

# **HACKING HEURISTICS WORKSHOP WEEKEND**

**13:00 - 15:00**

# HACKING HEURISTICS

Marlot Meyer – *Artist*

Marcel de Jeu – *Erasmus MC Neuroscience associate professor*

Arran Lyon – *AI Programmer*

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# WORKSHOP OUTLINE

13:00 - 13:15: Introduction to the work, the research, and BAD Awards

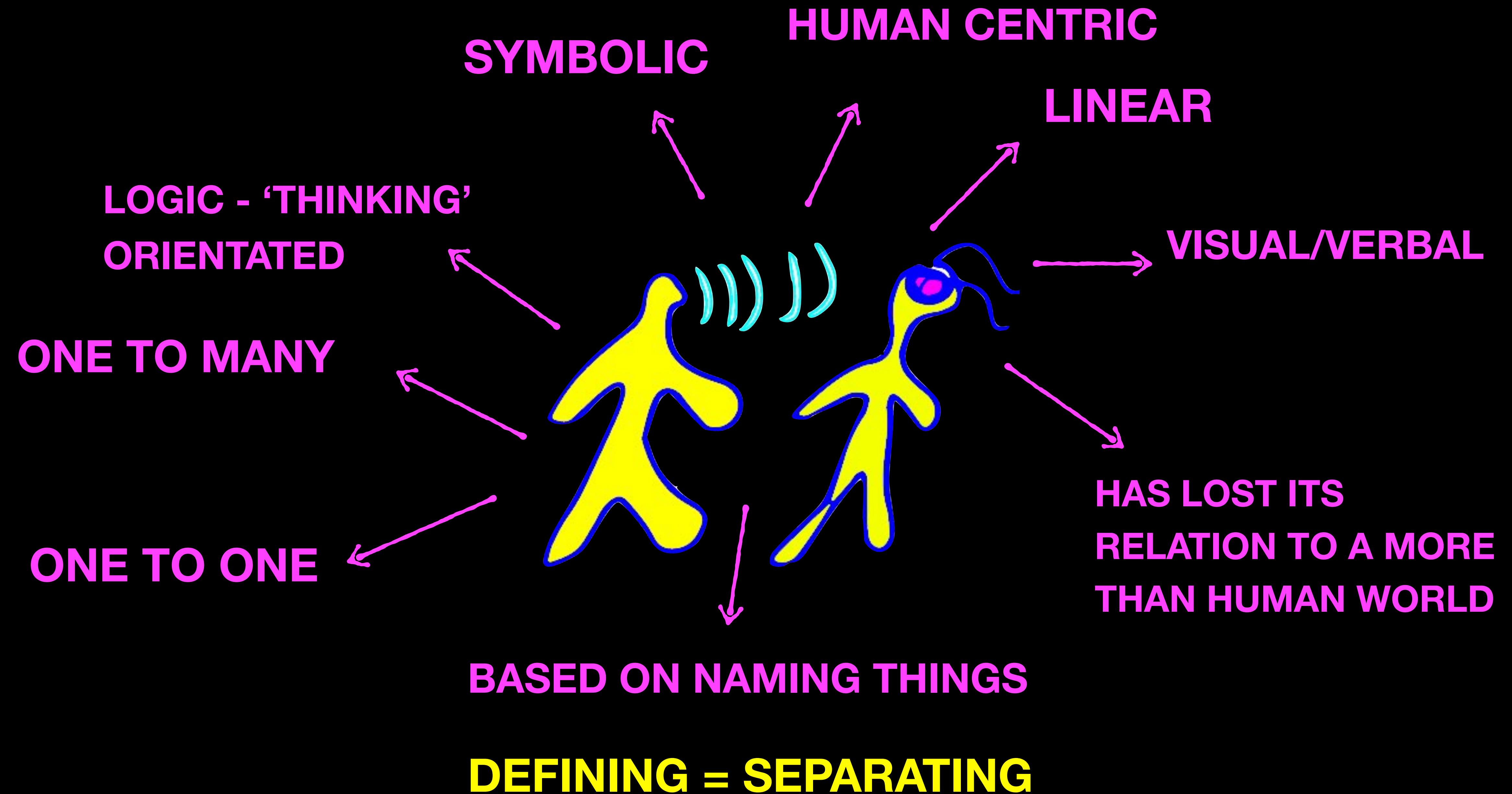
13:15 - 13:30: Have participants wear the headsets and engage in the experience

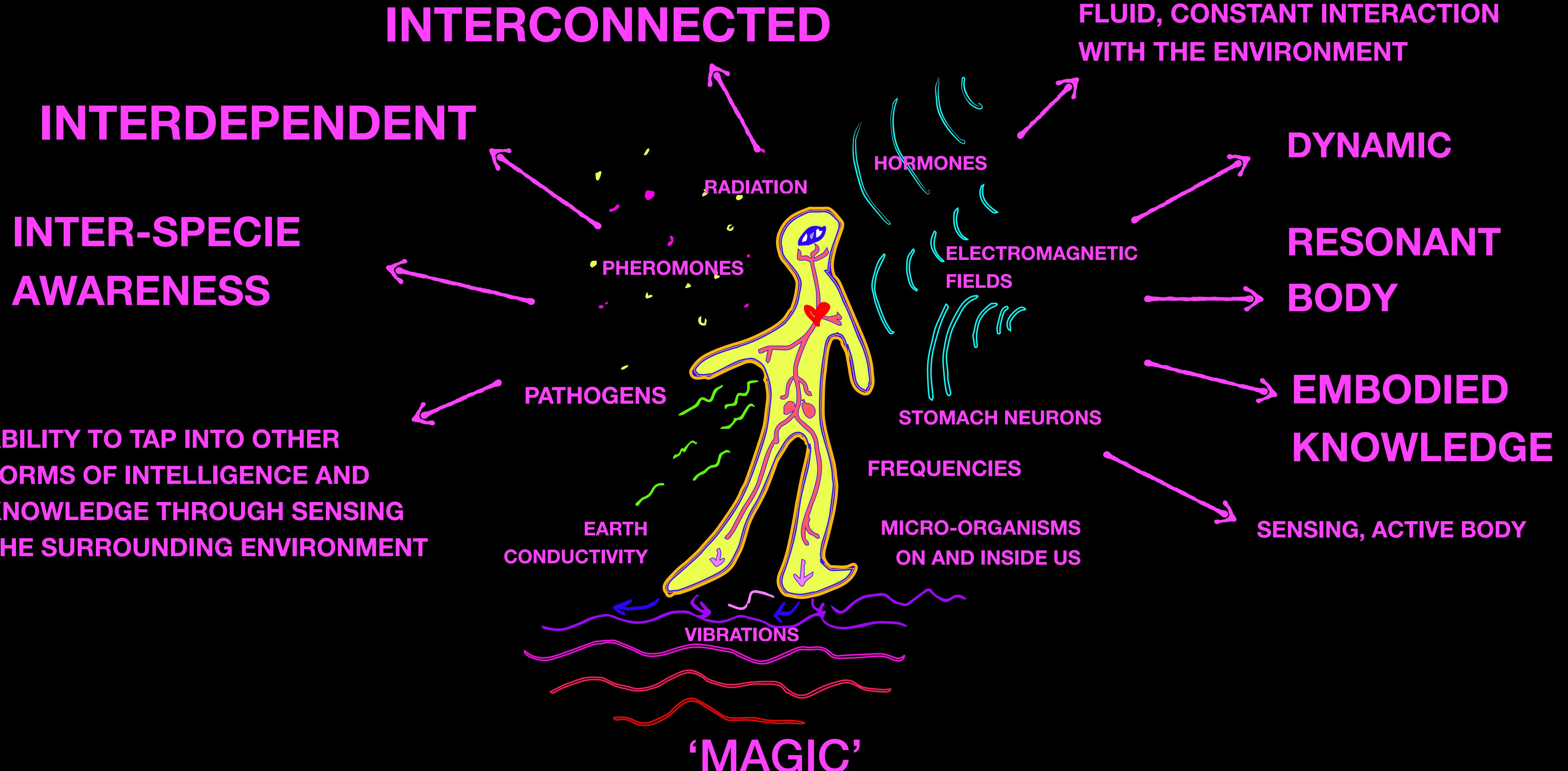
13:30 - 14:00: Have participants give feedback on how the experience went for them - have them write what they think their bodies did, how they felt in terms of emotions, how their bio signals changed during the experience, why they think they synced up with people or why not - so their subjective experience. Enter discussion as a group.

