

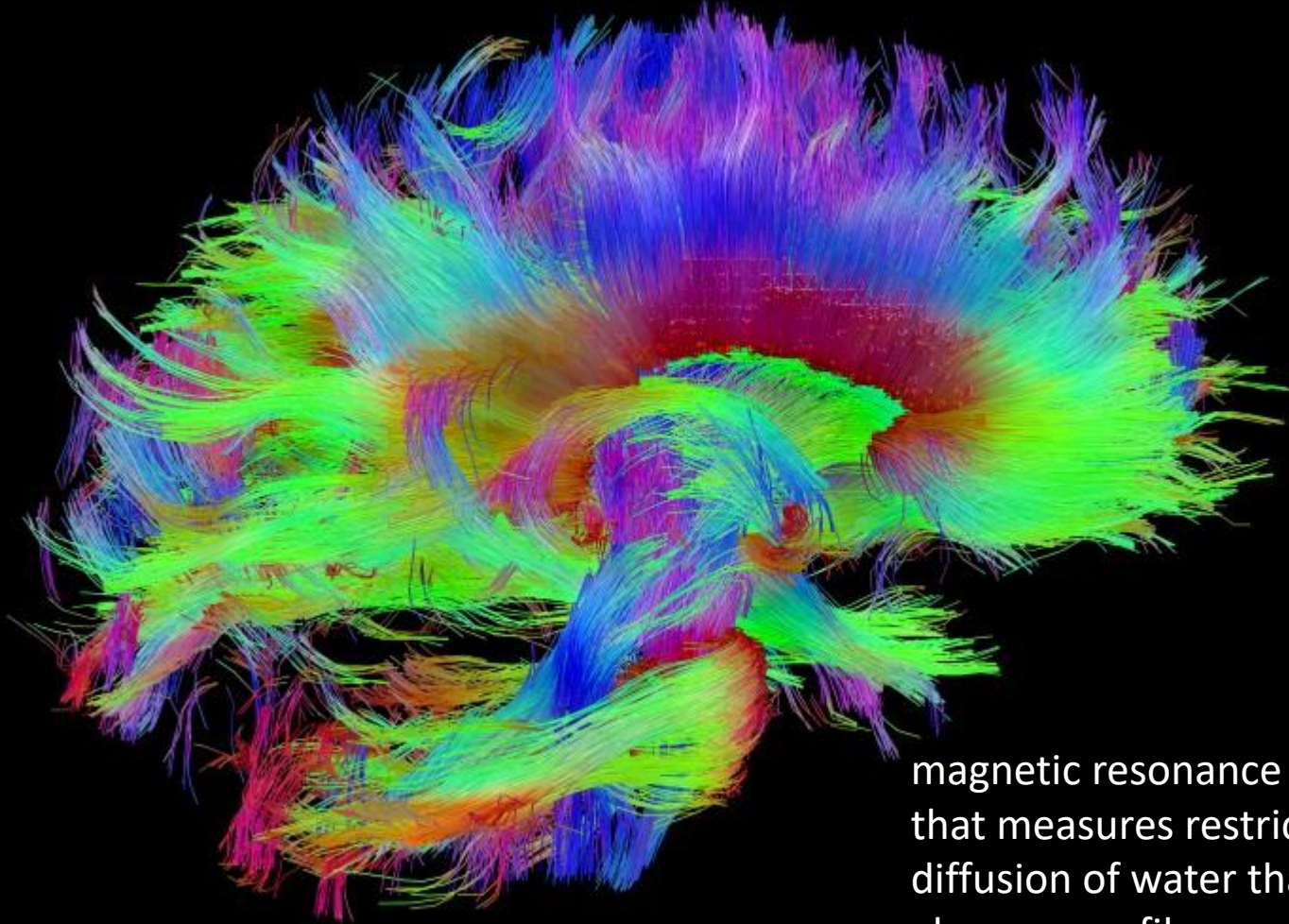
THE FEMALE BRAIN

THE BEST BRAIN OF ALL

Nathalie Gosset, BSEE, MSEE, MScTel, MBA *and a Mom*

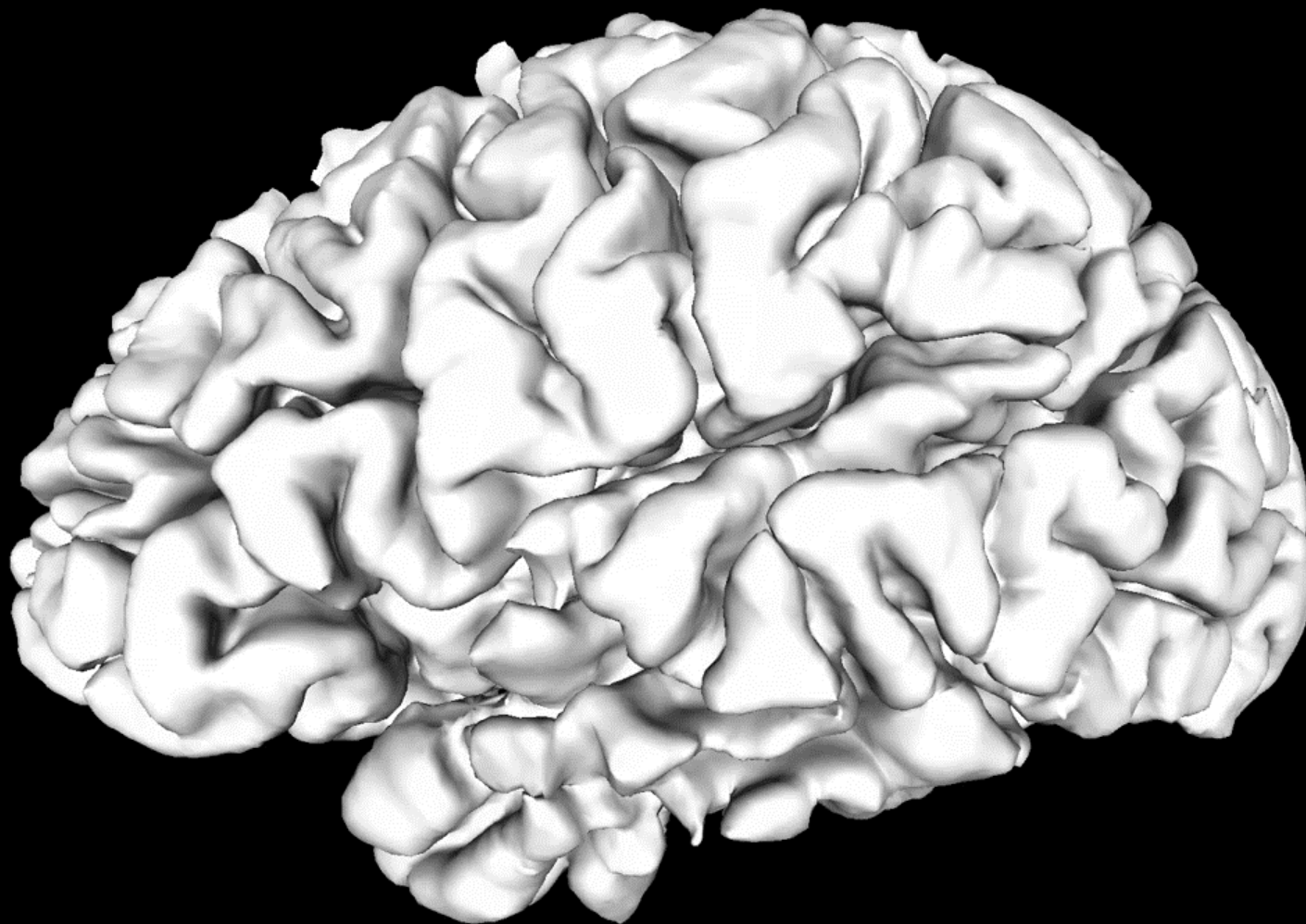
gosset@ieee.org

Diffusion Tensor Imaging of the Brain



magnetic resonance imaging
