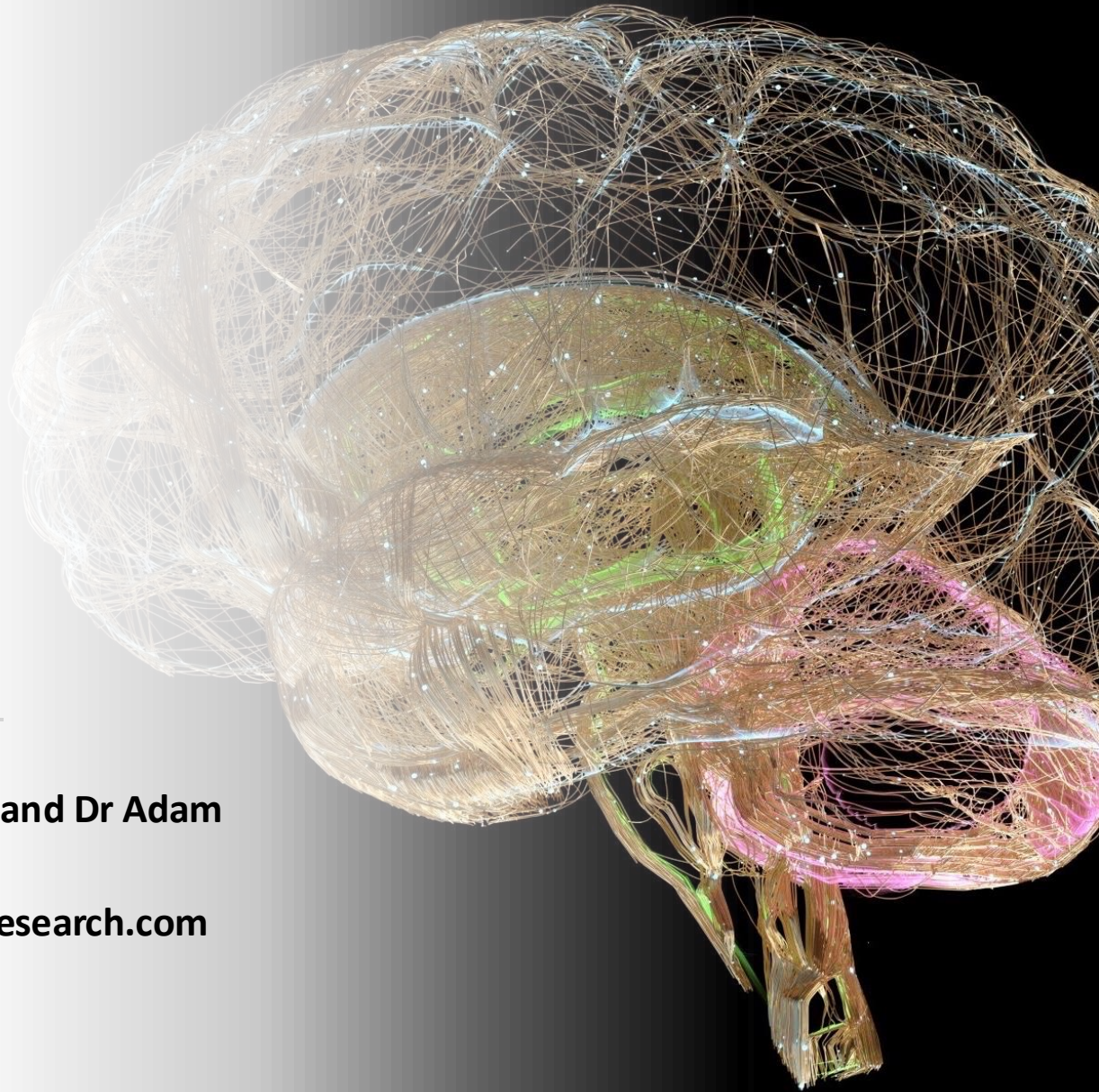


Solution focused conversation and the neurodiverse brain

**Dr Rachel Gillibrand, Mia Lunde and Dr Adam
Froerer**

www.centreforsolutionfocusedresearch.com



Structure of the talk

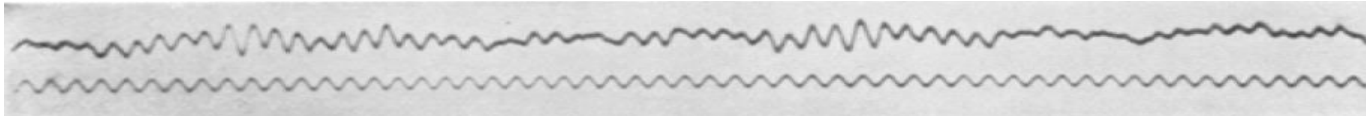
- What is EEG?
- Brain waves, how they differ and what function do they have?
- How do we measure brainwaves?
- How does the brain respond to the best hopes question?
- What are the implications for practitioners?
- Discuss