14:00-14:30: Have Marcel break down why your body and bio signals change and how they reflect an emotional state of being, how the stimulation can influence you.

14:30 - 15:00: Have Arran look at the algorithms behaviour during the time the users were wearing the headsets, share how the machine learning aspect works, and give them an opportunity to compare their subjective experience that they had written down to the algorithm's actions and analysis of their bio signals.

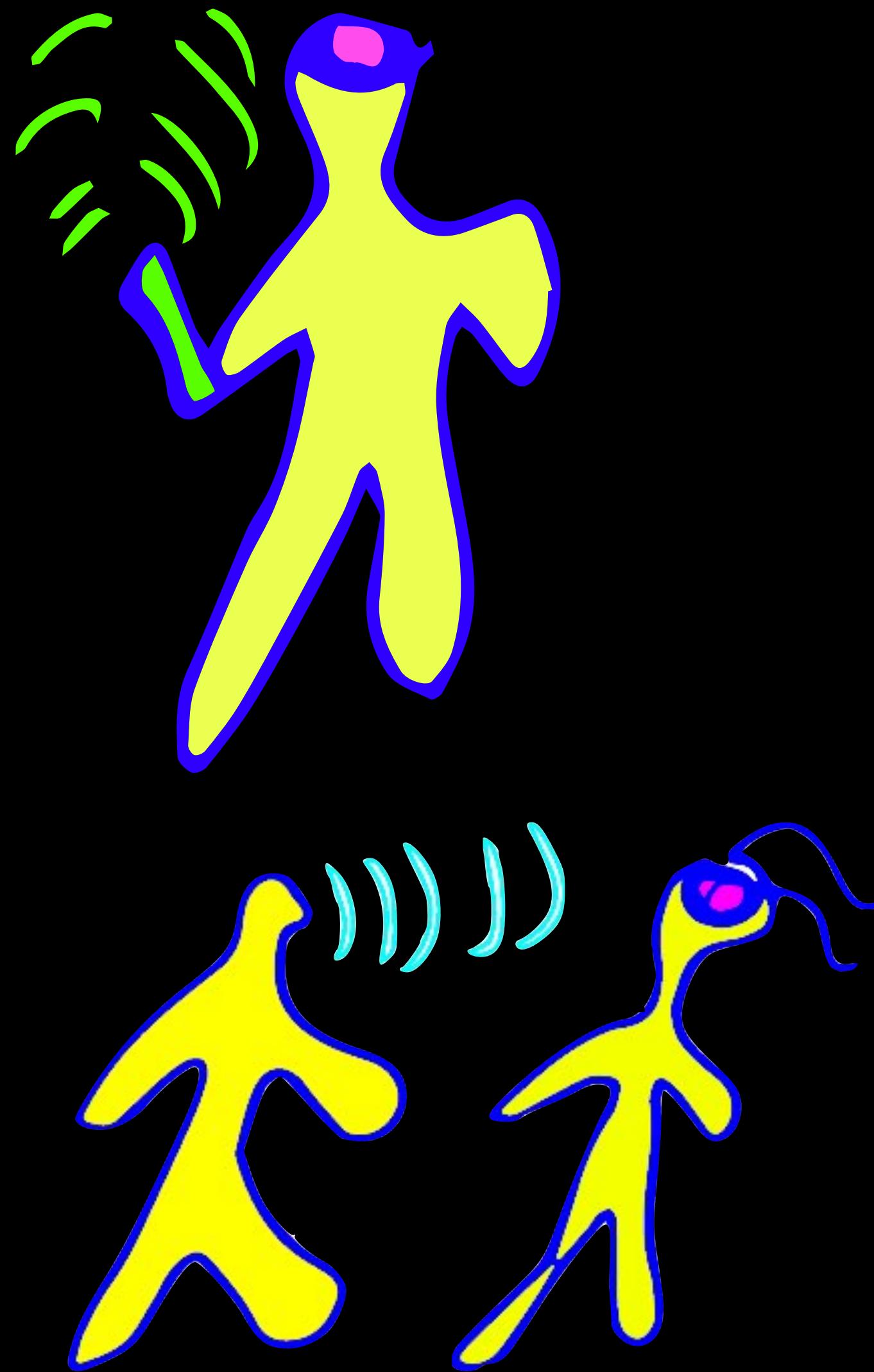
15:00: Finishing up



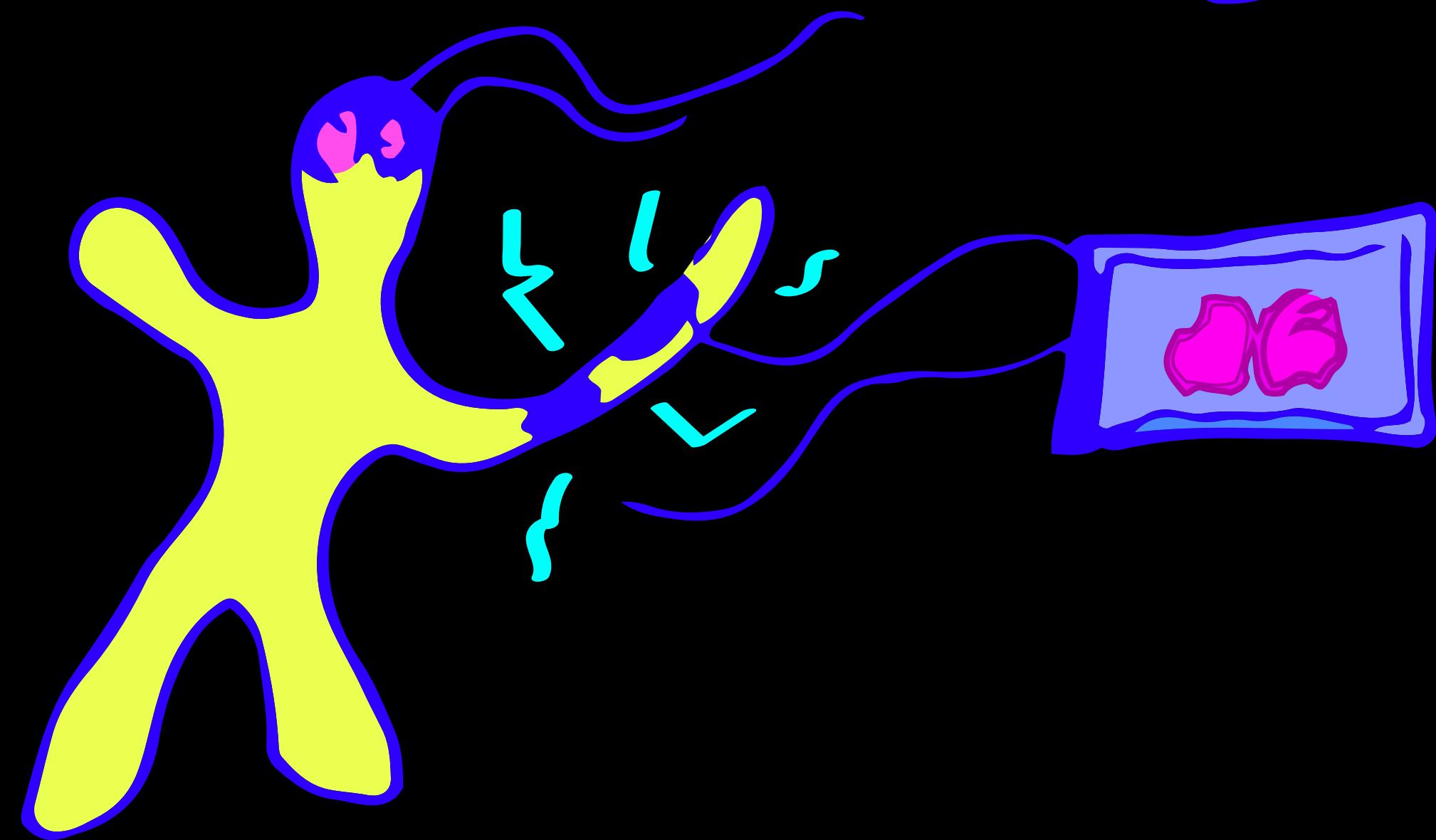




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**BUT MAYBE WE ARE TOO MUCH IN IT TO ‘UNTHINK’ IT BY  
OURSELVES (AS HUMANS)**



**COULD AI HELP TEACH US A NEW/OLD/HYBRID WAY OF  
COMMUNICATING AND UNDERSTANDING OURSELVES AND  
OUR RELATIONSHIP TO A MORE THAN HUMAN WORLD?**

