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### Markers of (dis)fluency across signers' profiles in French Belgian Sign Language (LSFB). A comparative analysis between Native, Near-Native and Late Signers

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*Publication date:*  
2015

*Document Version*  
Publisher's PDF, also known as Version of record

#### [Link to publication](#)

*Citation for published version (HARVARD):*

Notarrigo, I & Meurant, L 2015, 'Markers of (dis)fluency across signers' profiles in French Belgian Sign Language (LSFB). A comparative analysis between Native, Near-Native and Late Signers', 2nd International Conference on Sign Language Acquisition, Amsterdam, Netherlands, 1/07/15 - 3/07/15.

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- 1. Research question**
- 3 groups : Native, Near-Native and Late Signers
  - Several linguistic criteria involved in (Dis)Fluency ⇒ Different behaviour according to language background?

### 2. Background

- Impact of a delayed L1 Acquisition at the level of Proficiency and Comprehension (Mayberry 1991)
- Lack of studies at the level of Fluency and Production

### 3. Theoretical framework

Componential approach of (Dis)Fluency (Götz, 2013)

- Combination of measurable markers (fluencemes)
- Not only interruptions of the flow of speech, hesitations
- But also strategies to manage the discourse

### 4. Methodology

3.1) Data selection on extra-linguistic criteria

4 min/signer of unprepared semi-interactive discourse

Deaf signers of LSFB	4 Native	4 Near-Native	4 Late
Parents status	Deaf	Hearing	Hearing
Age of LSFB acquisition	From birth	Before 6	After 9
Education	With Deafs	With Deafs	With Hearings

3.2) Annotation of linguistic criteria in ELAN

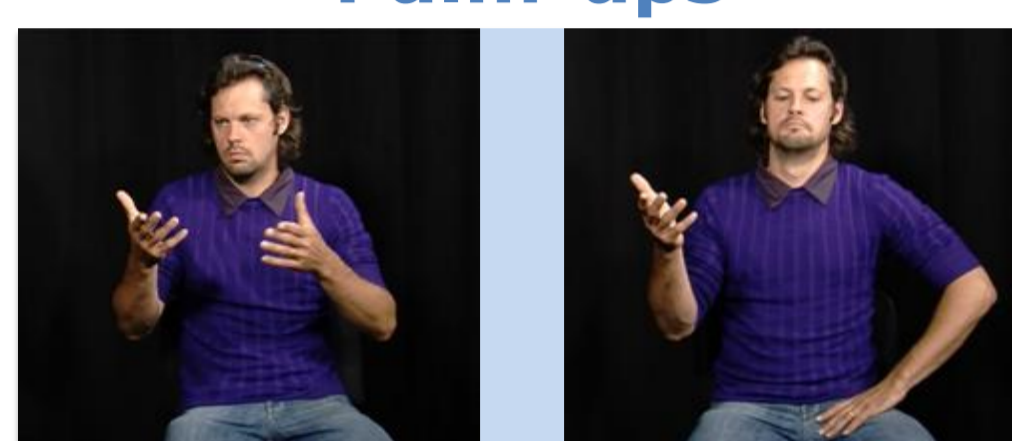
Markers of (dis)fluency (fluencemes):

- Palm-ups
- Stops of the hands between signs
- Word search gestures
- Truncations
- Gaze directions
- Co-occurring non-manuals

