

# A semantic-pragmatic analysis of contrast types in Catalan Sign Language (LSC)

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## Introduction

- Little agreement among researchers about how contrast should be defined.
- Most of the studies on **sign languages**, treat contrast as a **characteristic of topics and foci** ([4],[7]).
- In LSC **focus** and **topic** display the same marking in order to express **contrast**: left and right body leans (bl), and head tilts (ht), and the use of the opposite sides of the space [1],[8].

## Goals

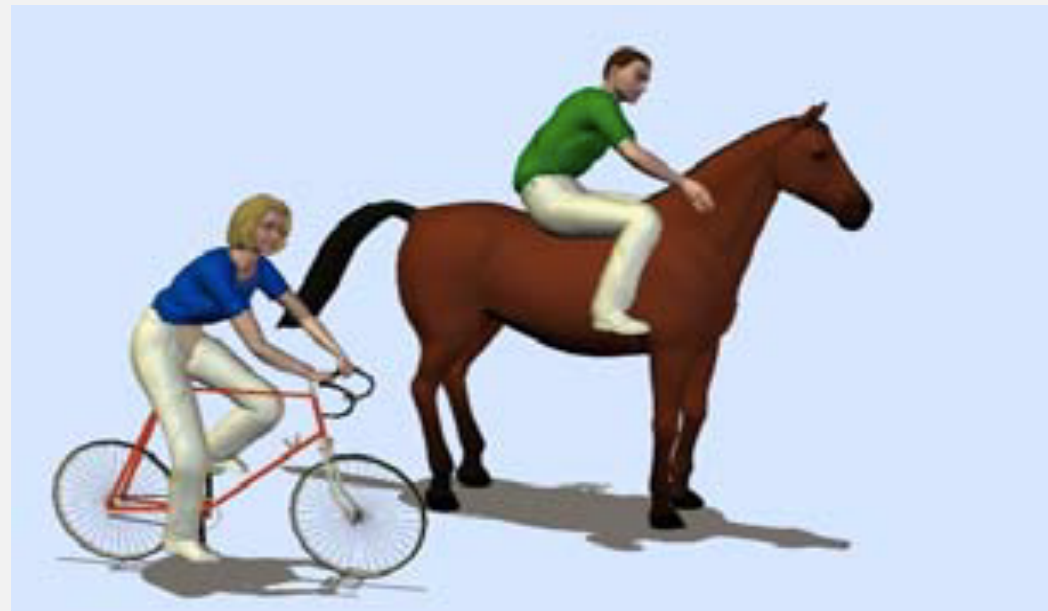
- Analyze the notion of **contrast as an independent category** in Information Structure [6].
- Identify and analyze three **types of contrast** expressed through different combinations of prosodic and morphophonological markers that trigger different **interpretations**, following [5].

## Methods and Materials

**Participants:** Two deaf native LSC signers.

**Elicitation tasks:**

1. Question answer tests with pictures
2. Storyboard telling task
3. Translations of contextualized written sentences
4. Felicity judgments