# **EXPERIENCE TIME!**

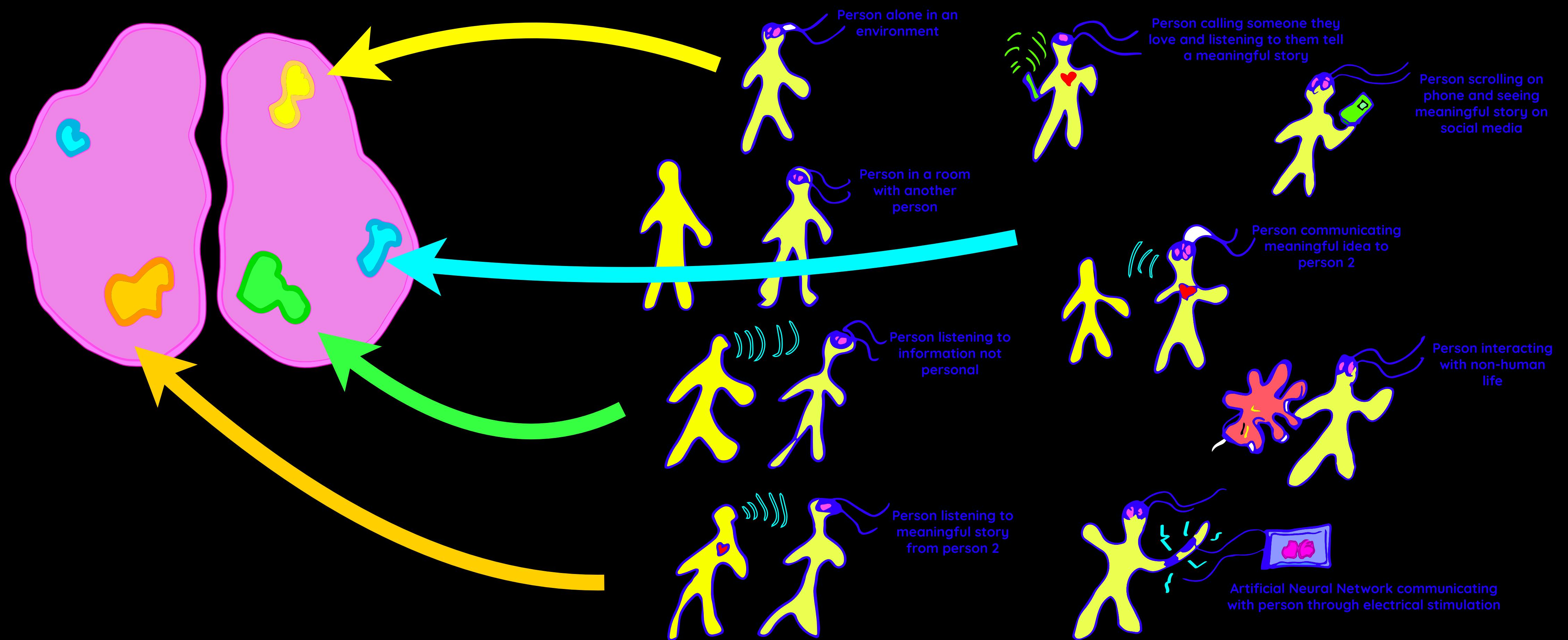
**+ FEEDBACK FORMS + PENS**

