

SIGN LOWERING and signing styles of French Belgian Sign Language

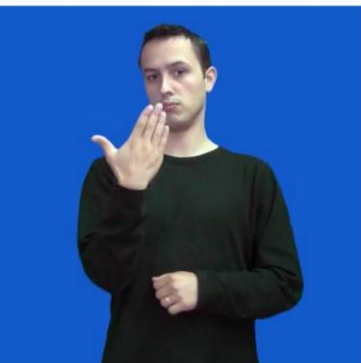
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1. Sign languages
2. Phonetic variants related to stylistic variation
3. Sign lowering

French Belgian Sign Language « LSFB »

- Wallonia-Brussels Federation
- ± 6000 signers
- Recognized as an official language in 2003



Sign Languages

- Are organized similarly to spoken languages: they have **semantic, syntactic, morphological and phonological systems**
- The terms **phonology** and **phonetics** are used in sign language research to describe **the sign modality's analogs** of the phonological and phonetic aspects of spoken languages

Phonological parameters

Handshape

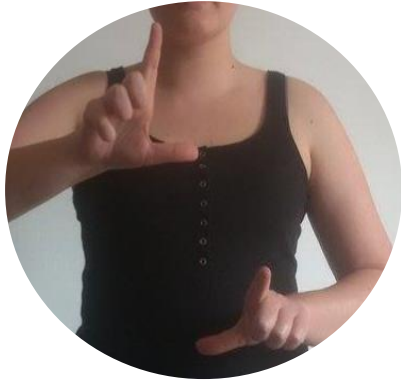
Movement



‘TO SIGN’

Location

Minimal pair vs. phonetic variants



‘LABORATORY’



‘TRAM’



‘ANALYSIS’



‘TRAM’

2. Phonetic variants

Phonetic variants related to stylistic variation?

1. Precision of handshapes



‘EXAMPLE’



‘EXAMPLE’

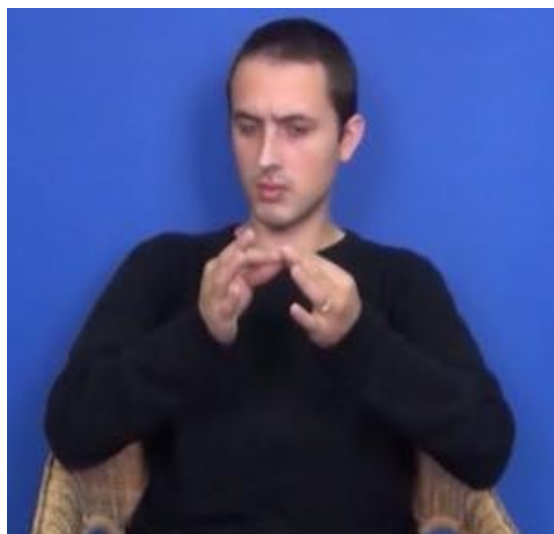
Phonetic variants related to stylistic variation?

2. Duration and markedness of pauses

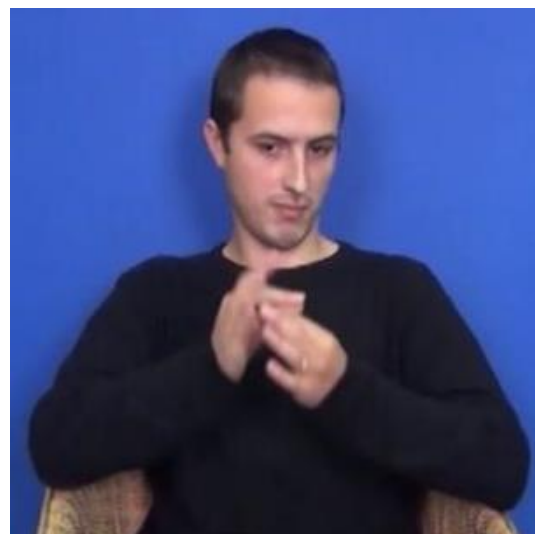


Phonetic variants related to stylistic variation?