Please ask questions throughout. Raise your hand, send it via a paper aeroplane or if you prefer, you can text me on 07905527719 and I will answer the question to the group

What is EEG?

Electroencephalography or EEG is a method of recording electrical energy in the brain.

Electrodes are placed on the scalp and fluctuations in electrical energy are recorded usually on a graph.



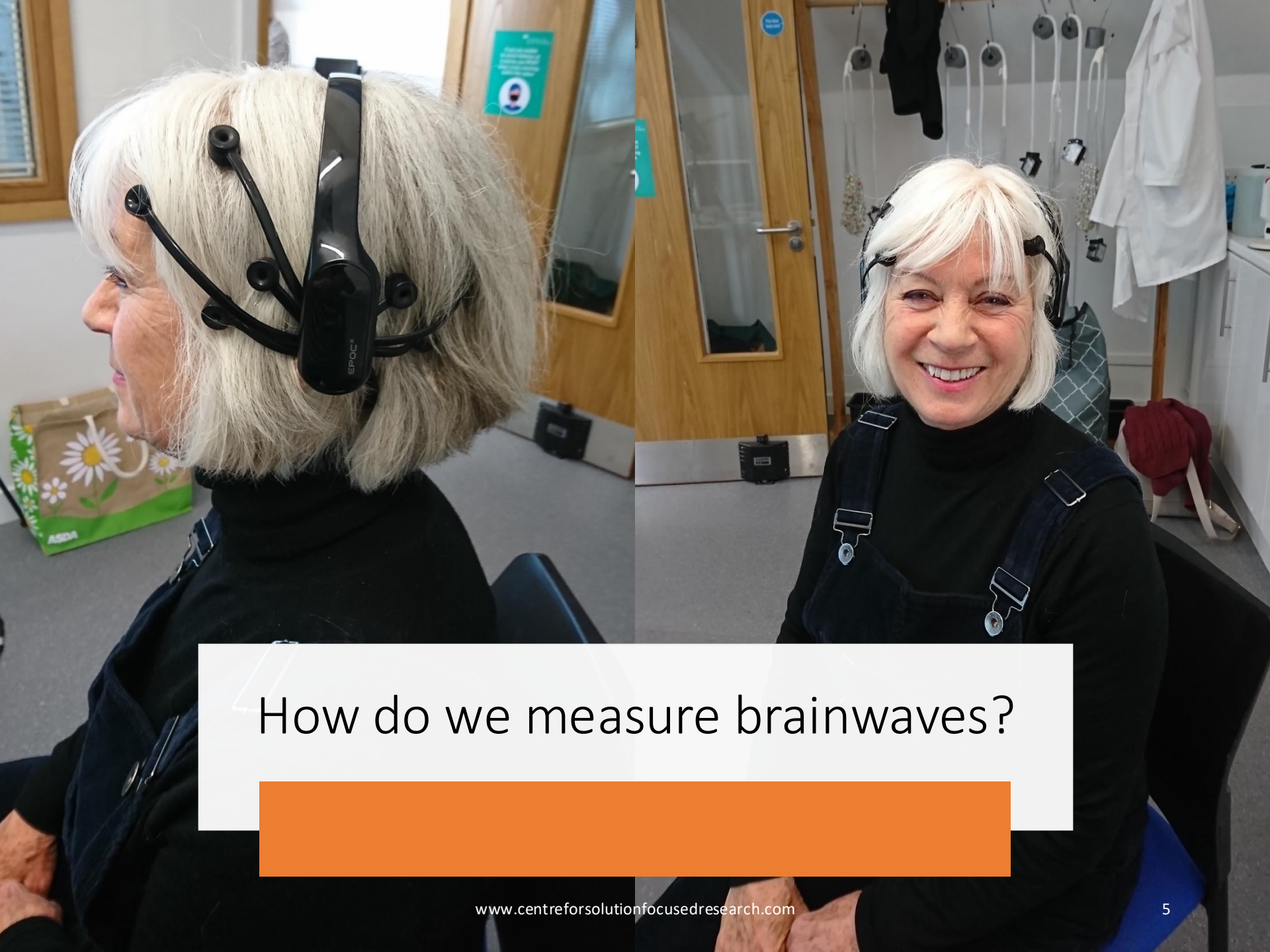
The first human EEG recording obtained by [Hans Berger](#) in 1924. The upper tracing is EEG, and the lower is a 10 [Hz](#) timing signal.

