The development of code-blending in deaf and hearing Kodas

Anne Baker, UvA
&
Beppie van den Bogaerde, UUAS
The Netherlands

Thanks to

- Deaf families
- Students/transcribers:

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Bimodal language use

Definition:

- Utterance in which words and signs are combined.
- Phonology of word or sign does not have to be accurate but target must be identifiable.
- Proposition defines the type.
- Use of voice is not a criterion.

Four different types of combination possible

Bimodal utterance types

DUTCH	BLEND: Dutch-based	BLEND: Full	BLEND: Mixed	BLEND: NGT-based	NGT
DUTCH No signs	Dutch with signs	Same content in words and signs	Different content in words and signs	NGT with words	NGT No words

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Examples of blends 1

1. **dutchbased:** proposition expressed fully in words with some signs

    MAN

    man   *house build*

    the man is building a house

2. **full** –proposition expressed fully in both signs and words

    MAN   *HOUSE   BUILD*

    man   *house*   *build*

    the man is building a house

Examples of blends 2

3. **ngtbased** – proposition expressed fully in signs with some words

<p style="text-align:center">MAN   HOUSE BUILD</p>

build

the man is building a house

4. **mixed** – proposition expressed differently in signs and words

INDEXrabbit RABBIT

sweet

That's a sweet rabbit

Research questions

How bimodal is the language production of deaf and hearing children in interaction with their deaf mother and which types are used?

- What is the effect of *hearing status* of the child?
- What is the effect of *input*?
- What is the effect of *age?*
- What is the effect of *language development* in Dutch and NGT?

Method

- 3 deaf mothers + 3 deaf children (**DC**):
  Carla, Laura and **Mark**
- 3 deaf mothers + 3 hearing children (**HC**)
  Jonas, Alex and **Sander**
- age of children: 3;0 and 6;0
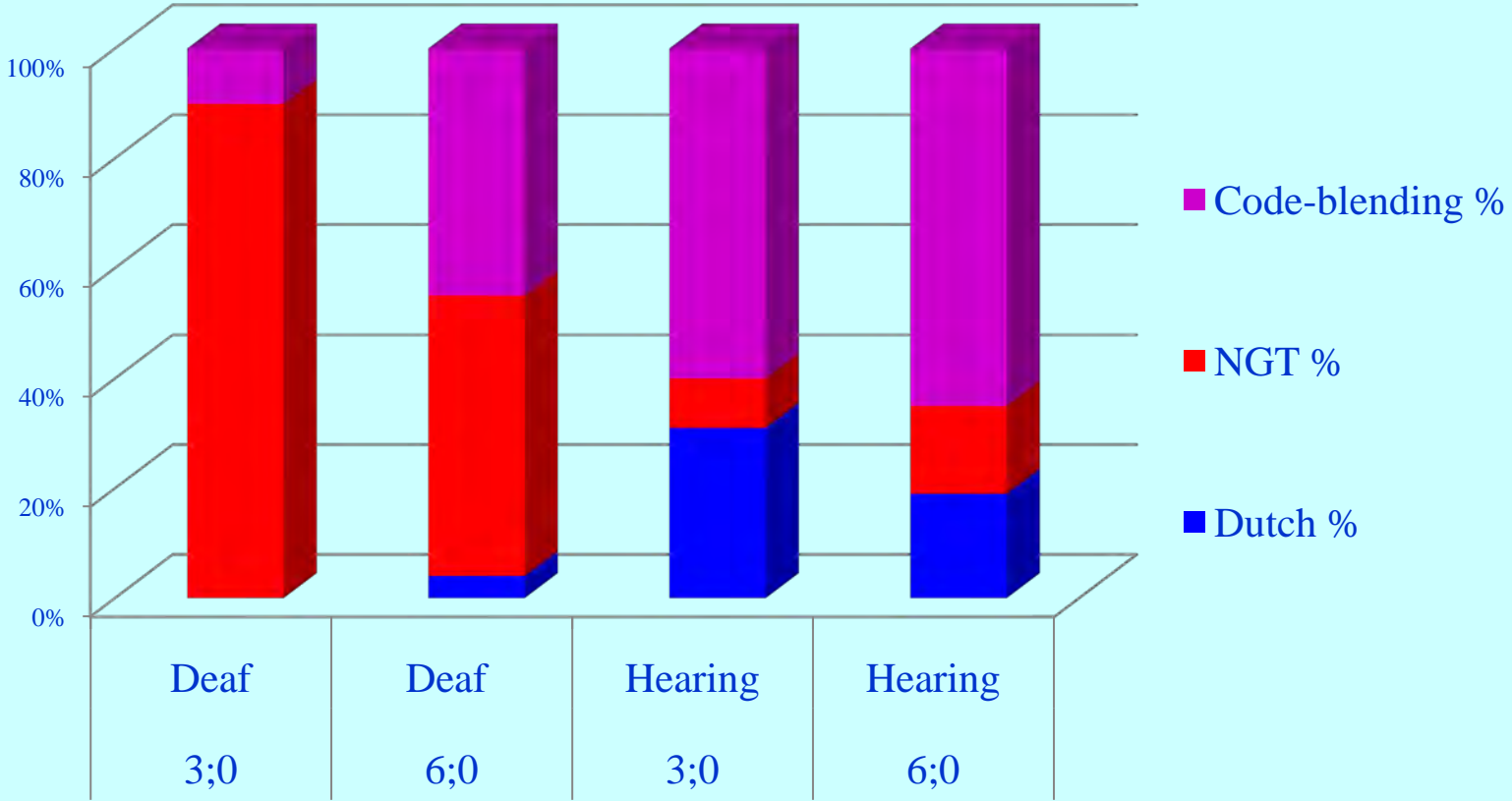- NGT and Dutch used in spontaneous play situation