3. Contact loss



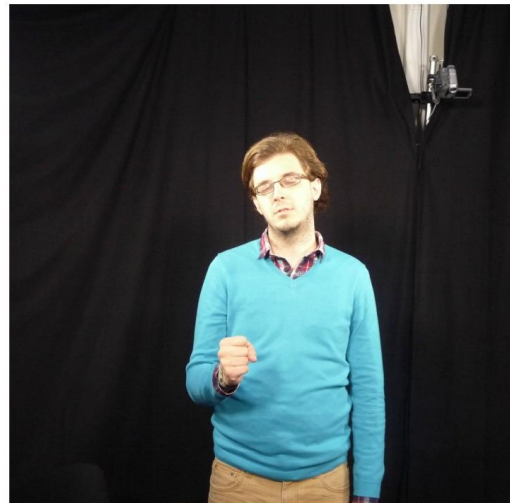
‘INTERPRETER’



‘INTERPRETER’

Phonetic variants related to stylistic variation?

4. Weak hand drop



‘POSSIBLE’

Phonetic variants related to stylistic variation?

5. Assimilation of handshapes



‘EXAMPLE’

‘SCHOOL’



‘EXAMPLE’

Phonetic variants related to stylistic variation?

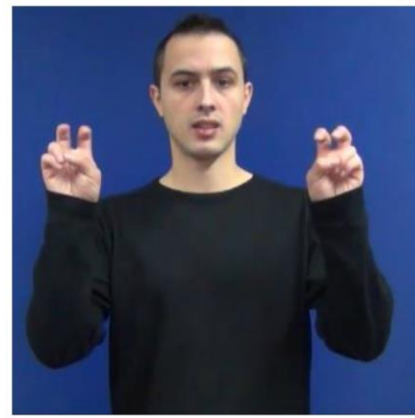
6. Sign Lowering

Forehead located signs

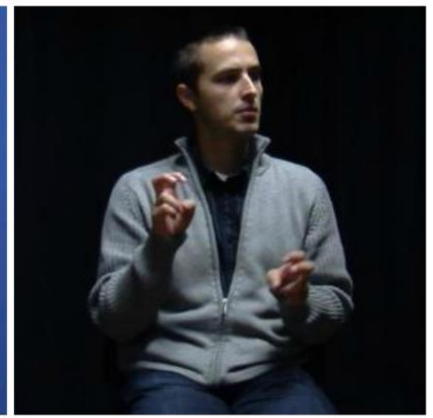
Symmetrical signs



‘OTHER’



‘TOPIC’



Phonetic reduction

- “**Phonetic reduction** occurs in the course of normal language production, when instead of producing a carefully articulated form of a word, **the language user produces a less clearly articulated form**. When signs are produced in context by native signers, they often differ from the citation forms of signs. In some cases, phonetic reduction is manifested as a **sign being produced at a lower location** than in the citation form.” (Tyrone & Mauk 2010)
- In vocal languages, **casual styles** contain more reduced forms than **formal styles** (e.g. van Son & Pols 1999, Warner & Tucker 2011)

Research questions:

