

Emotional Architecture Center

White Paper

Dr. Mark Barger Elliott

A workplace, community, school, team, family, marriage, partnership, a life has *emotional architecture*.

In the last decade, groundbreaking research has revealed emotions are not created from the *outside in* as events occur around us, but from the *inside out*. Emotions don't happen to us, we *create* them. Neuroscientist Lisa Feldman Barrett calls this "a revolution in our understanding."

The Emotional Architecture Center utilizes these new insights to offer tools to build emotions that lead to wellbeing and success.

Let us show you how.

We are... in the midst of a revolution in our understanding of emotion, the mind, and the brain—a revolution that may compel us to radically rethink such central tenets of our society as our treatments for mental and physical illness, our understanding of personal relationships, our approaches to raising children, and ultimately our view of ourselves.

Lisa Feldman Barrett, *How Emotions Are Made*
The outside universe we perceive doesn't exist as such. Through a series of electrical and

chemical reactions, we generate a reality internally. We create forests and oceans, warmth and cold... Then, in an instant, we produce a response. All of this in a world of our own creation.

Rick Rubin, *The Creative Act*



Definitions

Emotion: *A conscious mental reaction (such as fear, joy) subjectively experienced as a strong feeling usually directed toward a specific object and typically accompanied by physiological and behavioral changes in the body.*

Architecture: *The art or science of building. The formation or construction resulting from or as if from a conscious act.*

Emotional Architecture: *The ability to design, construct, and build emotions.*

Emotional Architecture

Have you ever wondered, “Why do I feel this way?” Or, have you asked yourself, “Why can't I feel at all?” Or, “Is there a way for me to stop feeling sad, angry, or anxious?”

In the last decade, groundbreaking research has revealed emotions are not created from the outside in as events occur around us, but from the inside out. Emotions don't happen to us, we create them. Neuroscientist Lisa Feldman Barrett calls this “a revolution in our understanding.”

The Emotional Architecture Center utilizes these new insights to offer tools to build emotions that lead to wellbeing and success. We believe a workplace, community, school, team, family, marriage, partnership, and each of our lives has emotional architecture.

Emotions Are in Crisis

The need for the tools the *Emotional Architecture Center* offers is substantial and increasing. People, communities, and organizations feel their emotional lives are in crisis. Increasingly, people are feeling sad, hopeless, suicidal, stressed, anxious, depressed, detached, miserable, or angry. Here are some statistics:

CDC's Youth Risk Behavior Survey:

- 3 in 5 girls felt persistently sad and hopeless, a marker for depressive symptoms, in 2021, up nearly 60% from 2011.
- More than 1 in 4 girls reported they seriously considered attempting suicide in 2021, up nearly 60% from 2011.ⁱ

The 2022 Stress in America Report:

- Three-quarters of adults (76%) said they have experienced health impacts due to stress in the prior month, including headaches (38%), fatigue (35%), feeling nervous or anxious (34%), and/or feeling depressed or sad (33%).ⁱⁱ

Gallup State of the Global Workplace: 2022

- 60% of people are emotionally detached at work and 19% are miserable. Only 33% of thriving in their overall well-being.
- 11% of employees are thriving in South Asia - the lowest regional well-being in the world.
- Approximately 1 in 4 people experience daily anger or sadness.ⁱⁱⁱ

A Brief History of Emotions

For thousands of years people have attempted to understand how emotions function in order to feel differently. Plato (428/7-348/7 BCE) suggested emotions arise out of a struggle between our mind's instinct for survival, our emotions, and our ability to be rational. Naming feelings has been another approach to understanding emotions. *The Book of Rites*, written during the Zhou dynasty (1000 B.C.-256 B.C.) was one of the first to make a list and identified the emotions of joy, anger, sadness, fear, love, dislike, and fondness.

In the 17th century people began to wonder where in our body emotions were formed. Tiffany Watt Smith notes how "Thomas Willis (1621-1675)... proposed a surge of joy or a nervous tremble was... the work... of the delicate lattice of the nervous system at the center of which was a single organ: the brain." In his *Treatise of Human Nature*, David Hume (1711-1776) was one of the first to refer to the word "emotion." Thomas Brown (1778-1820) brought further attention to the word through his *Lectures on the Philosophy of the Human Mind*, which went through 20 printings.

In *The Expressions of the Emotions in Man and Animals*, published 13 years after *On the Origin of Species*, Charles Darwin (1809-1882) maintained that we inherit emotional tendencies from our ancestors and they are part of an evolutionary process. William James (1842-1910) suggested emotions arise from an experience outside of our body. He observed, "we meet a bear, are frightened, and run."

Over the past 30 years, the most popular theory of where emotions originate is what has been called the triune brain. Formulated by neuroscientist Paul MacLean in the 1960s, in this understanding the brain has three layers. The first is the reptilian, the second our limbic or emotional brain, while the outermost layer, our neocortex, is where rational thought forms.

The triune brain theory suggests our brain has evolved from the reptilian to the neocortex, which is how we can regulate our emotions. As we increase our ability to manage our reptilian layer, we become what has been called “emotionally intelligent.”

The triune brain theory was introduced to the public through Carl Sagan’s Pulitzer Prize winning book *Dragons of Eden* 1970. It gained global fame with Daniel Goldman best-selling book *Emotional Intelligence*(1996), which launched an industry of books, workshops and consultants offering training in EQ.

Over the last decade, however, as Leonard Mlodinow relates in *Emotional: How Feelings Shape our Thinking*, neuroscientists have discovered the triune brain theory “is not accurate.” Lisa Feldman Barrett notes in *Seven and a Half Lessons About the Brain*, “**The triune brain idea is one of the most successful and widespread errors in all of science.**”

Emotions Are Constructed

The latest research reveals our entire brain – not a sequence of layers - is engaged in creating our emotions. **Barrett calls this “the theory of constructed emotions.”** While the triune brain theory portrays emotions as arising from a struggle between the layers of our brain, the theory of constructed emotions offers a new understanding: emotions are not triggered by an event we experience outside of our bodies; or when we recognize emotions in others, but rather we create them. This theory, writes Barrett, reveals that **we are the “architects of our own experience.”**

The idea that our brain engages in a process of construction is not a new concept.