that measures restricted
diffusion of water that moves
along nerve fibers

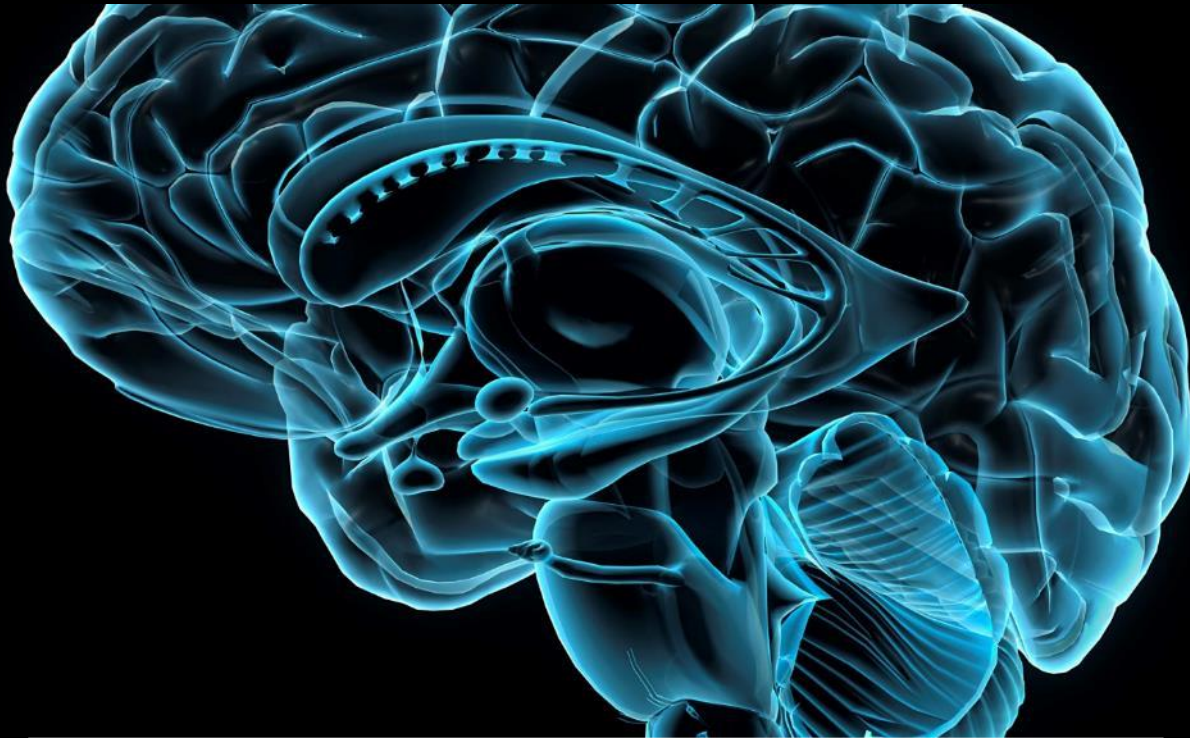
Source: The Human Connectome Project



Inside the Connectome

**We are starting to answer
some of the big questions**

DO WE USE ONLY 10% OF OUR BRAIN?