1. How does the use of sign lowering vary across multiple settings?

+Formal and – Formal

2. Which features of the phonetic environment contribute to sign lowering?

- Forehead located signs



- Symmetrical signs



3. Sign Lowering : method

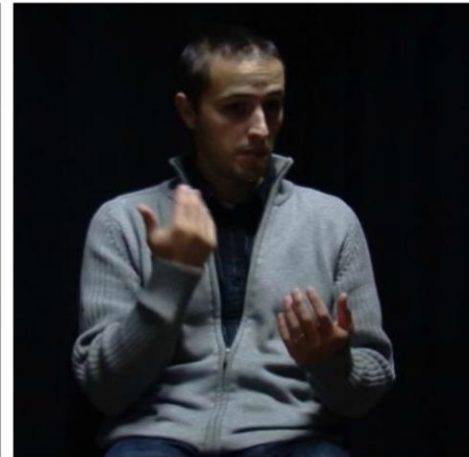
Corpus

Online video

Conference

Conversation

Hidden camera



Corpus

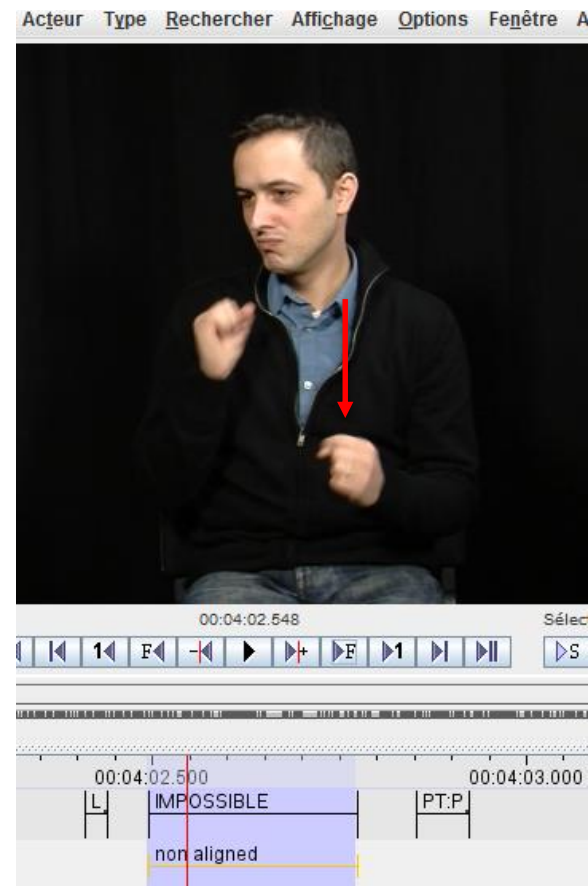
	Online video	Conference	Conversation	Hidden camera
Recording conditions	'Natural'	'Natural'	Studio	Studio
Discourse type	Explicative	Explicative	Conversation	Conversation
Preparedness	Planned	Planned	Spontaneous	Spontaneous
Interactivity	Monologue	Monologue	Dialogue	Dialogue
Audience	Virtual	30 -100 people	Conversation partner + Deaf moderator + Camera	Conversation partner