3.3) Data analysis in Excel and SPSS

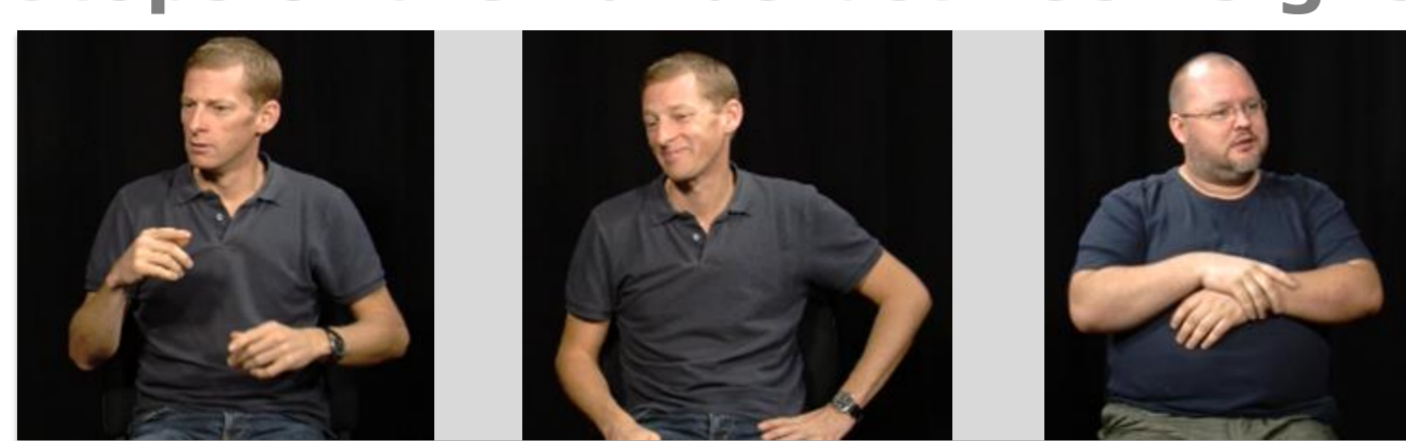
- Speed and use of both hands
- Frequency and Ratio of fluencemes
- Mean comparison and correlation

