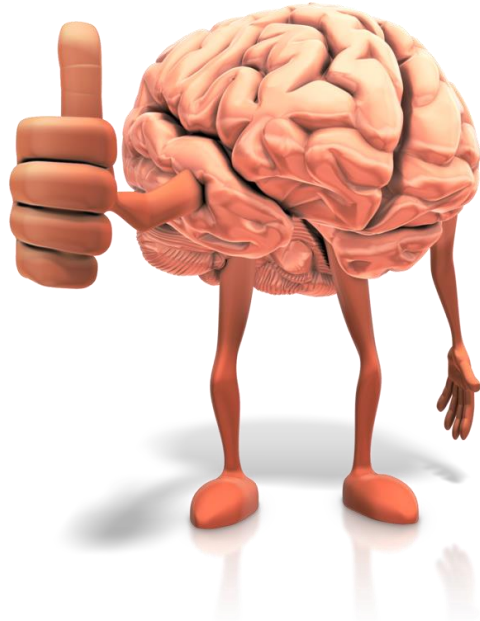


The Neuroscience of a GROWTH MINDSET



TxSOC & CRCG Conference
Building Authentic Connection
Reconnecting • Reimagining • Revitalizing

**Texas System of Care (TXSOC)
&
Community Resource Coordination Groups (CRCG)**
2023 Conference
“Building Authentic Connection”

Thursday, July 27, 2023

Closing Keynote

Commons Conference Center
10100 Burnet Road, Building 137
Austin, Texas 78758

Presenter:

Karen Williams

karenwilliamsbrain@outlook.com

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This presentation was prepared especially for this audience...to be delivered in **less than an hour...**

...therefore it includes some **additions** & is also **missing** some of the original content.

There is a “**two-up**” **electronic handout**, and you are all welcome to use any of the slides.

NOTE:
Not all the slides will be presented, but they are all included in the Handout.



A **mindset** is a set of **core beliefs** that **color** how we make sense of this world, it cultures, institutions – & us.

Our **mindsets** – our **beliefs** - underlie our expectations, attitudes, motivations, & intentions - - & influence how we think, feel & behave in any given situation.

This session is about our
Mindsets/Beliefs
about
INTELLIGENCE...
our own & others'...

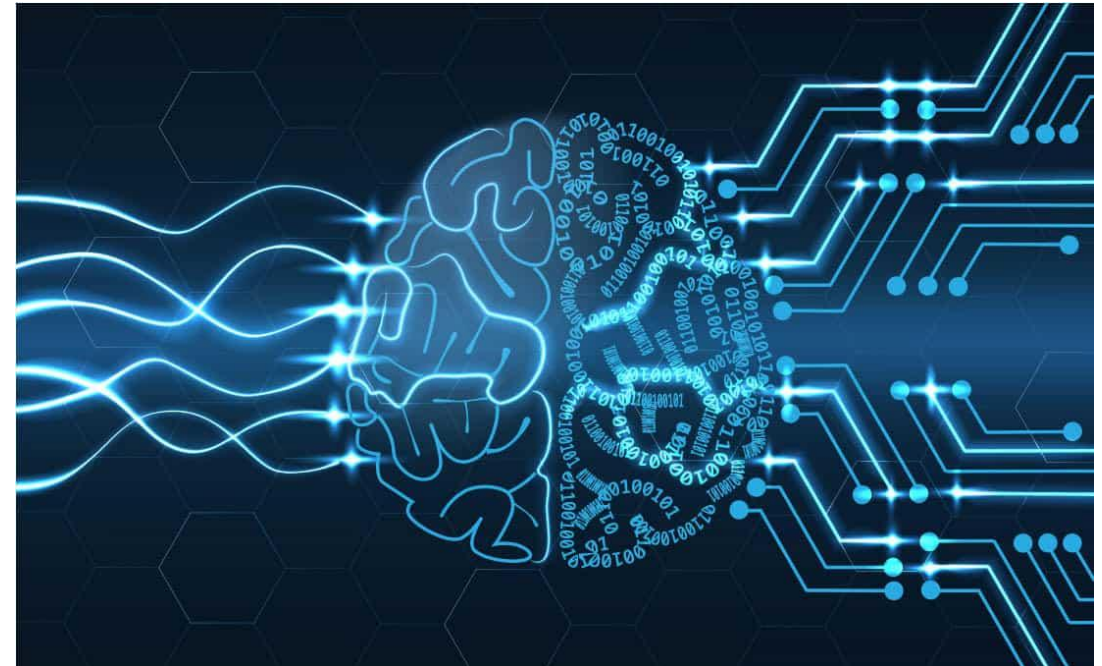
MINDSETS Affect:

- Sense of **Trust**
- Sense of **Safety**
- Self-Awareness
- Self-Esteem
- Expectations
- Motivations
- Attitudes
- Intentions
- Confidence
- Willingness to Work Hard
- Perseverance
- Resilience
- Willingness to **Accept Criticism**
- Willingness to **Accept Help**
- Willingness to **Ask for Help**
- Willingness to **Offer Help**
- **Respect for Others & Their Efforts/Success**
- **EMPATHY**

There are many...



There is currently an uproar about “artificial intelligence”.



“Frames of Mind”

Many of us already think of “intelligence” differently because of

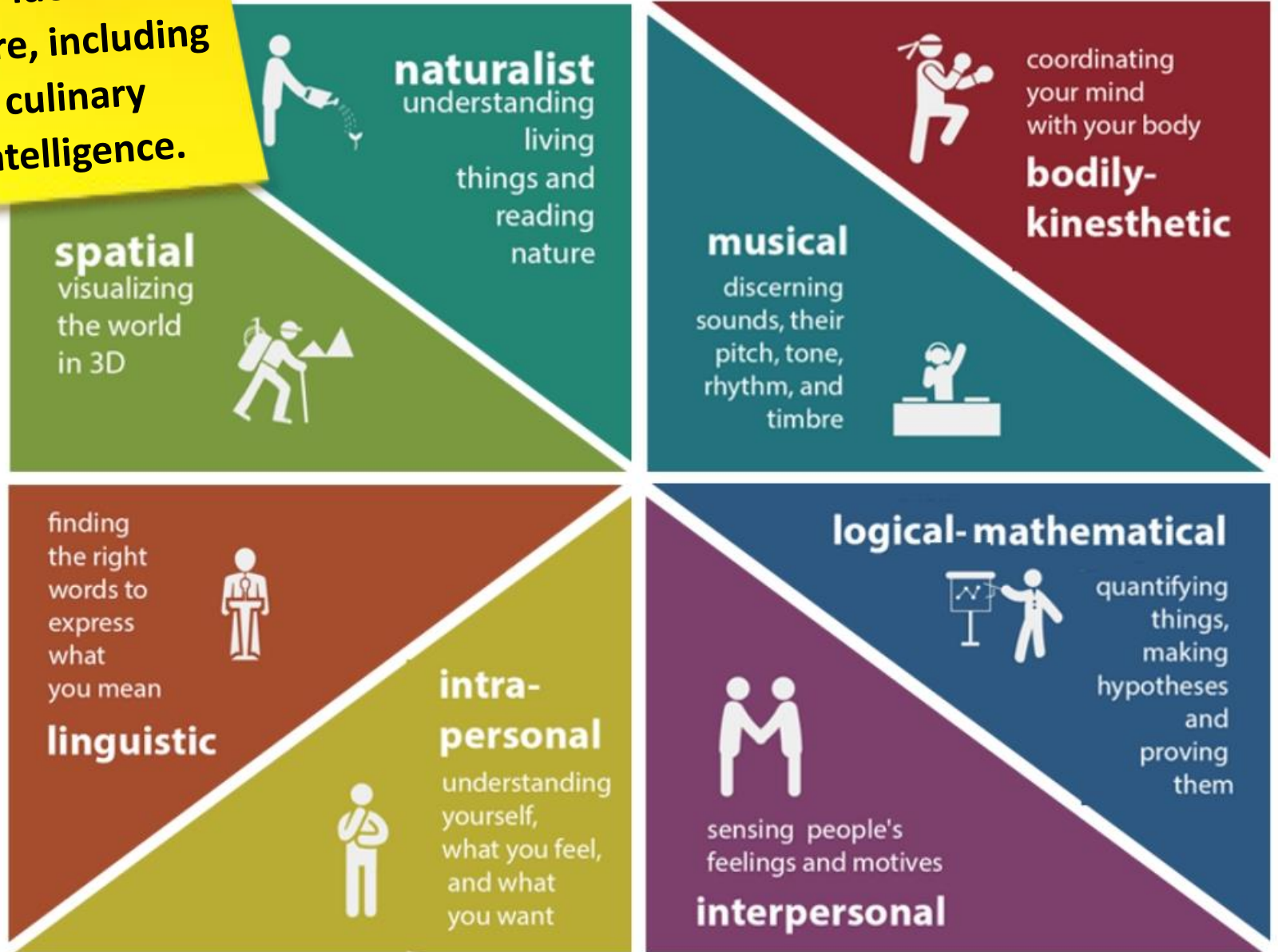
He identified more, including culinary intelligence.



