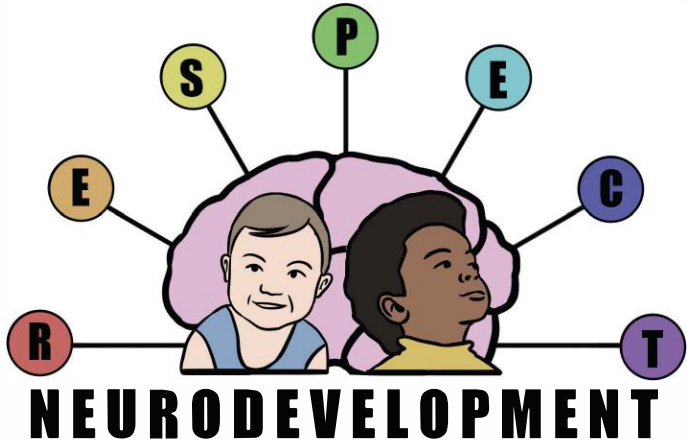


Scalability

Tomoki Arichi

Centre for the Developing Brain, King's College London

The Challenge

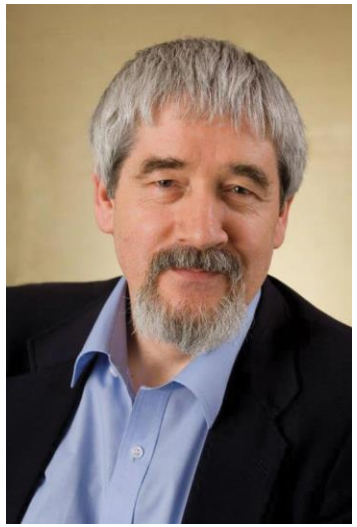
- Many neurotechnologies are expensive, require specialist staff, and are restricted to the lab/hospital environment

- This makes it difficult to:
  - *Screen large populations*
  - *Track/monitor developmental trajectories*
  - *Use in low resource settings*
- May explain why studies and techniques have failed to generalize and translate
- ***Importantly, it also means that the families most in need of assessment and support are those least likely to benefit from current neurotechnologies***

Core committee

Tomoki Arichi

Tim Smith



David Delpy

Paola Pinti

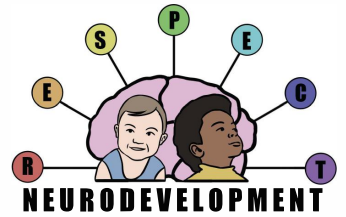
Scoping exercise

- ***First problem: <u>Scalablity</u> can mean different things to different people and that each of these have their own specific challenges and priorities***

Commentary

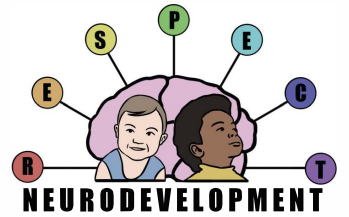
- Led by network members with a specific interest in this area:
  - Sanjana Gandhi
  - Rianne Haartsen
  - Virginia Carter-Leno
  - Louisa Gosse

Are we measuring the same thing?



- Generalisability in the context of:
  - How does **geographical location** (school vs home vs laboratory (and globally)) affect the measures/assessments that we are collecting?
  - How can tasks be comparable and thus meaningful across different ages and/or stages of **development**?

Making methods acceptable



- Ensuring methods are appropriate for all ages, culture and contexts
- Mistrust in science and research, cultural misconceptions
- Appropriate and accessible information: involving local workers and families in the research from an early stage is vital
- Families should have a “good experience” of the research
- Not cause any discomfort
- Stimuli and experimental paradigms must be engaging and not cause offence

Training and expertise

- Who has the expertise to use these methods?
- How do we ensure that training is consistent so data is comparable across sites
- Currently, reliable open-source training material is hard to come by
- Ideally methods can be easily translated on a large-scale and in any setting (even done by parents in their own homes!)

Next steps

- Publish these thoughts in the commentary/review!
- Organise an online panel discussion and forum to consolidate priorities
- Consider how we can better engage the public and involve diverse/ international communities
- Explore how the network can further facilitate industry engagement
- Work across the network to develop a repository for training materials, paradigms and protocols
- ***Come and have a chat over lunch***