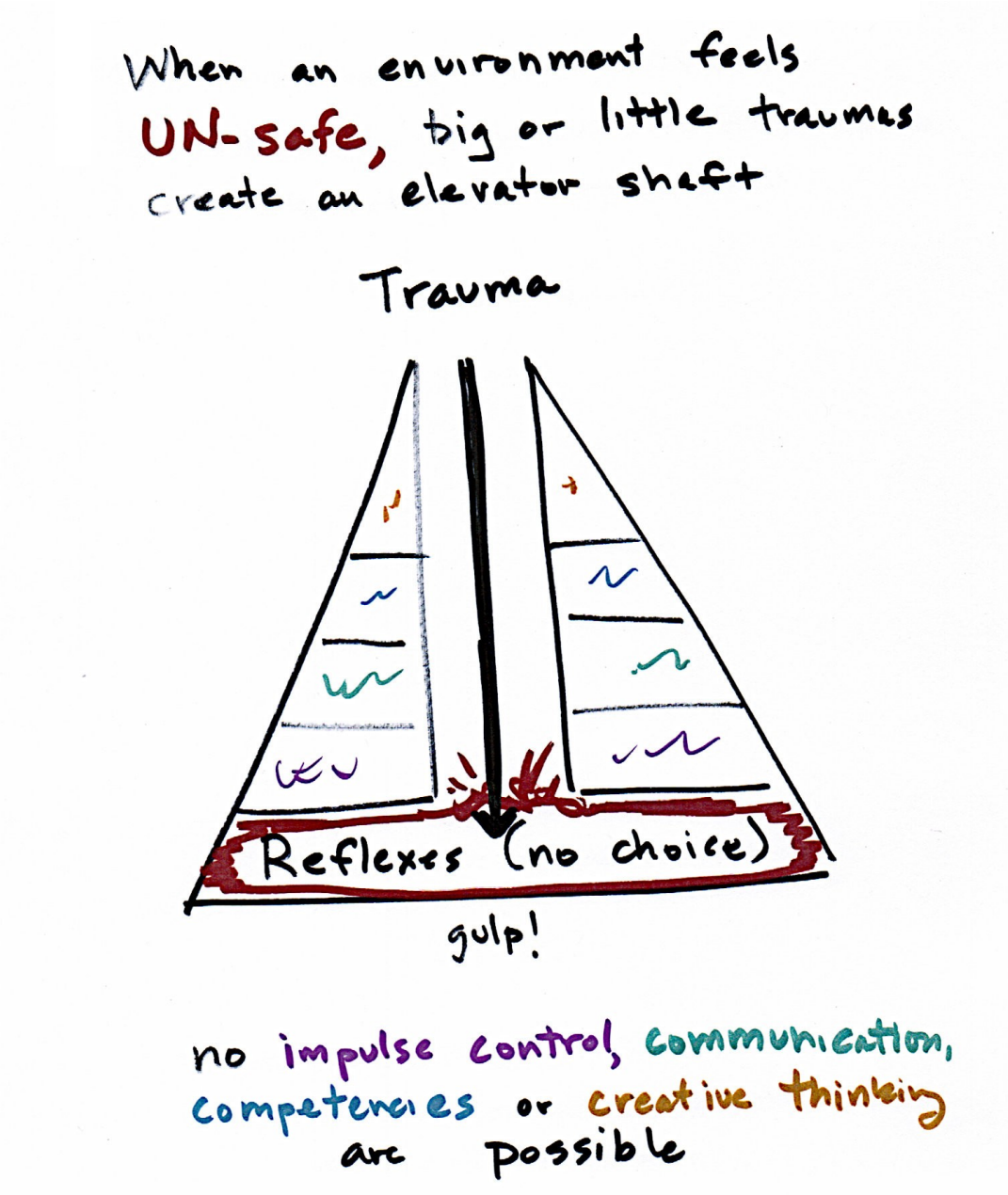
As we grow, if *any* information is missing, or damaged, it affects the whole trajectory of our development. Each primitive reflex builds on the ones that precede and surround it, and if any are underdeveloped, it affects the whole movement profile. Chronic, long term stress creates compensatory patterns in the body/mind system. So does a one-time injury, if it goes deep enough.



The Elevator Shaft

One way we defend against stress and trauma is by activating the reflexive movement patterns designed to keep us alive. The survival system does not have a complex way of determining success and failure – it is not interested in quality of life. If we activate a reflex under stress, and we live, the survival system counts that as SUCCESS and codes that response in *forever.* Because if we don't survive, any response becomes irrelevant.

The survival system is ultra-conservative and plays it safe.To change the reflexive response under perceived stress basically requires rewriting the code that identifies that stress as super-dangerous.



Here's an example. Say you grew up in a family where there was a lot of yelling, and you discovered that the best way to avoid injury was to become invisible and hide under the table. Fear Paralysis was a reasonable survival technique. But if, as an adult, you are chairing a meeting where someone begins to yell – then Fear Paralysis is no longer an appropriate response. But you might continue to have an intense urge to hide under the table. You won't have access to your full cognitive capacity, because when a reflex is active, large parts of the brain just shut down.

Compulsive behavior of any kind is usually linked to unintegrated reflexes – unhealed traumas from different parts of our lives.

Many Roads to Integration

Exploring the Human Development section of evekodiak.com, you'll find many different ways of understanding reflexes, movement development, trauma and healing. For some people, learning how to identify and work with specific reflexes is exciting and helpful. For some people, simply gaining a few tools and concepts to support their own intuitive knowledge is enough. Whoever you are, you'll find something of use here. I encourage you to explore!