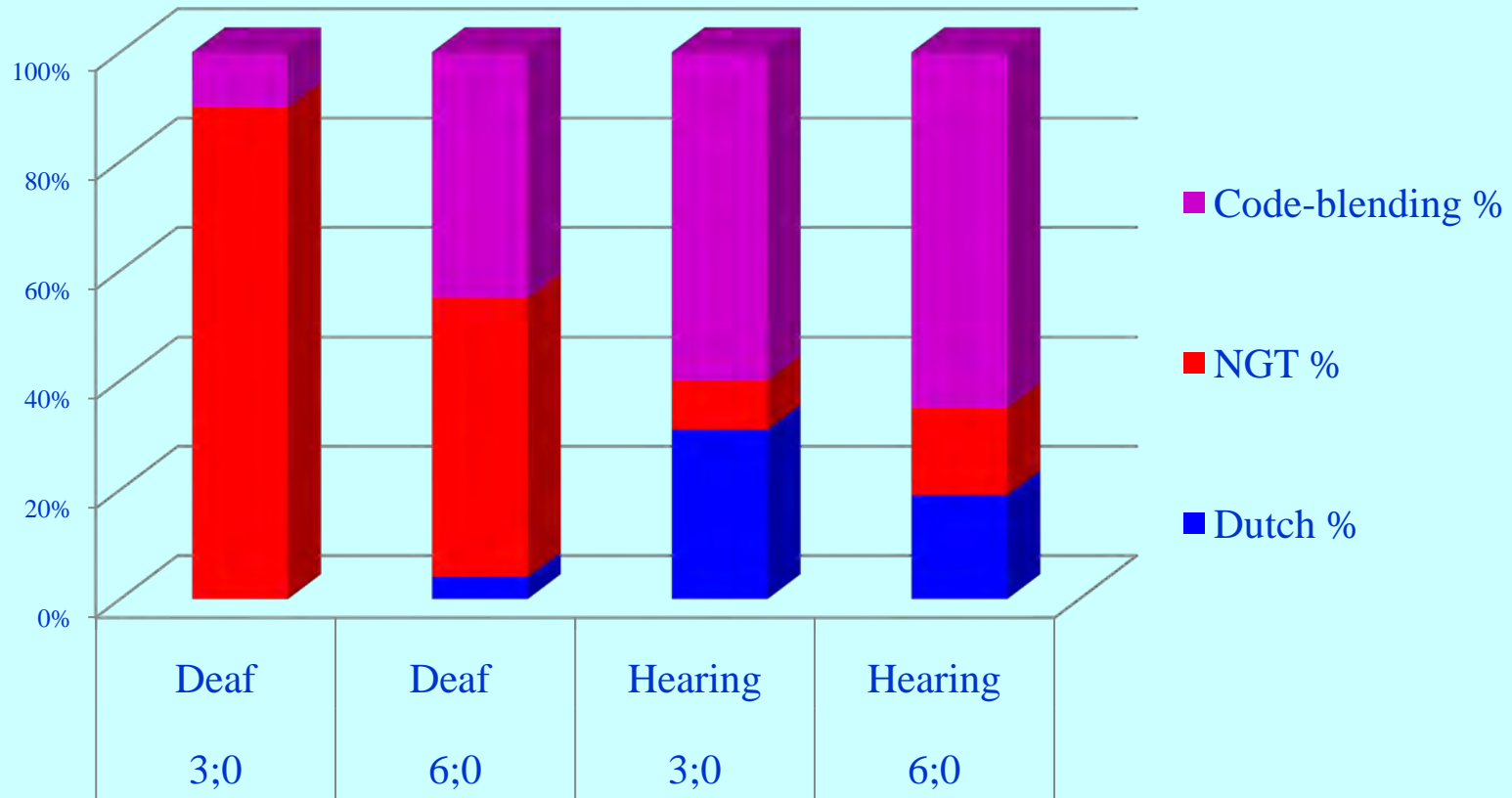# Short clips at 6;0

Mother and Laura

Mother and Sander