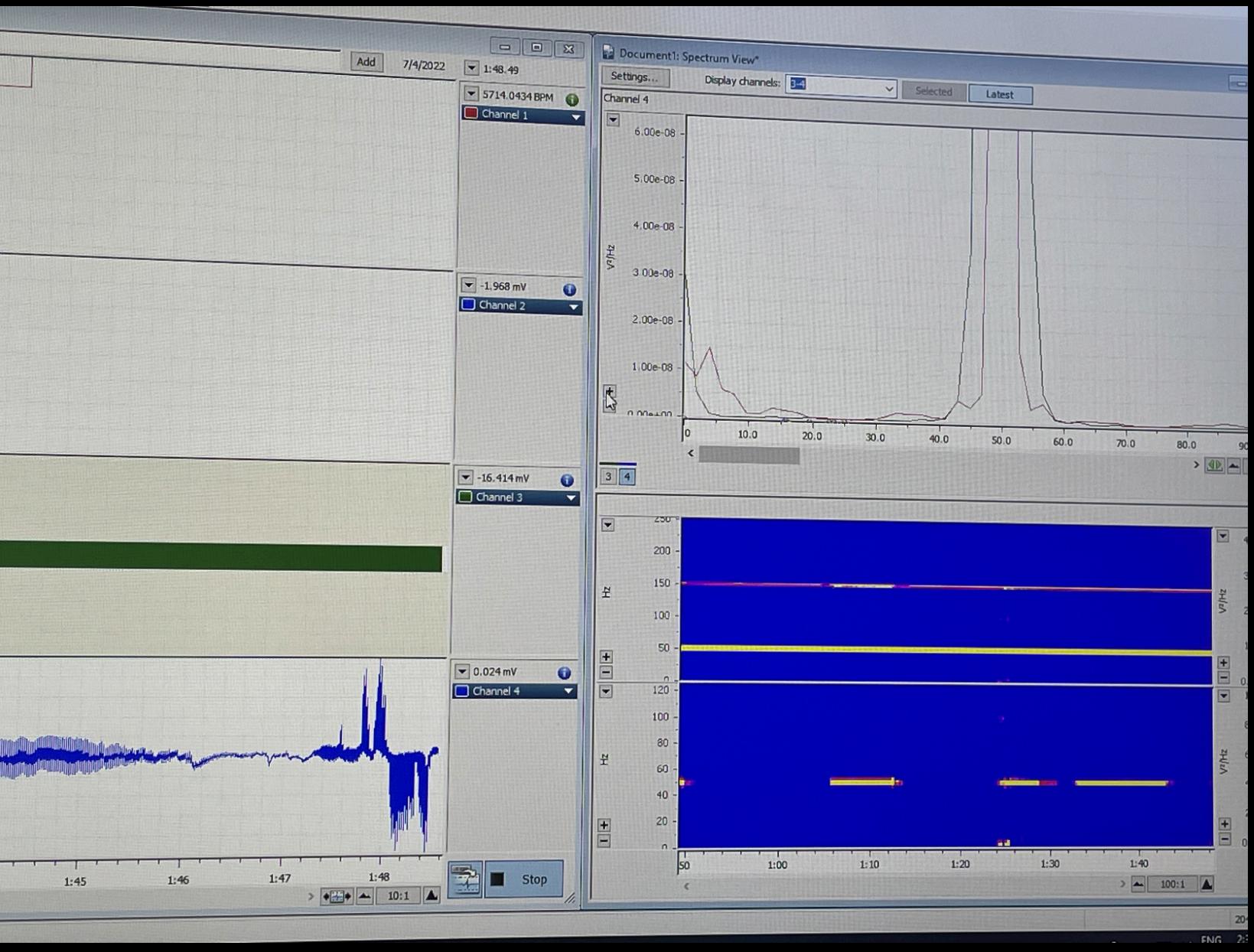
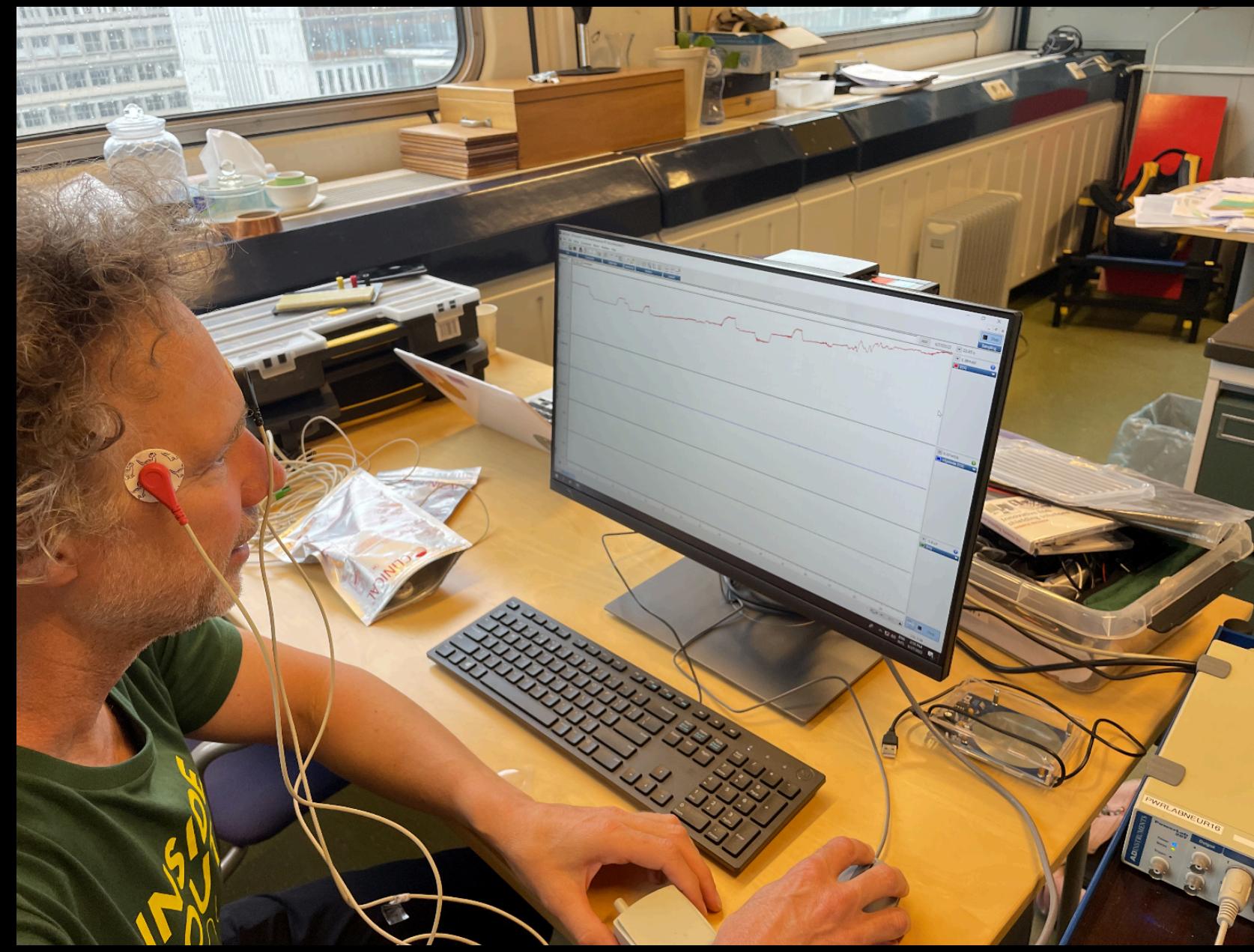
# MARCEL DE JEU