Your brain is made up of cells called neurons. When your brain performs neurological functions, neurons transmit information to each other via electrical signals. These signals produce rhythms or wave patterns, which are known as brain waves.

Brainwaves

Brainwaves are measured in Hertz – the number of cycles per second:

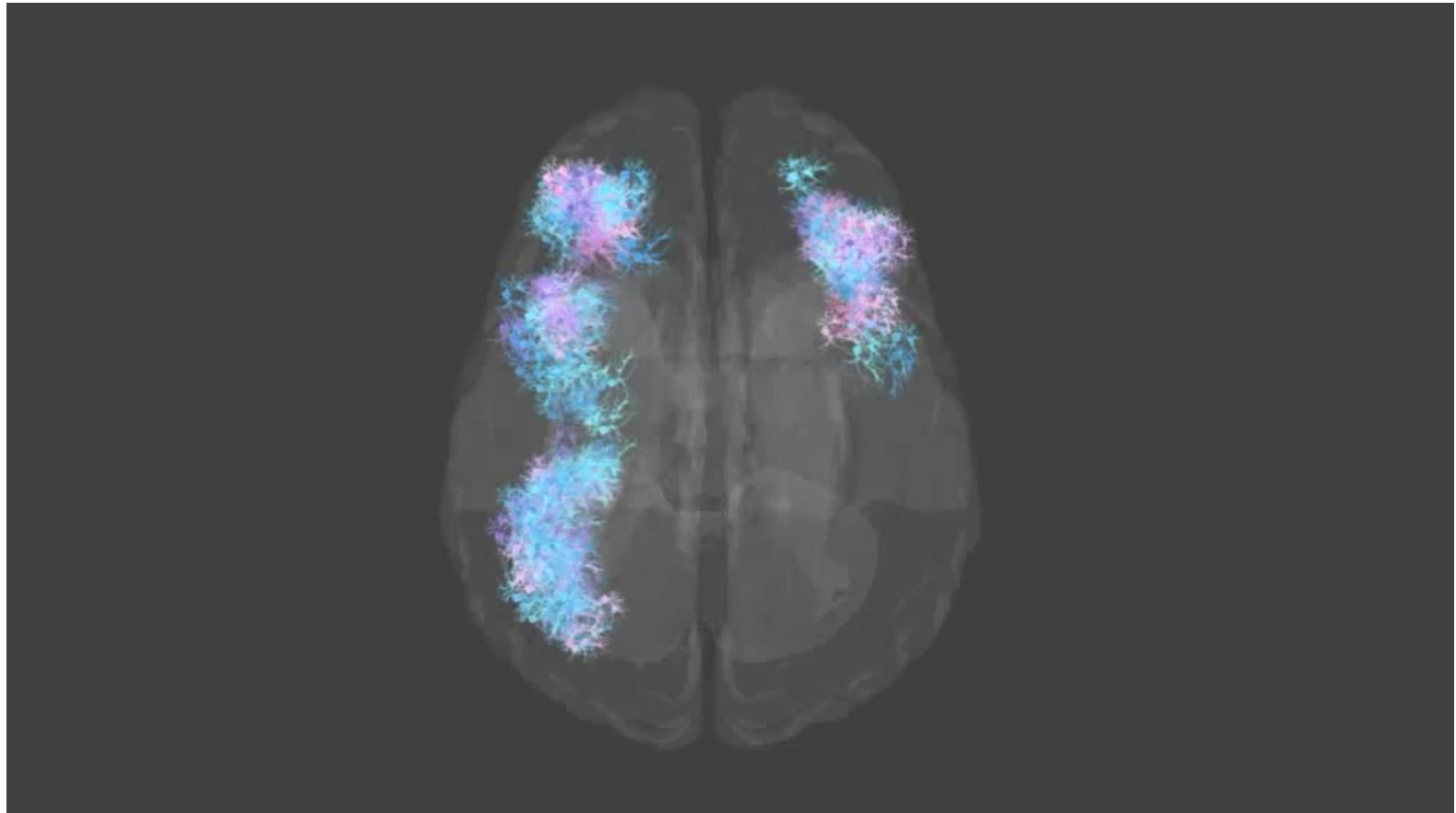
- Delta (0.5-4Hz) – indicating deep sleep and restfulness
- **Theta** (4-8Hz) – indicating deep meditative states, daydreaming and automatic tasks
- **Alpha** (8-15Hz) – indicating relaxed alertness but restful and relaxing, not anxious
- **Beta** (15-30Hz) – indicating wakefulness, alertness, mental engagement and conscious processing of information, can be associated with anxiety
- **Gamma** (30Hz+) - associated with high levels of thought and focus, high levels of gamma waves mean you tend to be happier and more receptive