Coding

Forehead located signs



Symmetrical signs

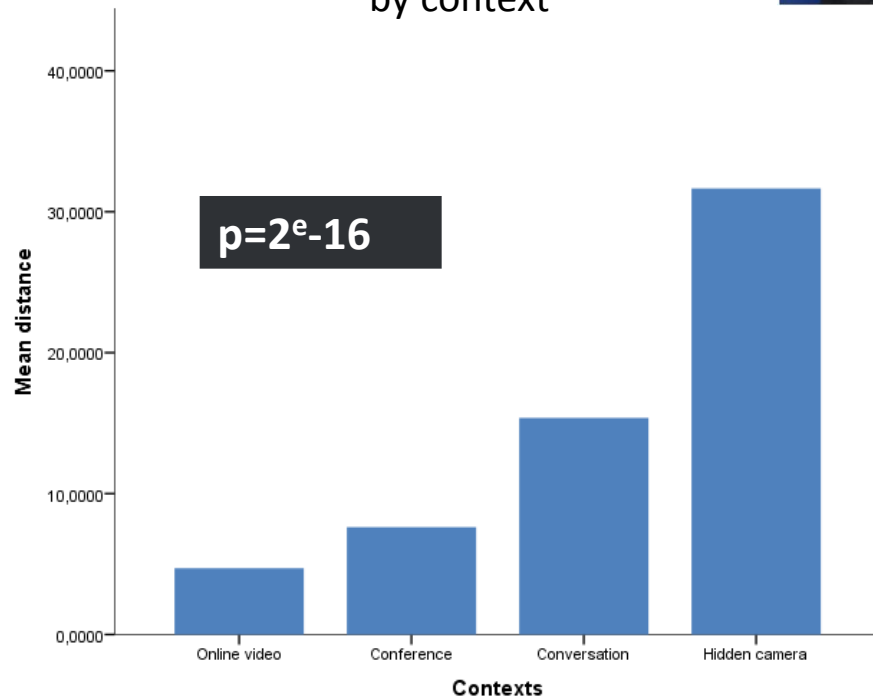


4. Sign Lowering :results

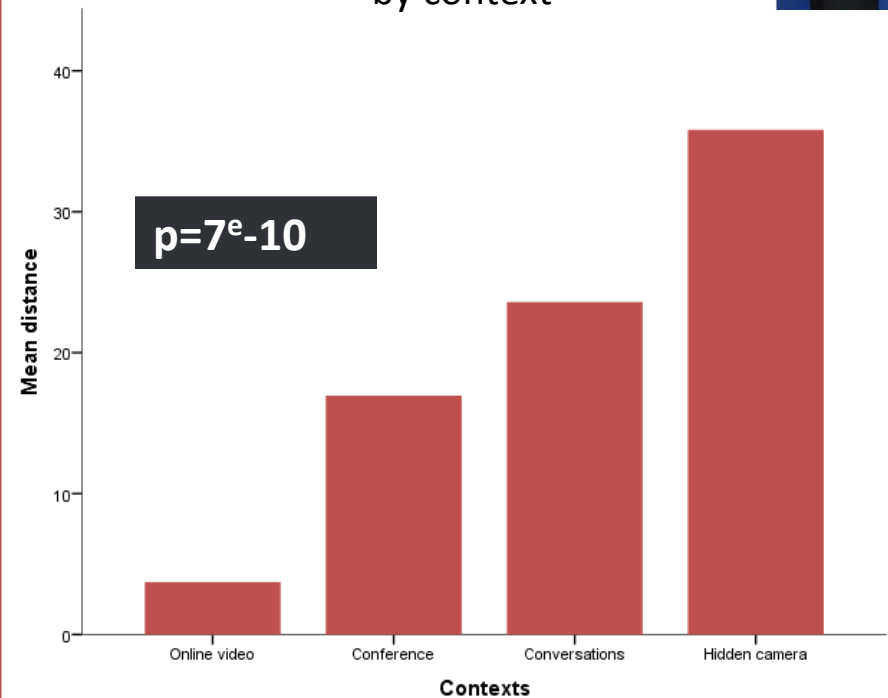