*Erasmus MC Neuroscience associate professor*

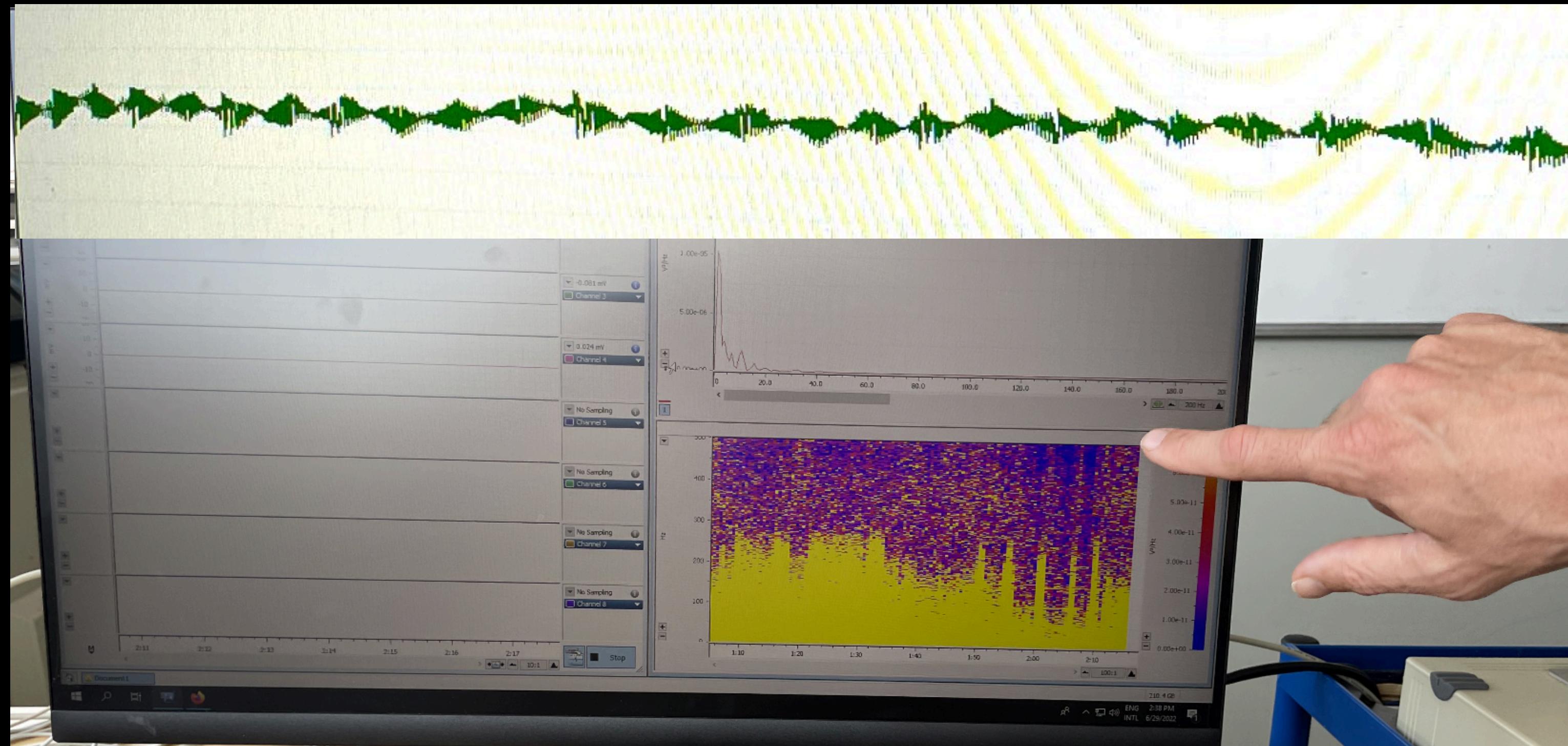


# EXPECTATION

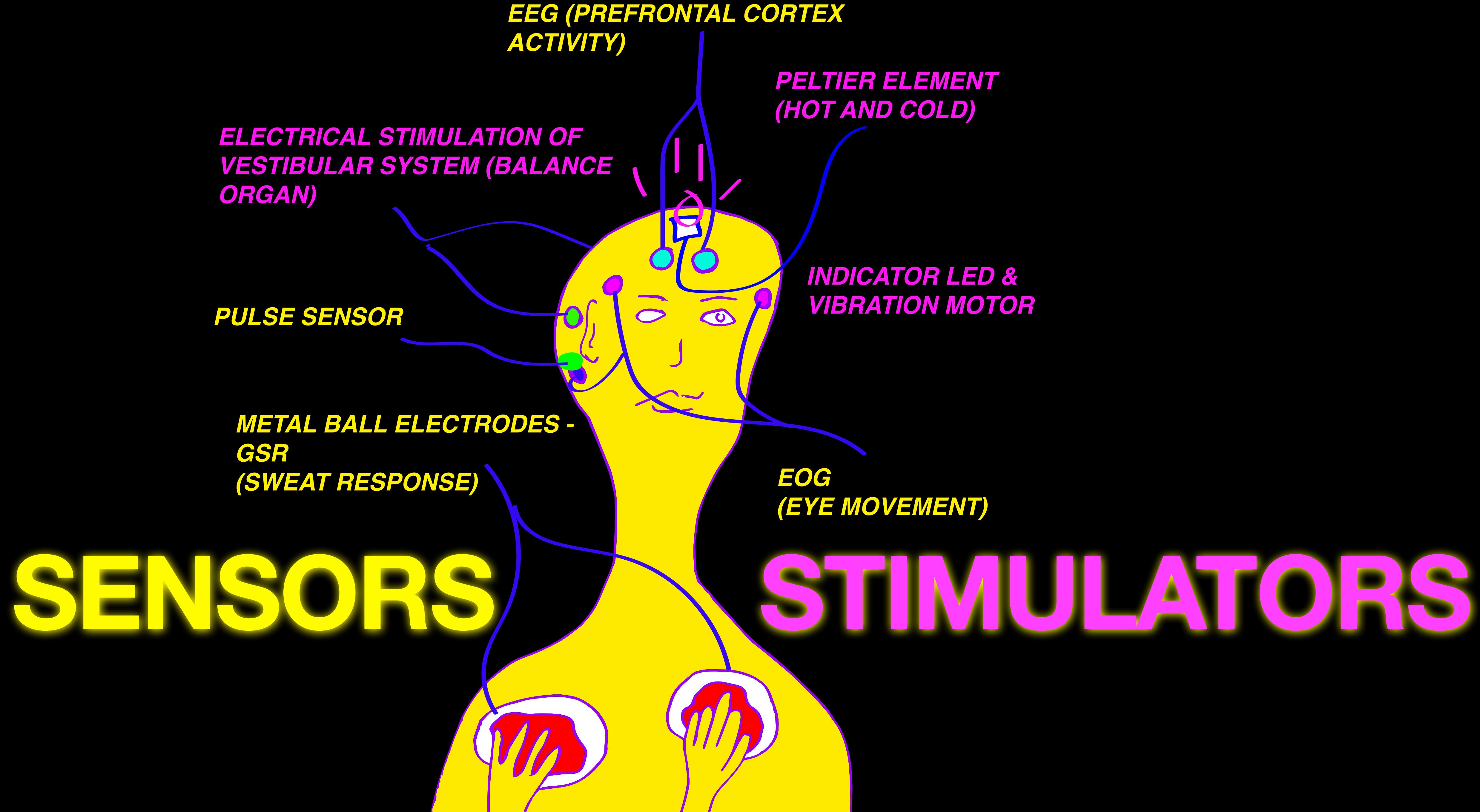




# THE BODY IS NOISY



WE TOO ARE A SPECTRUM  
NO PART OF US EXISTS SEPARATE FROM OTHER PARTS



AI CONTROLS AMPLITUDE,  
FREQUENCY, DURATION,  
PULSE-WIDTH OF STIMULATION

LOCATION INTENDED TO  
ALTER YOUR PERCEPTION /  
EXPERIENCE

HEART RATE  
CHANGE IN BPM

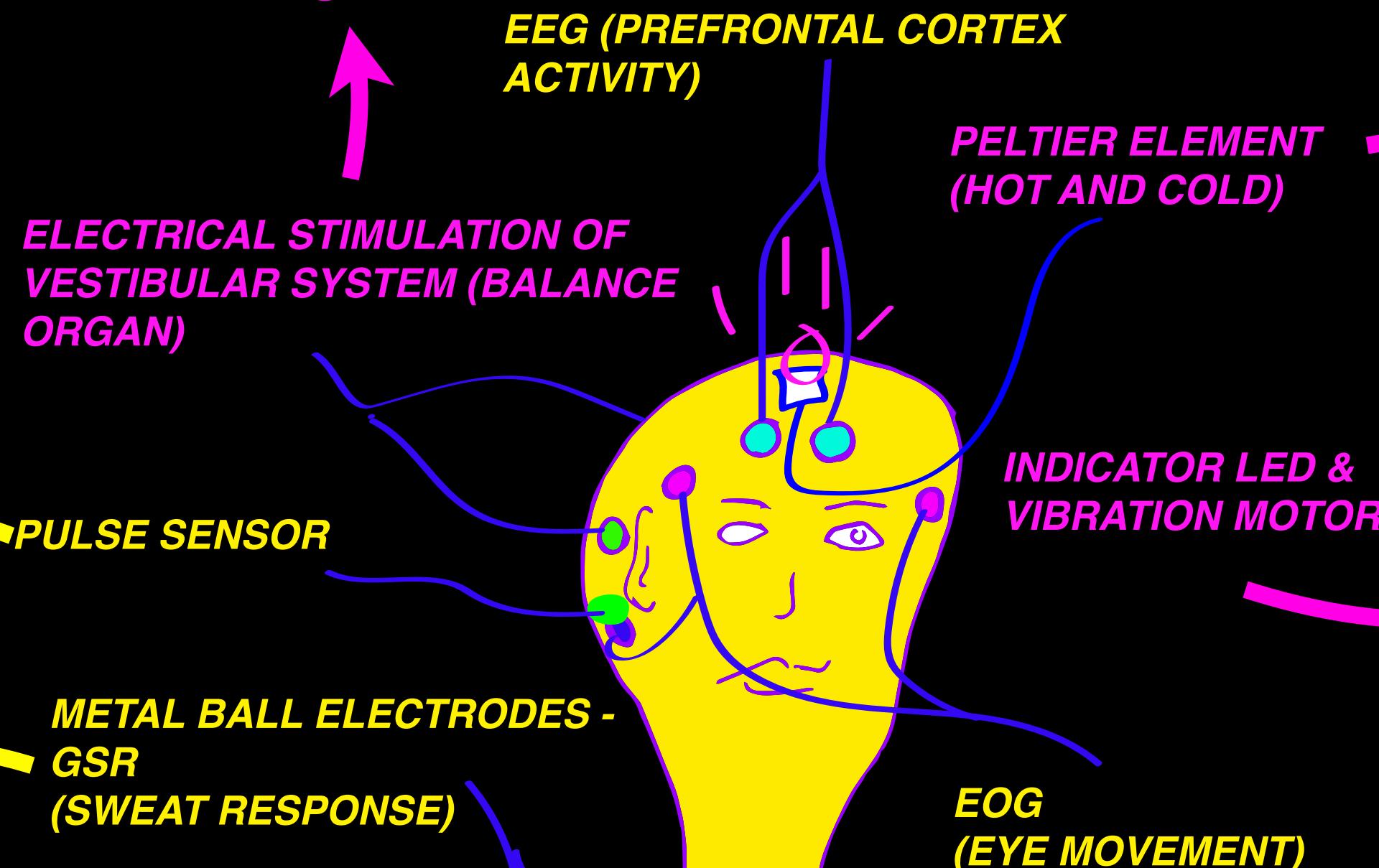
SKIN CONDUCTANCE CHANGE  
= SWEAT RESPONSE

25-45Hz FREQUENCY

CAN CHANGE FROM HOT  
TO COLD  
PLACED ON FOREHEAD  
AND BEHIND HEAD

CAN SEE WHO IT IS  
FEEL YOU HAVE  
CONNECTED WITH  
SOMEONE

LEFT - RIGHT EYE  
MOVEMENT RATE



SLOWING DOWN : RELAXATION,  
MEDITATIVE STATE

SPEEDING UP : EXCITEMENT/  
NERVOUSNESS/ACTIVITY

FREQUENCIES DETECTED  
IN THIS RANGE SIGNIFY A  
CALM, RELAXED,  
MEDITATIVE STATE

LITTLE OR NO  
HORIZONTAL EYE  
MOVEMENT: CALM, SELF  
ASSURED, FOCUSED

RAPID HORIZONTAL EYE  
MOVEMENT: SCANNING  
ENVIRONMENT/  
SURROUNDINGS,  
UNSETTLED/DISTRACTED

EMOTIONAL AROUSAL  
\* FOR THE SENSOR IT DOES  
NOT SEE A DIFFERENCE  
BETWEEN A 'GOOD' AND A  
'BAD' EMOTION

HEART RATE  
CHANGE IN BPM

PULSE SENSOR

SKIN CONDUCTANCE CHANGE  
= SWEAT RESPONSE

METAL BALL ELECTRODES -  
GSR (SWEAT RESPONSE)

AI CONTROLS AMPLITUDE,  
FREQUENCY, DURATION,  
PULSE-WIDTH OF STIMULATION  
LOCATION INTENDED TO  
ALTER YOUR PERCEPTION /  
EXPERIENCE