How do we measure brainwaves?

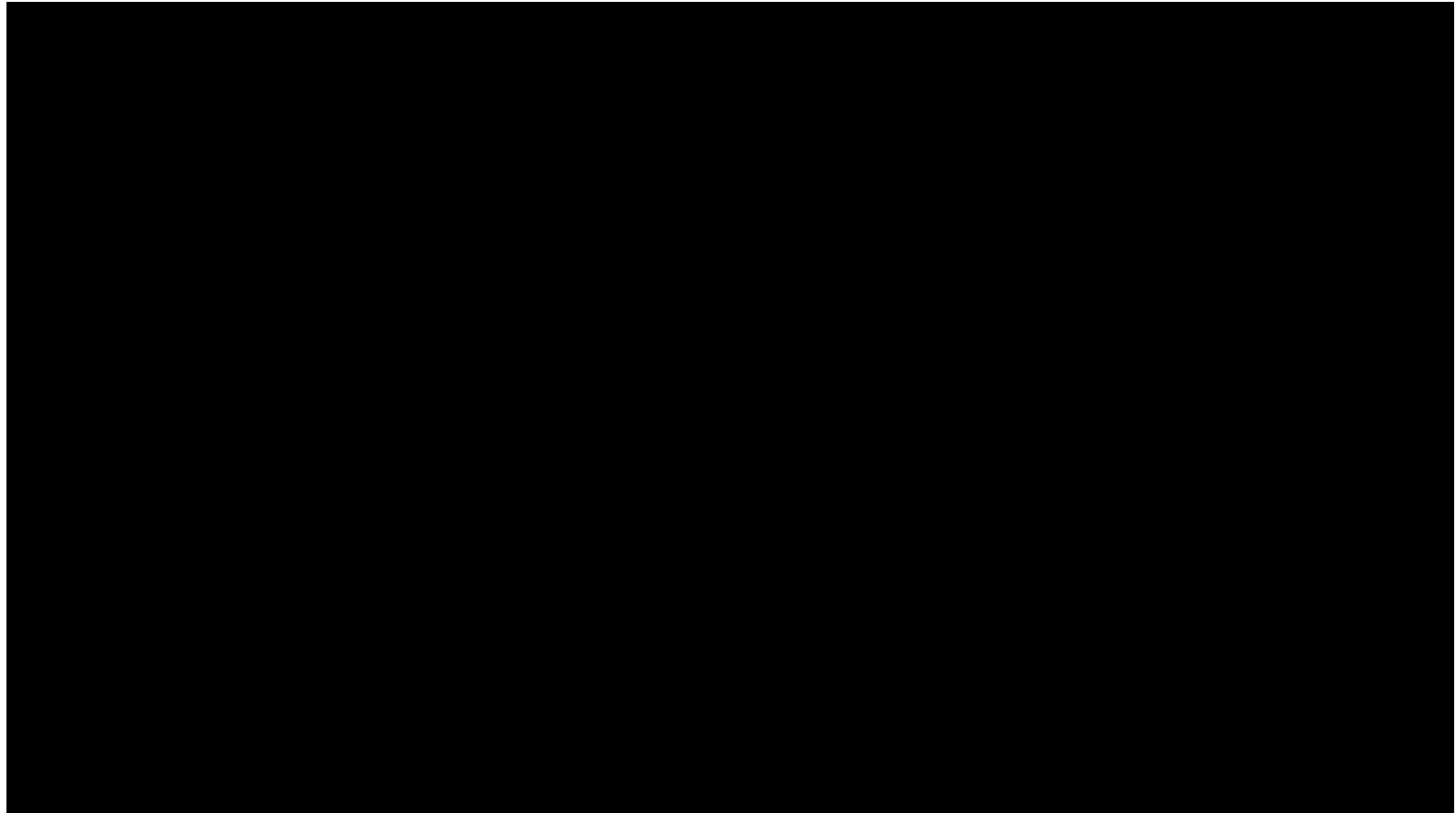
EEG data processed

Theta (4-8Hz)
Alpha (8-15Hz)
Beta (15-30Hz)
Gamma (30Hz+)