10% LOADED

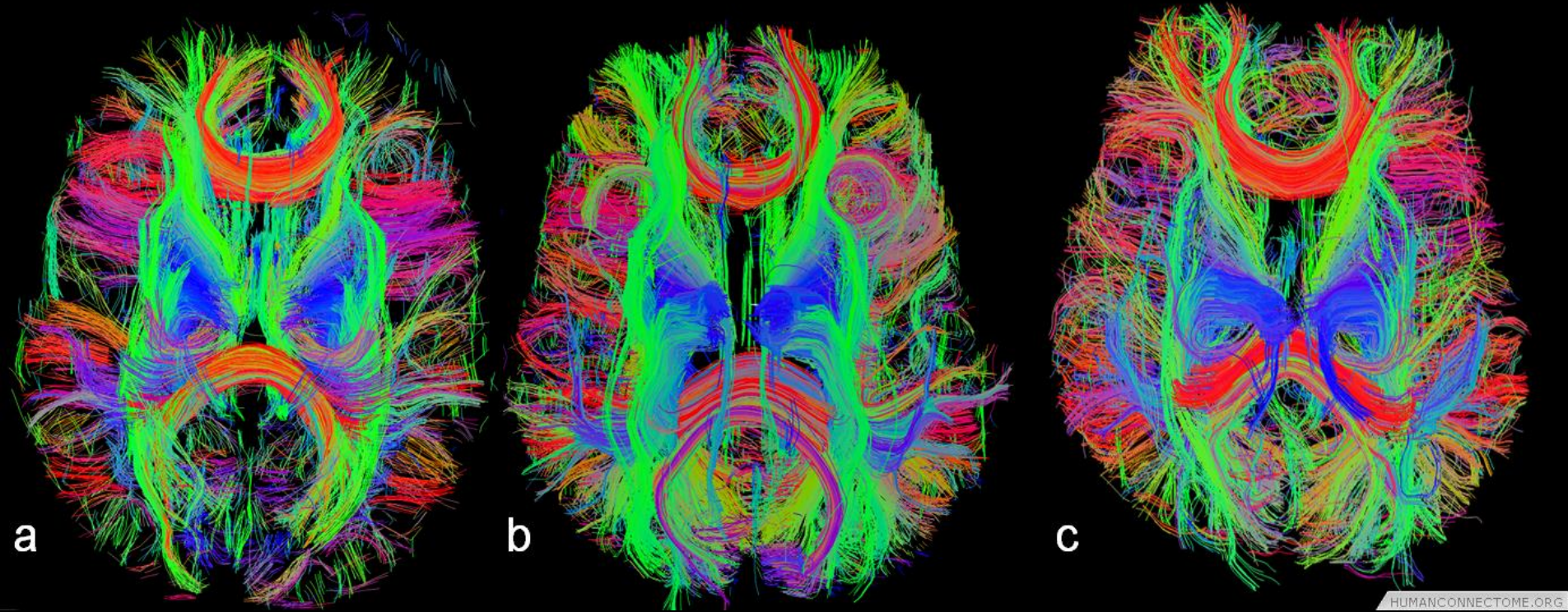
ERROR: UNABLE TO LOAD MORE

NO

25.3 min

11.5 min

8.4 min



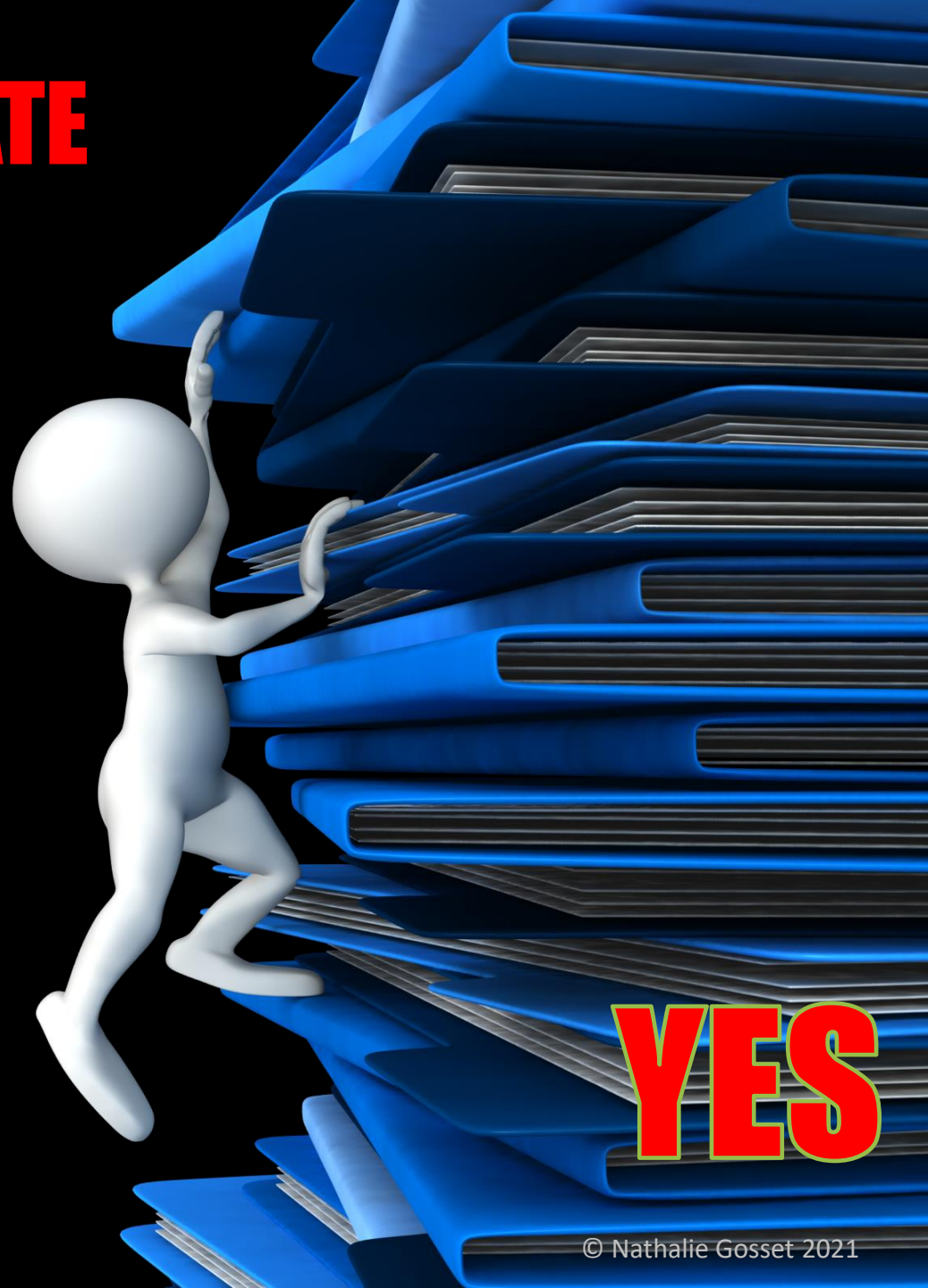
We use a lot more than 10% of our brain

Source: *The Human Connectome Project*

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CAN WE ACCELERATE HOW WE LEARN

Such as
Math, Science, ...



YES

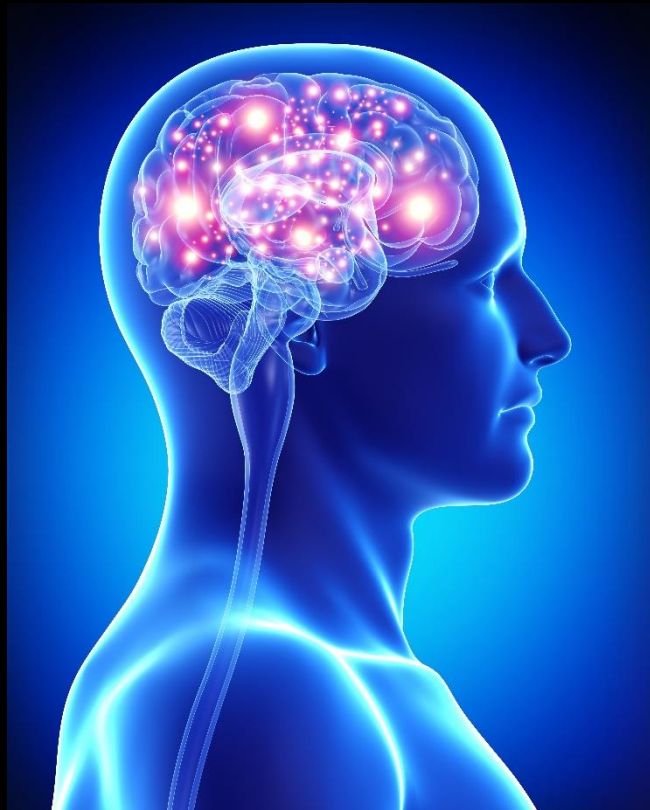
IS THERE A RECIPE TO BRAIN LONGEVITY?