1. Situational contexts

Sign lowering is significantly affected by context

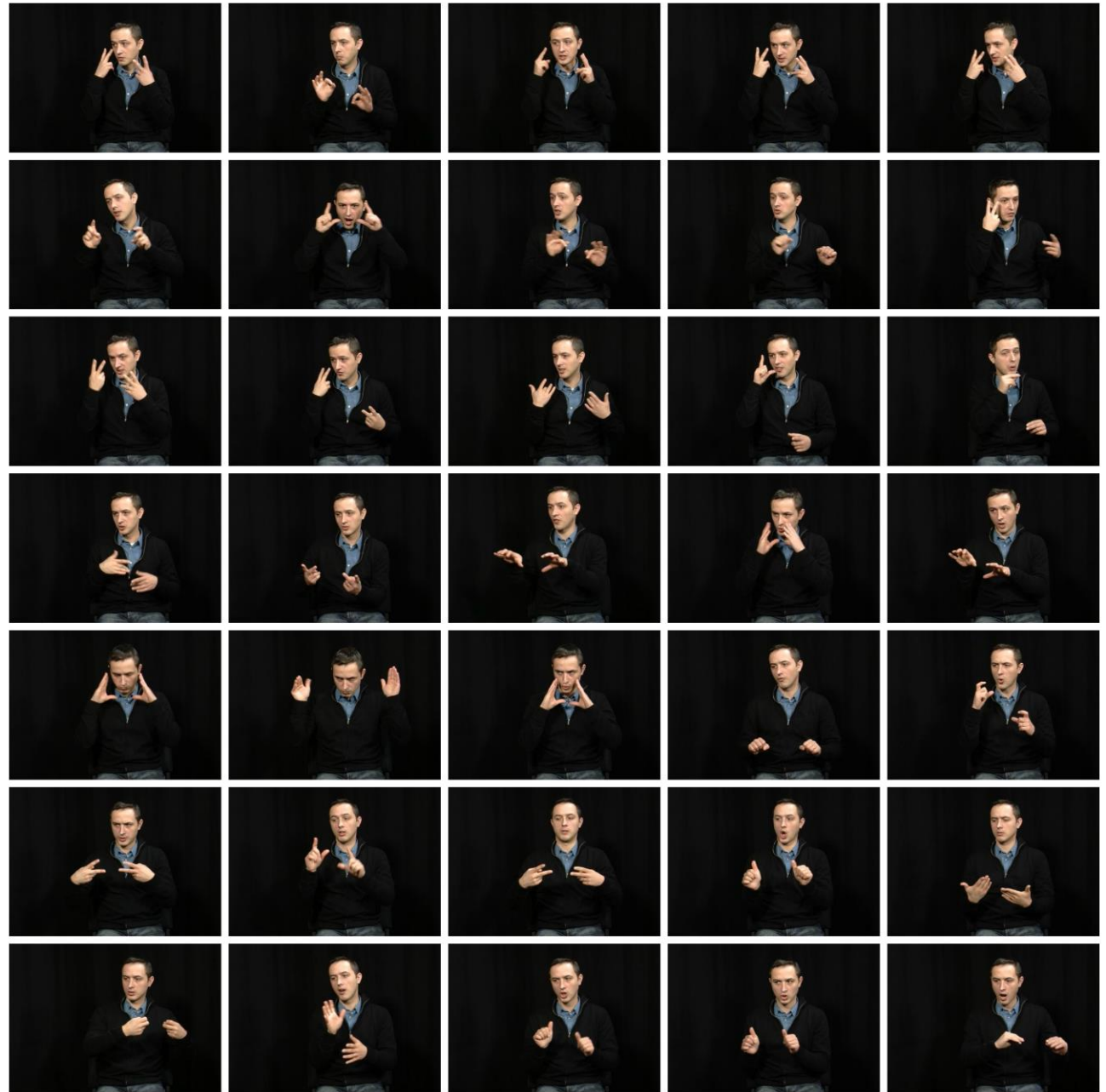
Lowering of FOREHEAD LOCATED SIGNS
by context