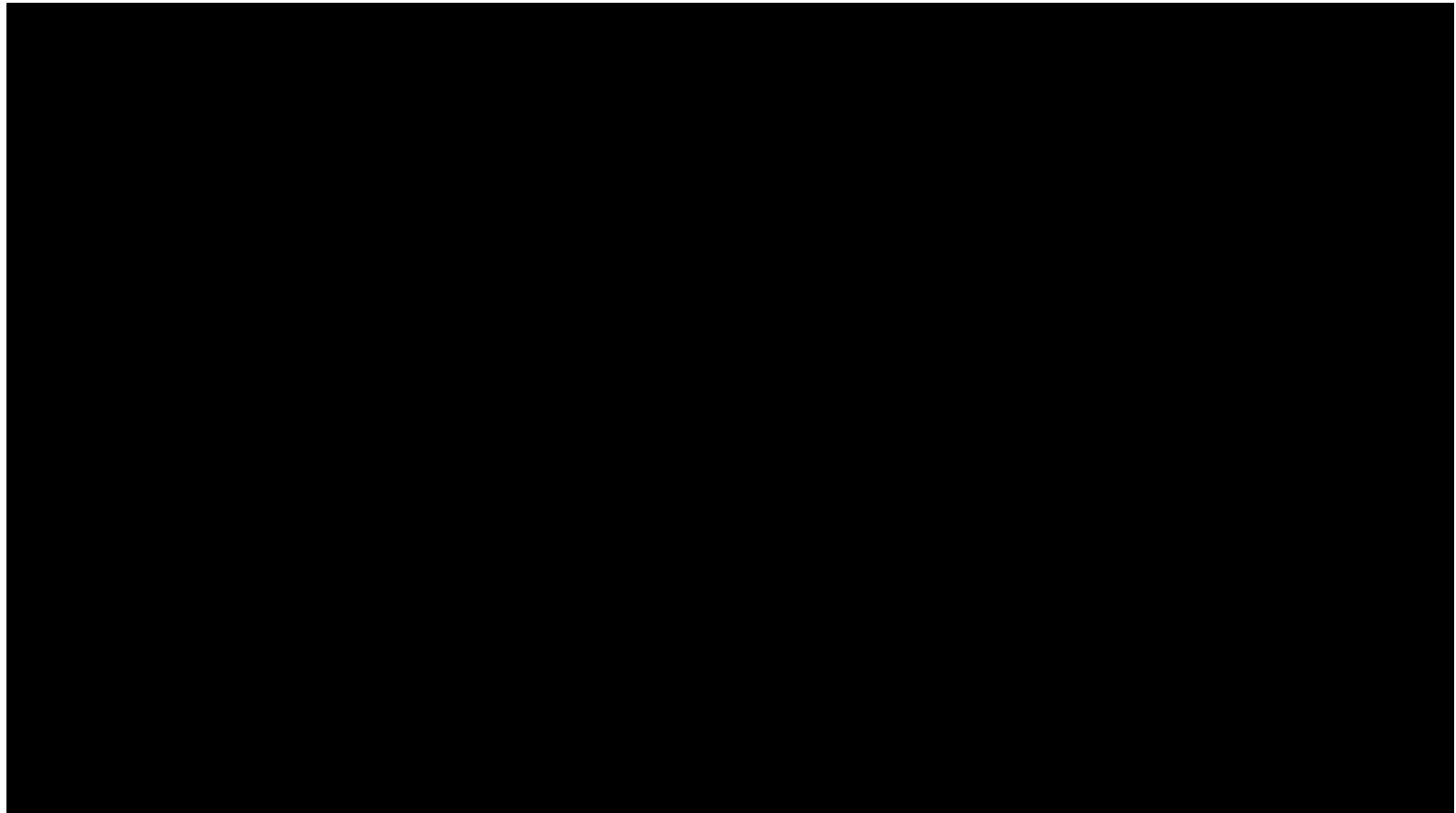
Neurotypical and
neurodivergent at rest

Theta (4-8Hz)
Alpha (8-15Hz)
Beta (15-30Hz)
Gamma (30Hz+)



Neurotypical and neurodivergent best hopes

Theta (4-8Hz)
Alpha (8-15Hz)
Beta (15-30Hz)