YES

ERROR
TUNE UP NEEDED

IS THERE A GENDER DIFFERENCE?



YES

ONE MEMORY IS STORED IN THOUSANDS OF PLACES





FEELINGS ENABLE BEST MEMORY STORAGE & RETRIEVAL

PHYSICAL SENSES DEEPEN THE GROOVE

1



2



3



4



5



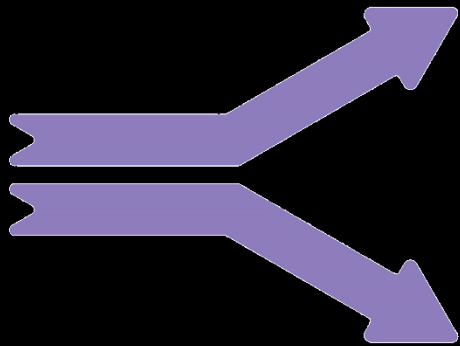
Women & Men BRAIN



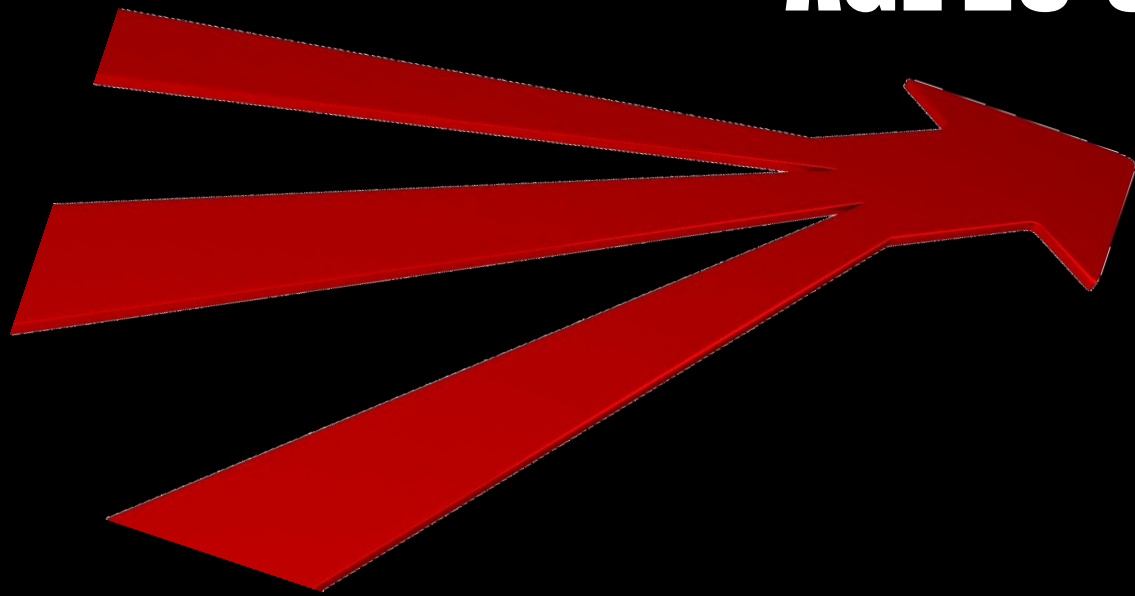
*(Reported by Penn Medicine, Proceedings of
National Academy of Sciences, 2013)*