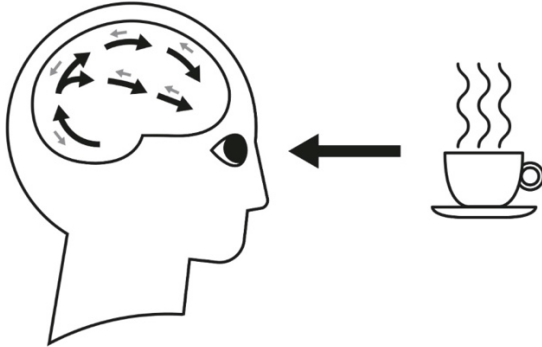
Physicist and physiologist Hermann von Helmholtz (1821–1894) speculated the brain interacts with the world by creating “unconscious inferences” rather than relying solely on input from the senses. Psychologist Jean Piaget (1896-1980) suggested the brain utilizes “schemes” to construct how it will understand the world. Jerome Butler (1915-2016), proposed teachers build “scaffolding” to assist students in constructing new ways of understanding. Peter L Berger (1929-2017) and Thomas Luckmann (1927–2016) published *The Social Construction of Reality: A Treatise in the Sociology of Knowledge* and proposed as cultures and classes interact, we construct mental representations, or concepts, of each other.

But how does our brain construct emotions? **Prediction is the first step our brain takes to construct emotions.** Anil Seth writes in *Being You: A New Science of Consciousness*. The “brain is actually a ‘prediction machine’ and what we see, hear and feel is nothing more than the brain’s ‘best guess’ of what is occurring outside of itself.”

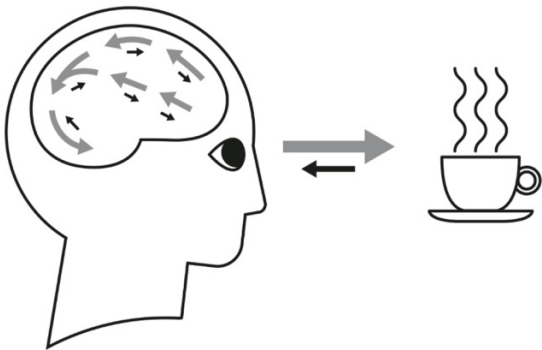
The instinct to predict is likely recognizable. We read mystery novels and speculate who is the murderer. We fill out brackets for a college tournament to guess who will be in the Final Four. We look at our phones to predict the weather. Experiences of prediction grant us a window into how our brain works.

To help explain prediction, Seth offers two diagrams.

The first is how most people believe our brain experiences a cup of coffee. Our eye transmits an image which moves through the layers of our brain up to our neocortex. In our rational layer, we note how steam is coming up from the cup and inform our body to be cautious.



But what actually occurs, notes Seth, *is the other way around*. Our neocortex continuously attempts to guess what is going to happen next and makes a prediction about the coffee cup and steam that our senses will reject or confirm. **We might believe we engage the world through a process of sense > think > act, but in fact it is more resembles predict > think > confirm > act.**



Why our brain engages in a process of prediction, author Bill Bryon observes in *The Body*, is because “everything you know about the world is provided to you by an organ that has itself never seen that world.” As an example, Bryson describes how our eyes send information to the brain in about one-fifth of a second, but that isn’t enough time to hit a baseball at 95 mph. We swing where our brain predicts the ball will be to make contact. Or consider the placebo. Kathryn Hall notes when we unknowingly take a placebo our “unconscious predictions” expect our health will improve and studies reveal that our health often does.

Our brain also engages in prediction to maintain homeostasis and to keep the physical functions of our body in balance - our body temperature, hormone levels, etc. Prediction enables our brains

to anticipate an event that might threaten our physical well-being and to proactively adjust the functions of our body to sustain our wellbeing.

Where do our emotions come from? “Emotions and moods,” Seth writes, “like all perceptions come from the inside out, not the outside in.” Our brain begins to construct emotions as it engages in the act of prediction.

This brings us to the importance of memories.

Emotions = Prediction + Memories

In the film *Inside Out*, a young girl named Riley, struggles after her family moves from Minnesota to San Francisco. To help cope with this change, five emotions in Riley’s head - represented by the characters of Joy, Sadness, Fear, Disgust, and Anger - attempt to navigate, arrange, and to bring forward Riley’s “core memories.” These memories shape and direct Riley’s emotions.

Neuroscientists note how our brain draws from memories to forecast what might occur next. While walking through a neighbor’s garden our brain might compare this experience with what occurred a year ago and think, “we’ve seen that kind of white rose before; go ahead and smell it.” Researcher David Ingvar calls this creating a “memory of the future.”

But misattributions of memories occur. Psychologist Daniel Schacter notes as it predicts, our brain is “recombining stored information,” but this process is never perfect. We might have visited an aunt a week ago and think she is walking in front of us on a city street, tap on a shoulder, only to discover we predicted wrong. Psychologist Daniel Gilbert’s research reveals our brains often draw from our most available memories, but these “are often the least typical events.” We might book a dentist appointment and remember the discomfort we felt the last time and predict we will feel that way again, rather than review all of our dentist appointments including many that went well.

When the brain’s prediction of the future, informed and shaped by our memories, meets the present moment, our senses provide data to determine if the prediction is accurate and whether to continue the action we are engaged in or to change course.

How do we construct emotions? Our brain engages in a process of prediction that draws information from our memories. This brings us to concepts.

