

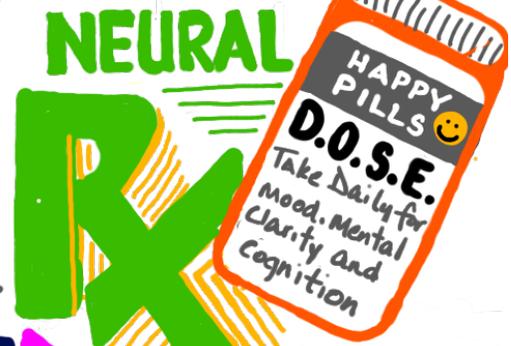
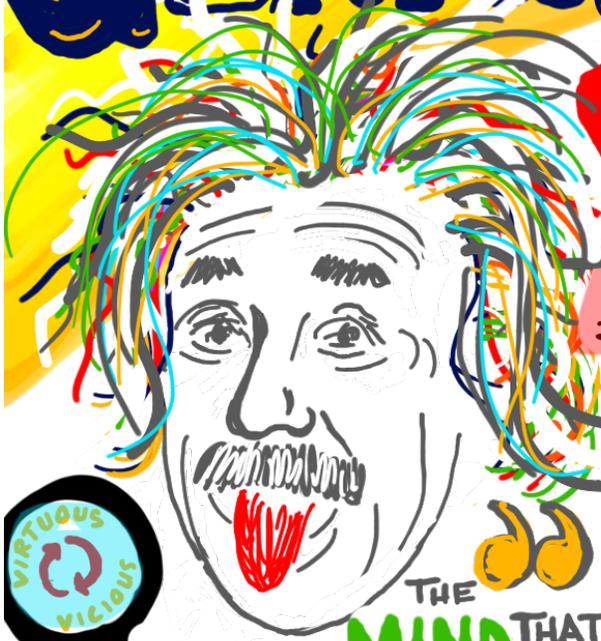
# SECRETS TO GENIUS

# OPENING DAY

08.08.22 erie boces

LET'S GET from ORDINARY to

# GEEKY EXTRAORDINARY



## DECADE OF THE BRAIN

WHAT HAPPENS INSIDE US  
EMOTIONAL CONTAGION  
HAPPENS AMONG US

MELISSA HUGHES ROCKS



THE MIND THAT  
**OPENS**  
TO A NEW  
**IDEA**  
NEVER RETURNS  
TO ORIGINAL SIZE.

NEURAL PRIORITIES

- SURVIVAL AM I SAFE?
- EMOTIONS AM I LOVED & ACCEPTED?
- RATIONAL THOUGHT WHAT CAN I LEARN?

ATMOSPHERIC FORCES  
**CREATE a BRAINY PLAYLIST**

**PAY ATTENTION**  
TO WHAT YOU PAY ATTENTION TO

GELATOLOGY DR. FRY  
THE SCIENCE OF **Laughter**

Be AMAZING!  
- Melissa

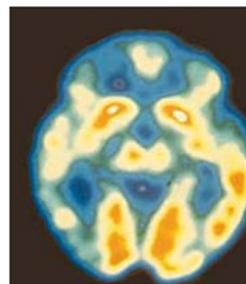
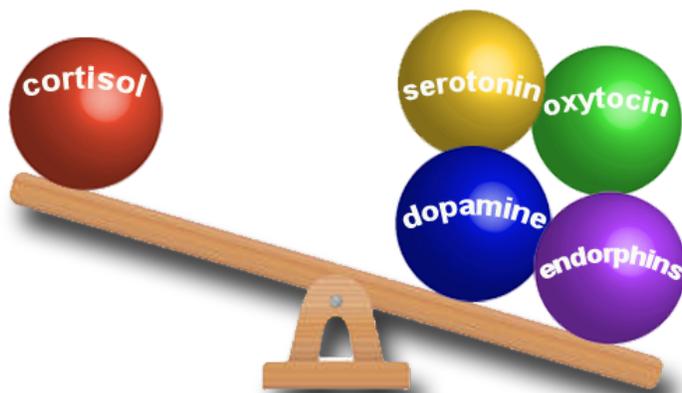


Reverses the effects of stress  
**Goldilocks Rule**

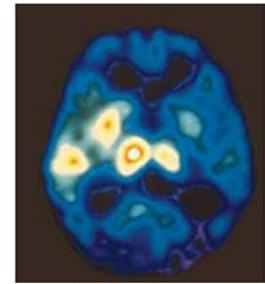
# Brain Chemicals at Work

Cortisol is the most commonly known stress hormone. It is produced in the adrenal gland and released into the blood stream when the fear/threat center is engaged. Negative emotions like fear, anger, frustration, rejection, anxiety release cortisol like an army of messengers throughout the body. Almost all human cells contain receptors for cortisol which explains why it impacts us in so many ways (i.e., weight gain, mood swings, high blood pressure, depression, headaches, etc.). Because the brain's primary job is to keep us alive, when cortisol production is high, the other neurotransmitters that facilitate brain function are reduced to allocate all neural resources to address the threat. Chronic stress pierces cell walls and kills them ultimately creating architectural changes in various regions of the brain.