SAME ARRIVAL POINT - DIFFERENT LEARNING TRAJECTORIES FOR BOYS AND GIRLS

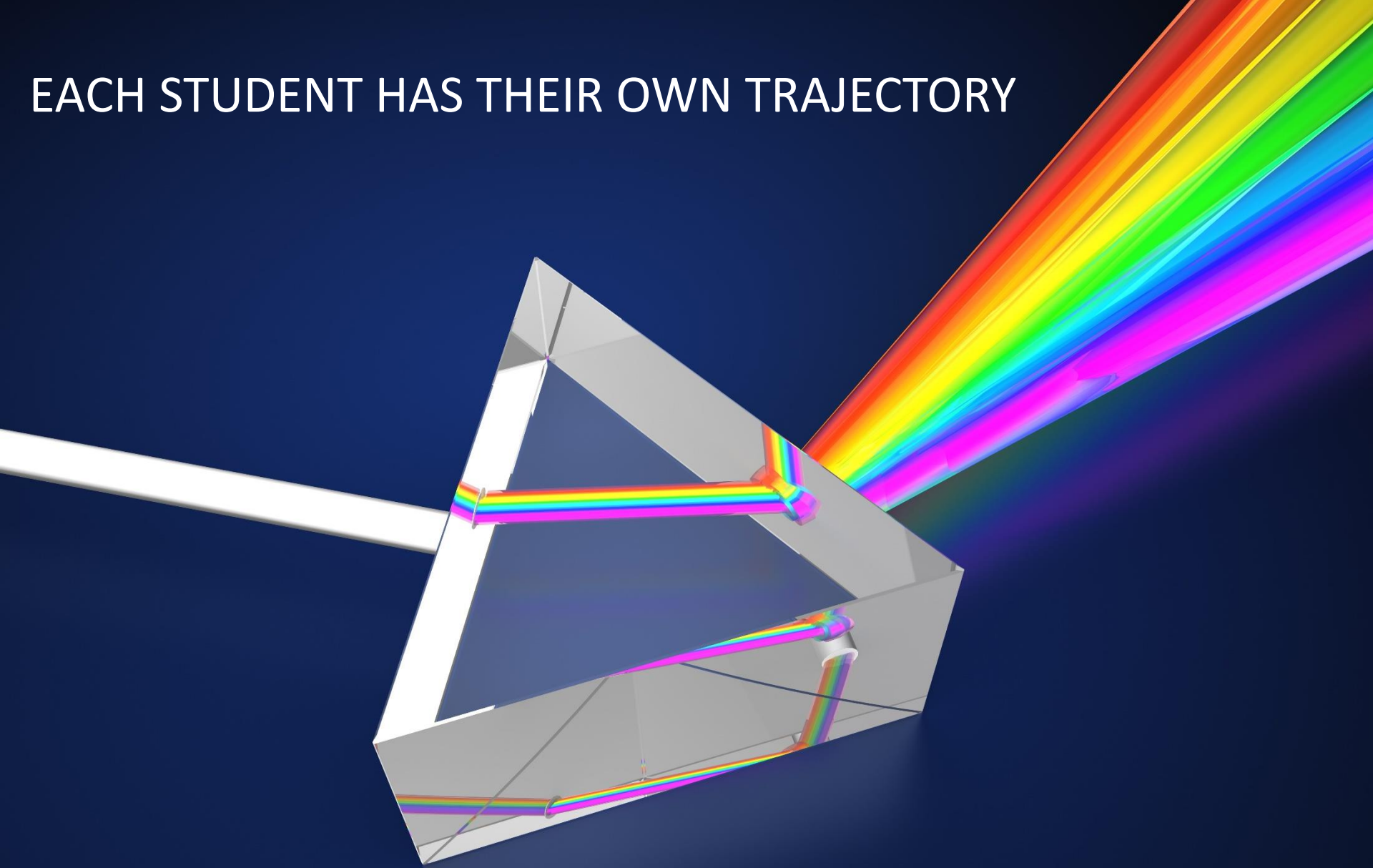
~ EARLY AGE



~ AGE 25-30

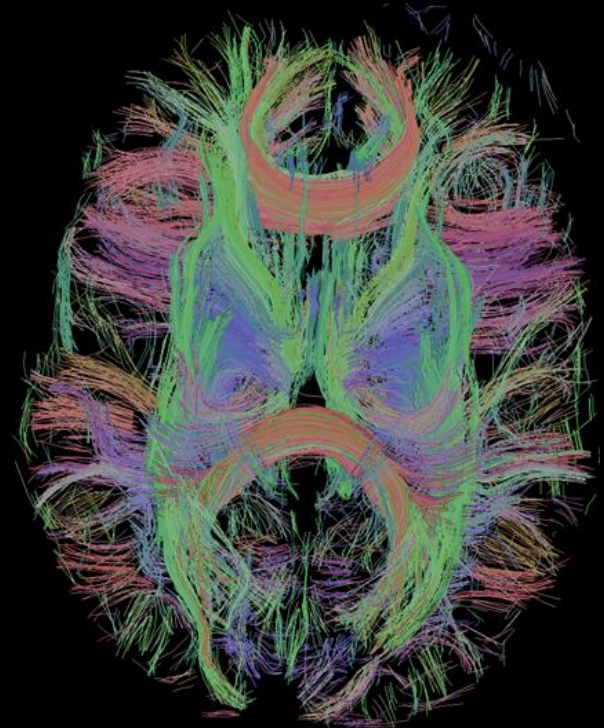
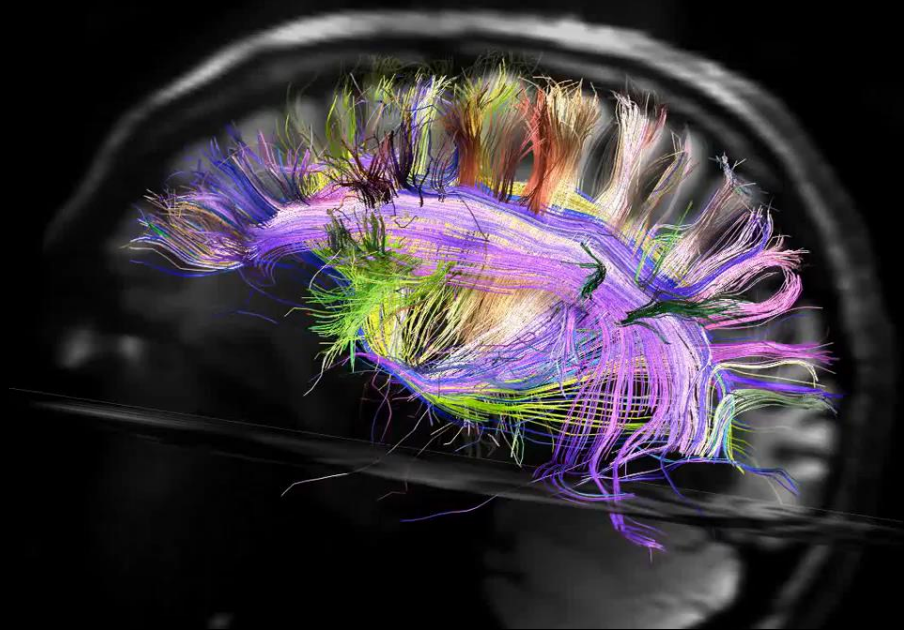