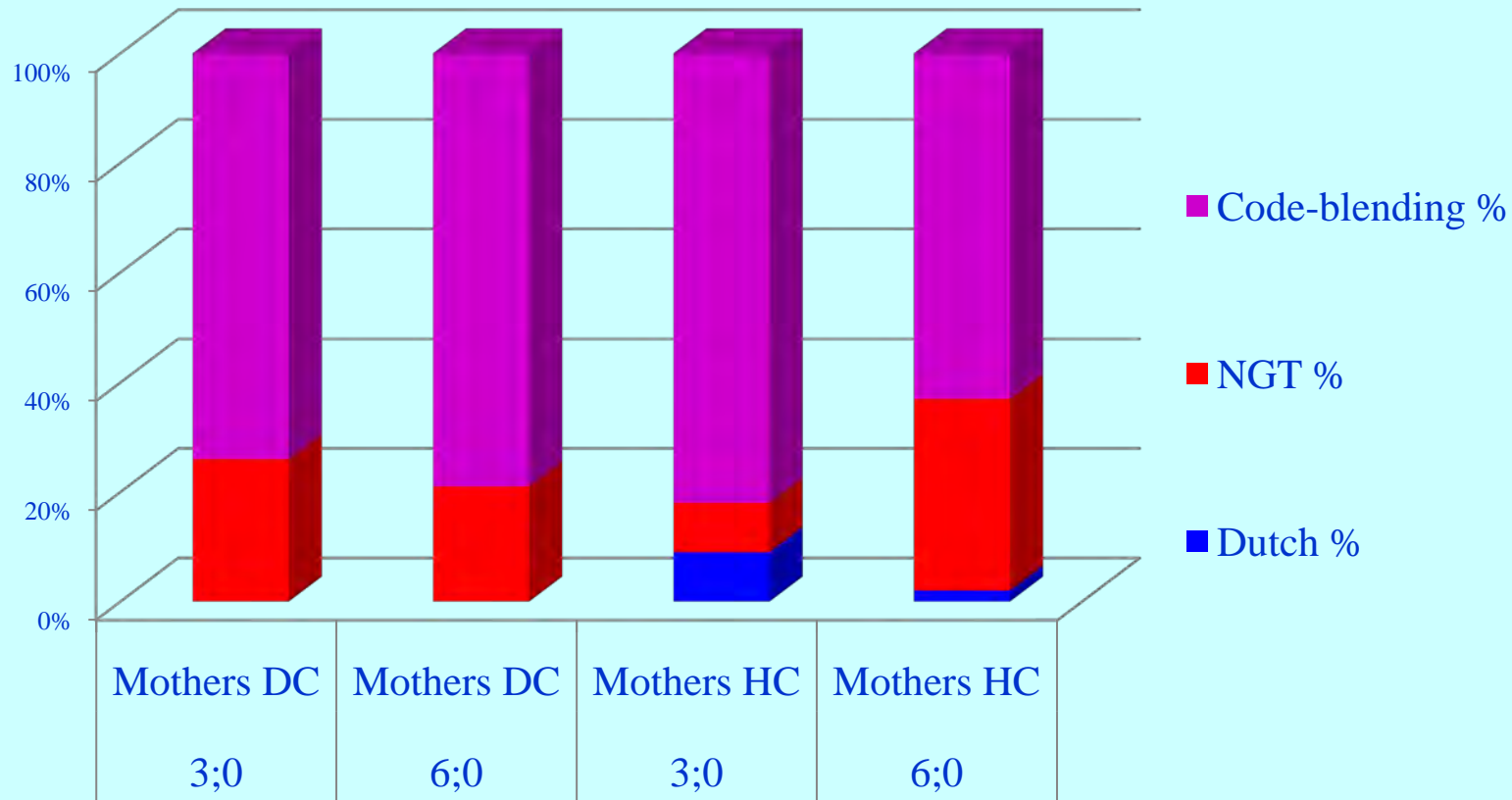
Results: amount of bimodality and effect hearing status