WEAK HAND LOWERING
by context



Dialogue



Dialogue

no lowering



Dialogue

strong

lowering



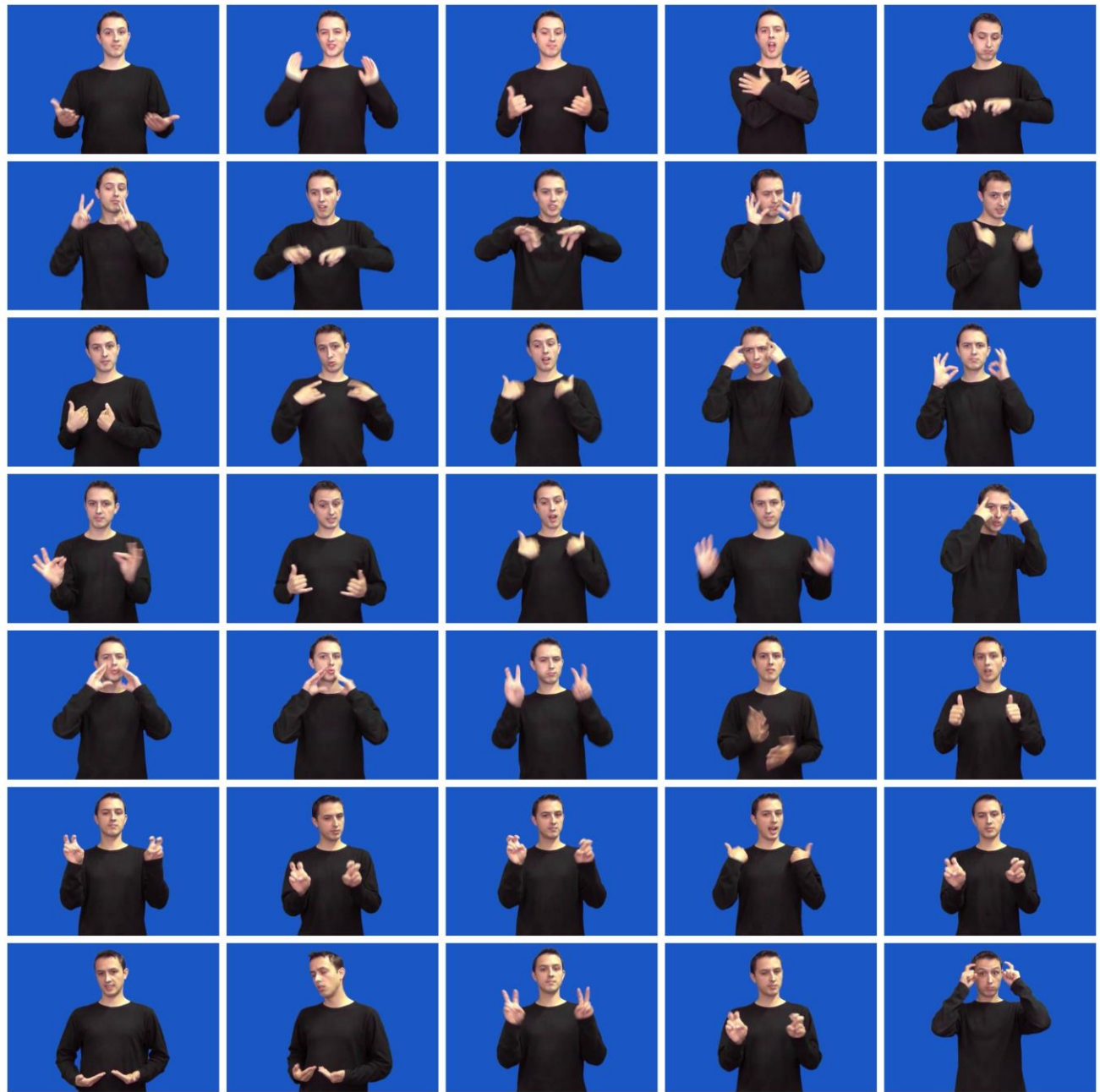
Dialogue

moderate

lowering



Online video

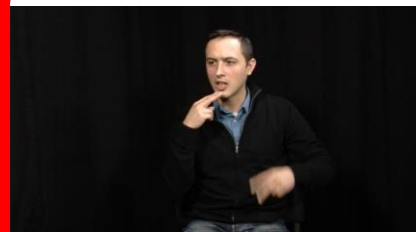


Online video lowering

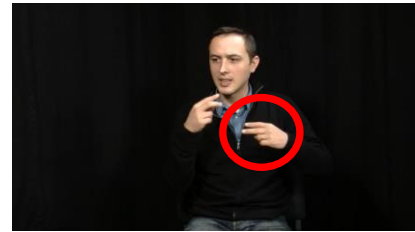




KNOW



RESTAURANT



« Do you know the joke about a restaurant? »