EACH STUDENT HAS THEIR OWN TRAJECTORY



Teen Female Brain

WIRED TO GO BACK AND FORTH LEFT-RIGHT EARLY IN LIFE



WIDER BRIDGE

360 CORRELATION OF DATA
ELOQUENCE
PERCEIVED MATURITY

National Institute of Mental Health

© Nathalie Gosset 2021

STEM

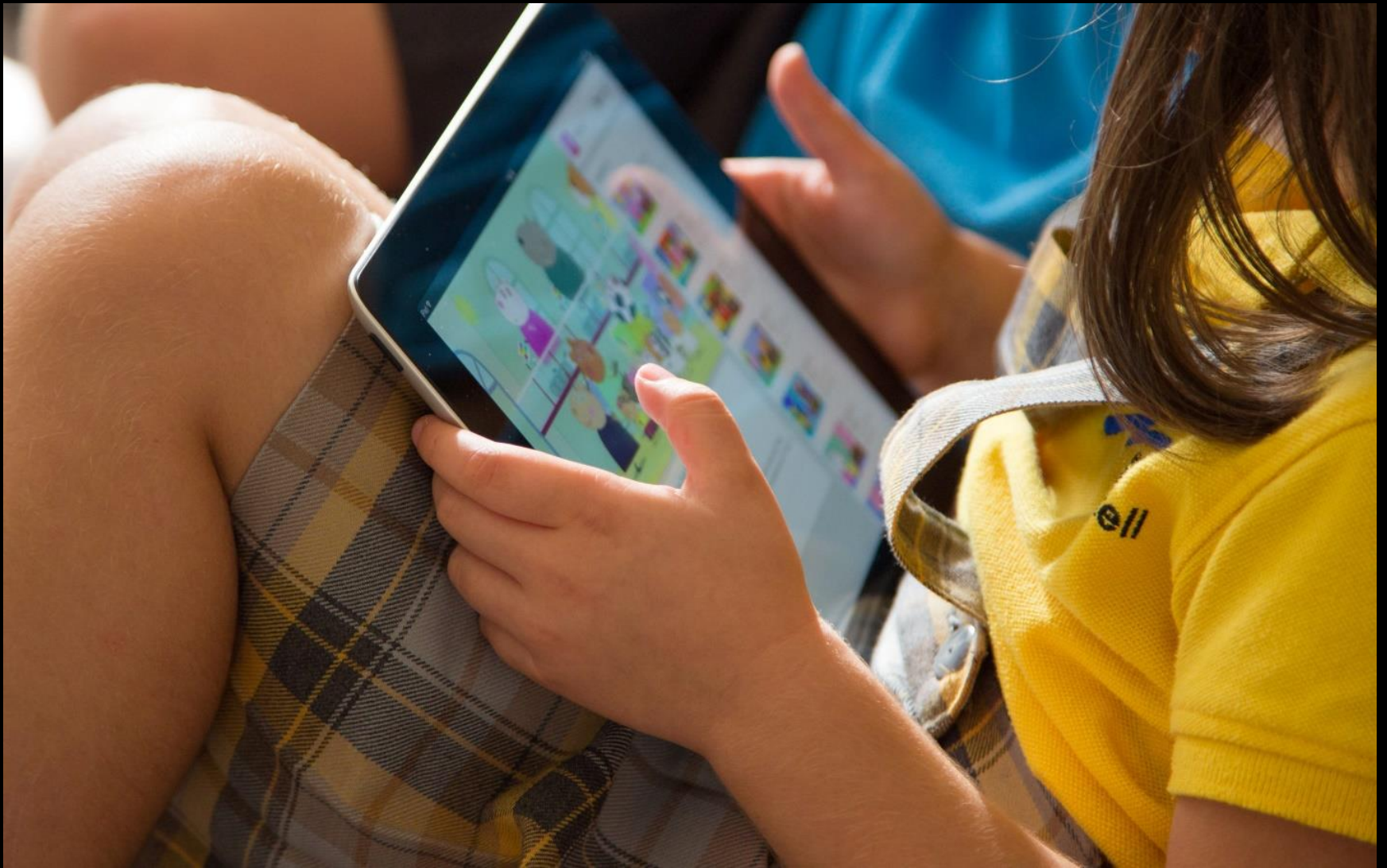
A

Your Female Brain has an accelerator for learning



EMOTION READER
GREATER EMPATHY

ACCELERATOR
OBSERVE → THEN DUPLICATE



Your Female Brain **Learns fast by watching videos**

FRONT
DEVELOPS FASTER
ADVANCED SKILLS
ELOQUENCE
MATURITY