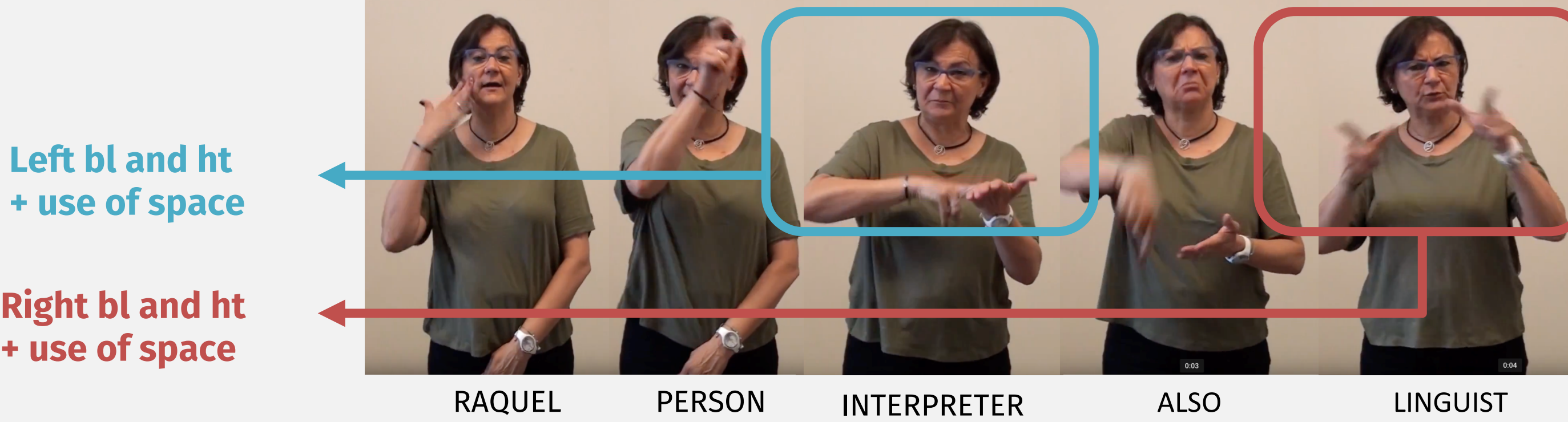


Picture from the *Questionnaire of Information Structure* (Skopeteas et al. 2006)

Results compared with naturalistic data from the **LSC corpus** (under development in the *Institut d'Estudis Catalans* [2])

## Contrast types

### i. Parallel contrast



Spreading only over focused elements

(1) RAQUEL PERSON [INTERPRETER]<sub>F</sub> ALSO [LINGUIST]<sub>F</sub>  
'Raquel is an interpreter and also a linguist.'

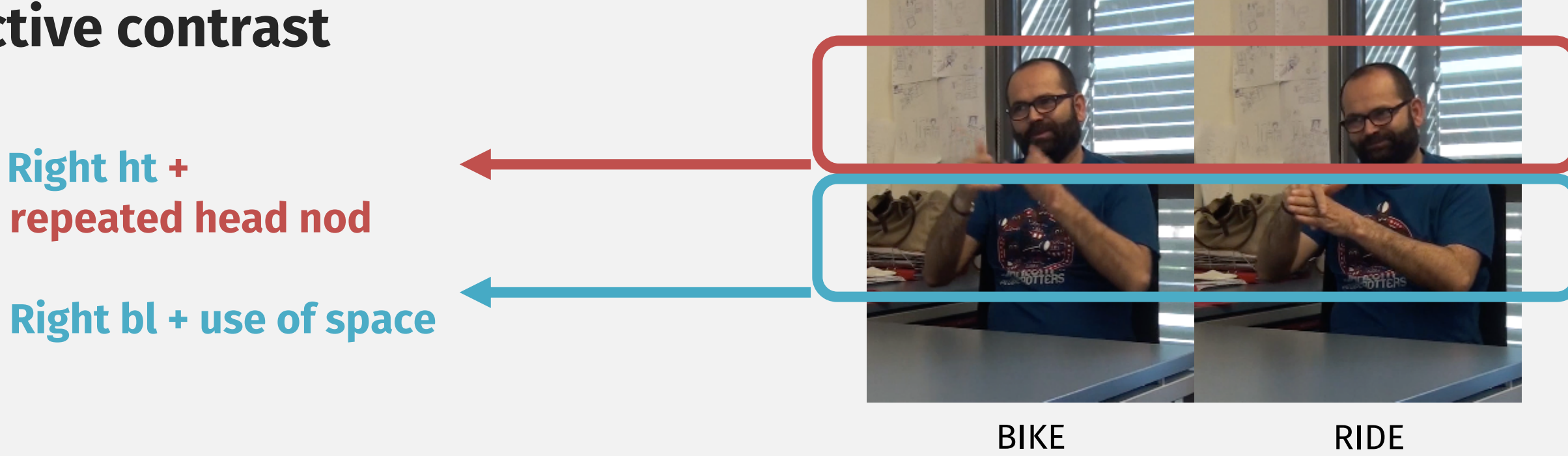


Spreading over both topic and focus

(2) [GIORGIA]<sub>F</sub> [LINGUIST]<sub>F</sub> [RAQUEL]<sub>F</sub> [INTERPRETER]<sub>F</sub>  
'Giorgia is a linguist and Raquel is an interpreter.'