Emotions = Prediction + Memories + Concepts

Joseph Hallinan describes in *Why We Make Mistakes* how researchers were curious as to the impact music would have on the purchase of a bottle of wine, so they placed on a store shelf four bottles of French wine and four bottles of German wine. Bottles were priced the same and similar in taste. Then they played at different times French or German music. What happened?

“French wine outsold German wine when French music was played,” writes Hallinan. “But when German music was played, the opposite was true: German wine outsold the French.” The difference in sales was significant. When French music was played, 40 bottles of French wine were sold. When German music was played, only 12 bottles.”

Studies such as these, observes Hallinan, suggest our brains are influenced by what he calls “frames” that influence how we interact with the world around us. The idea our brain constructs “frames” has been utilized by many best-selling authors. Carol Dweck, professor of psychology at Stanford University, advocates that our brains can adopt “mindsets,” such as one that is “growth” orientated rather than “fixed.” Adam Grant, professor of organizational psychology at the University of Pennsylvania, suggests we create a frame of “thinking again,” and rethink our judgments and conclusions.

In her book, *How Emotions Are Made: The Secret Life of the Brain*, Lisa Feldman Barrett maintains a construct our brain uses to create emotions are “concepts.” She writes, **“In every waking moment, your brain uses past experience, organized as concepts, to guide your actions and give your sensations meaning. When the concepts involved are emotion concepts, your brain constructs instances of emotion.”**

“Happy” is a concept our brain might apply when a loved one arrives home from work; “fear” when we nearly step on a snake on a hike; or “France” or “Germany” as we ponder a shelf of wine. We create concepts as we experience changes in our bodies. If we sense our heartbeat is accelerating, suddenly our brain might apply “anxiety” to that sensation and construct that emotion.

To help visualize how concepts form, Barrett suggests we imagine “a sheet of pastry, and our concepts are cookie cutters that carve boundaries, not because the boundaries are natural, but because they’re useful or desirable.”

These boundaries can be influenced by many factors, including the culture in which we were raised, where we live currently, past or current trauma, our socioeconomic status, along with many other factors. Most importantly, Barrett describes how emotional concepts can change; we can carve new boundaries, re-design them, delete them, and even build new concepts.

Understanding we have the ability to change, re-design, delete, and construct new emotional “concepts” is central to becoming an Emotional Architect.

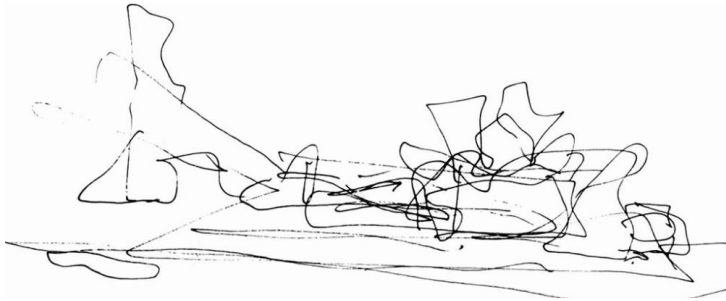
Which brings us to models.

Emotions = Prediction + Past Experiences + Concepts + Models

In *Grand Design*, written with Leonard Mlodinow, Stephen Hawking observes how our brains utilize models to understand and to navigate the world. This theory is called “model-dependent realism.” Hawking and Mlodinow note, “When such a model is successful at explaining events, we tend to attribute to it... the quality of reality or absolute truth. But there may be different ways in which one could model the same physical situation.”

Barrett describes how our brain constructs emotions using “concepts.” Inspired by Hawking, *The Emotional Architecture Center* applies to Dr. Barrett’s insight the word “model” instead. Why? The intent of a model is to be fluid, rather than fixed; to evolve rather than to be static. A model invites feedback and can be adjusted, re-designed, discarded even, as new models are created.

Frank Gehry is considered one of the world’s most famous architects and known for the Guggenheim Museum in Bilbao. Architects create models using cardboard, cork, Styrofoam, or pieces of wood. Gehry models by drawing. It’s how he predicts a building will look and function outside of his imagination. Note the fluidity of this initial model Gehry made of the Guggenheim Museum and how it evolves as his pen moves over paper.



Here’s how the finished building looks today.



Physicists like Hawking use models to imagine how our universe is constructed and functions. Architects use models to imagine how best to construct a building. **Emotional architects use models to discern ways to build healthy and successful emotions.**

How do we construct emotions? Our brain engages in a process of prediction that draws from memories and models.

With this information, we are ready to become Emotional Architects and to apply the **Three Steps of Emotional Modeling** and **Two Tools to Build Positive Emotions**.

Emotional Architecture

There is a mystery at the heart of architecture just as there is mystery in the meaning of life. Life and architecture are bound together and the principles that guide one as an architect cannot be separated from the principles that guide one as a human being.

Moshe Safdie, Architect

Author Jhumpa Lahiri decided she wanted to speak, read, and write in Italian so she moved, at the age 45, from the United States to Rome. Lahiri had already won a Pulitzer Prize for *Interpreter of Maladies*, written in English, but wanted to write her next book in an entirely new language. Why make this change? Lahiri writes:

It seems that my decision to write in Italian has emerged from nothing. But this isn't true. My life is a series of grafts, one after the other... We can change our city, citizenship, body, face, gender, family, religion... Now that I'm grafted onto Italian, I do all I can to reinforce the connection.

This is why I still continue to read dictionaries every day, to list new words in my notebook. I remain conscious of the procedure within me: the fusion of the preceding life with the current one, the juncture between the past and the future... Why Italian, I'd sum it up this way: to open doors, to see differently, to graft myself onto another."

Once we realize our brain constructs emotions as it predicts what will happen next, we have the potential, as Lisa Feldman Barrett writes, to "predict differently tomorrow."

We can adjust, re-design, discard, or create new emotional models. We can graft ourselves like Lahiri into new emotional models. We can become "architects of our own experience."