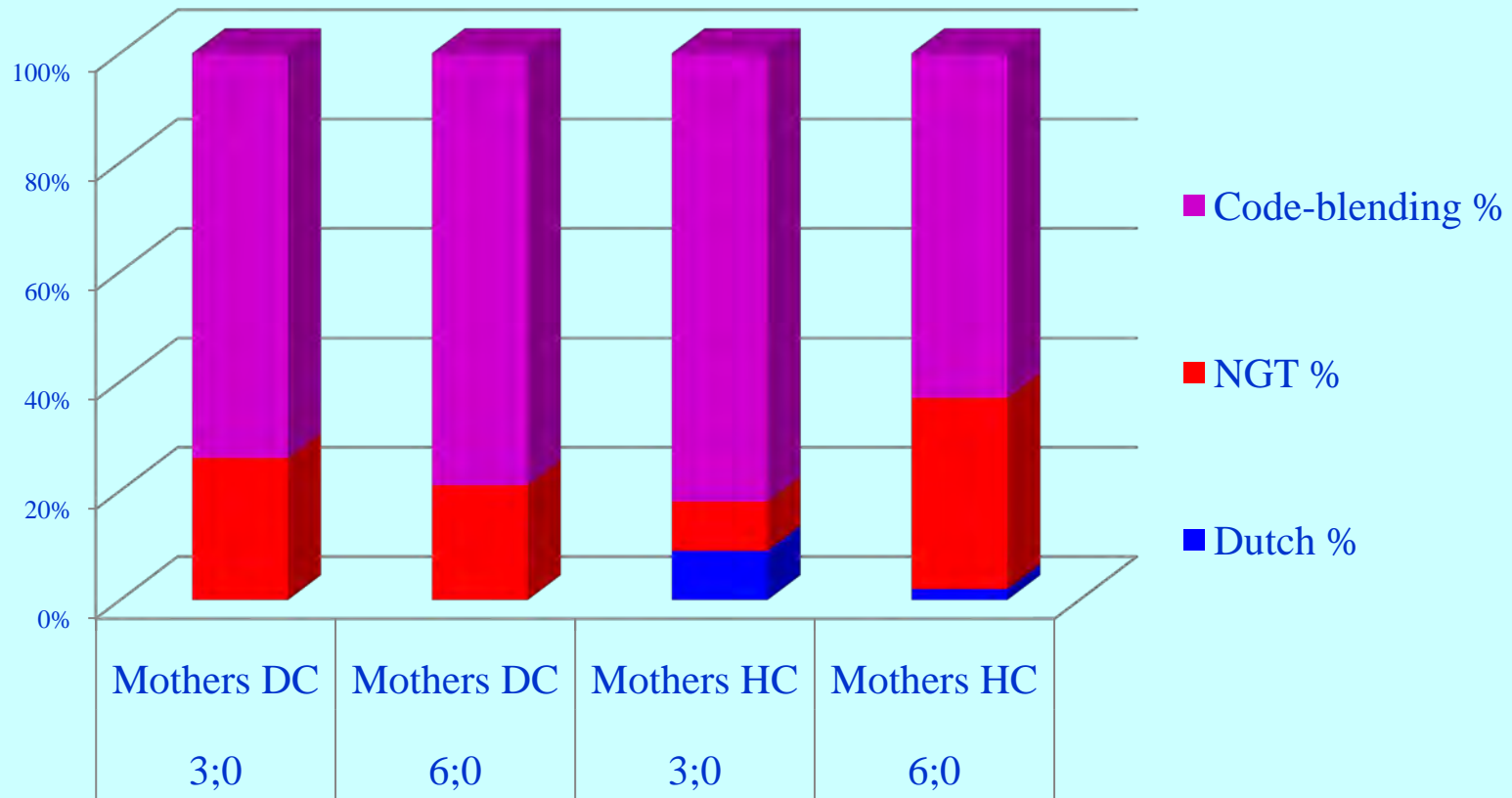# Results: amount of bimodality and effect hearing status