Howard Gardner
author of:

Multiple Intelligences:

New Horizons, The Development and Education of the Mind





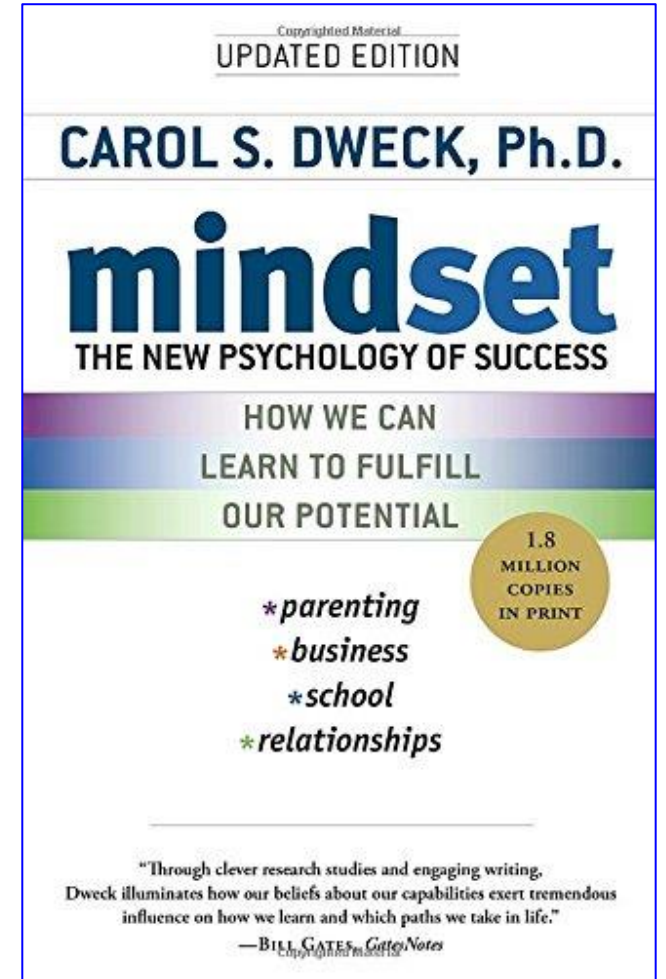
A
“Growth Mindset”
 vs. a
“Fixed Mindset”
 are terms
 coined by
**Carol Dweck,
 Ph.D.**

National Advisory Board Member of the Positive Coaching Alliance (PCA), the Lewis and Virginia Eaton Professor of Psychology at Stanford University, and author of

Mindset: The New Psychology of Success.

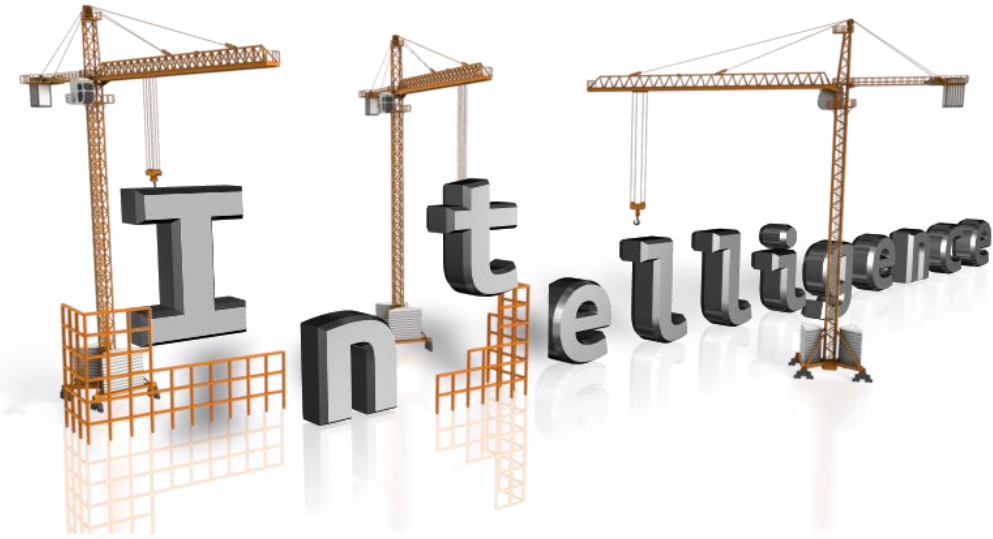


Her research showed that looking at **intelligence differently** allows us to have different **expectations** about what it is, how it works, & our expectations can drive processes in our brains that can **INCREASE our INTELLIGENCE ...**



&... change the way we work with others...

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Growth Mindset is defined as the “belief that human intelligence is *malleable and changeable and improvable*...

i.e., intelligence can be built, developed or **grown**...like a muscle...”

This is the viewpoint of neuroscience.



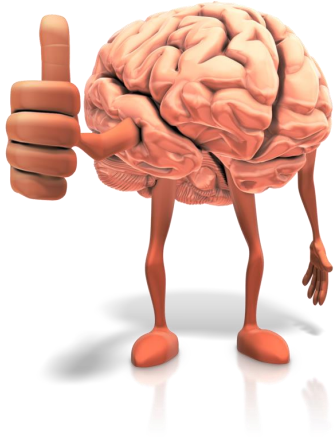
or



Fixed Mindset is defined as the belief that intelligence is “*innate and inherently stable - - and unchangeable over time*...”

i.e., you can improve a skill, but you are either smart or you ain’t!

This was underscored by the IQ Test.



Growth Mindset

VS.

Fixed Mindset



GROWTH MINDSET

came into view as neuroscience revealed that the brain grows only in the presence of challenge, and **the more we challenge it, s-t-r-e-t-c-h it and use it, the MORE it develops/grows!**

Dr. Dweck is a university professor, well aware of the findings of neuroscience, but...

she watched as students gave up and dropped out in alarming numbers - - and she thought to herself:

**Does what students
believe about “intelligence”
affect their ability to be
successful in school?**





Carol Dweck, Ph.D.

The next finding from her research was that

praise

(feedback that is intended to be helpful or beneficial)

can backfire!

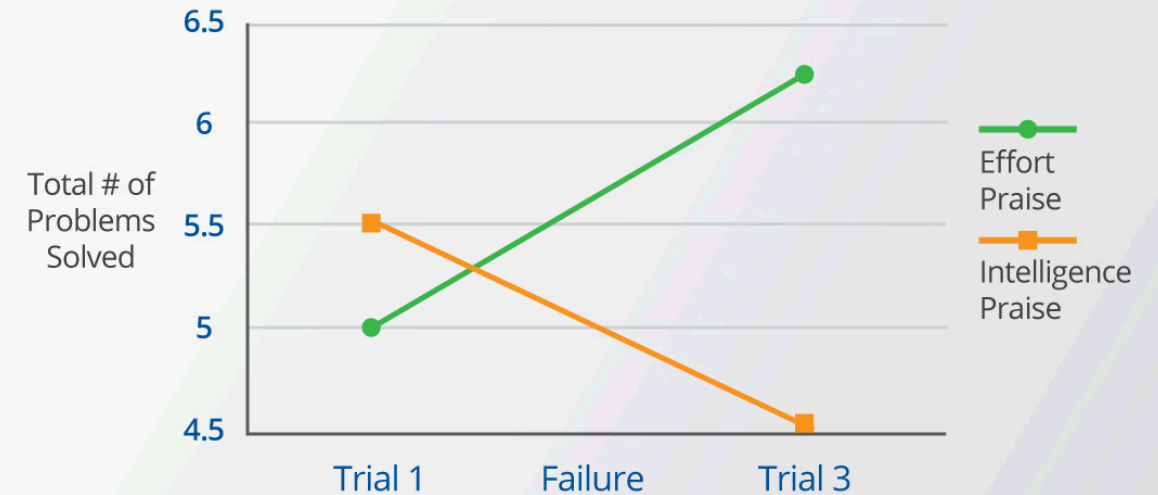
Praise that tells people they are *“smart”* actually leverages them toward a **FIXED MINDSET!**

However...

Praise for *hard work and effort* leverages them toward a **GROWTH MINDSET.**



Impact of Praise on Resilience After Failure



The study participants, who were praised for their hard work & effort, benefited in increased persistence & taking on additional challenges.

Feedback can build resilience & recovery – or just the opposite.



Carol Dweck, Ph.D.

NOTE:
Maternal praise messages start early...& have a profound impact on young children.

Mothers' praise during ages 1-3 predicts the mindset direction of their children five (5) years later.

Saying "Oh, you are so smart" is so quick & easy, & sounds like such an encouraging thing to say, but it undermines the courage it takes for someone to try something new with no guarantees that they will be successful. Courage is built on taking risks.

It takes adult time, interest and effort to notice - to observe - whether or not children have the basic skills that precede being successful... first at the really small tasks and then the bigger, harder tasks.

Early success breeds a willingness to try more difficult tasks - - & just to "try" more.

Parents (& child care staff) often discuss children's struggles in the child's presence, thinking the child is unaware - - but little ears hear - and are not able yet to fully interpret what is being said.

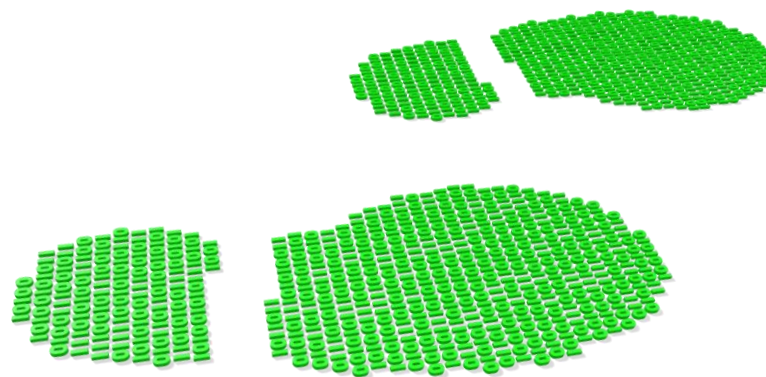
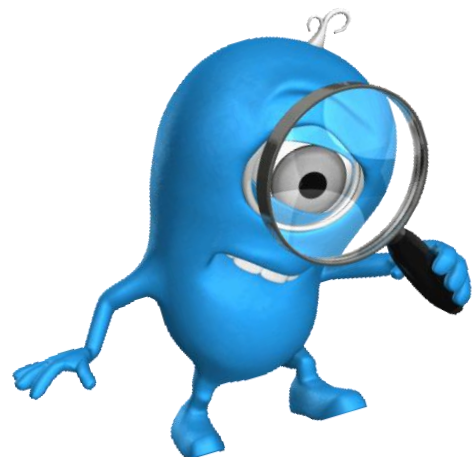
Much damage is done by parents & care givers without any intention of doing so.



“Does how we think about *“intelligence”* affect how *successful, empathetic, & helpful* we become?”

According to Neuroscience...

YES!