We can feel—

- Hopeful, rather than despondent when we wake up in the morning;
- Patient, rather than agitated when we talk with our child or spouse;
- Inspired, rather than anxious when we begin to work on a new project;
- Optimistic, rather than pessimistic when we join a video call at work;
- Compassionate, rather than judgmental when we attend a school board meeting.

How do we that? Become emotional architects? By engaging in three steps and applying two tools.

1. Three Steps of Emotional Modeling

Step #1	Profile Your Predictive Emotional Repertoire
Step #2	Review the Emotional Model Menu
Step #3	Build a <i>Preferred</i> Predictive Emotional Repertoire

2. Two Tools to Build Positive Emotions.

Tool #1	Pylon Negativity
Tool #2	ABCD Positivity

Three Steps of Emotional Modeling

Step #1 Profile Your Predictive Emotional Repertoire

Emotional models form in our brains when we are infants, children, and throughout the stages of our lives. Emotional models are shaped by the cultures in which we grew up, or live or work in currently. Emotional models are influenced by past or current trauma or socioeconomic status. Emotional models can be shaped in our workplace or community as it responds to stress or conflict.

These emotional models become a part of what *The Emotional Architecture Center* calls our **Predictive Emotional Repertoire**. These are the emotional models we typically create as we move through the day, our lives, and our workplaces.

To profile these models, *EAC* offers the **Predictive Emotional Repertoire Questionnaire (PERQ)**. Here are examples how *PERQ* can be applied:

- Over the past year, a consulting company has bid for three contracts and has come in second two times, and third the other. Their mission statement claims the company creates dynamic opportunities for clients' growth. However, *PERQ* identifies that employees are feeling wary, distressed and anxious, rather than optimistic. These emotions are affecting how engaged employees feel in bidding for future work.
- A marketing company has downsized and reorganized three data research teams into one. The teams were based out of New York, Berlin and Singapore. It has become apparent on video calls that team members are not connecting emotionally due to differences in how each culture creates and understands emotions. *PERQ* identifies specific emotional gaps in how each team approaches working together.
- A school board has received two resignations in the past five months and navigated a closely contested election. *PERQ* confirms that the emotional models the board applies to its meetings are now reflexively irritation and distrust.
- Working remotely has led to tension in the home of a young family. After taking *PERQ*, they realize the emotional model they repeatedly use to relate to each other is agitation.

In the appendix are two sample **Predictive Emotional Repertoire Questionnaires** for individuals and families and for teams, schools, communities and organizations.

Step #2 Review Emotional Model Menu

With results from *PERQ*, we can compare the emotional models we use with the **Emotional Model Menu** to discern models we would like to adjust, re-design, discard, or to create.

In creating the **Emotional Model Menu**, *EAC* researched 35 lists of emotions from *Rene Descartes*' "passions of the soul" - wonder, love, hate, desire, joy and sadness - to *Brene Brown*'s 87 emotional categories in *Atlas of the Heart*. From *William James*' four basic emotions: fear, grief, love, and rage to *Paul Ekman*, who identified six emotions: anger, disgust, fear, happiness, sadness, and surprise and later added amusement, contempt, contentment, embarrassment, excitement, guilt, pride in achievement, relief, satisfaction, sensory pleasure and shame. *The University of California at Berkeley* helpfully defined 27 categories of emotions: admiration, adoration, aesthetic appreciation, amusement, anger, anxiety, awe, awkwardness, boredom, calmness, confusion, craving, disgust, empathic pain, entrancement, excitement, fear, horror, interest, joy, nostalgia, relief, romance, sadness, satisfaction, sexual desire and surprise.

The **Emotional Model Menu** includes emotions from cultures outside of the United States and is divided into two categories. 1. **Vital Emotions** which create wellbeing and success. ("vital" means that which is essential and full of energy.) 2. **Vitiate Emotions** which impair our wellbeing and success. ("vitiate" means to make faulty, ineffective)

Menu of Emotional Models^{iv}

Vital Emotions

- 1. Amusement** Feeling entertained, pleased, or happy, often with laughter
- 2. Bliss** Feeling of happiness that leads to completeness and wholeness
- 3. Calm** Feeling free of agitation
- 4. Courage** Feeling strength in the face of pain, danger, fear, or difficulty
- 5. Content** Feeling nothing is lacking in the present moment
- 6. Confidence** Feeling sure of yourself and your abilities —in a realistic, secure way
- 7. Compassion** Feeling a person's distress and wanting to alleviate it

- 8. Curiosity** Feeling interested in something which leads to inquiry
- 9. Dadirri** Feeling open to listening to someone with a feeling of deep respect (Aboriginal)
- 10. Desire** Feeling longing and hope
- 11. Faith** Feeling what is not yet visible will appear
- 12. Gratitude** Feeling there are good things in the world, and being thankful for the gifts and benefits we have received
- 13. Optimism** Feeling able to bounce back from life's setbacks instead of imagining the worst is yet to come
- 14. Hope** Feeling of expectation for a defined positive thing to happen

- 15. Hwyl** Feeling exuberance or excitement, as if clipping along on a gust of wind (Welsh)
- 16. Joy** Feeling happiness we didn't expect beyond what we hoped for
- 17. Kvell** Feeling pride and joy in someone else's accomplishment. (Yiddish)
- 18. Man** Feeling a profound calling to start something new - a new career, a different city, instrument. (Hindi, pronounced mun)
- 19. Love** Feeling patience, kindness, rejoicing with the truth, protecting, hoping, persevering (Bible)
- 20. Inspired** Feeling simulated to do or feel something, especially to do something creative
- 21. Resilience** Feeling able to recover our "size and shape after strain of compression due to stress" (definition from physics)
- 22. Reverence** Feeling deep respect tinged with awe; veneration.
- 23. Respect** Feeling deep admiration for someone or something elicited by abilities or qualities or achievements.
- 24. S'apprivoise** Feeling open to learn how to trust and accept each other. (French)
- 25. Sisu** Feeling extraordinary determined in the face of adversity (Finnish)
- 26. Surprise** Feeling something beyond immediate recognition

- 27. Trust** Feeling uncertain what might happen next and having the strength to go forward regardless
- 28. Wonder** Feeling of surprise mingled with admiration, caused by something beautiful, unexpected, inexplicable.

