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# Development of a clinical tool: The Early Sociocognitive Battery (ESB) in research and practice



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## Learning outcomes

- What is the ESB and why is it relevant?
- The journey from research to clinical practice: a shared enterprise.
- Next steps

## The starting point: The Sociocognitive hypothesis

Early sociocognitive skills will affect early language development and predict later difficulties with social communication

- We use the term 'sociocognitive skills' to mean *very basic skills in engaging with other people and inferring intentions and meanings behind their actions and words*
- Crucial for early language development





## Sociocognitive skills

These skills are:

- Early developing – emerge at 8-15 months
- Associated with language development
- Impaired in young children with ASD

(Tomasello, 1995; Charman et al., 2005; Toth, Munson, Meltzoff & Dawson 2006).



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## What is the ESB?

- The ESB is a new assessment of social cognition in pre-school children developed by Professors Penny Roy and Shula Chiat.
- Initially developed as part of the Very Early Processing Skills (VEPS) project.

## Research Background: Very Early Processing Skills



### Participants

- Referred to clinical services with concerns about language (not speech) at 2-3
- English first language
- No identified hearing loss or developmental disorders including ASD
- Seen at age 4-5 years and 9-11 years



## Key findings: the evidence base

- The ESB was a strong predictor of social communication problems at 9-11 years
- It was equally predictive of T3 language as T1 language
- It was the best predictor of children receiving SLT in their last year of primary school
- Children with the lowest ESB scores were the most vulnerable: all had problems at outcome, and the majority had a diagnosis of ASD (see Chiat & Roy, 2008, 2013; Roy & Chiat, 2014; and <http://www.city.ac.uk/health/research/centre-for-language-communication-sciences-research/veps-very-early-processing-skills> for full details).



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## ESB Assessment:

- Comprised of three subtests:
  - Social responsiveness
  - Joint attention
  - Symbolic comprehension





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## ESB: Social responsiveness

Measures children's responsiveness to expression of feelings by an adult

(based on Sigman, Kasari, Kwon & Yirmiya 1992)



## ESB: Joint attention

Measures gaze alternation, gaze following and point following

(Carpenter, Nagell & Tomasello, 1998)





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## ESB: Symbolic understanding

Measures children's understanding of gestures





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## ESB: Symbolic understanding

Measures children's understanding of miniatures





## ESB: Symbolic understanding

Measures children's understanding of substitute objects which are used to stand for a target object





## What does the ESB tell us?

- ESB can pick up social communication difficulties that are likely to be long term.
- Signposts priorities for intervention
- Helpful tool for discussion with parents and other professionals



## Potential of the ESB

- High compliance rate in very young children
- Quick to administer
- Mainly nonverbal, not dependent on spoken language level/ use of English - suitable for children with EAL
- Informative about nature of children's problems at referral and in the longer term



## Clinical implications

### Case study 1:

- 2:6 year old girl referred to community SLT with concerns regarding delayed language.
- Initial SLT assessment highlighted concerns with social communication including poor response to joint attention, flat affect, poor eye contact.
- Subsequently referred to child development service for ASD assessment.
- ESB used as part of a second opinion SF did not score low on ESB – no concerns regarding sociocognitive skills
- Implications for therapy provision, parental anxiety and waiting lists.





## Clinical implications

### Case study 2:

- HP, 2.1 year old boy referred to SLT with queries around social communication, language and play. Non verbal with history of glue ear and intermittent hearing loss.
- Seen by paediatrician, slight delay to non-verbal skills.
- SLT used ESB as part of assessment to inform therapy and management.
- HP showed difficulties across all areas of ESB



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# A shared enterprise: between researchers and SLT's

RESEARCH TOOL



CLINICAL ASSESSMENT

- Trialling of ESB in clinical practice
- Positive feedback from SLT's
- Collaboration has enabled development of ESB
- SLT's currently involved in data collection and wider dissemination and training



## Next steps : from research tool to clinical assessment

- Aim to make ESB available to clinics, nurseries and schools
- Progress to date
  - Marketable product including training video
  - Normative data
  - Training programme developed and available as a City one day course ( next bookable session: January 2018).
- Ongoing
  - Submission for publication



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**And thanks to you for listening!**