Neuroscience



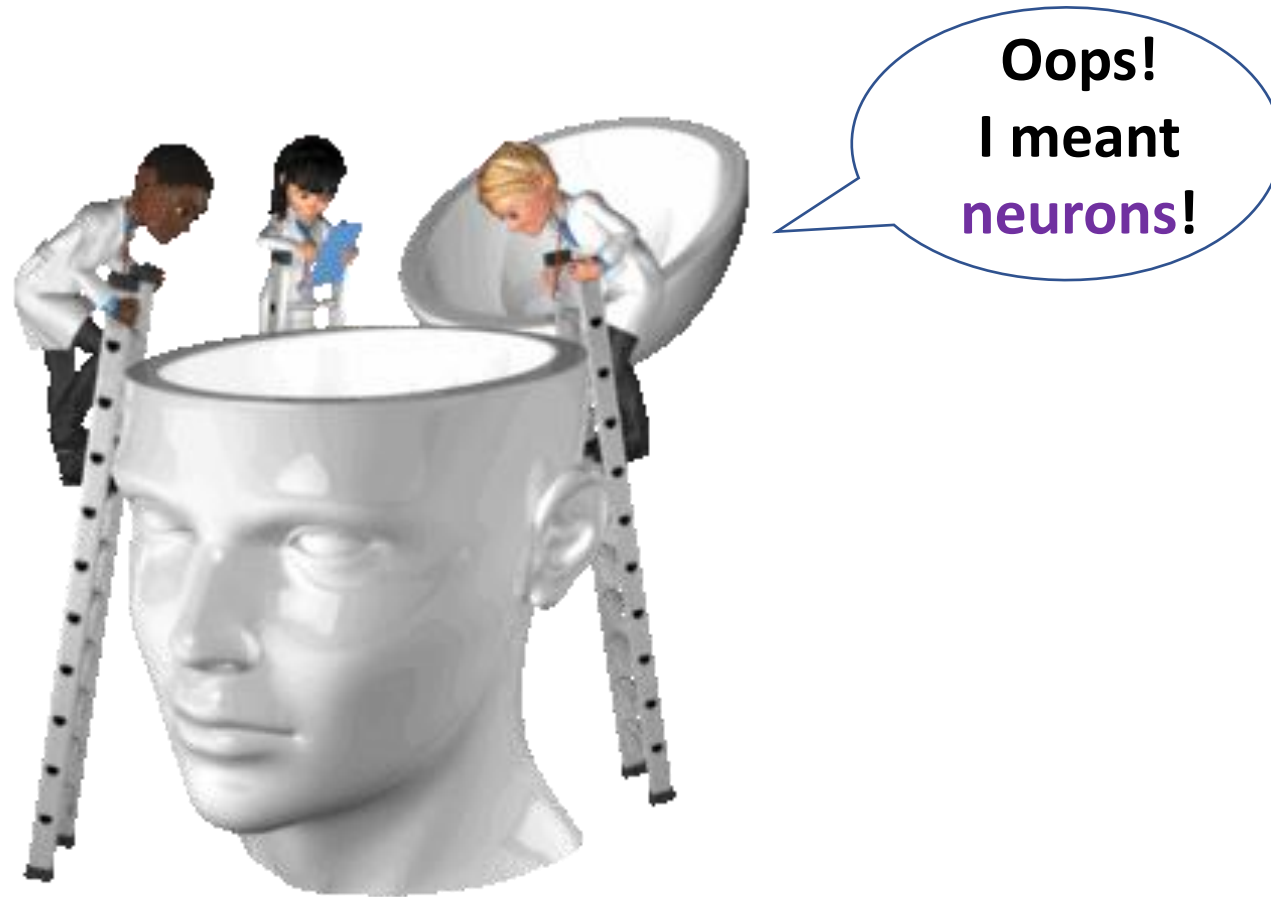
Systems of the Human Body:

1. **Skeleton**
2. **Muscular**
3. **Integumentary/Skin, hair, nails**
4. **Respiratory/Breathing**
5. **Cardiovascular/Blood Circulation**
6. **Digestion/Solid Waste Elimination**
7. **Urinary/Liquid Waste Elimination**
8. **Endocrine/Hormones**
9. **Hematopoietic/Lymphatic/Inflammation Control**
10. **Reproduction**

11. Nervous System – Our Neurons & Networks = communication between & coordination of all the other human body's systems.



Ooooooh – look -- nerves...



NIH, 2004, 2007, 2011

We have many different types of cells
in our bodies,
but our most important cells are:

Nerve Cells....

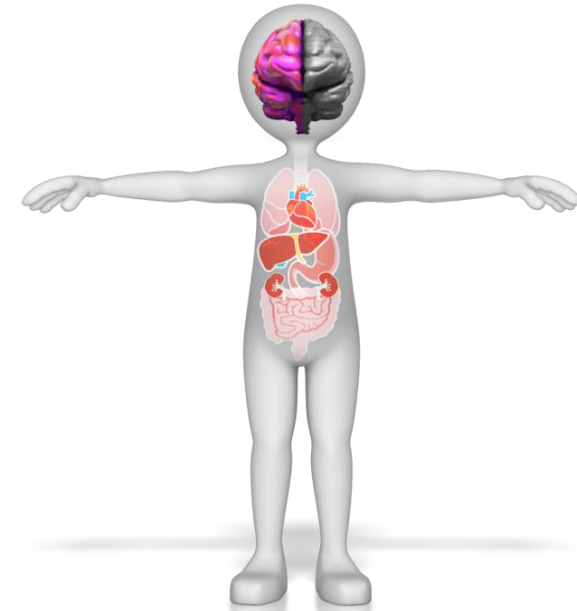


...our NEURONS.



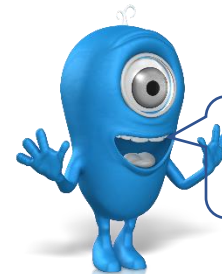
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Neurons are our **communication cells**
that allow all the other cells in
our body to work together.



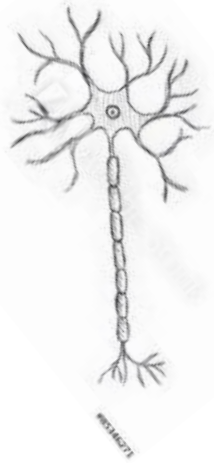
100 Billion
in our
BRAIN

Trillions
in the
rest of
our body.



Nuttin' works without Neurons!

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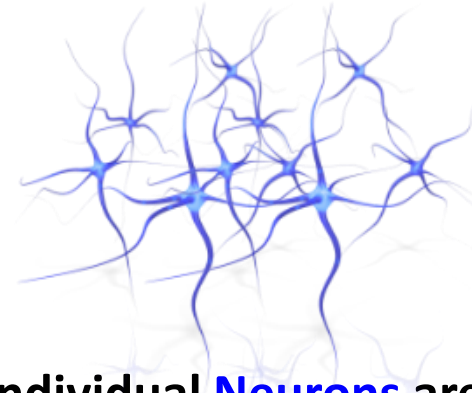
**Individual
Neuron**
(Once called a “Brain Tree”)

**Individual
Neurons**
work like individual microscopic
computers or cell phones.



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Neurons never work alone.
They work in **NETWORKS.**

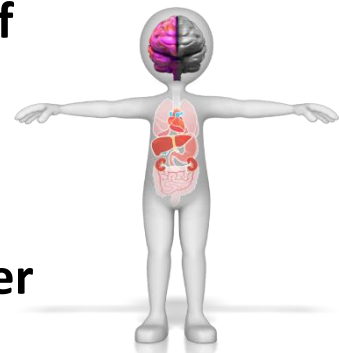


**NETWORK
of
Neurons**

Individual **Neurons** are linked together to form
NETWORKS for everything we
feel, learn, think, & do.



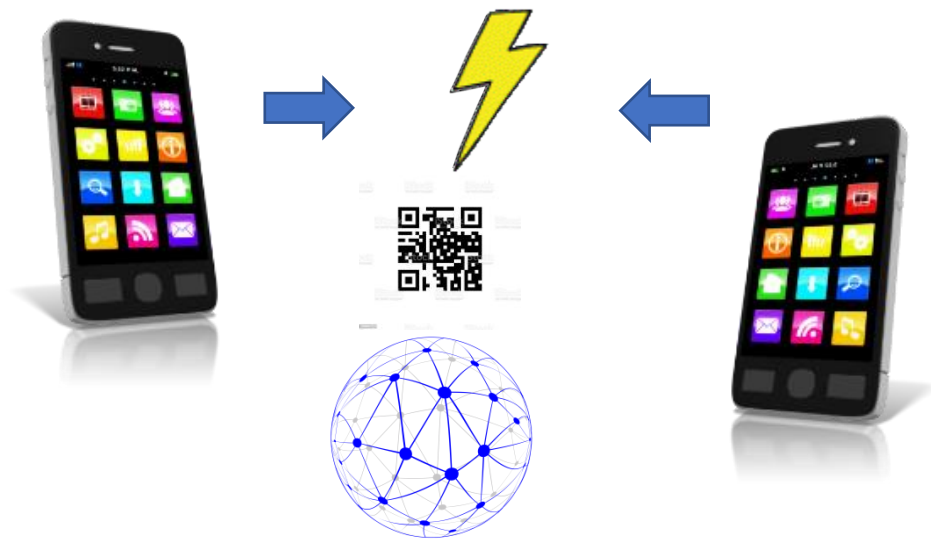
Different parts of
our body –
**our personal
“devices”** -
are linked together
in networks.