Vitiate Emotions

- 1. Anguish** Feeling "unbearable and traumatic swirl of shock, incredulity, grief, and powerlessness." (Brene Brown)
- 2. Anhedonia** Feeling unable to feel pleasure
- 3. Anger** Feeling antagonism toward someone or something you feel has deliberately done you wrong.
- 4. Anxiety** Feeling nervous, uneasy, about an imminent event with an uncertain outcome.
- 5. Disgust** Feeling of revulsion or disapproval prompted by something unpleasant or offensive
- 6. Dread** Feeling intense fear
- 7. Fear** Feeling the anticipation or awareness of dang
- 8. Guilt** Feeling one has committed a breach of conduct especially violating law and involving a penalty
- 9. Grief** Feeling anguish after significant loss, usually the death of a person
- 10. Shame** Feeling humiliation or distress caused by being conscious of wrong of foolish behavior
- 11. Hate** Feeling of intense hostility usually deriving from fear, anger, or sense of injury extreme dislike or disgust

12. Sadness Feeling emotional pain after losing a loved one, a failure at something important, or an unsuccessful goal

13. Torschlusspanik Feeling time is running out. Life, and all its opportunities, is passing us by.

14. Trauma Feeling deep distress after a disturbing experience

Step #3 Build a Preferred Predictive Emotional Repertoire

After identifying our current *PERQ* and contrasting it with the **Emotional Model Menu**, we can build a **Preferred Predictive Emotional Repertoire**.

Here are examples of how these Principles flow from current > potential > to preferred emotional models that we can we apply in our lives, teams, communities or organizations.

Individuals and Families

Current PER >

- Anxiety
- Courage
- Fear
- Trauma
- Reverence

Potential >

- Kvell
- Optimism
- Love
- Sisu
- Surprise

Preferred

- Courage
- Reverence
- Kvell
- Optimism
- Love

Team, Communities, Organizations

Current PER >

- Stress
- Doubt
- Hope
- Trauma
- Resolve

Potential >

- Kvell
- Optimism
- S'apprivoise
- Trust
- Hywl

Preferred

- Hope
- Resolve
- Optimism
- S'apprivoise
- Hywl

Once we have identified the preferred emotions we would like to experience, we can apply the **Two Tools to Build Positive Emotions**.

Tool #1 Pylon Negative Emotions

The speed with which our brain predicts the future makes it hard to alter those predictions, but not impossible. In *Being You: A New Science Consciousness*, Anil Seth observes how an aspect of what it means to be human is to believe we could have done something “otherwise.” Seth shares how he drinks tea, but he could choose to drink “otherwise” tomorrow and make a pot of coffee.

The ability to believe we can do something “otherwise” is a manifestation of our free will and capacity to make choices and to change our lives. But Seth cautions, “The feeling that I could have done differently, does not mean that I actually could have done differently. Rather... in a future similar, but not [an] identical situation I might indeed do differently.” **How we change what we will predict emotionally is to apply the tool of Pylon Negativity.**



William James (1842-1910) is considered one of the founders of modern psychology. In his groundbreaking book, *Principles of Psychology*, James reflects upon the link between thought and action where he claims there exists a space he calls “block and release.”

Meaning, our brains at times create a block between thought and action. James observes how we might decide *not* to get out of bed on a cold morning, until suddenly we do. Something was blocked between thought and action, until it was released.

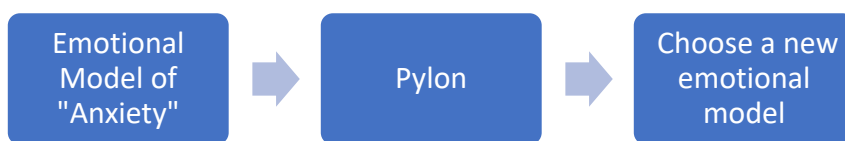
To predict differently, we need to learn how to “block” emotional models we want to re-design or to discard in our current Predictive Emotional Repertoire, so new ones in our Preferred PER can be released.

A way to imagine this block, or “roadblock,” has been proposed by Alvara Pascual-Leone, professor of Neurology at Harvard Medical School.

Described in Norman Doidge’s book, *The Brain that Changes Itself*, Pascual-Leone invites readers to imagine our brain as a mountain with multiple ski runs. The more we choose one run over others the slicker and faster it becomes. Similarly, the more we chose an emotional model over others, the more grooved that model becomes. To change a habit (or an emotional model), Pascual-Leone suggests we identify a “roadblock” and place it in front of runs in our brain we do not want to take.

EAC uses the image of a Pylon for this “roadblock.”

A Pylon on a street informs us to take another route. A Pylon in a parking space tells us to find another one. A Pylon tells us to go another way.



Habit Reversal Therapy

In *The Power of Habit*, Charles Duhigg describes how a pylon functions in what is called “Habit Reversal Therapy.”^v Duhigg writes how a college student named Mandy wanted to stop biting her nails. The therapist asked Mandy what sensation she felt before biting her nails. She answered “tension” in her fingers. The therapist asked Mandy in the coming days to take an index card and to mark every time she felt that tension.

A week later Mandy returned and the card had 28 checks. The therapist then identified a roadblock for Mandy, called a “competing response,” that she would engage every time she felt tension in her fingers. Duhigg writes,

The roadblock would be to put ‘her hands in her pockets or under her legs, or grip a pencil or something else that made it impossible to put her fingers in her mouth. Then Mandy was to search for something that would provide a quick physical stimulation—such as rubbing her arm or rapping her knuckles on a desk—anything that would produce a physical response.