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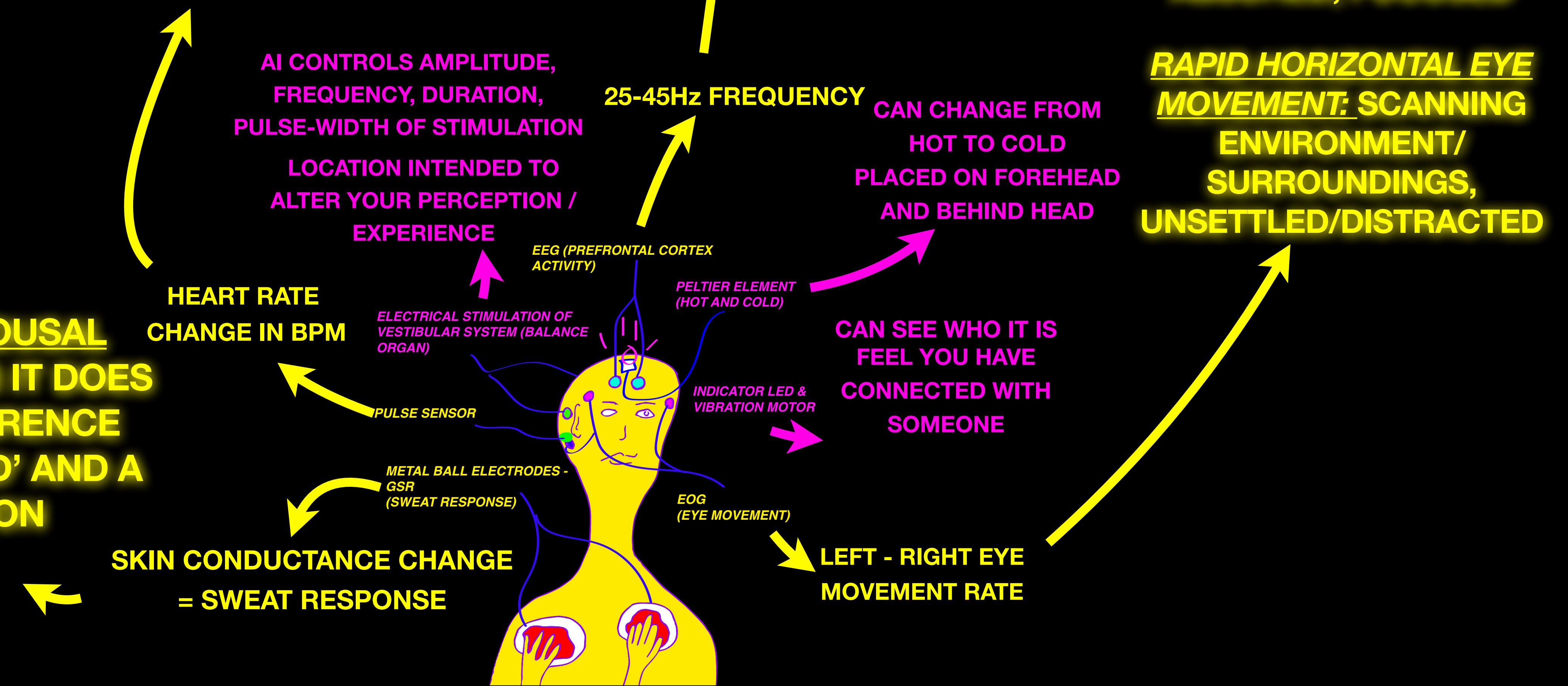
LEFT - RIGHT EYE  
MOVEMENT RATE

EEG (PREFRONTAL CORTEX  
ACTIVITY)

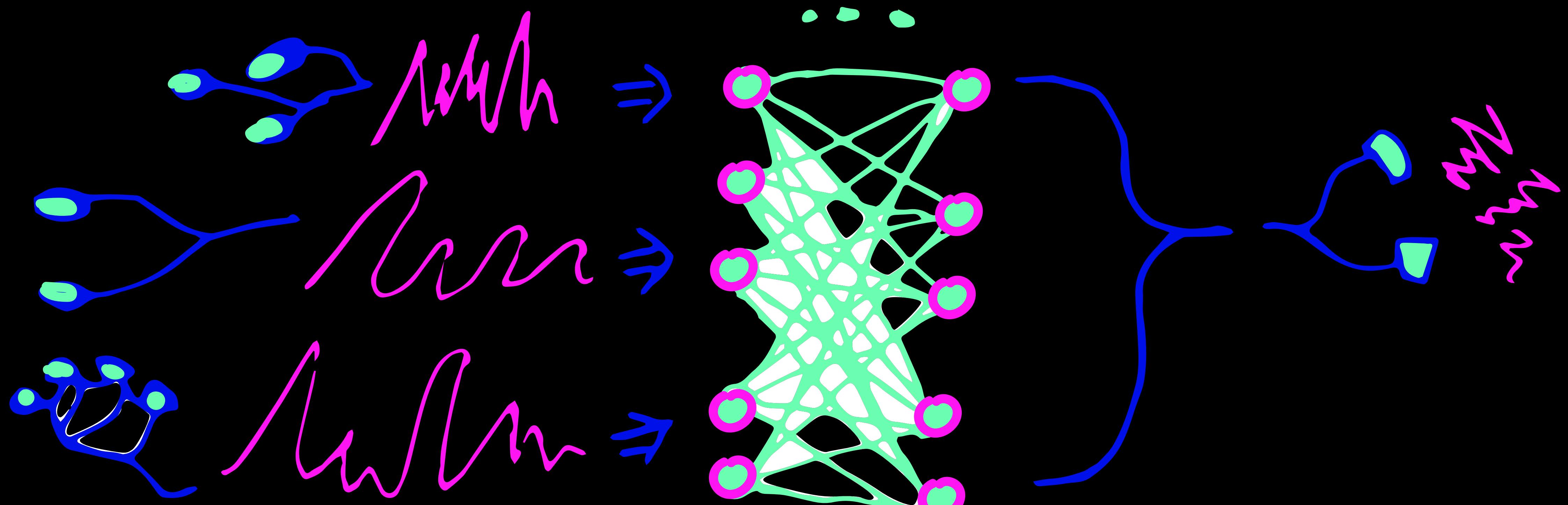
PELTIER ELEMENT  
(HOT AND COLD)

INDICATOR LED &  
VIBRATION MOTOR

EOG  
(EYE MOVEMENT)