Gamma (30Hz+)



The best hopes question

Theta (4-8Hz)

Alpha (8-15Hz)

Beta (15-30Hz)

Gamma (30Hz+)



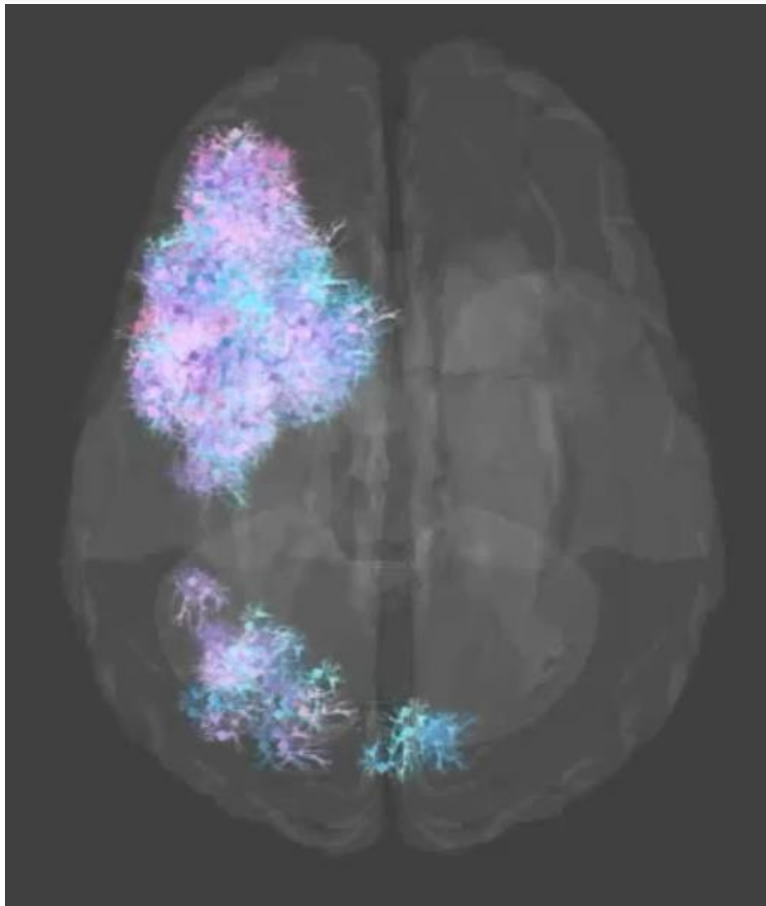
Adam Froerer

Best hopes question - Neurotypical

Purple: Thoughts about emotion (cognitive)

