



NeuroScience *for* BusinessPeople

TOP 10

BRINGING NEUROSCIENCE TO THE ART OF LEADERSHIP EXCELLENCE



New era of
knowledge

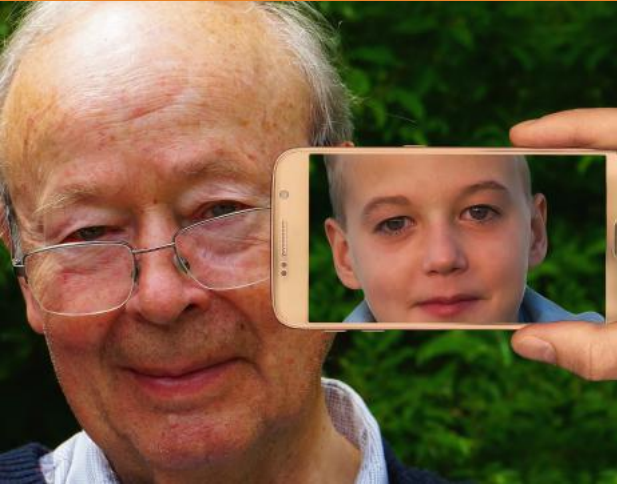




1

MYTH BUSTING

BRAIN MYTHS



After puberty, the brain is in decline



We only use 10% of our brain



We are excellent multi-taskers

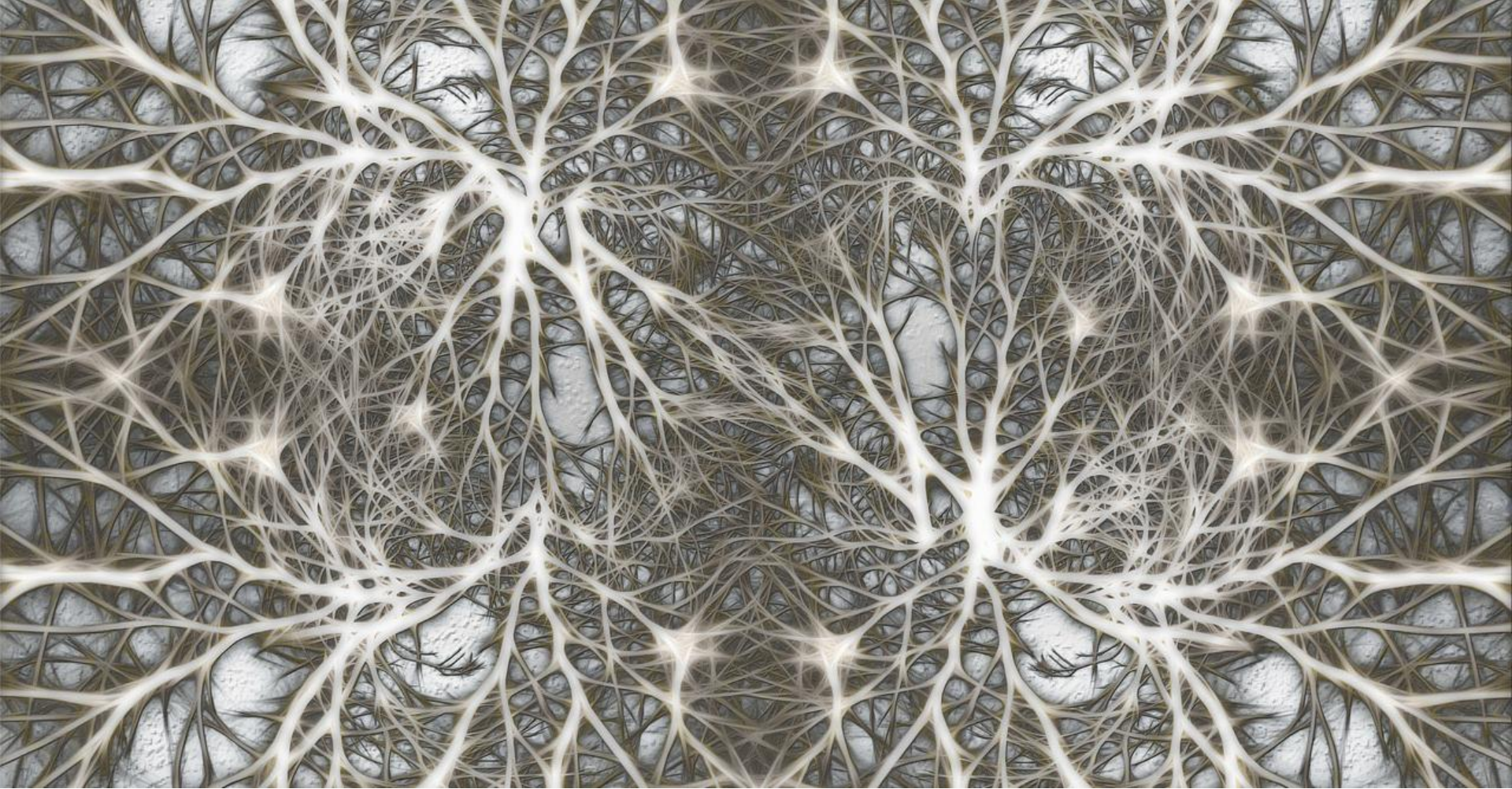


2

NEUROPLASTICITY

Neuro Plasticity







3

THREAT v REWARD

ANXIOUS
PROTECTIVE
REACTIONARY
PESSIMISTIC



CAN'T THINK
CAN'T INNOVATE
CATASTROPHISE
GENERALISE



THREAT
STATE





REWARD STATE



MORE COGNITIVE
RESOURCES

BETTER PROBLEM
SOLVING



MORE CREATIVE
IDEAS & INSIGHTS

DOPAMINE
SEROTONIN



4

ASSOCIATION



PATTERN RECOGNITION



ASSOCIATION
NETWORKS

EFFORT
CONSERVATION



ERROR
DETECTION

NORMALISING



5

SOCIAL



SOCIAL



HUMAN INFANT
SURVIVAL

TRIGGERS MOST
THREATS & REWARDS



SOCIAL PAIN



PHYSICAL PAIN



6

CAPACITY



Daniel Kahneman, *Thinking, Fast & Slow*

QUESTION

In a lake there is a patch of lily pads.
Every day the patch doubles in size.
If it takes 48 days for the patch to cover
the entire lake, how long would it take
for the patch to cover half the lake?