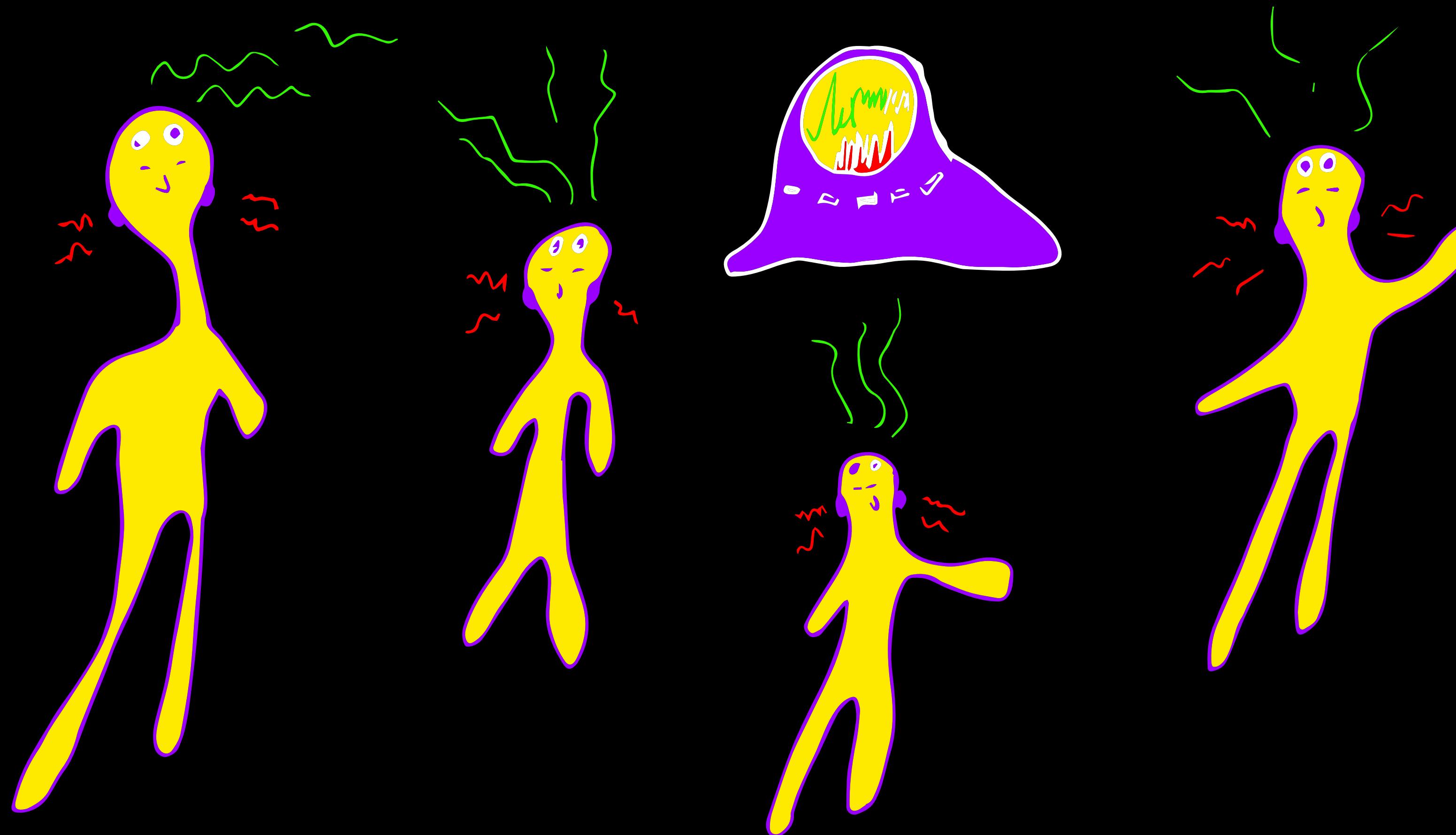
# SO MUCH DATA..



I WONDER WHAT IT LOOKS LIKE..

NOW

HUMAN ←→ AI ←→ HUMAN



AI ↔ HUMAN

NEXT.. ?

SPACE

HUMAN

HUMAN

AI

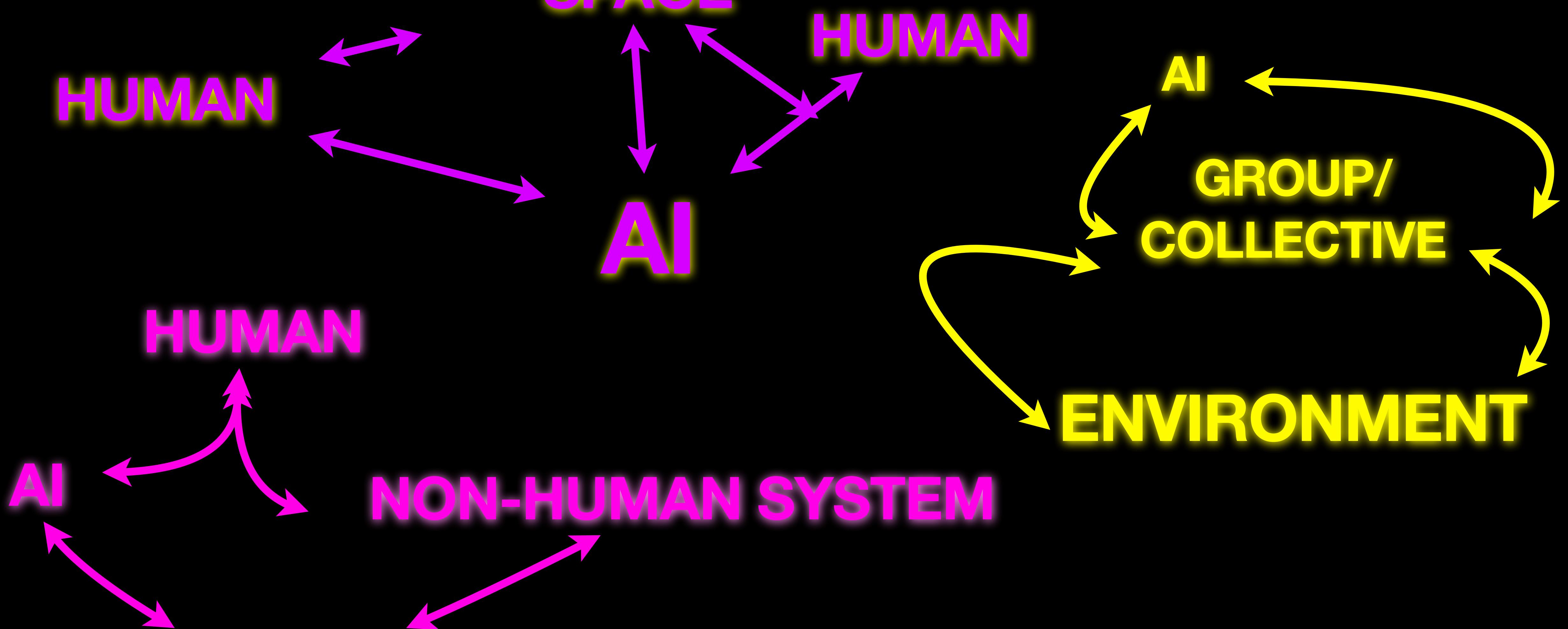
HUMAN

ENVIRONMENT

AI

NON-HUMAN SYSTEM

NON-HUMAN



# THANK YOU !!!!