**The brain is not designed to function at its best under stress.**



Functioning optimally



Functioning under stress

Dopamine is the reward and pleasure chemical that motivates us to set goals, take steps toward them and then rewards us when we reach them. Too much dopamine can lead to addiction, while too little often results in procrastination and lack of motivation. Studies on rats showed those with low levels of dopamine didn't exert as much energy to obtain food while those with higher levels worked hard enough to receive twice the amount of food. Deep restful sleep, listening to enjoyable music and setting/reaching small daily goals will result in healthy dopamine production.

**SELFISH CHEMICALS: all about ME**  
drive and motivation for individual success

Endorphins are released in response to pain and stress and help to alleviate anxiety and depression. The surging "second wind" and euphoric "runners high" are examples of endorphin rushes. Similar to morphine, endorphins act as an analgesic and sedative, diminishing our perception of pain. Along with regular exercise, laughter is one of the easiest ways to produce endorphins. Look for reasons to smile and laugh and make physical activity part of your daily routine to combat stress and alleviate its psychological and physical effects.

Serotonin is known as the "leadership hormone" because it surges when we feel significant, respected or important. It is produced in symbiotic relationships where each person benefits from the association with the others on the team. Loneliness and depression are indicators of low serotonin. Most antidepressants focus on the production of serotonin. Foods high in simple carbohydrates, B6 and B12 can make you feel calmer in less than 30 min. For steady serotonin production, eat right, get out into the sun, practice gratitude and reflect upon past achievements.

**SELFLESS CHEMICALS: all about WE**  
trust & contribution for team success

Oxytocin is known as the "love drug." The biggest surge is produced during sex and breastfeeding, but it's produced with hugs and platonic touches, as well as when we feel a sense of belonging and trust in the team or tribe. Relating to one another, one on one, couples, families, or in larger social groups, is the most complex thing human beings do. The need to relate, to be emotionally and socially accepted, has driven the evolution of the human brain to be the most complex anything in all of existence.

## Dopamine, Oxytocin, Serotonin, and Endorphins

**DOSE is the happy quartet responsible for overall well-being and optimal brain function. Not only do they make us feel good, they also optimize cognition by facilitating activity in the neocortex.**

**The key to success is a healthy balance of SELFISH and SELFLESS chemical production.**

# the COGNITIVE POWER OF SKETCH NOTES



rich visual maps of what you see, hear, and think that boost cognitive power, unlocks connections, patterns, relationships, insights & solutions.

**VISUAL SPEED 65K**  
the brain processes visual information faster!

## focus & concentration

Shift from interpreting visuals creating your own meaning for a deeper learning experience.

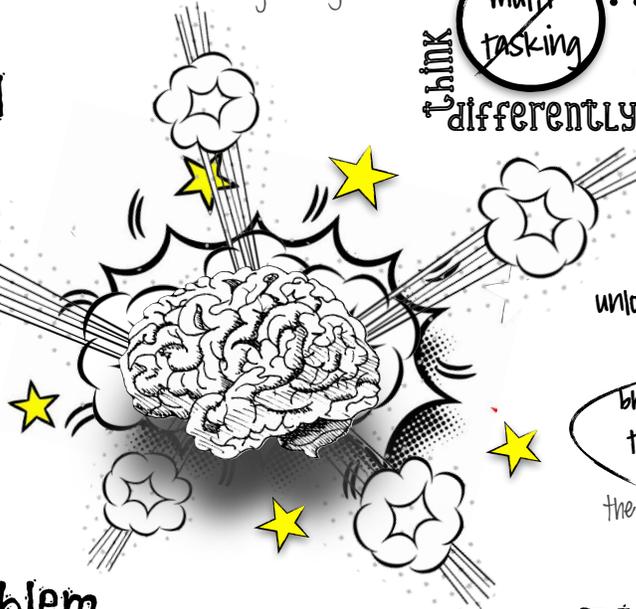
drawing info visually engages multiple neurological networks simultaneously

the brain actively engages with what it "sees" experience knowledge possibilities

The typical human brain can only process 4 bits of info in working memory at a time

## memory & recall

visual mapping "anchors" information as a mental imprint the brain can retain and recall



~~multi-tasking~~  
think differently

## creativity

enables your brain to switch into "flow mode"

unlock the imagination

break away from habitual thinking and constraints

the enemy of creativity isn't a lack of imagination;

it's a commitment to the prior art.

enables the brain to "see" obstacles and problems differently

## problem solving

possibilities, new ideas, connections, opportunities, SOLUTIONS!

## BIG picture thinking

get out of the weeds!

see how the pieces fit together organize details into manageable chunks

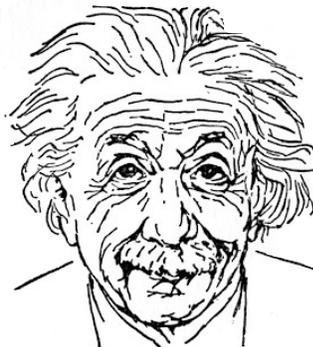
linear deeper wider lateral

\*\* the brain is designed to process information \*\* when it lacks stimulation, it goes looking for it \*\* daydreamers beware \*\* shift your focus \*\*

## engage the WHOLE brain

- process data thru:
- visualization
  - reading/writing
  - auditory processing
  - kinesthetic/fine motor
  - immersive cognitive activity

## famous doodlers



- Albert Einstein
- John F Kennedy
- Ronald Reagan
- Bill Clinton
- Bill Gates
- Steve Jobs
- Leonardo da Vinci