DC increase , HC same but more NGT

Results: amount of bimodality and effect input
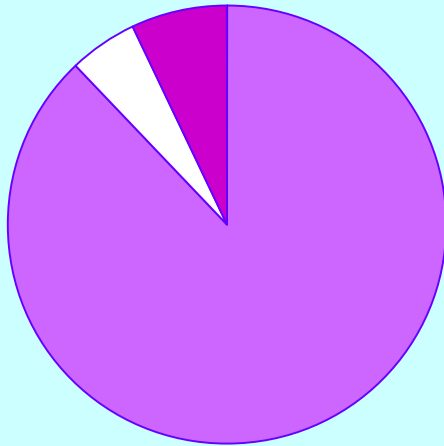
Results: amount of bimodality and effect input

with DC is same , with HC more NGT
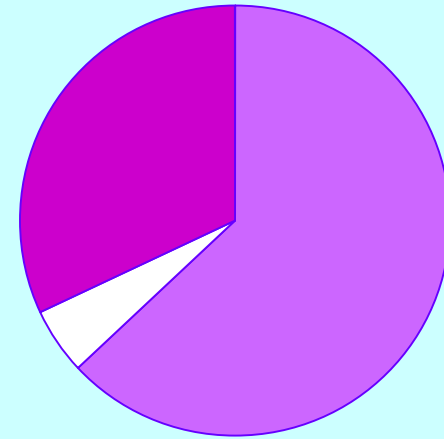Input does not determine child output

Bimodal utterance types

BLEND: Dutch-based	BLEND: Full	BLEND: Mixed	BLEND: NGT-based
Dutch with signs	Same content in words and signs	Different content in words and signs	NGT with words

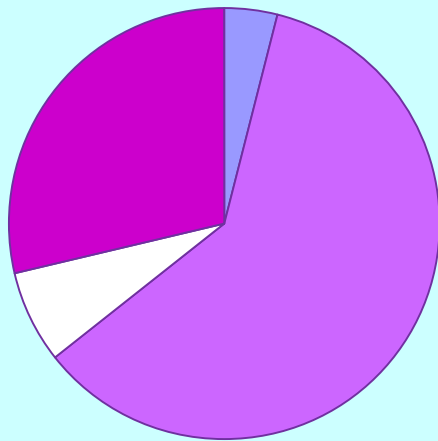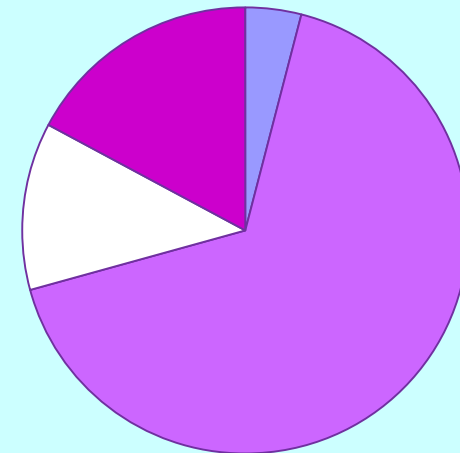# Results: type bimodality DC and DM