#### Palm-ups



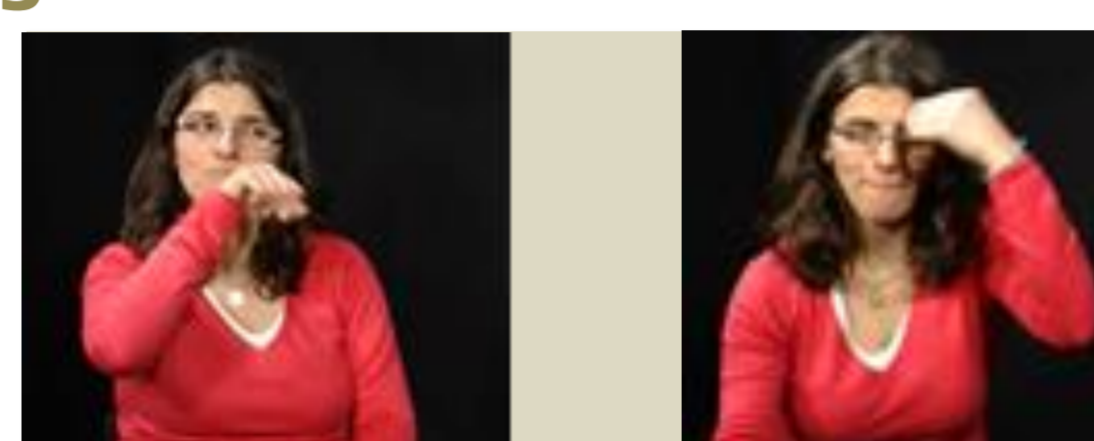
Two hands One hand

#### Stops of the hands between signs



Neutral On the body Crossed

#### Signs articulated with one hand



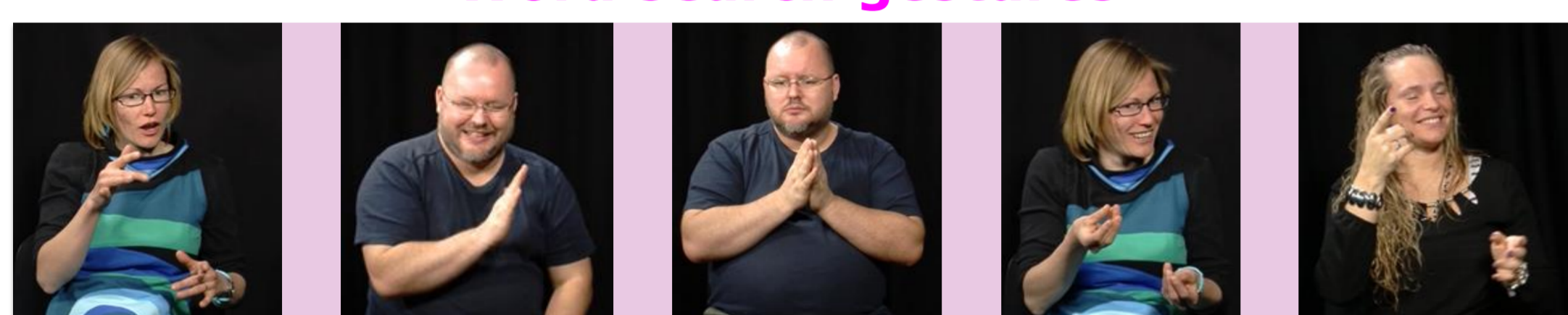
Preferred Non-preferred