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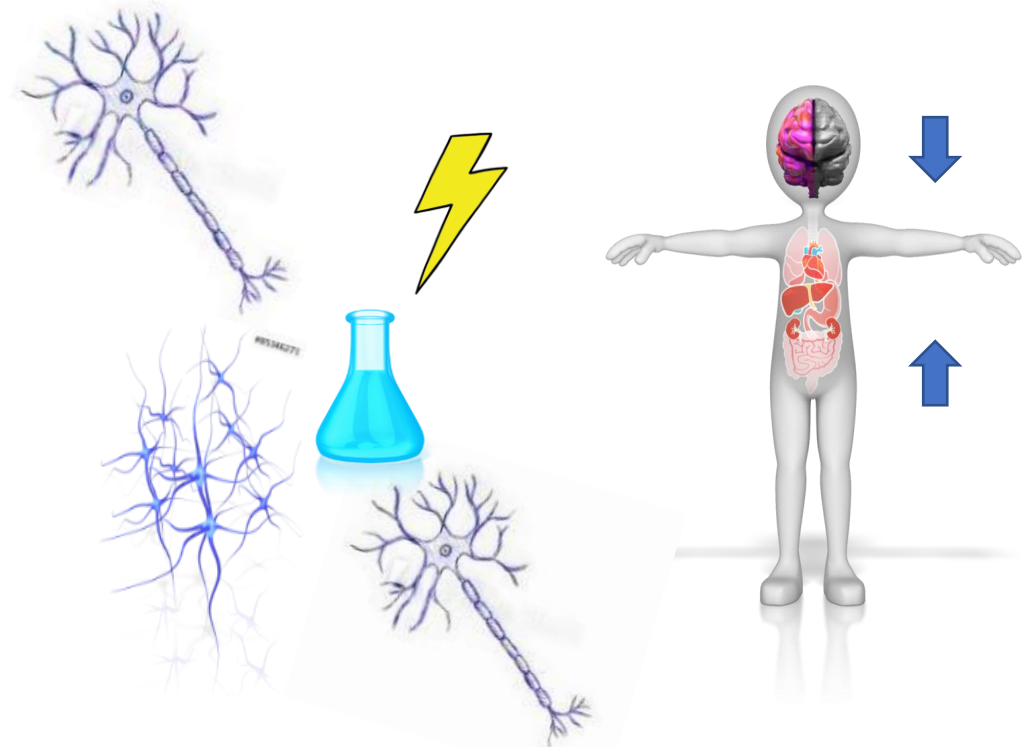
Computers and cell phones use
electricity and digital code
to send each other
messages.

Each message creates a new -
or strengthens an existing -
NETWORK.



Neurons use
electricity and bio-chemical code
to send each other messages.

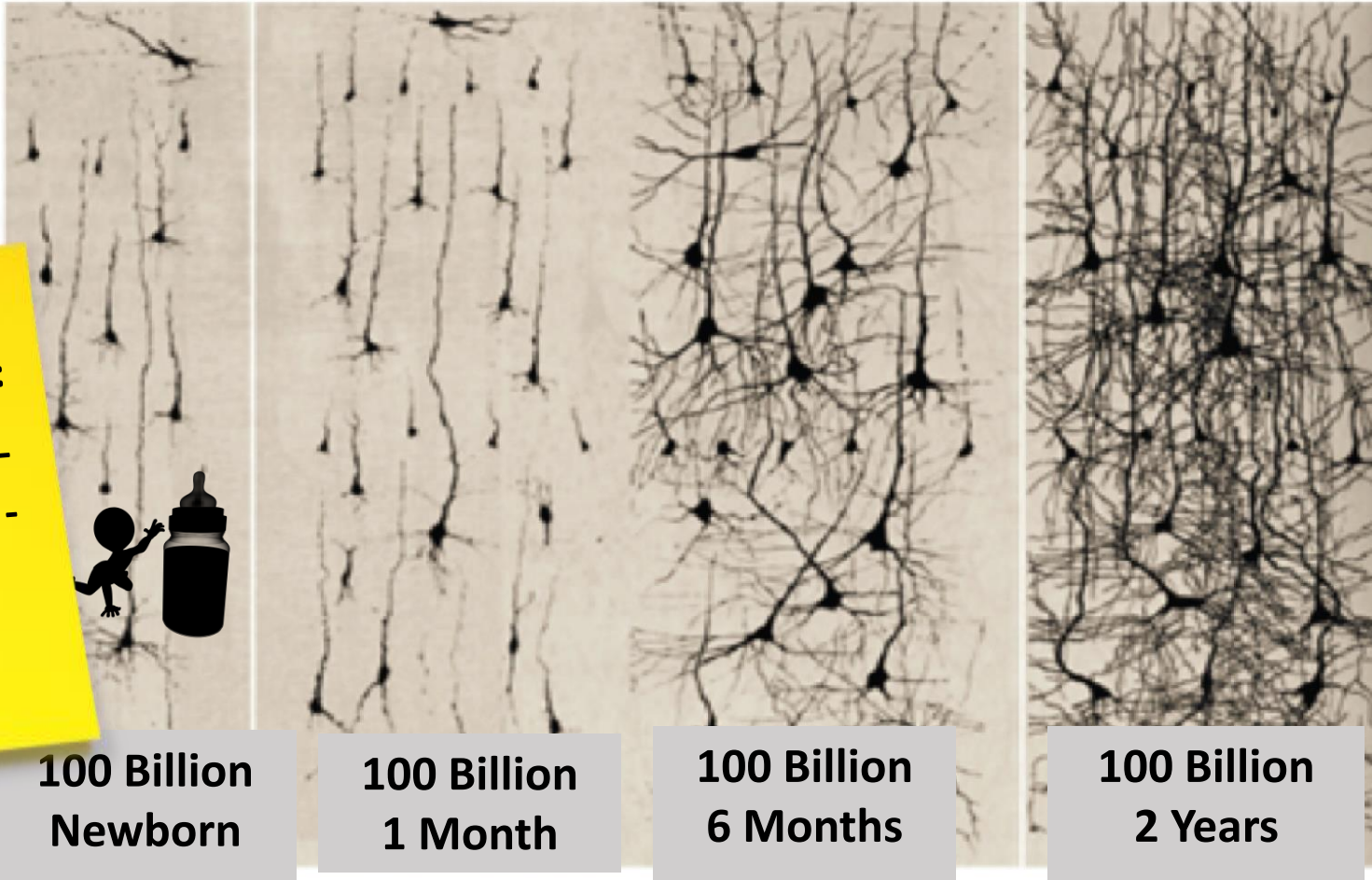
Each message creates a new -
or strengthens an existing -
NETWORK.



Experience/Stimulation Shape our Neural Architecture*

Wiring
(connecting)
neurons into
NETWORKS
IS
DEVELOPMENT.

Think of what an
infant can do at birth:
Leak, squeak, poop --
a limited repertoire --
It's neurons are
waiting to be
nurtured.



DRAMATIC GROWTH OF NEURONAL ARCHITECTURE FROM BIRTH TO 2 YRS

Source: "The Pediatricians Role in Addressing Childhood Poverty", David Keller

We arrive with
all our neurons,
but only
25% have
been
"pre-wired"
(networked).

The other
75% are
"waiting"
for life
to provide the
experiences.

***Networks**

NIH, 2004, 2007, 2011

One major reason for the increased vulnerability of Teens is “pruning” (network removal).

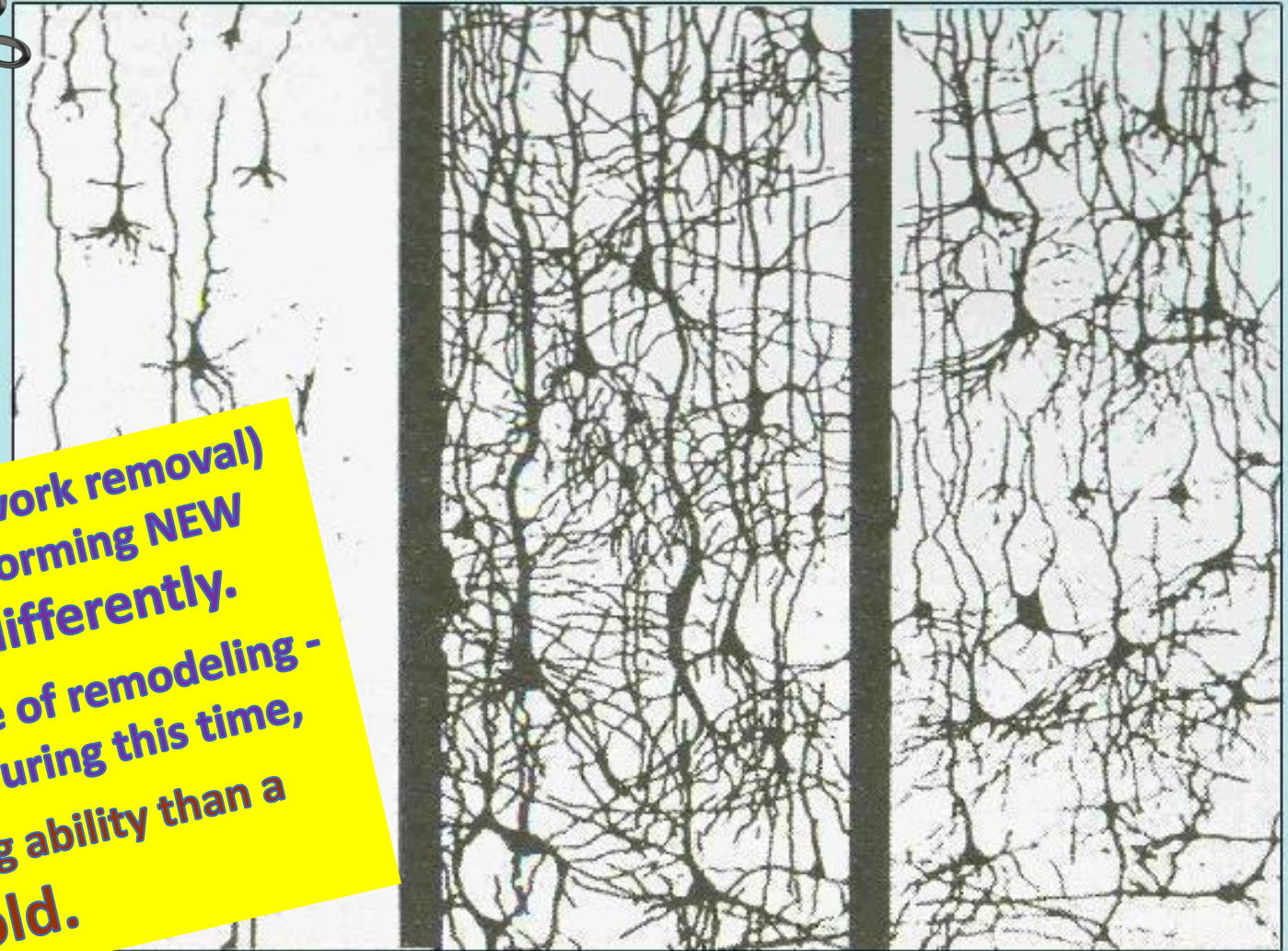
During the Teens, childhood’s **Concrete Thinking** is removed so *Abstract Thinking* can be built/developed.