Blue: emotion (affect)

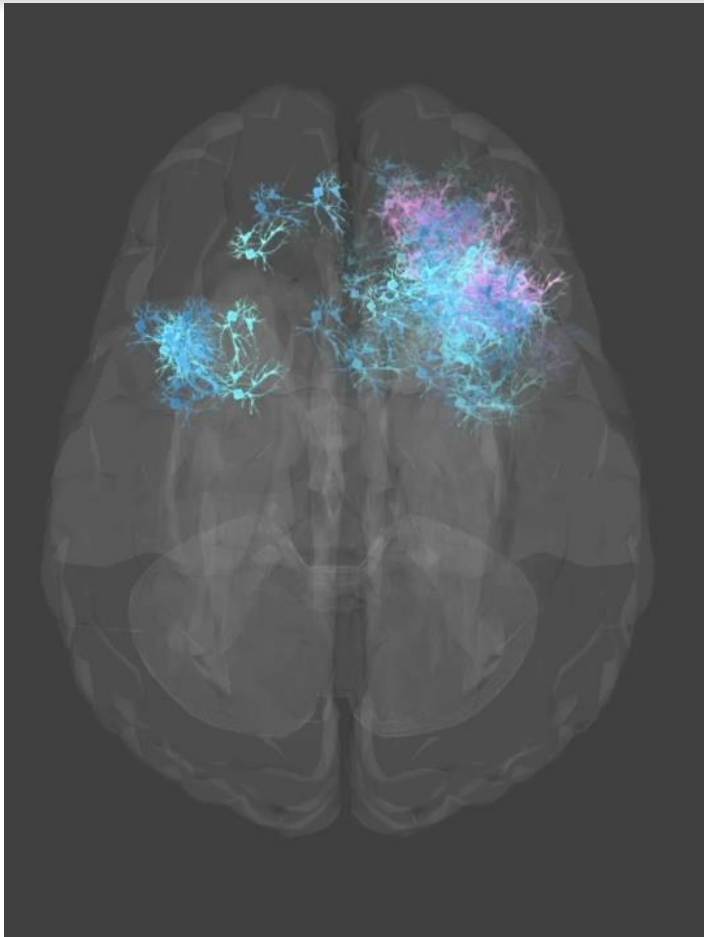
Green: action/behaviour



- More energised, more lifted
- A feeling of levity, feeling of bounce
- Moving a bit quicker, a bit ahead of the game, a bit more get up and go, a bit more bounce
- Bit of positivity now, bit of control, a bit of mind over matter
- Lifts your mood
- Getting that lovely lift
- I'd be happy... feeling happy
- You feel better
- Feeling a level of contentment, a bit of pride, a bit of familiarity, a bit of contentment

Best hopes question - ASD

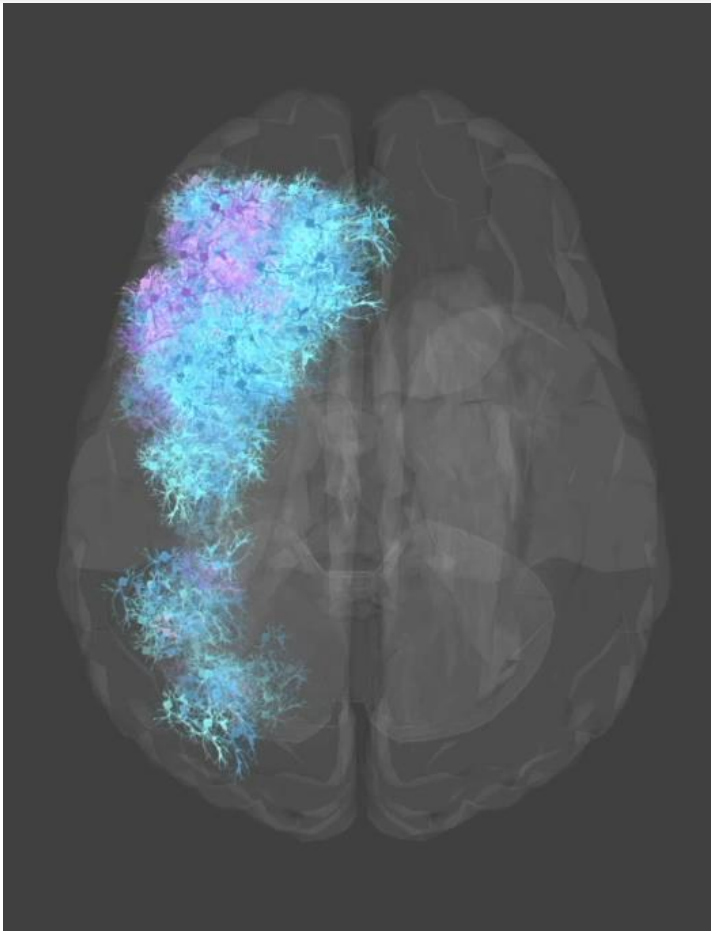
Purple: Thoughts about emotion (cognitive)
Blue: emotion (affect)
Green: action/behaviour