CONTROL
STRATEGIC



Your Female Brain
Understands Consequences Earlier

Madhura Ingahalikar, University of Pennsylvania, Philadelphia, 2014

© Nathalie Gosset 2021



**WIRED TO BE A STRATEGIC THINKER
... 4 YEARS EARLIER THAN BOYS**



EMOTIONAL INTELLIGENCE

BORN WITH A BRAIN DESIGNED
FOR **TOP PERFORMANCE**

Teen Male Brain Has Visual-Spatial Intuition Earlier

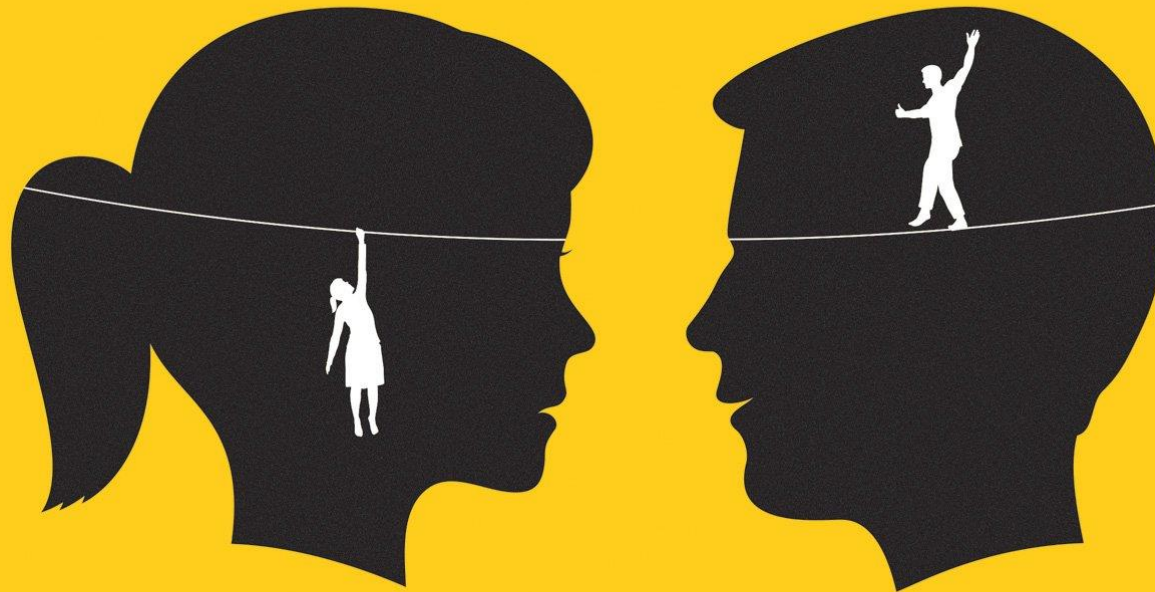


THE BACK
DEVELOPS FASTER

VISUAL-SPATIAL

ADVANCED SKILLS IN
LOGICAL
RATIONAL MATTERS