~~24 days~~

47 days

COGNITIVE LOAD

Unconscious

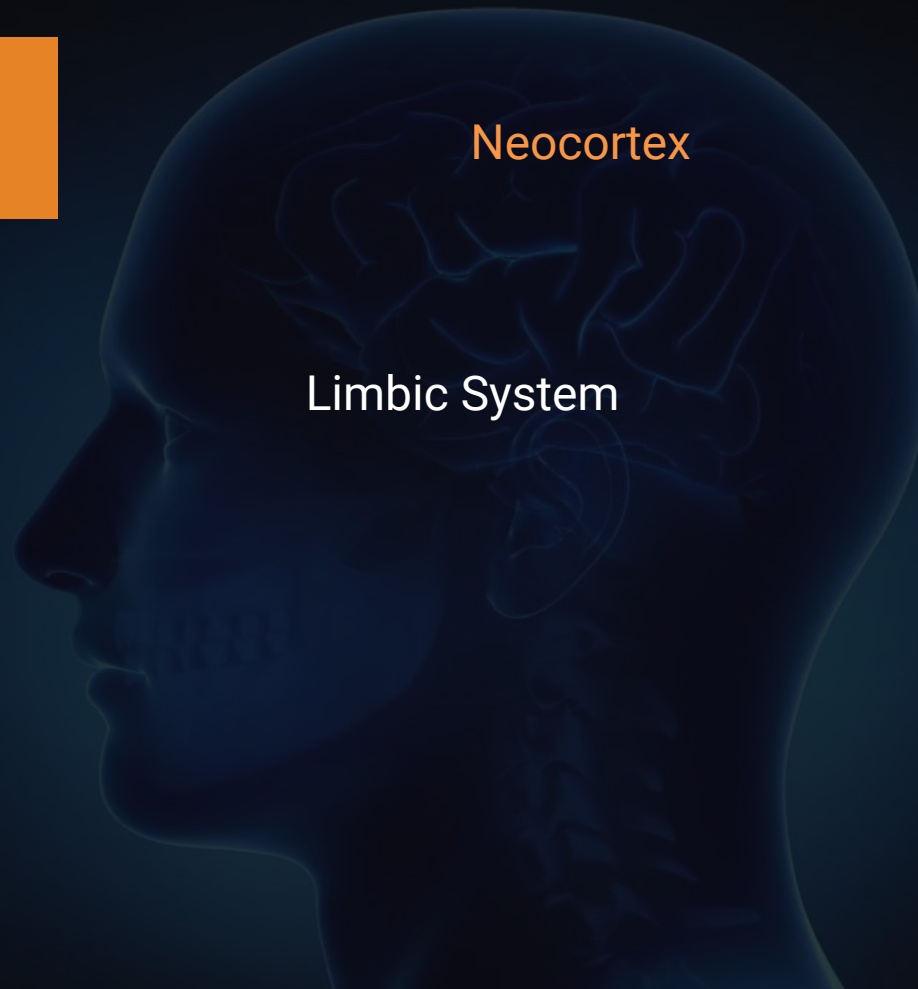
Automatic

24/7

Fast

Parallel

System 1



Neocortex

Limbic System

Conscious

Awake

Linear

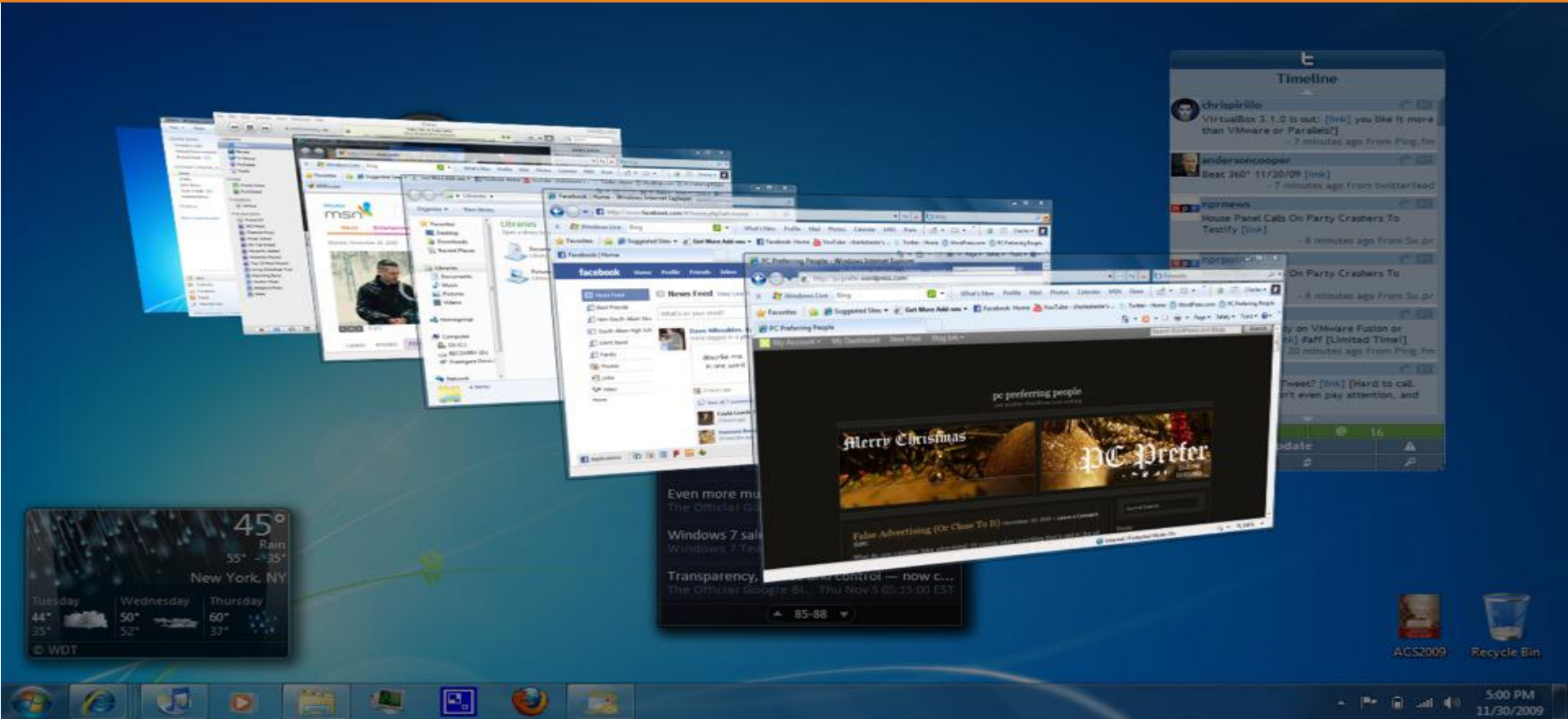
Slow

Lazy

Limited

System 2

DESKTOP v OPERATING SYSTEM



CONSERVING COGNITIVE ENERGY

Difficult tasks

Difficult people

Strategising

Decisions

Hunger

Sleep deprivation

DEPLETERS

ENERGISERS

Glucose

Down time

Meditation

Exercise

Socialising

Laughter



7

MEMORY

ABOUT YOUR MEMORY



Recreated, not stored



Capacity limitations