#### Signs articulated with two hands



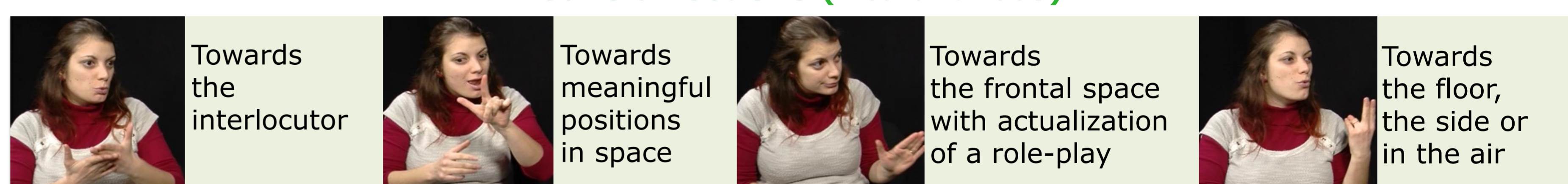
Asymmetrical Symmetrical Simultaneous

#### Word search gestures



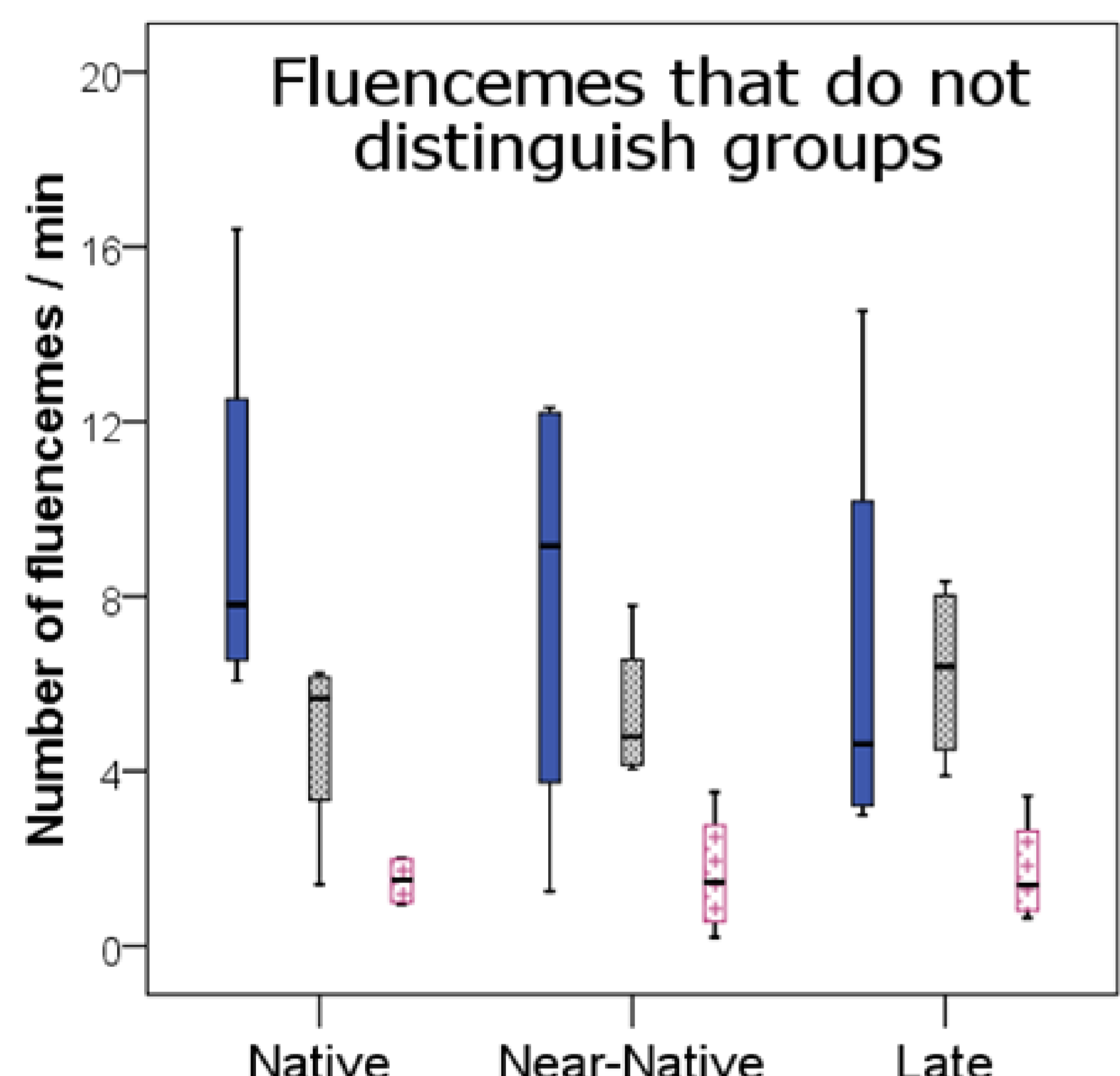
Waving Back Clapping Rubbing Flying index