### ii. Selective contrast

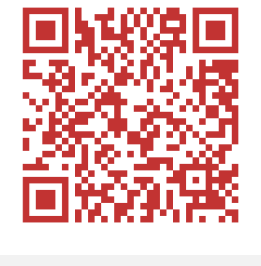


(5) What is the woman doing: riding a bike or riding a horse?

right bl+ht+hn

BIKE RIDE

'Riding a bike.'



### iii. Corrective contrast



left bl+ht right bl+ht+hthr

(6) NO [MARY PIZZA-EAT NOTHING]<sub>LEFT</sub>, [OTHER BURGER]<sub>RIGHT</sub>.

'No. Mary didn't eat a pizza, but a burger.'



### The use of the sign LIST in parallel contrast

When **more than two alternatives** are contrasted a specific sign is commonly used: **the sign LIST**.

(3) LIST-1 POTATO, LIST-2 EGGPLANT, LIST-3 TOMATO, LIST-4 FISH, LIST-5 MEAT, ETC.  
'Potatoes, eggplants, tomatoes, fish, meat, and other things.'



LIST-2



→ In the **absence** of the sign LIST **left and right body leans** are displayed:

left sp right sp left sp right sp left sp  
left bl right bl left bl right bl left bl

(4) POTATO, EGGPLANT, TOMATO THEN FISH, MEAT, ETC.  
'Potatoes, eggplants, tomatoes, fish, meat, and other things.'



### Combination of left-right body leans and forward-backward body leans\*

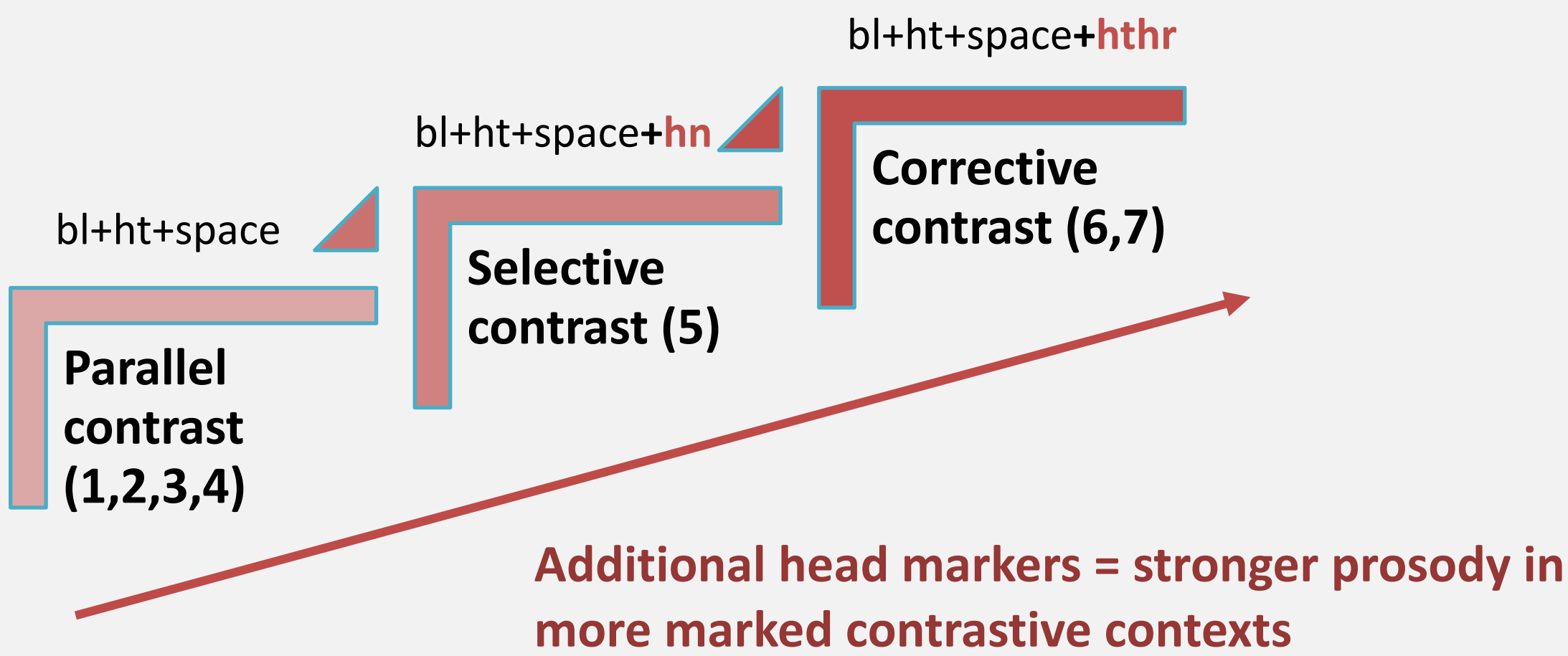
- **Left-right body leans** → express the parallelism contrast between the elements of the second conjunct
- **Forward-backward body leans** → express the contrast between the correction and the corrected element.