Health Behaviour in School-aged Children: Trends Report 1990-2010



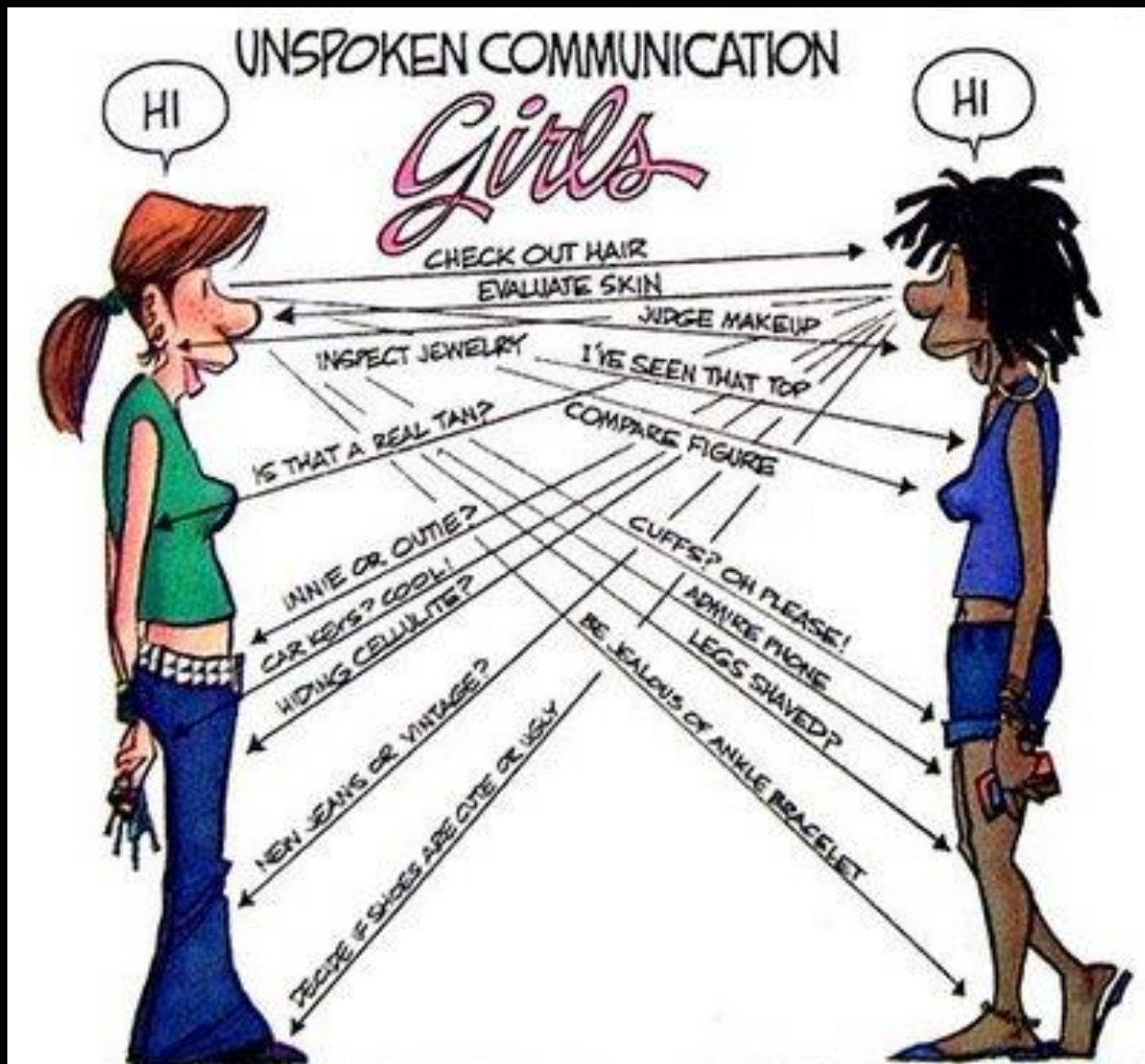
I BELIEVE IN MYSELF

GRADE 6	85 %	85%
GRADE 8	65 %	80%
GRADE 10	60%	75%

I AM NOT
SMART
ENOUGH



EMOTIONS DIFFICULT TO BALANCE



NEURAL TRAFFIC ACROSS THE BRIDGE



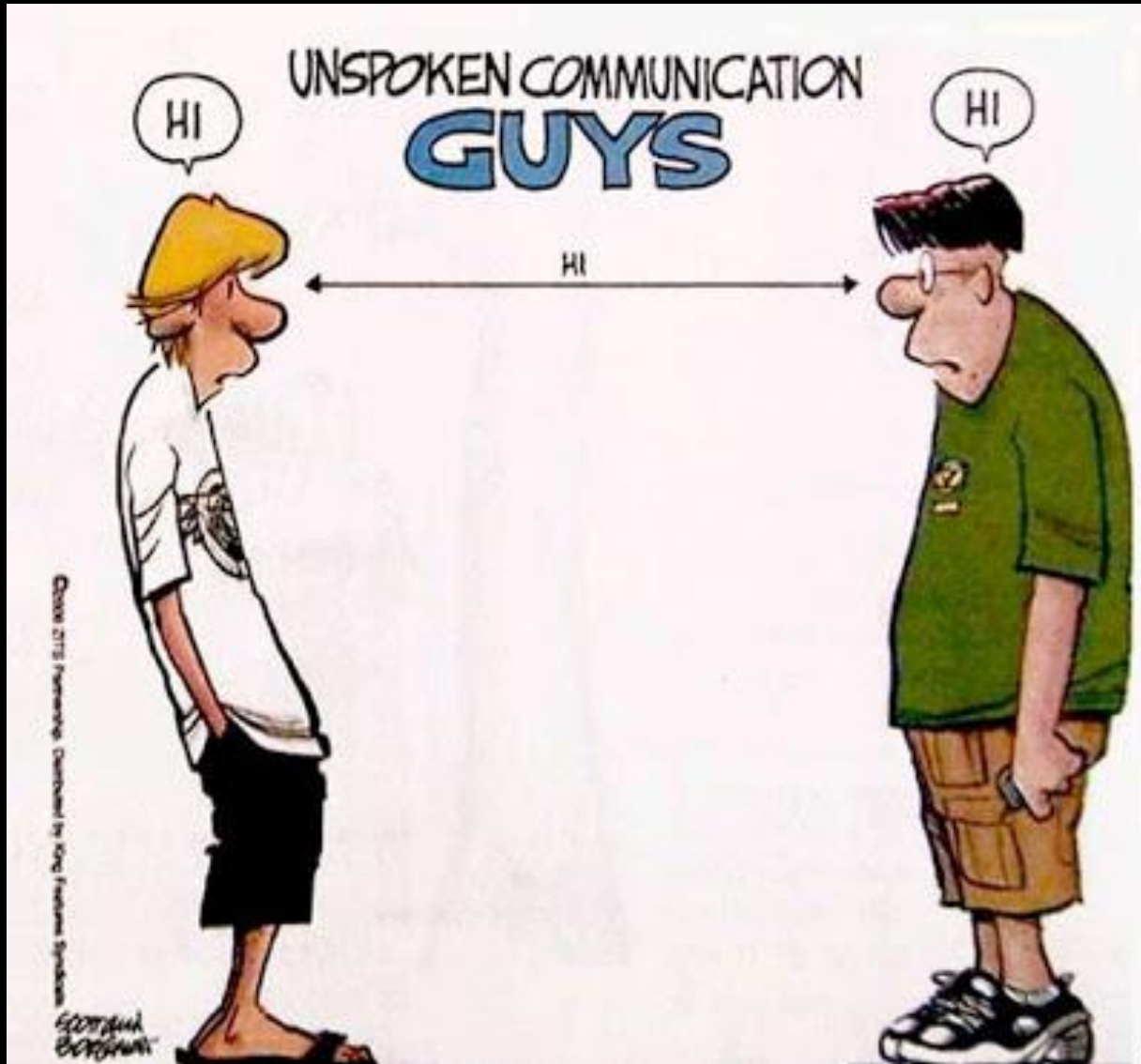


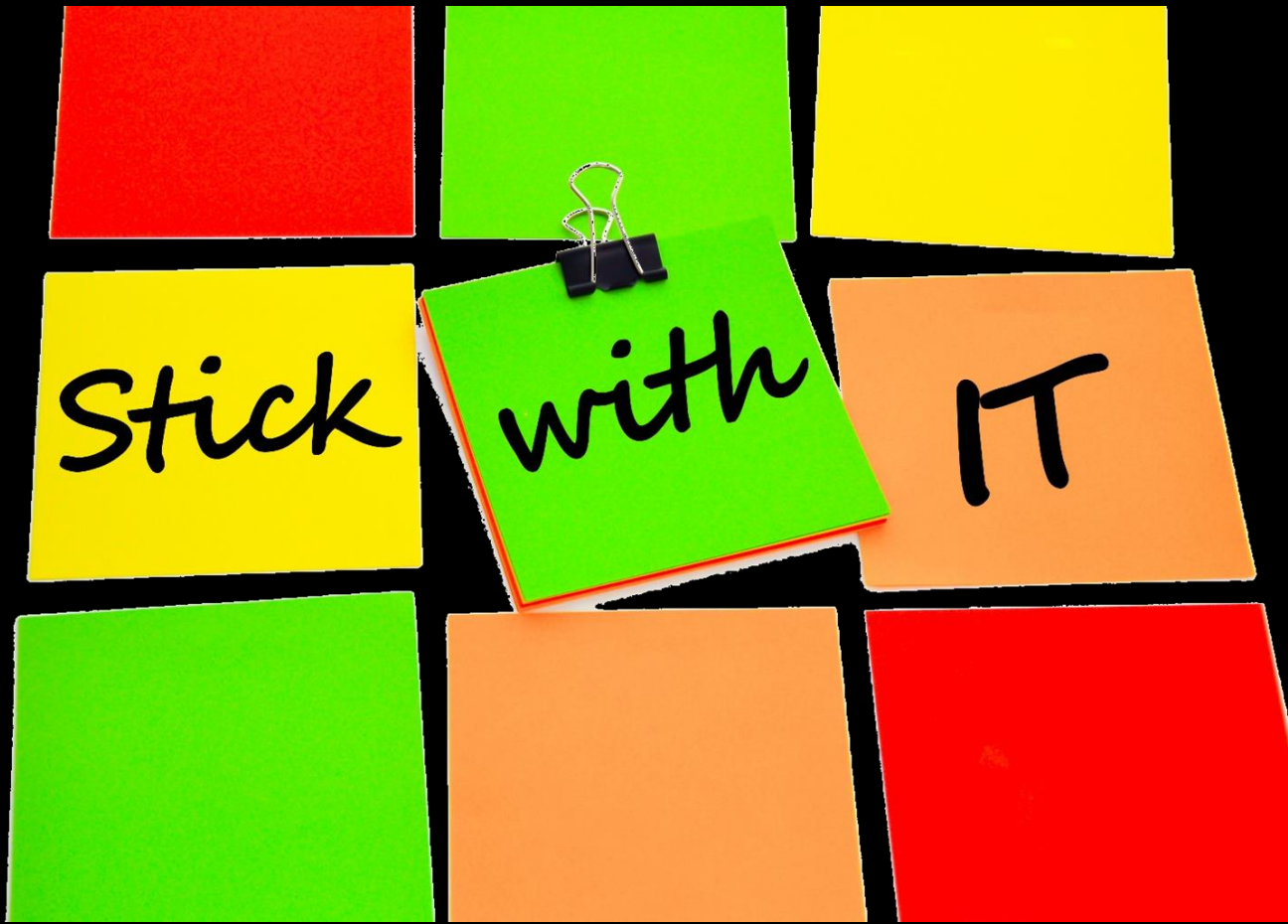
**MY
PARENTS
ARE
RUINING
MY LIFE**

**DON'T BE FOOLED
BY YOUR BRAIN**



**PARENTS are the
ANCHOR**



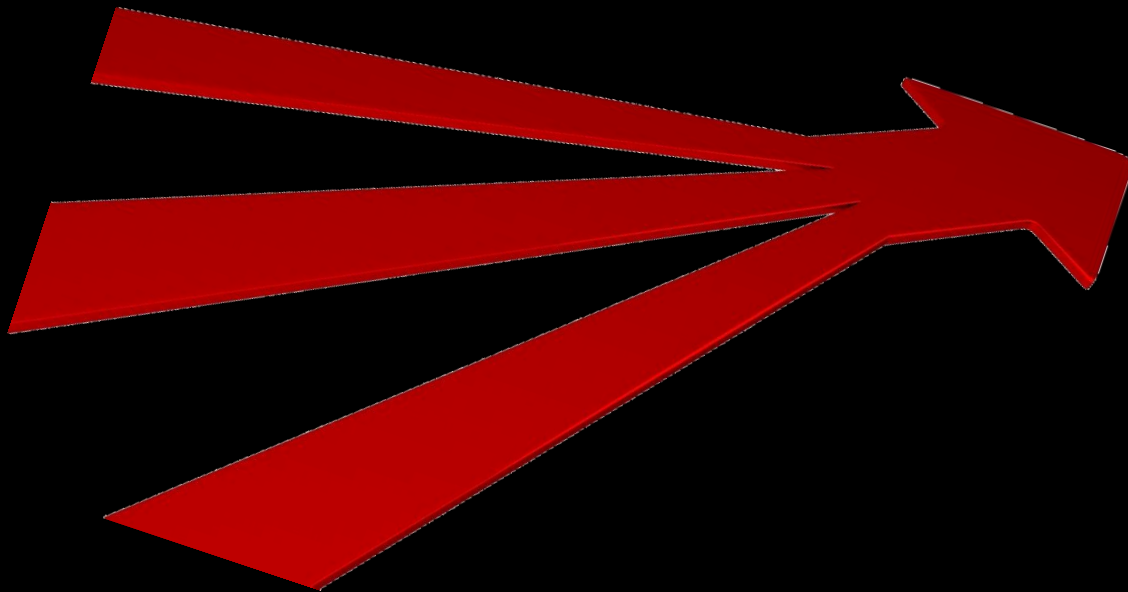


Stick

with

IT

~ AGE 25-30





THANK YOU