

## RESEARCH OUTPUTS / RÉSULTATS DE RECHERCHE

### Nonmanuals and markers of (dis)fluency in French Belgian Sign Language (LSFB)

Notarrigo, Ingrid; Meurant, Laurence

*Publication date:*  
2014

*Document Version*  
Peer reviewed version

[Link to publication](#)

*Citation for pulished version (HARVARD):*

Notarrigo, I & Meurant, L 2014, 'Nonmanuals and markers of (dis)fluency in French Belgian Sign Language (LSFB)', 6th Workshop on the Representation and Processing of Sign Languages: Beyond the visual channel, Reykjavik, Iceland, 31/05/14 - 31/05/14.

#### General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal ?

#### Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

# Nonmanuals and markers of (dis)fluency in French Belgian Sign Language (LSFB)

Ingrid Notarrigo and Laurence Meurant

ingrid.notarrigo@unamur.be laurence.meurant@unamur.be

## INTRODUCTION

Collaborative project about markers of (dis)fluency in spoken English (L1-L2), French (L1) and LSFB (L1) [University of Louvain-UCL & University of Namur-UN] (*non-pathological*, Götz 2013)

In this *pilot study*: **Pauses** (113), **Palm-ups** (80) and **co-occurring Nonmanuals** under investigation

## QUESTIONS

1 What type of **information** do **Nonmanuals (Nms)** convey about the selected **manual markers (Ms)**, i.e. pauses and palm-up signs?

2 Is the (time consuming) **annotation** of each non-manual component needed for each pause and each palm-up sign?

## CORPUS

Unprepared monologues selected from larger dialogues

	Sex	Age	SL profile	Clip duration
Signer 1	M	33	Native	3min
Signer 2	F	22	Native	2min
Signer 3	M	25	Near-native	2min30
Signer 4	F	28	Near-native	2min30

## CODING Ms

<b>Palm-up (PU)</b>	Upward palm orientation sign in the neutral space resulting from a wrist rotation
<b>Pause</b>	
<b>S1</b>	Stop in the hands flow
	Stop during a sign
<b>S1:start</b>	Stop at the beginning of a sign
<b>S1:end</b>	Stop at the end of a sign
<b>S2</b>	Stop between signs
<b>S2:crossed</b>	Stop with hands crossed
<b>S2:body</b>	Stop with hands along the body
<b>S2:neutral</b>	Stop with relaxed hands in the neutral space

## METHODOLOGY

Step 1: Coding data in ELAN

Step 2: Extracting overlaps between Ms and Nms

Step 3: Querying data in Excel

- Identifying regular combinations of Nms
- Distinguishing consistent Ms categories

## CODING Nms

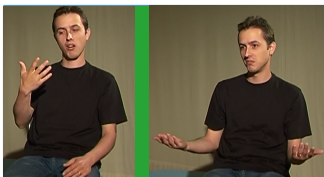
Movement or position of **Eyebrows (B:)**, **Head (H:)** and **Mouth (M:)** in the **strict interval** of PU/S1/S2

Movement of **Eyes (E:)** and direction of **Gaze (G:)** one sign before and after PU/S1/S2

### Gaze Tags (Meurant 2008)

<b>Addressed</b>	towards a real or a fictive interlocutor
<b>Spatial out of a role</b>	towards the frontal space without the actualization of a role-play
<b>Spatial within a role</b>	towards positions in the frontal space in relation to the actualization of a role-play
<b>Floating</b>	towards the floor, the side or in the air (not addressed nor related to meaningful positions in space)

PU-mod



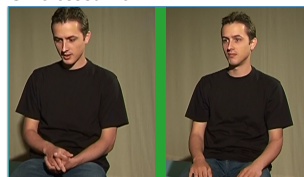
PU (lexical/filler) WELL

S1:start-str FILLED



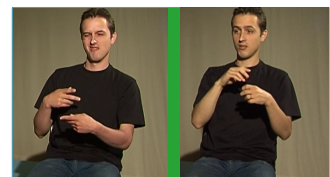
S1:start-sus WINDOW

S2:crossed-BoM



S2:body-BoE

S2:neutral-mod



S2:neutral-sus

## RESULTS

### 1. Values/functions of Ms given by co-occurring Nms

<b>Modality (mod)</b>	Comment or evaluation from the point of view of the role-played character or the signer himself/herself on what is being said
<b>Suspension (sus)</b>	Blank in the communication
<b>Phatic (pha)</b>	The signer makes sure he is well understood
<b>Stress (str)</b>	The signer emphasizes a point of his discourse
<b>Boundary (BoS, BoM, BoE)</b>	Start, middle or end position of a turn

### 2. Nms needed for annotation (cues defining categories)

**Gaze** and **Head** are sufficient to distinguish these functions of PU/S1/S2. Sometimes another Nm is present but not systematically.

Manual markers	Head	Gaze	Other Nms
PU-mod		Spatial within a role	
S1:end-mod			
S2:neutral-mod			
S1:start/end-sus	Fixed	Addressed or Floating	
S2:neutral-sus			
S2:body/crossed-pha	Nod	Addressed	
S2:neutral-pha			
S1:end-pha			
S1:end-str	Movement (not Nod)	Addressed or Spatial out of a role	
S1:start-str	Chin up	Addressed or Spatial out of a role	E:wide B:raised M:closed
S2:crossed/body-BoM	Turn or /	Floating	
S2:crossed/body-BoE	Nod or /	Addressed	

## FURTHER ISSUES

- Floating vs. Addressed gaze = a (dis)fluent marker in itself?
- Compare with other potential manual (dis)fluency markers: false start, self-repair, repetition, flying index, gesture/motion filler, spatial discourse organisation, connecting sign (list buoy, ALSO, AND, SAME, rhetorical question)
- Using a descriptive template for Nms or a tagset based on the marker functions?



Same nonmanuals with another manual marker

Connecting sign  
Left: ALSO + G:a  
Right: ALSO + G:f

## ACKNOWLEDGMENT

F.R.S. - FNRS Research Fellow Grant FRESH FC 60970  
A.R.C., n°12/17-044

## REFERENCES

- Götz, S. (2013). Fluency in Native and Nonnative English Speech. *Studies in Corpus Linguistics*, 53. John Benjamins Publishing Company.  
Johnston, T. (2011). Auslan Corpus annotation guidelines.  
Meurant, L. (2008). The speakers' eye gaze. Creating deictic, anaphoric and pseudo-deictic spaces of reference. In R. M. de Quadros (ed.) *Sign Languages: spinning and unraveling the past, present and future*. TILSR 9, Florianopolis, Brazil, pp. 403-414.



UNIVERSITÉ  
DE NAMUR

Needle, C. (2002). Sign StreamTM Annotation: Conventions used for the American Sign Language Linguistic Research Project. Boston, MA: American Sign Language Linguistic Research Project Report No.11, Boston University.

Nonhebel, A.; Crasborn, O.; van der Kooij, E. (2004). Sign language transcription conventions for the ECHO Project. Version 9, SSL mouth annotations and BSL and NGT mouth annotations version 2. University of Nijmegen  
<http://www.let.kun.nl/sign-lang/echo/docs/>

van Loon, E. (2012). What's in the palm of your hands? Discourse functions of Palm-up in Sign Language of the Netherlands, Master Thesis. University of Amsterdam, Netherlands.