Co-development of language and social action in a child with Down Syndrome

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Background

Language development in children with Down Syndrome is characterised by a **tension** between what children would want to communicate about and the resources they can use to achieve this.

▶ difficulties in: sound articulation, syntax, the development of the lexicon **[1]**

▶ children remain at the one-word period longer than typically developing children; experiencing failure in being understood **[2]**

but

▶ Rich interactional experience as participants in communicative exchanges (compared to TD children with comparative linguistic skills)

▶ Pragmatic skills a strength **[3]**

Existing studies have neglected the situatedness of language learning in children with DS. We assume that language development is driven by acting and interacting in the physical and social world **[4]**, so there is a need for a detailed analysis of the children's social interactions within activities.
Research is lacking which follows the developmental trajectories of communication and language use in children with DS across time.

Research Questions

1. How do children develop ways of displaying understanding and achieving intersubjectivity?
2. Which social actions are pursued **[5] [6]** and how are these assembled?
3. How are children's social actions responded to?

Method

Data Corpus

22 Children with DS and 21 younger children with typical development in 2-hour sessions of activities with parents and researchers. Date recorded in a Centre for the support of Children with Down Syndrome in the South of England.

This Study

▶ Case study of one Child (Felicity)

▶ Initial 15 min. free play interaction with parent

▶ Age: 1st visit: 3;6 (years ; months); 2nd visit: 4;5, 3rd visit: 5;5

▶ Felicity has a very limited productive vocabulary and makes use to a large extent of non-lexical vocalisations and Makaton signs.

Analysis

▶ we collected all Felicity's utterances

▶ used a **Conversation Analysis** approach and analysed utterances according to

  ▶ **sequential position** (initiating or responding),

  ▶ the **social actions** they pursued (e.g. requests, proposals, assessments)

  ▶ the full range of verbal, non-verbal and prosodic **resources** used to implement these actions.

Analysis

1) Train

00:07-00:24 F = Felicity (age 3;06), M = Mother

1 M: Choo choo choo choo choo [choo
   ((M pushes a line of building blocks across the carpet))

2 F: [eh, (voc) (voc) (.) *(voc).   — bid to access activity
   *((F points to self))

3 M: you↑ want (that) (.) ↑Felicity make a train.

4 F: *eh?   — soliciting
   *((lifts first block, looks up to mum))

5 M: ye:s (.) one,   — approval

6 F: ((F stacks one building block on top of another))

7 F: [(hh) ((sits back opens arms palms up, looks up to mum))   — signals completion

8 M: [Felicity's building a t↑ow↓er. ((M uses Makaton sign for tower))

9 F: ((F uses Makaton sign for tower))   — confirmation

(interprets child's action Ventriloquizing)

Proposition

▶ the child's turns are composed by multiple **layered modalities**: vocalisation, gaze, gesture, Makaton

▶ the child is active in signalling **speakership** and **soliciting** the mother's contribution in her own actions

▶ the mother is **interpreting** the child's actions in her responses

▶ the proposition is completed within multiple very short turns **[7]** and the vocalisations punctuate brief action fragments

2) Bang

03:52-04:06 F = Felicity (age 4;05), M = Mother

1 F: *↑e:h?   — marks upcoming action
   *((F manipulates the toy car. Her exact movements are not visible))

2 F: ba

3 M: ◦ba◦   — trouble source

4 F: ba ((F looks up at mum))

5 M: ◦ba◦   — orients to mother's uncertainty/ repair

6 F: *a:ou +ba   — reformulates/ elaborates for mum
   *((looks back at garage, slides hand over the garage ramp))
   +((looks up at mum))

7 M: do you want him to go *↑down;   — repair
   *((M makes an iconic gesture depicting the shape of the ramp and a downward movement))

8 F: ((nods))   — confirmation/ sequence closure

9 F: e:h? ((F switches gaze to garage and manipulates toy car))

▶ content of turn conveyed by multiple elements across different modalities

▶ child is not soliciting a contribution but **announcing** what she intends to do next.

▶ child orients to parent's lack of understanding and **elaborates** her utterance to repair the trouble source. Intersubjectivity is achieved **[8]**

▶ the mother **treats** the child's utterance as **repairable**.

3) Giggle

00:37-00:48 F = Felicity (age 5;05), M = Mother

1 F: *↑a:h?   — sharing, 'aboutness'
   *((F takes car out of tower , **looks at Mum**))

2 F: ((F puts car on ramp, pushes to go down, it overturns, **looks at Mum**))

3 F: ((F grabs car out of the ramp)) eh; ((short, not looking at mum))

4 F: ((F bends and closes (not visible) the bar at the end of the ramp))

5   ((F turns and looks at Mum))   — sharing noteworthiness

6 M: HuHe ((laughs))   — alignment

▶ child **shares** with the adult what might be **noteworthy 'about'** the ongoing action.

▶ child can plan and perform a series of events and, with the use of vocalisations, gaze and pointing, create what seems to be a **narrative** about it.

▶ mother's laughter in response indicates that the child is treated as a **full member** whose intentions are fully understood **[9]**

Conclusions

We see a **development** of the **social actions** pursued by the child.

▶ From **requesting** from the mum, **soliciting** her contributions in order to proceed,

▶ to **announcing** her actions and

▶ to **sharing** the noteworthiness of her experiences

We also see her contributions are **treated** differently:

▶ from someone who is **not accountable** for her propositions

▶ to somebody who produces utterances which can be **misunderstood** and are **repairable**

▶ to somebody who's intentions are **not ambiguous** and who is **understood**.

We suggest that there is intersubjectivity in all of these encounters but that across development there seems to be a **qualitative shift** in intersubjectivity.
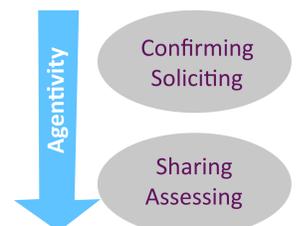
Agentivity

Confirming Soliciting

Sharing Assessing

References

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Acknowledgments