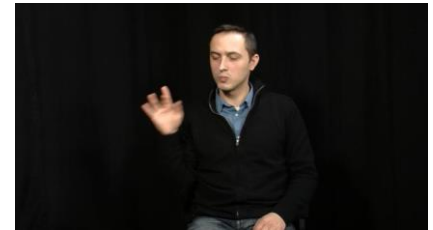
FOUR



OLD



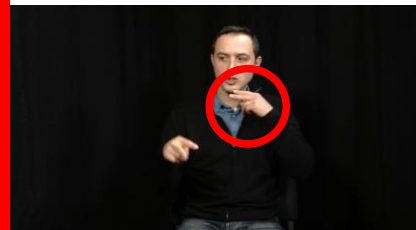
CL:FOUR-PEOPLE



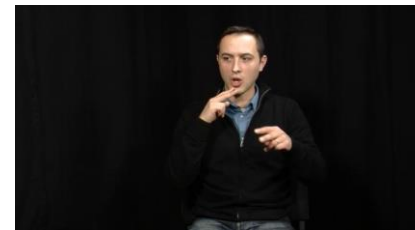
GO



ENTER



RESTAURANT



CL:FOUR-PEOPLE

« Four old men enter a restaurant... »

Other sources of variation



Sign Language of the Netherlands : The Bear Fable

Other sources of variation

- Stress



HOW
Unstressed form



HOW
Stressed form

- Phonetic context
- Lexical frequency

3. Conclusions

1. Sign Lowering is **differently distributed across contexts**

2. Phonetic environment:

- Lowering of forehead located sign **is affected by the motion of the hand** in the preceding segment
- Weak Hand Lowering **is affected by the number of active hands** in the neighboring signs

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THANK YOU!

Questions and comments?

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Acknowledgments

We wish to warmly our informants for their participation in this study. This research is funded by a F.R.S-FNRS Research Fellow Grant and a F.R.S-FNRS Incentive Grant for Scientific Research n. F.4505.12.