Use it or lose it



Impacted by stress



8

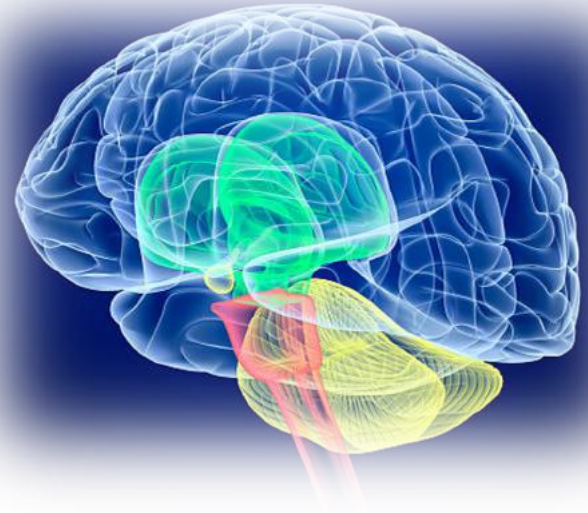
DECISIONS

STRATEGIC DECISION MAKING



Porter's 5 Forces

Cognitive v
Affective



How the decision feels to you

How others will react to it



9

MOTIVATION



MOTIVATING TEAMS

GOALS

Channel attention

Focus the default brain state

Create a radar for goal relevant information



MOTIVATING TEAMS

Pursuit

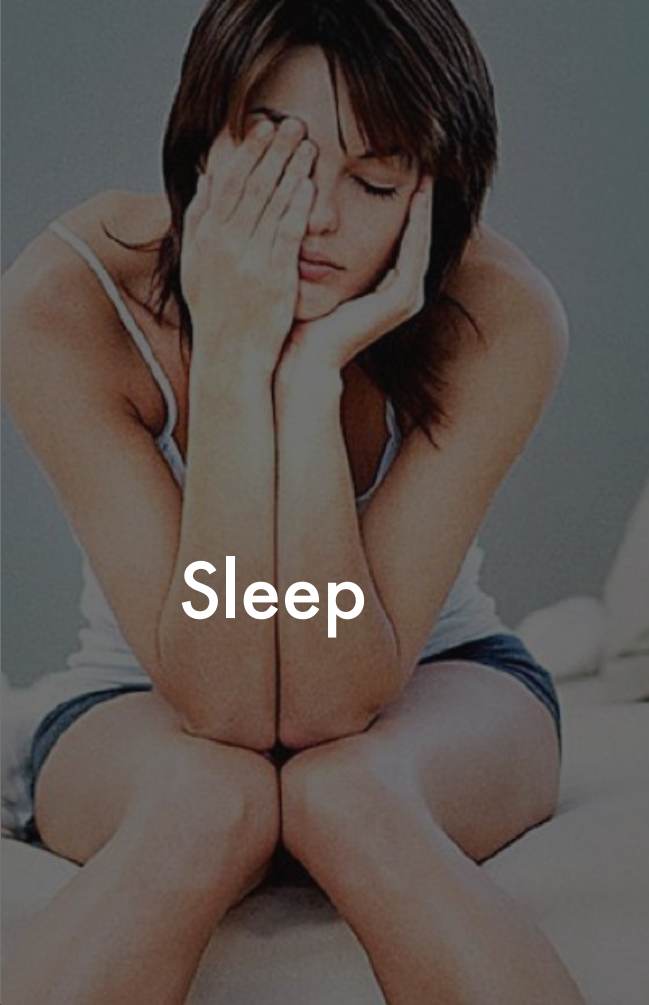
v

Achievement



10

PHYSICAL



Sleep

acute sleep deprivation
v
chronic partial sleep restriction

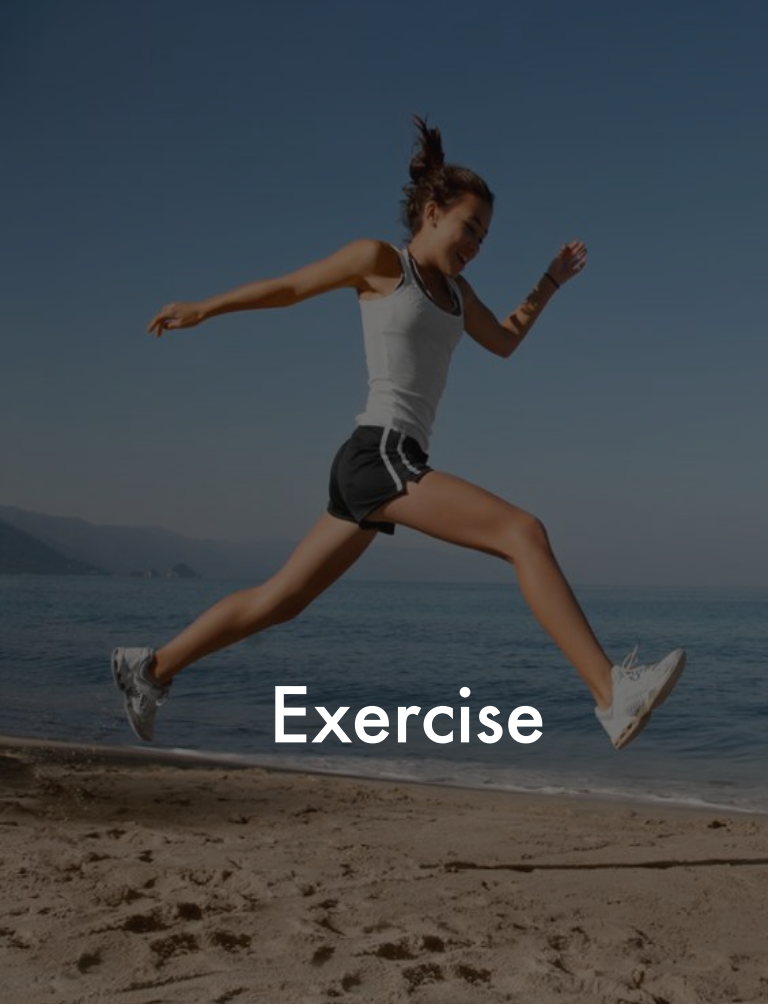
- recovery slower chronic
- younger perform poorer
- women perform better
- ability to accurately detect emotions declines
- memories and learning are consolidated during sleep



Nutrition

Below normal blood sugar
=
20% reduction in performance

- iron improves cognitive performance
- flavonoids protect the brain from neurotoxins
- fish oil supports brain development



Increases

BDNF = neurogenesis
& neuroplasticity

- Best exercise builds fitness & strength
- Spike & rest
- Beware excess



BrainBiz

PRESENTER



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ON MY BOOK SHELF