When Mandy returned for her next appointment she had made seven marks on the card for the “competing response” and only three to indicate she had bitten her nails. As a reward for successfully blocking this habit, Mandy got a manicure. In a month the habit of biting her nails was gone. The “competing routines” had become automatic. One habit replaced another. A pylon placed in front of the ski run of biting her nails enabled her to build a new habit, a better path.^{vi}

The concept of placing a pylon in front a negative emotional model and creating competing responses also applies to teams, communities and organizations.

Sigal Barsade was Professor of Management at Wharton School at the University of Pennsylvania and researched how emotions are contagious and can affect the culture of a workplace. Stress and anxiety can spread within an organization and become habitual, like biting one’s nails. As “competing responses,” Barsade proposed an organization could identify emotional values that employees agree to strive towards together, such as “happiness” or “joy,” and to include them in a mutually agreed upon mission statement. Or an organization might identify positive emotional categories in an employee review process and invite employees to track how well they create and share those emotions in a process similar to marks Mandy made on her index card.



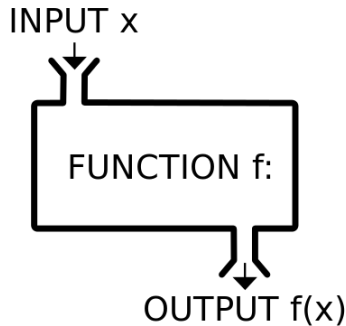
Functional Positivity

Members of the *EAC* team were having coffee with a good friend and shared how the latest research reveals emotions are constructed and this insight can help people live with more positive emotions. He responded, “that sounds like... *functional positivity*.” We asked if he had just made up that phrase, he nodded and said “I think so.”

EAC believes the concept of **Functional Positivity** is a helpful way to explain what to do after placing a pylon in front of a negative emotional model.

To understand **Functional Positivity**, it helps to remember how a function works.

A function has three elements: inputs, the relationship they have to each other, and an output. An input might be the number 1, the relationship x^2 , and the output will be 2. If the input is 7, the relationship x^3 , the output will be 21. Here is an illustration of how a function looks:



The concept of Functional Positivity can help people, teams, communities and organizations visualize that after we have identified a Pylon and blocked a negative emotional model, we need to increase how often we think about and apply a new positive emotional model. We might decide to place a Pylon in front of the emotional model of anxiety and replace it with the emotional model of trust. Here is how that function looks:

x=thoughts

p=positive emotions (trust)

n=negative emotions (anxiety)

$$p(x+1) - n(x) = \text{Functional Positivity}$$

This function illustrates that if we engage a positive emotional model *one time more* than the negative thought or model we begin to groove that thought and model into our brain.

Studies vary, but it has been suggested an even more effective ratio is to engage a positive thought or emotion three times as often as a negative. Dr. John Gottman, who researches relationships, suggests the best ratio is 5 to 1. Here is how that appears in the format of a function.

x=thoughts

p=positive emotions (trust)

n=negative emotions (anxiety)

$$p(5x) - n(x) = \text{Functional Positivity}$$

Author Charles Duhigg observes how “every habit, no matter its complexity, is malleable. The most addicted alcoholics can become sober. The most dysfunctional companies can transform themselves.”

How we evolve our current PER to our preferred PER is to place Pylons in front of the emotional models we wish to re-design or to discard and to focus our attention repeatedly and increasingly on those we do wish to apply. This brings us to tool of ABCD Positivity.

Tool #2 ABCD of Positivity

We build and reinforce the emotional models we want to apply to our lives, teams, communities and organizations through the tool of ABCD Positivity. This tool invites us to -

- A= Anchor and Adjust
- B= Broaden and Build
- C= Cultivate and Construct
- D= Delight, Strength and Purpose

Anchor and Adjust

First impressions often stick when we interview for a job or hire a new employee. We remember the first time we saw our partner or spouse at a party. Studies show we are susceptible to being influenced by the first price we see for a home or the highest price on a menu. Names can also influence us. David Myers in *How Do We Know Ourselves* shares how -

- People tend to marry someone whose first or last name resembles their own.
- If you compare the city of Philadelphia to Jacksonville, Jacksonville has 2.2 times more people named Jack, and Philadelphia 10.4 times more people named Philip.
- Our names also guide us towards professions. Dentists are twice as often named Dennis.

In *Thinking Fast, Thinking Slow*, Daniel Kahneman describes how our brains are wired to “anchor” the first data point, information, image, or emotion it experiences and subconsciously confirm that first impression by what is called “adjusting.”

A way we can build and reinforce the emotional models we want to apply is to consider them as an “anchor” from which we emotionally “adjust.”



Along with his being considered one of the founders of modern psychology, William James is known for his maxim: “Be not afraid of life. Believe that life is worth living, and your belief will help create the fact.”

James claimed that attitude during a time where he seriously contemplated suicide. At stake for James was whether he believed he had the freedom to choose his future or if his life was already determined. After walking to the edge of ending his life, James pivoted and wrote in his diary that for upcoming year he would claim he possessed free will and within that choice believe his life could get better. He called this his “live hypothesis.”

In the next year, James would marry the love of his life, teach in a Harvard classroom, and begin significant relationships with people like future Supreme Court Justice Oliver Wendell Holmes. James would go onto write books that transformed how we view psychology and religion. Summing up his choice to anchor his life in “belief,” James wrote how “surely this freedom and joy are at best a fluke,” but they were not; freedom and joy were now anchors from which he adjusted his life, rather than depression and fear.

The two co-founders of *EAC* had a similar experience. During a particularly difficult time in their lives they decided every morning to rate how they felt on a scale of 1-10. What they discovered was the person who offered the first number often impacted the response of the other.

One morning the person who spoke first said she felt “like an 8,” even though it was clear she did not feel that cheerful. But the number 8 became an “anchor” and the other person responded, “I’m an 8, too!” That night they reflected how they both felt more optimistic and cheerful that day compared to previous ones and had experienced the impact of “anchor and adjust.”