- **Understanding**
- I know what I **think** about
- Surprising everyone **thinks** about it
- **Thought** between sessions
- Why do I have these **thoughts**
- Maybe they **worry me**... make me a bit **anxious**

Best hopes question - ADHD

Purple: Thoughts about emotion (cognitive)
Blue: emotion (affect)
Green: action/behaviour



- Get a better understanding... how my brain works in connection to me
- What it is that makes me chill out
- Normally I would play that over in my head and it would really rile me up
- I thought, I can't work out why that was
- It was comforting... the rest of my morning could carry on as normal. I was able to focus because my mind wasn't elsewhere
- Thinking about something else
- I just felt in control of it.
- I think I was just able to put it down to a thought and just leave it at that. Or a feeling and leave it at that. Rather than asking why I'm feeling like that. How I'm feeling like that.
- Makes me happy
- It felt nice and I wanted to share that.
- It affected the rest of my day as well. It's just nice.



Post-session feedback

“I’m noticing a difference already! It’s funny how talking through it does affect... a) you feel better... expecting to feel better, a picture of feeling better, it does feel better. The expectations of feeling better, it does feel better. It really does! My expectations are lifted just by talking about the possibility of them, it's definitely true that ... [this type of therapy works]”

Neurotypical participant



Post-session feedback

“Probably the feeling that I was being listened to, and the feeling that *(the therapist)* understood where I was coming from and what I was talking about. If I had the feeling that *(the therapist)* thought that it was very strange, then I would have probably shut up and not talked any further about it. I felt that *(the therapist)* was paying attention and I felt that *(the therapist)* was giving a lot of thought (to) my response. *(The therapist)* wasn't just speaking quickly on top of what I was talking about, *(the therapist)* paused, gave it some thought and then moved on. So, I guess I must have thought that I was being listened to.”

ASD Participant



Post-session feedback

“Going through the process, the talking through the process and having someone and specifically (*the therapist*) asking relevant questions...is really useful.. to me it has a lot to do with like the delivery if you will... the place where I am at physically it was really comfortable... but the questions specifically - they highlight things, but they highlight a space when it is that... they make me think of a different perspective I suppose. To have them highlighted for me specifically means that I... it is being... is being listened to ...it’s being heard, it’s being spoken of, and it’s being done in a non-judgmental sort of open way which which allows me to...”

ADHD participant



Post-session feedback

“... well, allows me to think of things differently I suppose... if the questions are focused and directed, I'm thinking specifically about those things (*client then refers to getting whirlwinds of thoughts when questions aren't focused and directed*)... By going in there I get myself into a space where I'm able to be open... that works really well for me... the way (*the therapist*) uses my own language as well... I feel as if I'm met on a level... for me to have somebody that I... that I respect and that respects me - which I mean by the openness – that... that really allows me to be free”

ADHD participant

Thoughts from the post-session interviews



Thoughts?

If you would like to feedback your thoughts so far, please do so by either:

- Raising your hand
- Text me now on 07905527719
- Emailing us at
admin@centreforsolutionfocusedresearch.com
- Come and find me in the break!
- Speak to the organisers



Thank you!

Dr Rachel Gillibrand, Mia Lunde & Dr Adam Froerer

Do get in touch!

admin@centreforsolutionfocusedresearch.com