Coding: forehead located signs



Preceding and following segments

Sign



DEAF

Pause



Coding: symmetrical signs



Preceding and following segments

1 Hand

One-handed sign



DEAF

2 Hands

Two-handed sign

Pause



MEAT

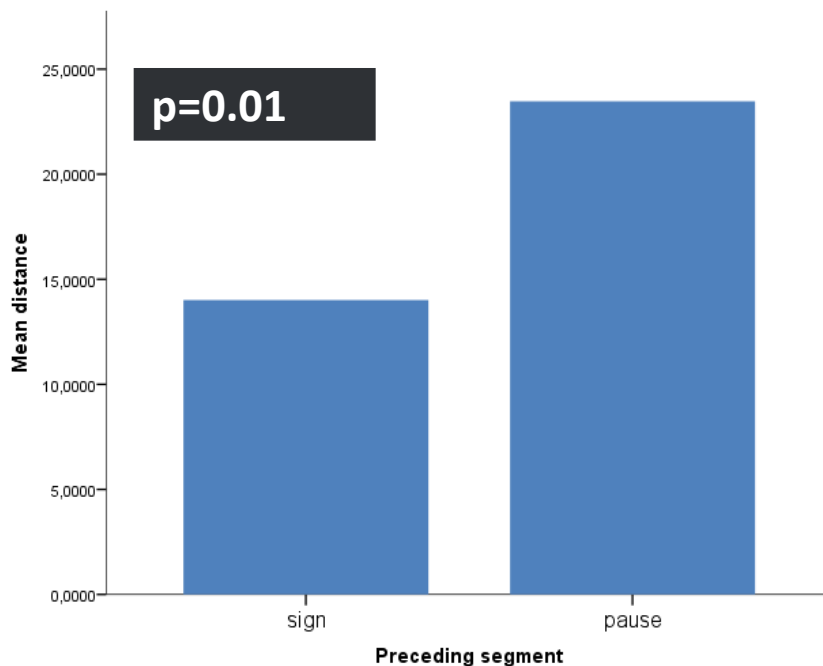




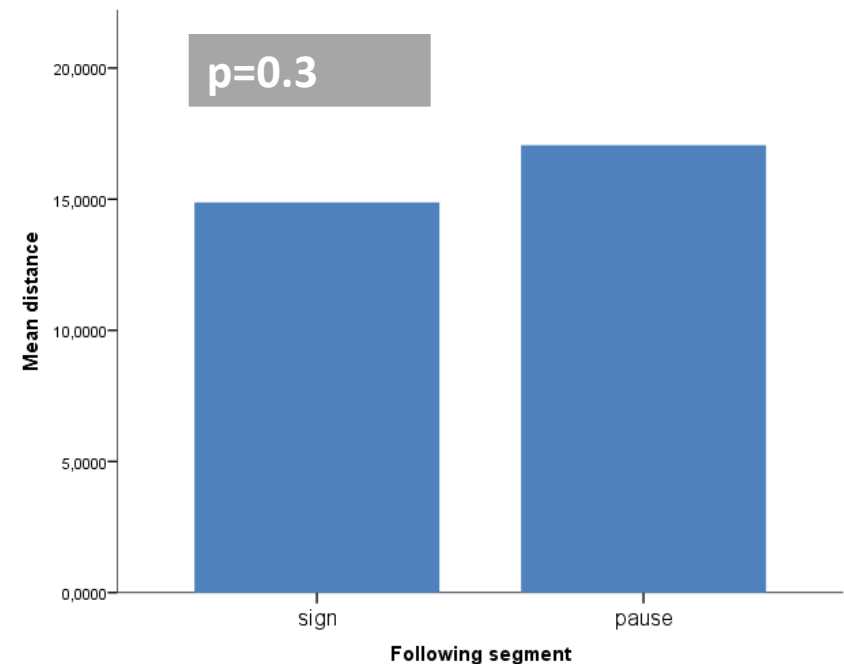
2. Phonetic environment: sign - pause

Lowering of forehead located signs is affected by the **hand motion** in the preceding context

Preceding signs : effect of the hand motion on sign lowering



Following signs: effect of the hand motion on sign lowering

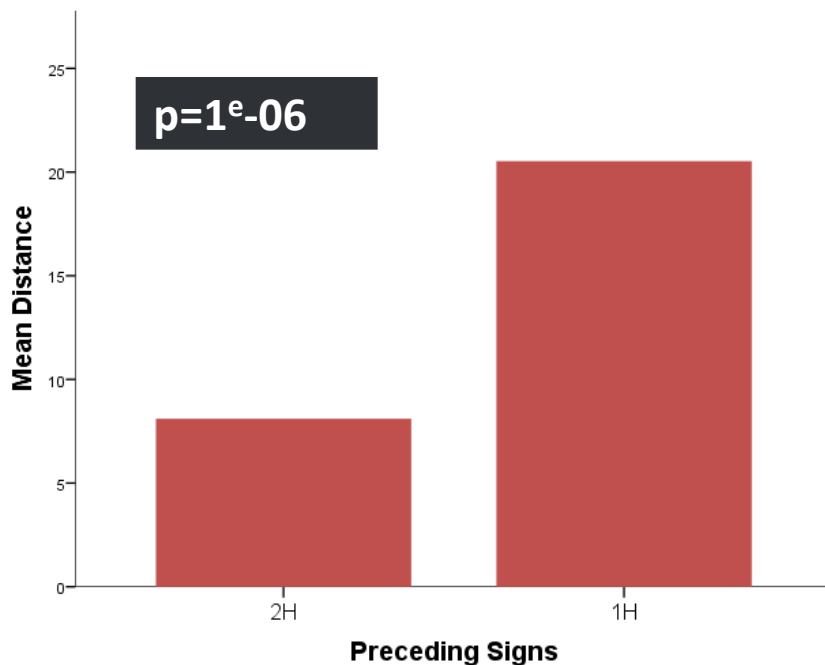




2. Phonetic environment : 1 H vs. 2 H

Weak Hand Lowering is affected by **the number of active hands** in its surrounding context

Preceding signs : effect of the number of active hands on WHL



Following signs: effect of the number of active hands on WHL