#### Gaze directions (Meurant 2008)

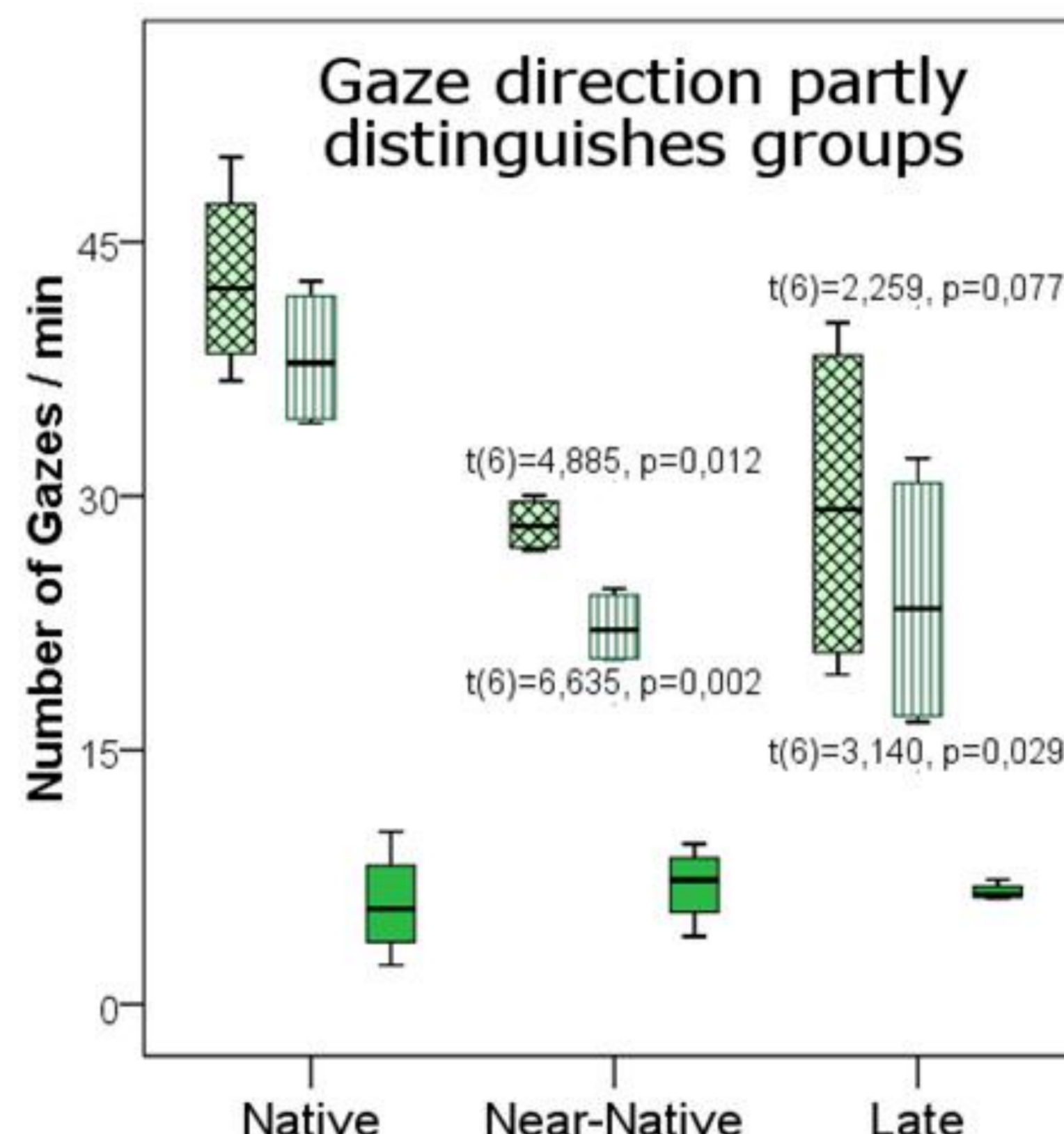


Addressed Spatialized\_1 Spatialized\_2 Floating

### 5. Results



- Palm-ups
- Stops between signs
- Word search gestures



- Addressed Gaze
- Spatialized Gaze
- Floating Gaze

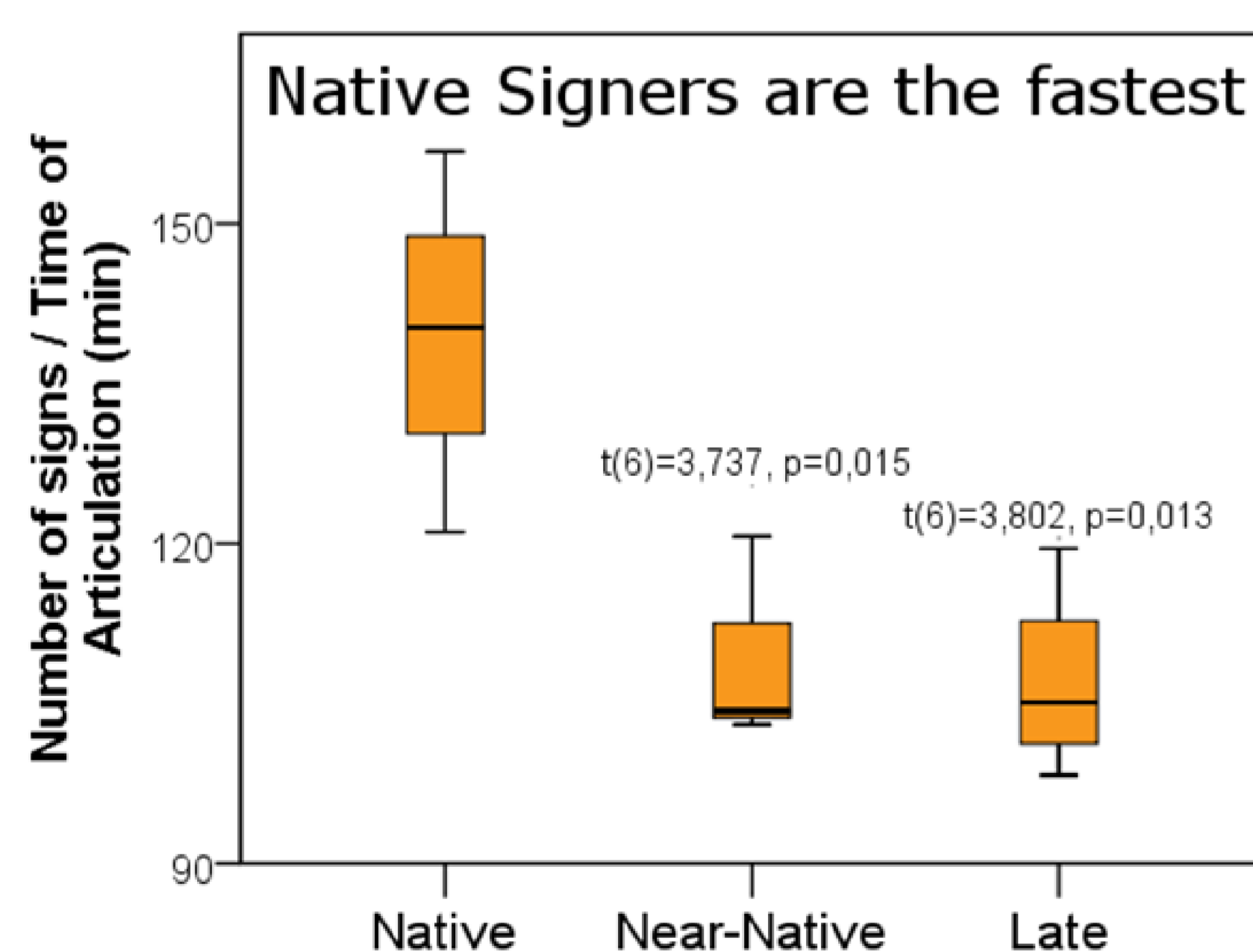
#### Co-occurring Non-manuals (Notarrigo & Meurant 2014):

Native Signers prefer modality and phatic functions

Near-Native and Late Signers prefer using emphasis

Slight tendency:

Native Signers do more truncations (4/min vs 3/min) than Near-Native and Late Signers