Network Density at Birth, Age 6, and Age 14

At birth

6 years old

14 years old



At the height of pruning (network removal)
- Teens are starting over -- forming **NEW** networks to learn/think differently.
DNA has done the first stage of remodeling - **REMOVING** networks. During this time, Teens have less thinking ability than a **6-year-old.**

Source: Rethinking the Brain, Families and Work Institute, Rima Shore, 1997; Founders Network slide



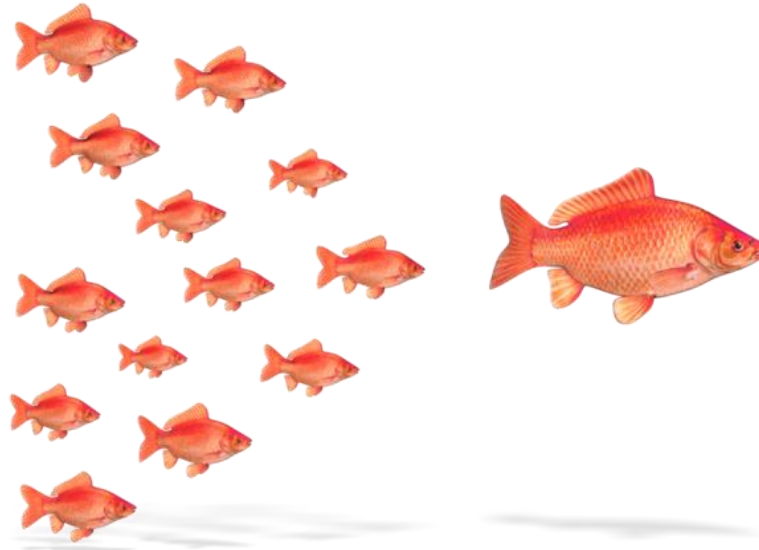
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Harvard’s Center on the Developing Child

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The neurons that are “working”/stimulated get “fed”.

Blood
Oxygen
Energy
(BOE)



Experience/
Memory/
Stimulation

Whatever we are doing is getting MOST of OUR BOE!

Worry, anger, etc. shifts BOE away from learning networks to our Fight, Flight & Freeze (3 Fs) networks.

Think of an infant with “failure to thrive”, i.e., a lack of stimulation, and it will make sense.

What we experience/remember either builds our learning networks – or starves them.

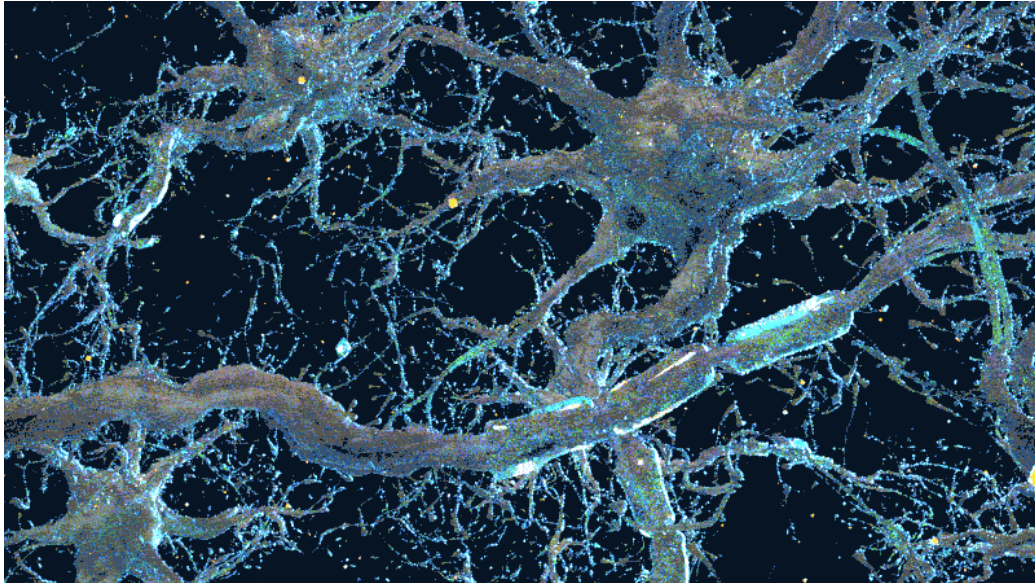
The neurons/networks that are *stimulated by experience* i.e., the neurons/networks that are *working*, get BOE.

Those that are not *stimulated*, **STARVE!**

Use it - or lose it!



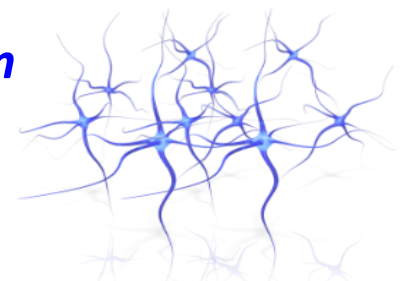
Our Nervous System's ability to develop, learn, change, grow & heal is called
Neuroplasticity.



Neuroplasticity, also known as “**brain plasticity**”, is the **biological and chemical capacity of the brain to *develop itself, i.e., change its structure/architecture, i.e., build/expand its networks* – depending on what it experiences - - i.e., we are **INCREASING OUR CAPACITY/POTENTIAL for LEARNING and INTELLIGENCE.****

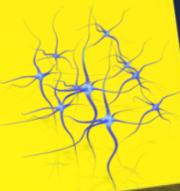
Neuroplasticity allows us to develop our neural networks in the first place, and when networks are injured or damaged, neuroplasticity allows us to ***repair/replace the damaged neural networks.***

That's how we recover from a stroke or concussion, etc.



Neuroplasticity:

Our **Networks** are
“plastic”, i.e., shapable,
i.e., easy to change/alter
– over & over –
like
Play-Doh!



“Structural Neuro-plasticity”

Each time we

REPEAT

our experiences/actions,
our neural connections
grow and get stronger.

BUT...

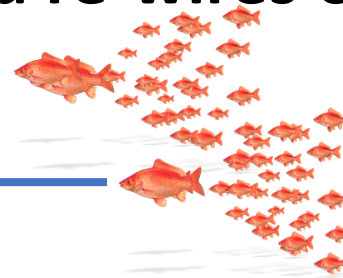
we can also change our
brain's architecture --
our brain's structure.

**NEW HABITS =
NEW NETWORKS!**

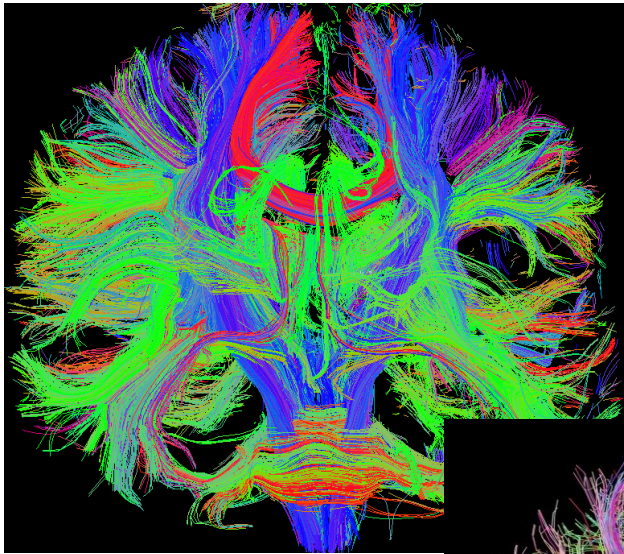
What we practice (repeat) wires and re-wires our brain.



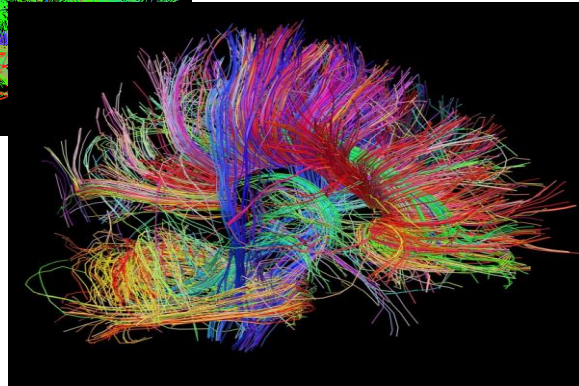
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Functional Magnetic
Resonance
Imaging (fMRI)



Functional Neuroplasticity: “To the rescue!”



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Functional Plasticity

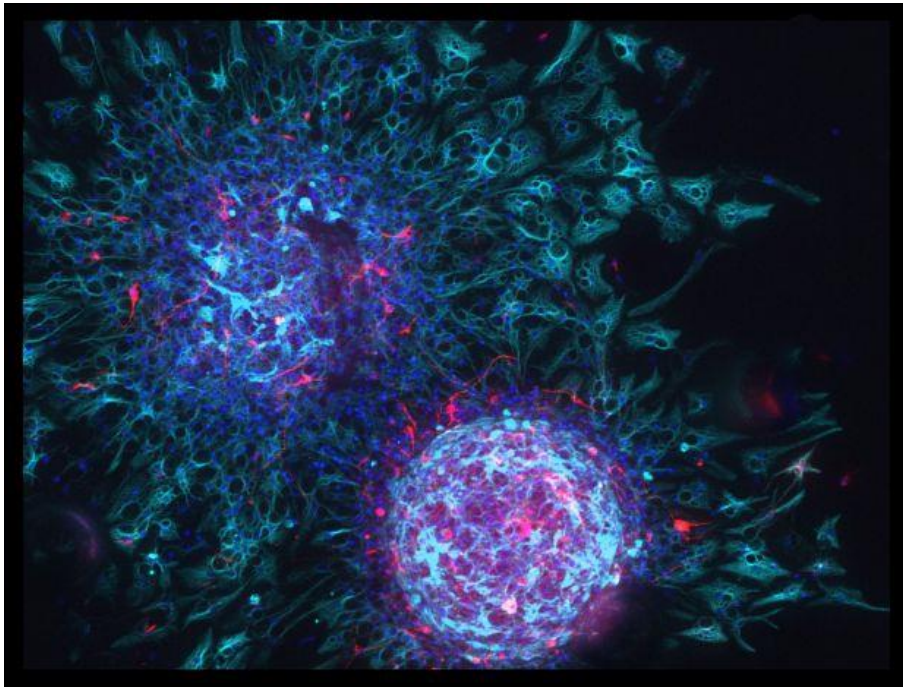
is the brain's ability to *move functions from a damaged area of the brain to other undamaged areas.*

After an area of neurons are injured, other existing neural networks that are inactive -- or used for other purposes -- take over and carry out functions lost because of the injury.