As we review our Preferred Emotional Repertoire, we can identify specific emotional models around which we want to “anchor and adjust” our lives. *EAC* offers anchoring tools such as email and texting notifications, along with an app, to begin the day with reminders of how we would like that day to unfold emotionally.

Broaden and Build

Barry Lopez, a National Book award winner, embarked on journeys with Indigenous people in places such as Alaska. He learned from those experiences how, “Indigenous people observe: They pay more attention to patterns in what they encounter than to isolated objects.”

In his essay “The Invitation,” Lopez offers as an example an encounter with a grizzly bear eating a caribou. While he saw the bear as a “noun,” Indigenous people saw it as a “verb” and would instinctively “situate the smaller thing within the larger thing...[they] noticed trace odors in the air... the sound of brittle brush rattling, [and]... extended the moment of encounter... before we arrived, as well as the time after we left.” Lopez shares how Indigenous people taught him to see a bear as an invitation, a point of entry, into more fully understanding himself and the world.^{vii}



Barbara Fredrickson, Professor of Psychology at the University of North Carolina, makes a similar point how a positive emotion can be perceived is an invitation, a point of entry, into experiencing other positive emotions. She calls this theory of emotions, “Broaden and Build.”

Frederickson's insight is that whenever we experience a positive emotion, we need to be open to perceiving it as a pathway to exploring *additional* positive emotions. Fredrickson writes:

Joy, for instance, creates the urge to play, push the limits and be creative... [the emotion] interest... creates the urge to explore, take in new information and experiences, and expand the self in the process... These various thoughts– action tendencies—to play, to explore... represent ways positive emotions broaden habitual modes of thinking or acting.

Engaging in positive emotions, Frederickson maintains, increases our “thought-action repertoires,” while negative emotions narrow those repertoires. As evidence, Fredrickson describes a research project she designed where college students when prompted with positive emotions throughout the day exhibited greater resilience than those who were not prompted. Fredrickson also points to a long-term study of 180 nuns and how those who expressed positive emotions throughout their lives in diaries lived on average 10 years longer than those who did not.

As we focus on models from our Preferred Predictive Repertoire, paying attention to the possibility of feeling additional positive emotions can broaden and build our repertoire.

Cultivate and Construct

Kyle Scheele had an idea; to say goodbye to his 20s he would build a 16-foot cardboard Viking funeral ship. Scheele shares how he was motivated by a quote from British philosopher Alan Watts, “You are under no obligation to be the same person you were five minutes ago.”

Kyle describes how he sat down at his kitchen table and at first created a “Marquette,” a French word that means “model.” The ship was harder to build than he thought, but once completed he invited friends and family to help him set it on fire. A video of Kyle's Viking ship went viral.

Then the idea occurred to Kyle, maybe others would want to do the same thing: set fire to a certain time in their life and burn to ashes feelings of grief, regret, and memories of mistakes. This second Viking ship was 30 feet long. When Kyle invited people to write and to email what they wanted him to place inside the ship over 25,000 people responded. They sent notes regarding emotions and memories they wanted to incinerate like -

- Get rid of my thoughts about being abused;
- The person that almost killed himself last summer;
- The constant feeling that I'm not good enough and the anger that comes with it.

After the ship burned, an article describes how Kyle “stood by the ashes and cried and said he was experiencing ‘Feelings, a lot of feelings.’”^{viii} Here is photograph of the second Viking Ship.



Lisa Feldman Barrett encourages readers to perceive how every new experience we cultivate and construct in our lives is “an investment” in our emotional future because tomorrow we can draw upon that experience, memory, model, as we construct emotions.

To engage in that process, we might need to “block” an emotional model with a Pylon or even to throw a season of our lives into a Viking funeral ship. An article on people who set fire to their ship and constructed a new life with healthier emotional models included these inspiring examples:

- A man laid off at 53 from a senior management position realized his lifelong dream was owning his own restaurant and 18 years later remarked that he couldn’t be happier.
- At 46, a woman left a career of being a third-grade teacher that was making her miserable with stress and became a psychotherapist.
- A woman left her six-figure job in a toxic environment and moved into a cabin in the woods where she “unpacked her emotions.” She later began a new career in the recreation industry. One day she met a seaplane pilot and eventually started her own bath and beauty company that became an international brand.^{ix}

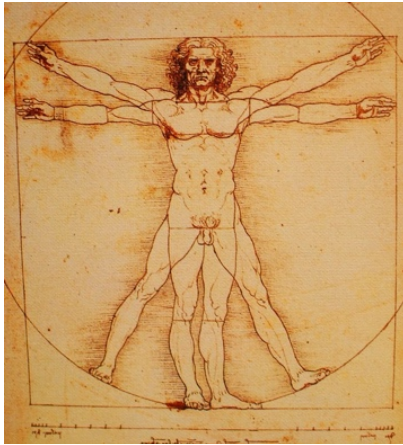
What we build after our Viking ship burns could be as life-changing as starting a new career. It could also be signing up for a ballroom or sailing class. Barrett writes, “Cultivate the experiences you want to construct again in the future.”

Delight, Purpose and Strength

A play typically has three acts; a song three verses and a chorus; a building a foundation, walls, and a roof. The 4th tool to build and to reinforce positive emotional models is to create what *The Emotional Architecture Center* calls the **Triangle of Positivity**.

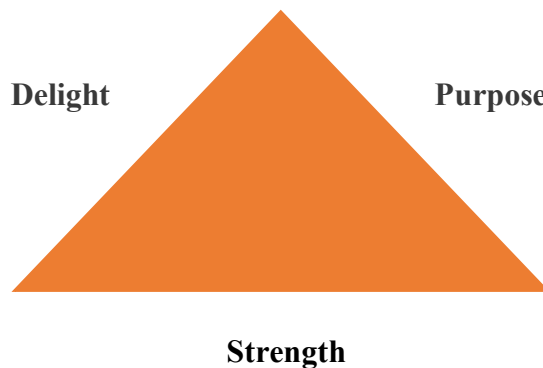
Triangles have been used before as educational tools. In 1943, Abraham Maslow published a paper on “The Theory of Human Motivation,” that was turned into a triangle. The UCLA basketball coach John Wooden spent years considering traits that define a successful person and in 1948 created the “Pyramid of Success.”