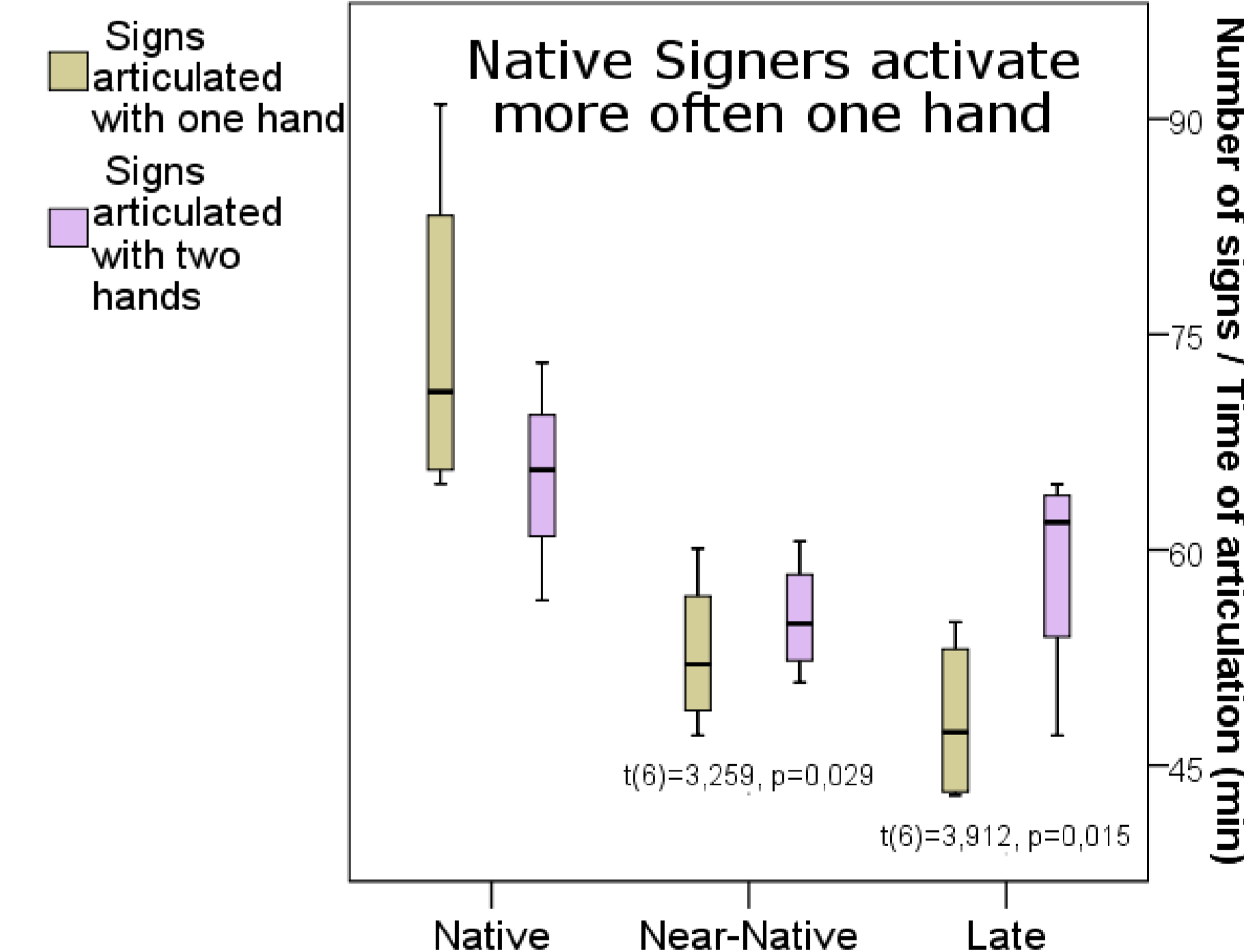
#### Why ?

No influence of above fluencemes

No influence of break time

Maybe different articulation strategies

➤ Track: activation of one or two hands



### 6. Summary

- No distinction** in the frequency of linguistic criteria involved in (Dis)Fluency between signers with different language background ⇒ That is for palm-ups, stops between signs, word search gestures, and floating gazes
- Except for rate of articulation: Native Signers** (LSFB from birth) faster **versus Near-Native/Late Signers** (delayed LSFB) slower ⇒ And therefore, for the number of hands involved in signing and the number of addressed/spatialized gazes (positive correlation  $p < 0,05$ )

### 7. Discussion

- Relative impact of L1 delayed acquisition on Production and Fluency
- Acquisition of some markers of (dis)fluency locked in time
- Acquisition of some other markers of (dis)fluency achieved at any time

### 8. Further issues

- Holds of hands
- Repeated signs
- Phonological economy (Parisot & Villeneuve 2007)
- Combinations of fluencemes
- Functions of fluencemes
- Additional signers

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### ACKNOWLEDGMENT

Research funded by F.R.S. – FNRS Research Fellow Grant FRESH FC 60970  
In collaboration with the University of Louvain-la-Neuve (A.R.C. n12/17-044)

Thank you very much to:

- Calogero Notarrigo for logistics management
- Simon Delauvaux for layout
- LSFB-Lab for data and glosses