**Sometimes it happens spontaneously
(most frequently in younger people)
& sometimes in response to rehabilitation.**

Professors Paul Thompson and Arthur Toga lead the USC Mark and Mary Stevens Neuroimaging and Informatics Institute and its Laboratory of Neuro Imaging.

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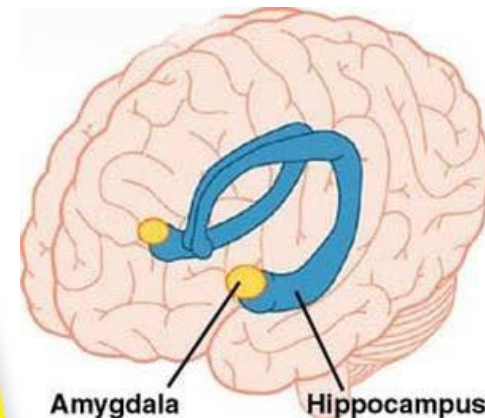
Neurospheres: microscopic views of neural stem cells

Neurogenesis

Our brain (especially our hippocampus), which is involved in memory functions & development, can produce *new stem cells, which can create more stem cells – or differentiate & become other specialized cells.*

Sometimes this happens spontaneously as part of development or as a result of rehabilitation.

Think of a STEM CELL as a blank CD or DVD -- it can be trained/programmed -- to be any kind of neuron...



NIH, 2018

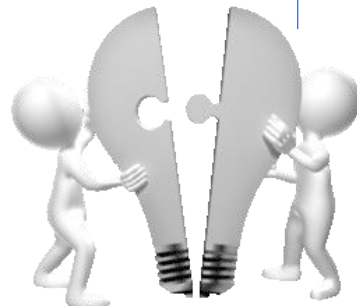


Humans learn, develop & heal
by looking for & finding:



Repeated & Consistent

- Explore (What's there?)
- Observe Models (Look/Hear)
- Seek Guided Experience (Show me how...)



Automatic Way “In”:



Mirror Neurons
“Observer Neurons”

What is observed is
**AUTOMATICALLY
STORED**
in our memory.



Say we were both having an MRI Scan of our brains.

You



You do an

**Actual
Activity**

while being
scanned

=

You have an

**Actual
Experience**

Me



I only

**Observe
you** while

being
scanned

=

I have a

**Virtual
Experience**



Our subsequent scans look alike; the same neurons were stimulated & wired/networked in both our brains.

Be **careful** what you **model**.
It **can wire** the brain of the
observer,
& **modeling** is the **most
powerful** way to teach!



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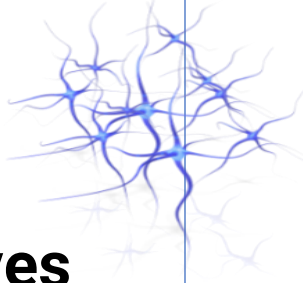
Practice (*repeating*)

is how we build “HABITS”.

Practice wires/re-wires us - -

i.e., builds & expands networks.

And...if we are trying to rid ourselves
of old habits & build new ones,
ignoring the old ones **starves** their
networks, while practice of new ones
feeds their **new networks.**



It’s a **S-L-O-W** process.

The average time to
reach automaticity*

**is 66 days with a
range of 18–254
days.**

*Done without
thinking...

Lally *et.al.*
(2010)

**SLOW
PROGRESS
IS BETTER THAN
NO PROGRESS**



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Learning a New Skill Requires:

1. CALM Demonstration/Modeling
2. CALM Explicit Instruction
3. CALM Coaching, PRACTICE...
4. CALM Positive Feedback
5. CALM Support, Encouragement

Repeat....repeat....repeat....repeat....

Practice.... practice...practice...

Until it is a **HABIT!**



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Often quoted:

The capacity to learn
is a GIFT.

The ability to learn
is a SKILL.

The willingness to learn
is a CHOICE.

-Brian Herbert



Author of the Dune books.

But...there's a piece missing...



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INTELLIGENCE = ...is each person's unique combo of:

Cognitive capacity or potential for learning, knowledge, abstraction, logic, understanding, self-awareness, emotional reasoning, planning, creativity, critical thinking, and problem-solving...

DNA's gift is not a specific amount of "smarts" – but how our brain works.

PLUS...

Cognitive abilities/skills by which we acquire and apply knowledge, and which are honed via our **opportunities, experiences and practices.**

Cognitive Capacity:

The space in an empty bowl, i.e., our **potential** for intelligence.

i.e., our brain's processes...



Cognitive Ability (IQ):

The amount of content in the bowl - - acquired **via opportunity & experience.**



Missing Piece

Discomfort, Distress, Anxiety, Trauma = Lids

Lids interfere with our **capacity, ability & our choice.**



National Institute of Health, 1999



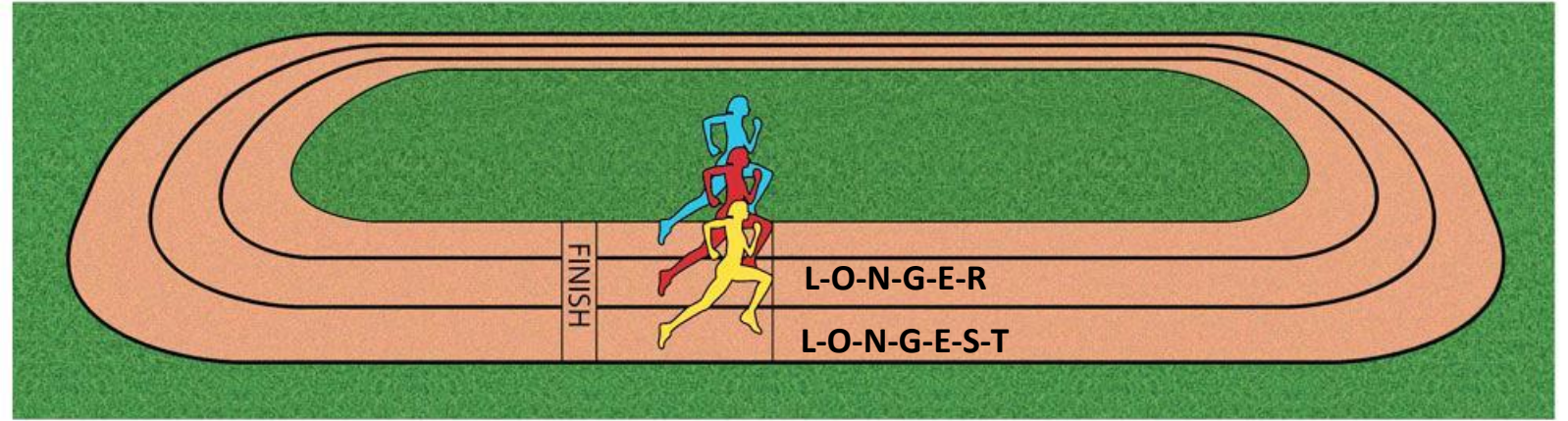
That's why
Positive Mental Health
is the foundation
for all development, learning & intelligence
- - & healing.

Life is like an oval foot race.

So is learning, development, contribution, & recovery.

The person in the outside lane may have the same capability to “win” as the person in the inside lane; *but the track is not fair – not equal.*

How we look at the tract can “even the odds” - - make the race...the challenge... the same for everyone.

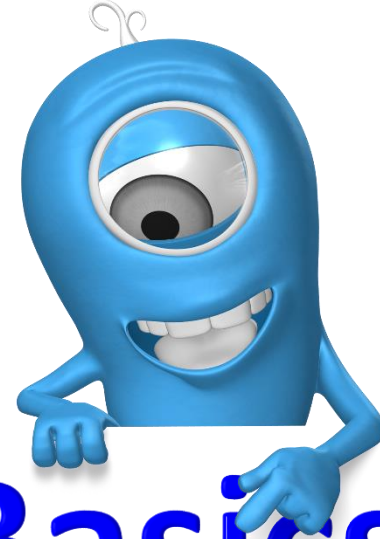


This is our **mental health** dilemma.

Having a **GROWTH MINDSET** is part of the solution.

Building a Growth Mindset

It all starts with our brain - - so - -
teach everyone about their
brains...



Brain Basics...

<https://sentis.com.au/articles/brain-animation-series>

Teach about
neuroplasticity &
growing, repairing, &
replacing networks.



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1- 3 years - - Let's build our brains! Point to the head & be excited!

4-6 years - - Our brain's like a muscle - - let's build it up & make it stronger.

Use songs... draw pictures of the brain learning... do a play with different parts of the brain as characters.

7-70 years - - when learning something new, say "let's wire our brains!" – or if there is an error, "trial effort - - now let's re-wire our brains!"

Celebrate the human brain that is designed to heal from strokes, concussions, & other forms of damage...



Language to **AVOID**:

- **“FAILURE”**: If indeed failure is part of the process of learning, then making failure a bad thing sends a mixed message.
- Replace with **“Trial Effort”** - -
“Congratulations on making a **trial effort**. You ended up in a different place than I hoped you would - so let’s try again” - - wordy, but you get the idea.

DECLARE A **RETAKE!**
How many shots does the director make before he gets the one we see?

Instead of greeting a wrong answer with “No” or “Error” or a “Buzzer Sound” just say **“Trial Effort”** - - they tried - - make them feel safe & they will continue to try. Everyone knows they gave the wrong answer - - why kick them while they are down?



Positive Feedback...



It's important to provide **feedback** that **validates a person's positive choices and decisions - - but without telling them they are/were "smart"**.

Questions that ask a person to think about their own thinking (metacognition) are often the best form of positive feedback.

"How did you reach this wise decision?"

"How did you make this wise choice?"

It takes **time, interest & effort** to notice the **processes** that people use or don't use:

- How do they **LISTEN?**
- How do they **FOCUS?**
- How do they **PLAN?**
- **Do they know the BASICS?**
- Can they answer your questions about what they think is missing for them, & what kind of help they need?