re backward bl forward bl  
left bl central bl right bl  
(7) MARY PIZZA EAT ONLY NO, [PIZZA]<sub>LEFT</sub>, [ICECREAM]<sub>CENTRAL</sub>, [SALAD]<sub>RIGHT</sub>  
'Mary didn't eat only pizza, (she ate) pizza, icecream and salad.'



\*In line with findings on NGT proposed by [7].

## The interpretation of contrast



Contrast types	Contrast markers	Semantic interpretation	Overlapping with other IS notions and their markers
Parallel contrast	Body leans/head tilts and the use of opposite sides of space	Similarity plus dissimilarity	Topic (+raised eyebrows and clause initial position) Focus (+raised eyebrows or clause final position and mouthing)
Selective contrast	Body leans/head tilts and the use of opposite sides of space + head nod	Similarity plus dissimilarity + exhaustivity	Focus (+raised eyebrows or clause final position and mouthing)
Corrective contrast	Body leans/head tilts and the use of opposite sides of space + head thrust	Similarity plus dissimilarity + exhaustivity + violation of expectations [3]	Focus (+raised eyebrows or clause final position and mouthing)

## Conclusions

- ✓ Contrast in LSC is marked through left and right **head tilts** and **body leans**, and the use of the **opposite sides of the signing space**.
- ✓ **Same marking of contrast** for both **focus** and **topic** = empirical evidence to support the semantic-pragmatic theories that treat **contrast as a separate category in IS**.
- ✓ Other head movements added to this combination of markers trigger different **types of contrast**.
- ✓ **Correlation** between **prosodic** and **morphophonological markers** and different **semantic interpretations** = empirical evidence that support semantic-pragmatic theories of contrast.
- ✓ Contrast types seem to be **compositional** at the semantic level. However, the prosody is perceived as **gradient across the different types**, since the additional head movements add intensity to the contrasted constituents.

## References

[1] Barberà, G. (2012). *The meaning of space in Catalan Sign Language (LSC): Reference, specificity and structure in signed discourse*. PhD dissertation, Universitat Pompeu Fabra [Published as a monograph in 2015, Berlin and Nijmegen: De Gruyter Mouton and Ishara Press]. [2] Barberà, G., Quer, J. & Frigola, S. (2015). Primers passos cap a la documentació de discurs signat. El projecte pilot de constitució del corpus de la llengua de signes catalana. *Treballs de Sociolingüística Catalana* 25. 287-302. [3] Destruel, E. & Velleman, L. (2014). Refining contrast: Empirical evidence from the English it-cleft. *Empirical Issues in Syntax and Semantics* 10, 197-214. [4] Kimmelman, V. (2014). *Information Structure in Russian Sign Language and Sign Language of the Netherlands*. PhD Dissertation. University of Amsterdam. [5] Umbach, C. (2004). On the notion of contrast in information structure and discourse Structure. *Journal of Semantics* 21(2),155-175. [6] Vallduvi, E. & Vilks, M. (1998). On rheme and kontrast. In P.W. Culicover, L. McNally (eds.), *The Limits of Syntax*. New York: Academic Press. 79-108. [7] Van der Kooij, E. et al. (2006). Explaining prosodic body leans in Sign Language of the . *Journal of Pragmatics* Netherlands: Pragmatics required38. 1598-1614. [8] Zorzi. 2018. *Coordination and gapping in Catalan Sign Language (LSC)*. PhD Dissertation. Universitat Pompeu Fabra.