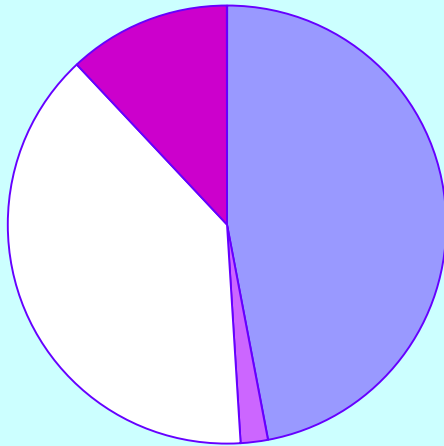**3;0 DC**

6;0 DC

3;0 Mothers DC

- Dutch Base L
- NGT Base L
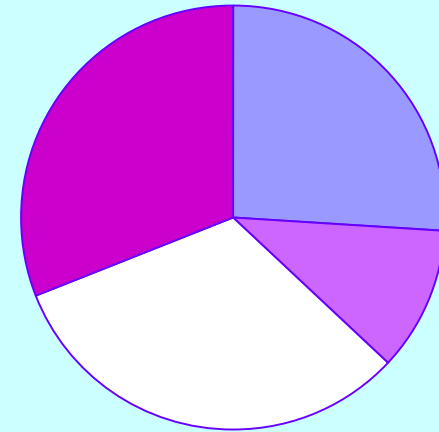- Mix
- Full

6;0 Mothers DC

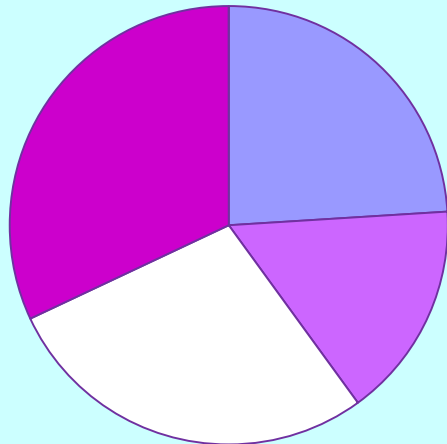
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Results: type bimodality HC and DM
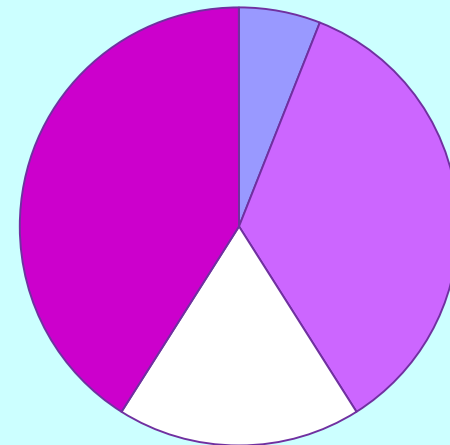
3;0 HC

6;0 HC

3;0 Mothers HC

- Dutch Base L
- NGT Base L
- Mix
- Full

6;0 Mothers HC

Effect of hearing status and input

OUTPUT

DC : NGT dominant in blends

HC : variety in blends, increase in NGT based

INPUT

With DC: NGT dominant in blends

With HC: variety in blends

Not clear who is influencing whom

Summary of developmental effects

- Children change
  - DC increase in bimodality and more NGT based in blends
  - HC bimodality the same, more NGT; increase in NGT based in blends
- Input change
  - with DC input stays the same
  - with HC more NGT and more NGT based in blends

Accounting for developmental changes

- Input does not seem to drive changes in children's output

- Effect of language skills in Dutch and NGT?

MLU of children at 6;0

	MLU of words in blends	MLU of signs in blends
Carla	1.71	2.43
Laura	2.00	2.83
Mark	1.30	3.60
Jonas	4.00	2.40
Alex	1.58	1.88
Sander	3.81	2.75

Conclusions

- MLU of DC in Dutch in blends is related to individual amounts of code-blending in general.

- MLU of HC in NGT in blends is related to individual amounts of NGT

- **Language ability** appears to be the strongest factor in explaining developmental change in code-blending in the children

- Mothers' input is **fine-tuned to this ability**

References

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Contact   *a.e.baker@uva.nl*

beppie.vandenbogaerde@hu.nl