NOTE: NEVER say “try harder” without first knowing exactly what people are doing in the first place.

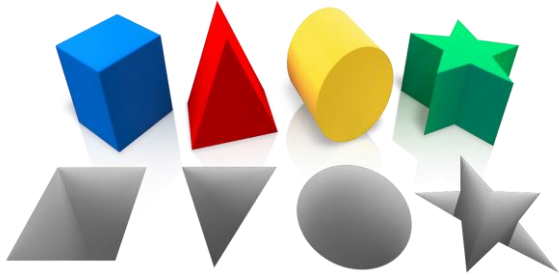
If people are using a failed practice or are missing some basics, it doesn't matter how hard they try, they will keep failing -- & repeated failure can be overwhelming & defeating.

Do people know WHO & HOW to ASK for HELP?

Do people have routine training in asking for help, & is there a *non-shaming* help system in place?



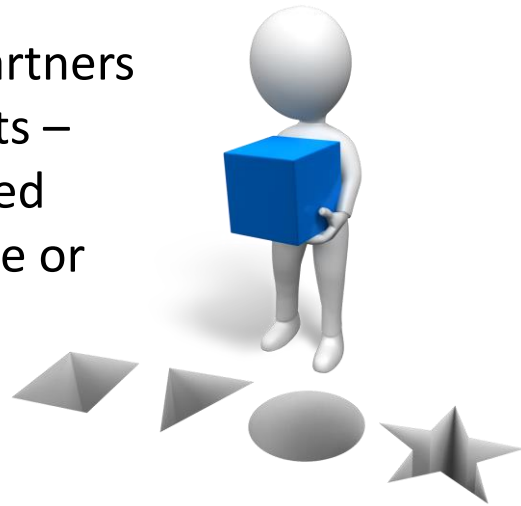
PLUS Appropriate & Adequate **SUPPORT:**



Sometimes the solution is so simple to us - - we see it instantly.

Not everyone has the same view.

We watch clients –partners patients – participants – who become paralyzed when making a choice or decision...

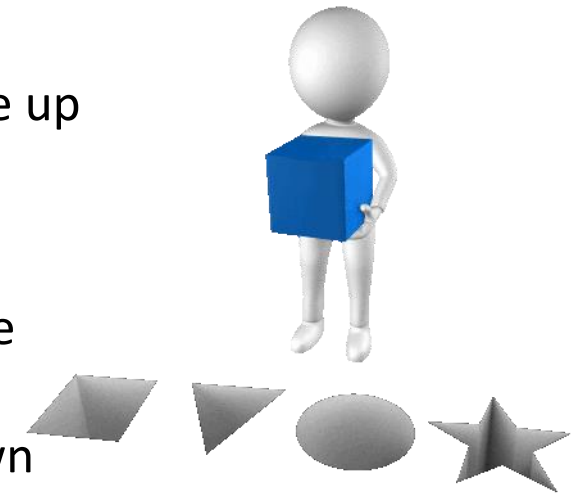


All these actions prove is that there is a **LID somewhere that needs removing.**

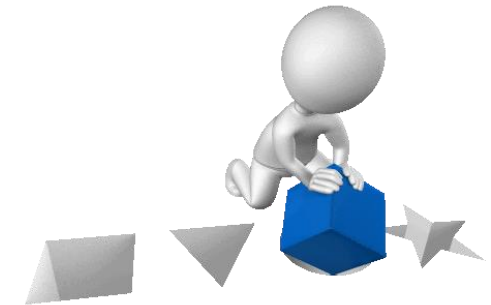


Or...they cannot make up their minds...

...often because they never stop to examine both sides of the situation... to get down and touch the other side of the situation...



...& there are those who work so hard...& get no where...



Don't Lose Your HAT!



Neuroplasticity can work **for or against us.**

Blood, Oxygen & Energy (BOE) go where the demand is - - where we send them.

When we get too **Hungry, Angry, Tired, (HAT)** or impatient, worried, or think too negatively - our **BOE** is sent our **Fight, Flight, Freeze** networks.

We can either **develop & heal** or have the **"hangries"**!



When we become “too anything”,
we lose our HAT
& then **Outside Help is Vital:**

When we lose our **HAT**, we automatically lose our “internal feedback system” (our ability to recognize our own actions) i.e., we can’t tell that we have lost our **HAT** - - and we can’t tell others that we have lost it, & we do not ask for help.



These lost **HAT** behaviors are all signs of **distress**, sets off our **alarms**, which shuts down our thinking neurons, and triggers our **F-F-F** networks - - & **interrupts/slows** **development, learning & healing**.



This is when we need a real friend who will take care of us - - or get in our face - - and save the day.

The Power of YET:

I can't do this....**yet**

This doesn't work...**yet**

I'm not good at ...**yet**

I don't know how to....**yet**



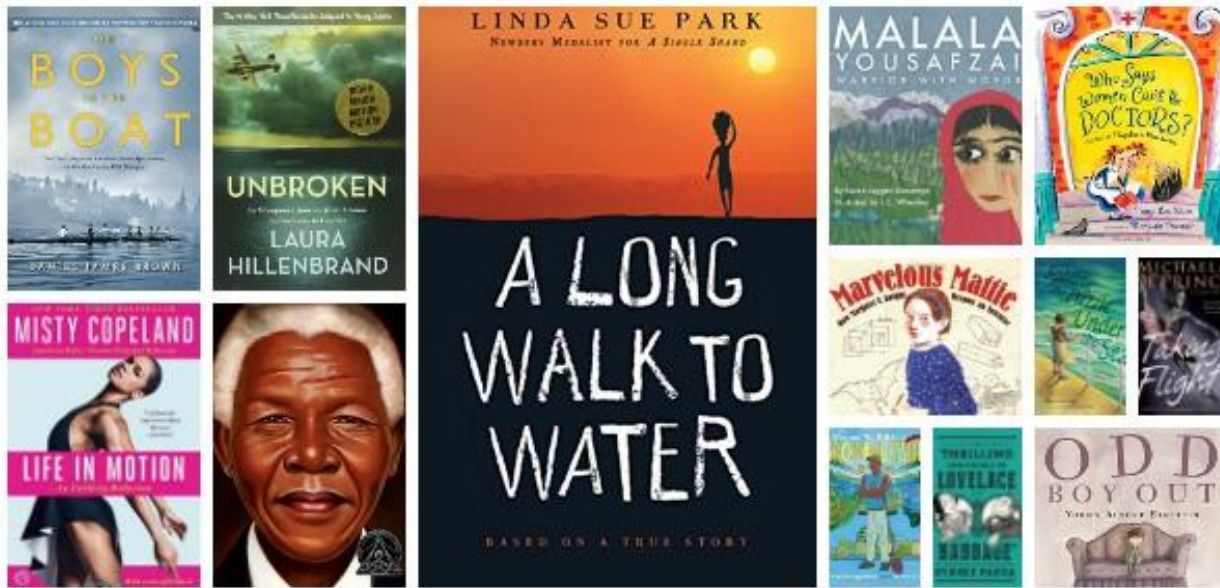


***Don't Give Up!* – Bruno Mars**



***Power of YET!* – Janelle Monae**

Growth Mindset Biographies



Parents and grandparents
and child care workers
reading to children

is a multi-generational approach!

Growth Mindset Picture Books



Social Emotional Learning Journal: 70 Creative Pages, with Drawing & Writing Prompts for Ages 8-12 years.

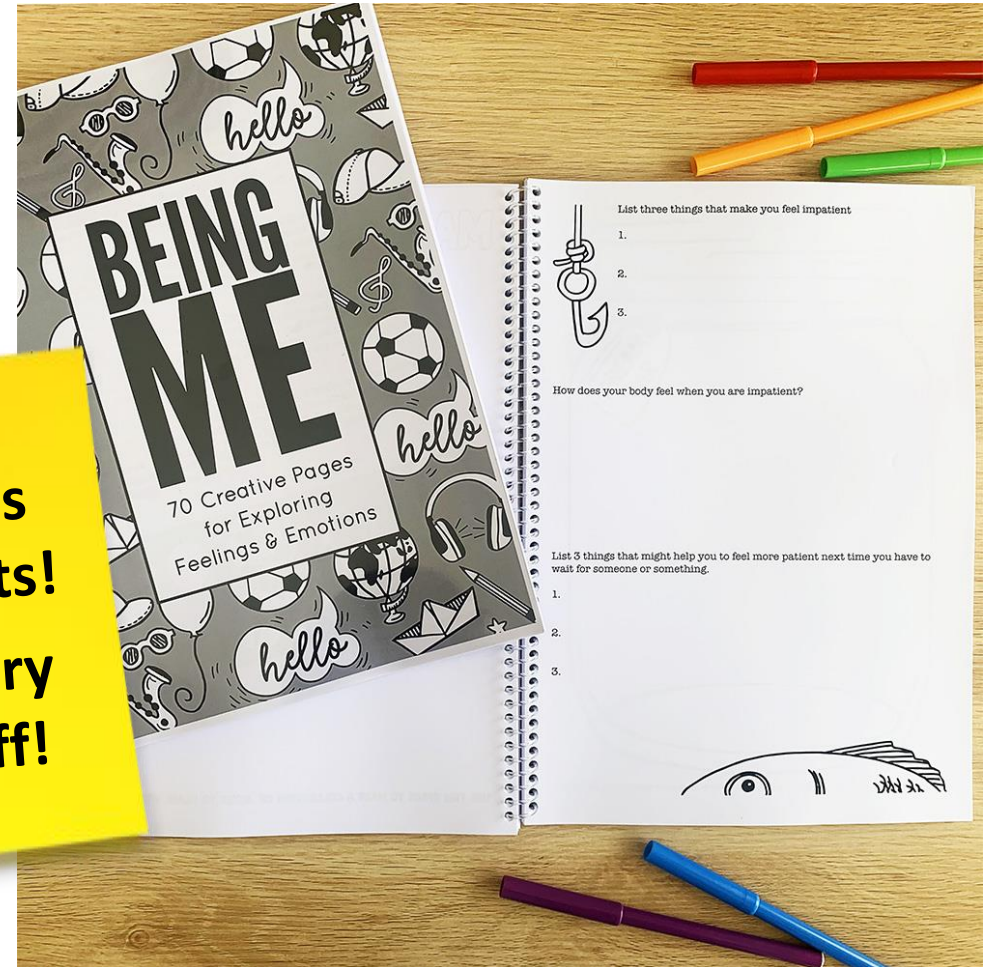
•The pages help youth explore a wide range of emotions, including joy, anger, worry, excitement, disappointment, fear, frustration, impatience, jealousy, courage, nervousness, loneliness and pride, and encourage thinking and learning about related topics such as empathy, body language, friendship, gratitude, resilience, being solution focused, and keeping positive.