EAC uses as inspiration for its **Triangle of Positivity** the work of Vitruvius (1st Century B.C.), considered the first architect to write in detail how to construct a building. His book *De architectura*, or *The Ten Books of Architecture*, was rediscovered during the Renaissance. Leonardo da Vinci applied Vitruvius’ principles to create a famous rendering of the human body, the Vitruvian Man.



Vitruvius proposed that there are three fundamental principles architects need to follow to successfully construct a building. In Latin they are *firmitas, utilitas, and venustas*.

They have been historically translated as “firmness, usefulness and delight.” *EAC* translates Vitruvius’s three laws of construction as **Delight, Strength, Purpose** and offers them as tools to build positive emotional models into our lives.



How the **Triangle of Positivity** works is it invites a person, team, community, or organization to use the **Menu of Emotional Models** and a **Preferred Emotional Repertoire** and identify specific emotions in those three structural and design categories.

An emotional model that creates Delight might be *wonder*.

An emotional model that provides Purpose might be *inspiration*.

An emotional model that fosters Strength could be *resilience*.

Identifying these emotional models creates a foundation upon which to build a day, and in building a day we build a life, a team, a community, an organization.



Moshe Safdie is considered, along with Frank Gehry, one of our finest architects having designed buildings such as the Jewel in the Singapore Airport.

In his autobiography, *If Walls Could Talk: My Life in Architecture*, Safdie writes, “There is a mystery at the heart of architecture just as there is mystery in the meaning of life. Life and architecture are bound together and the principles that guide one as an architect cannot be separated from the principles that guide one as a human being.”

The Emotional Architecture Center could not agree more.

In the last decade, groundbreaking research has revealed emotions are not created from the *outside in* as events occur around us, but from the *inside out*. Emotions don’t happen to us, we *create* them. Neuroscientist Lisa Feldman Barrett calls this “a revolution in our understanding.” *The Emotional Architecture Center* utilizes these new insights to offer tools to build emotions that lead to wellbeing and success. Let us now show you how.

Appendix:

Predictive Emotional Repertoire for Individuals and Families

Q1

What three major emotions do you experience most frequently during the day? *Rank the intensity of each emotion on a scale from one to 10.*

Q2

When you are at work, volunteering, or engaged in activities that structure your day, what three emotions do you experience most frequently? *Rank the intensity of each emotion on a scale from one to 10.*

Q3

When you face a deadline, a stressful situation, or conflict, what three emotions do you experience most frequently? *Rank the intensity of each emotion on a scale from one to 10.*

Q4

When a new opportunity presents itself, what three emotions do you experience most frequently? *Rank the intensity of each emotion on a scale from one to 10.*

Q5

In your closest relationships what three emotions do you experience most frequently? *Rank the intensity of each emotion on a scale from one to 10.*

Q6

When you are in a social situation, what three emotions do you experience most frequently? *Rank the intensity of each emotion on a scale from one to 10.*

Q7

When you consider the people, tasks or organizations to which you are devoting the most time and energy, what three emotions do you experience most frequently? *Rank the intensity of each emotion on a scale from one to 10.*

Q8

When you are in the presence of beauty, what three emotions do you experience most frequently? *Rank the intensity of each emotion on a scale from one to 10.*

Predictive Emotional Repertoire for Teams and Organizations

Q1

What three major emotions does your team or organization experience daily? *Rank the intensity of each emotion on a scale from one to 10.*

Q2

When your team or organization faces a deadline, a stressful situation, or conflict, what three emotions does it experience most frequently? *Rank the intensity of each emotion on a scale from one to 10.*

Q3

When a new opportunity presents itself, what three emotions does your team or organization experience most frequently? *Rank the intensity of each emotion on a scale from one to 10.*

Q4

As your team or organizations relates to each other at work, what three emotions does it experience most frequently? *Rank the intensity of each emotion on a scale from one to 10.*

Q5

When your team or organizations is in social situation and not at work, what three emotions does it experience most frequently? *Rank the intensity of each emotion on a scale from one to 10.*

Q6

When your team or organization considers to what it devotes its time and energy as it relates to its purpose or mission, what three emotions does it experience most frequently? *Rank the intensity of each emotion on a scale from one to 10.*

ⁱ <https://www.cdc.gov/nchhstp/newsroom/fact-sheets/healthy-youth/sadness-and-violence-among-teen-girls-and-LGBQ-youth-factsheet.html>

ⁱⁱ <https://www.apa.org/news/press/releases/stress/2022/concerned-future-inflation>

ⁱⁱⁱ <https://www.gallup.com/workplace/349484/state-of-the-global-workplace-2022-report.aspx>

^{iv} Emotions from other cultures are drawn from the work of Tiffany and <https://www.inc.com/jessica-stillman/learning-these-20-foreign-words-for-emotions-you-never-knew-you-had-will-increase-your-eq.html>

^v Please see Duhigg's book for further explanation and updates on this model of therapy.

^{vi} Other kinds of potential Pylons include:

1. Repeat a word such as "block" or "stop."
2. Sing a song such as "Happy."
3. Memorize a random sequence of numbers.
4. Imagine a favorite place in the world.
5. Remember a favorite smell.
6. Find a physical inhibitor like running your hand under cold water.
7. Draw the emotional model you want to apply in your life.

^{vii} Excerpt from *Embrace Fearlessly the Burning World* by Barry Lopez

^{viii} <https://www.news-leader.com/story/news/local/ozarks/2019/12/20/artist-burns-viking-ship-cardboard-art-project/2664323001/>

^{ix} <https://www.rd.com/list/never-too-late-change-your-life/>