Plus: It includes a series of coloring pages with child-friendly quotes to provide children with space for a mental break and help them to relax and refocus.

There is a fee:

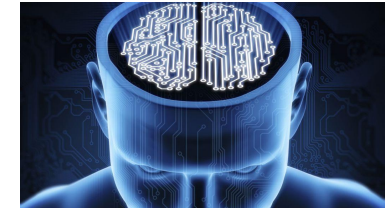
<https://shop.childhood101.com/product/social-emotional-learning-journal/>

**Use pages
with adults!
It helps pry
the lid off!**



TxSOC & CRCG Conference
Building Authentic Connection
Reconnecting • Reimagining • Revitalizing

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How to **Unfix** a **Fixed** Mindset - **REWIRE**:

- **Focus on the journey.** An important factor when building a growth mindset is seeing the value in our journey. When we're fixated on the end result, we miss out on all the things we could be learning along the way.
- **Incorporate "yet."** If we're struggling with a task, we need to remind ourselves that we just haven't mastered it "yet." Integrating this word into our vocabulary signals that despite any struggles, we can overcome anything. If humans can heal from a stroke, our brain is capable of anything!
- **Pay attention to our words and thoughts.** Replace negative thoughts with more positive ones to build a growth mindset. Practice positive I am, I can, I have, I will...
- **Take on challenges.** Making mistakes is one of the best ways to learn/wire/rewire our brains. So, instead of shying away from challenges, embrace them.



But...let's face it: The distribution of genetic traits and capacities is not exactly fair & equal.

Genes do make a difference...

But the vast majority of
our success is
EARNED
through hard work
& effort!



Positive Self-Talk/Self-Affirmations

with Gestures

1. Two Thumbs *pointing toward self*.



2. Two Thumbs Up.



3. Open Hands pulled in toward self – like grabbing.



I AM

I CAN

I HAVE

I WILL



and

I BELIEVE

4. Two Arms UP.



5. Arms crossed on chest.

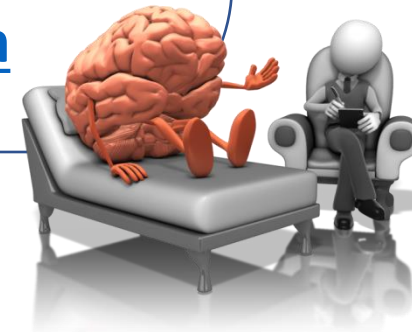


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The following slides are included but not presented.

- Dweck's Mindset Graphic
- Dweck's Mindset Assessments Tools
- Other Mindset Assessment Tools



Fixed Mindset Intelligence is static

Leads to a desire to look smart
and therefore a tendency to ...

People who hold a Fixed Mindset believe that “we are the way we are”, but that does not mean that they have less desire than anyone else for a positive self-image. So of course they want to perform well and appear to be smart.

... avoid challenges

A challenge, by definition, is hard and success is not assured. So rather than risk failing and negatively impacting their self-image, Fixed Mindset individuals will often avoid challenges and stick to what they already know they can do well.

... give up easily when faced with obstacles

This same thinking applies to obstacles. The difference is that challenges are things that they can decide whether to face while obstacles are external forces that get in their way.

... see effort as fruitless or worse

Fixed Mindset individuals ask themselves, “What’s the point of working hard and making efforts if afterwards I might still be on square one?” Their worldview tells them that effort is an unpleasant thing that does not really pay dividends, and so the smart thing to do is for them to avoid it as much as possible.

... ignore criticism or useful negative feedback

The Fixed Mindset logically leads people to believe that any criticism of their capabilities is criticism of them as a person. Useful negative feedback is ignored, in the best of cases, and taken as an insult the rest of the time. This usually discourages people who are around a Fixed Mindset individual and, after a while, they stop giving any negative feedback. This further isolates that person from external influences that could generate some change.

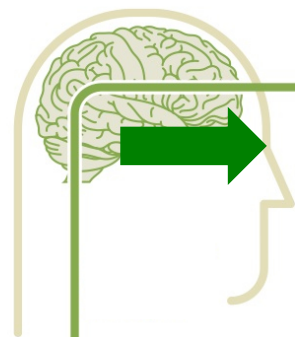
... feel threatened by the success of others

Fixed Mindset individuals see the success of others as benchmarks against which they will look bad. When others succeed, they will try to convince themselves, and the people around them, that the success was due to either luck (because almost everything is due to luck in the Fixed Mindset world), or to objectionable actions. They may try to tarnish the success of others by bringing up things completely unrelated, (“Yes, but did you know about her ...”).

All this confirms a deterministic view of the world.

As a result, they may plateau early and
achieve less than their full potential.

Fixed mindset individuals do not reach their fullest potential and their beliefs feed on themselves, forming negative feedback loops. They don’t change or improve much of the time, if ever, and so for them this confirms that “we are the way we are”.



Growth Mindset Intelligence can be developed

Leads to a desire to learn
and therefore a tendency to ...

If you hold a Growth Mindset, you believe that intelligence can be developed, that the brain can be grown and strengthened, like a muscle that can be trained. This leads to your desire to improve.

... embrace challenges

And how do you improve?
First you embrace challenges because you know you’ll come out stronger on the other side.

... persist in the face of setbacks

Similarly, obstacles or external setbacks do not discourage you. Your self-image is not tied to your success or how you will look to others. Failure is an opportunity to learn and so, whatever happens, you will win.

... see effort as the path to mastery

As a Growth Mindset individual, you see effort as necessary to grow and master useful skills and knowledge; you do not view effort as something useless or to be avoided. You are not turned away by fears that you might make an attempt, or even work hard, and that failure is possible.

... learn from criticism

Criticism and negative feedback are sources of information. That doesn’t mean that all criticism is worth integrating or that nothing is ever to be taken personally. As a Growth Mindset individual, you know that you can continue change and improve, so negative feedback is not perceived as being directly about you as a person but rather about the current state of your abilities.

... find lessons and inspiration in the success of others

You see the success of others as sources of inspiration, information opportunities to learn. Growth mindset individuals do not view success as a competitive, zero-sum game with others.

As a result, you reach ever-higher
levels of achievement.

All this gives you a greater sense of free will.

As a Growth Mindset individual, you note your improvements and this creates positive feedback loops that encourage you to continue learning and improving. Most people do not have a 100% Growth Mindset or a 100% Fixed Mindset; most of us have some of both. The good news is that it is possible to change your worldview from Fixed Mindset to Growth Mindset. Carol Dweck’s research indicates that both children and adults can be taught to change their mindsets.



Carol Dweck's 16-Item Growth Mindset Instrument

Scoring:

1. Strongly Agree
2. Agree
3. Mostly Agree
4. Mostly Disagree
5. Disagree
6. Strongly Disagree

1. You have a certain amount of intelligence, and you really can't do much to change it.
2. Your intelligence is something about you that you can't change very much.
3. No matter who you are, you can significantly change your intelligence level.
4. To be honest, you can't really change how intelligent you are.
5. You can always substantially change how intelligent you are.
6. You can learn new things, but you can't really change your basic intelligence.
7. No matter how much intelligence you have, you can always change it quite a bit.
8. You can change even your basic intelligence level considerably.
9. You have a certain amount of talent, and you can't really do much to change it.
10. Your talent in an area is something about you that you can't change very much.
11. No matter who you are, you can significantly change your level of talent.
12. To be honest, you can't really change how much talent you have.
13. You can always substantially change how much talent you have.
14. You can learn new things, but you can't really change your basic level of talent.
15. No matter how much talent you have, you can always change it quite a bit.
16. You can change even your basic level of talent considerably.

Carol Dweck's 3-Item Growth Mindset Scale



Answer Format: 1 = strongly agree; 2 = agree; 3 = mostly agree; 4 = mostly disagree; 5 = disagree; 6 = strongly disagree.

To calculate the total score for each participant, take the average rating of the items by adding respondents' answers to each item and dividing this sum by the total number of items (3).

Sources: Dweck, C. S. (1999). Self-theories: Their role in motivation, personality, and development. Philadelphia: Psychology Press. Dweck, C. S., Chiu, C. Y., & Hong, Y. Y. (1995). Implicit theories and their role in judgments and reactions: A world from two perspectives. *Psychological Inquiry*,

- 1. You have a certain amount of intelligence, and you can't really do much to change it.**
- 2. Your intelligence is something about you that you can't change very much.**
- 3. You can learn new things, but you can't really change your basic intelligence.**

Provided by **Stanford University's SPARQTools** at the website below.

<https://sparqtools.org/mobility-measure/growth-mindset-scale/>

There are over 2 dozen mindset assessment iterations on the web, all based on Dweck's work.

For instance, the following:

University of North Carolina at Chapel Hill

Mindset Quiz: 10-item. Scoring: 0-3.

Strongly Agree; Agree; Disagree; Strongly Disagree.

NOTE: Even numbered items are reverse scored.

SCORE CHART

22-30 = Strong Growth Mindset;

17-21 = Growth with some Fixed ideas

11-16 = Fixed with some growth ideas
0-10 = Strong fixed mindset

<https://advising.unc.edu/wp-content/uploads/sites/341/2020/07/MINDSET-Quiz.pdf>

IDR Labs

Growth Mindset Test

Web-based assessment based on Carol Dweck's work.

Simple Scoring: Agree; Disagree

Available **FREE** at the website below.

<https://www.idrlabs.com/growth-mindset-fixed-mindset/test.php>.

BUT Note:

There is an assessment available on the net at the site shown below - - & labeled as Carol Dweck's - - but it is

NOT.

https://cdn2.sportngin.com/attachments/document/8ab2-2573672/Carol_Dwecks_Growth_vs._Fixed_Mindset.pdf