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## INTRODUCTION

Constructivist approach (Goldberg, 1995; Tomasello, 2003) argues that categorization is a cognitive process which underlies the abstraction of the linguistic forms and the construction of more abstract linguistic schemas. Construction of grammatical categories allows children to produce more creative utterances. So they are able to use newly learned items in the way that other similar items have been used in the past and that they never produced or heard previously. Morphosyntactic disorders encountered by children with specific language impairment (SLI) could be caused by problems with categorization, what would hinder their abstraction of construction schemas.

## STUDY

### PURPOSE

- To investigate the development of grammatical categories of noun and verb in French-speaking children with SLI and children with NL

### HYPOTHESES

1. Children with SLI are more input dependent than children with NL
2. Children with SLI have to be confronted to a greater number of lexical types to reach a critical mass allowing them to abstract a category.
  - They have more difficulties with categorization than children with NL

### IMPLICATIONS

- Children with SLI cannot use creatively newly learned items and use items in the constructions in which they heard them
  - They reinforce lexicalized form
  - Morphosyntactic development would be slow down





## METHODOLOGY

### PARTICIPANTS

- **16 children with SLI**
  - Aged from 6 to 13
  - Monolingual French speaker
  - QIP (WISC IV) > 82
  - Language skills below 1.25 SD from the mean in 2 or more of 5 language areas
  - No neurological or auditory disorders
- **16 children with NL**
  - No history of language disorders
  - Monolingual French speaker
  - Matched with children with SLI according to chronological age, IQ performance and gender

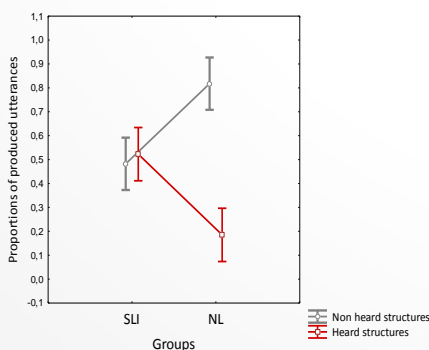
### MATERIAL

- **Methodology inspired from the study of Skipp, Windfuhr and Conti-Ramsden (2002)**
- **Creation of 8 pseudo-words**
  - 4 novel verbs and 4 novel nouns
- **6 experimental child-directed play sessions**
  - 3 experimental play-session with novel verbs and 3 with novel nouns
  - Children are encouraged to play with figurines Playmobil© and produced new words.
  - Lexical items are modeled with 4 experimentally controlled argument structures.
  - Each session comprises around 10 exposures of four novel items, for 40 exposures per session (120 exposures across the 3 sessions)
  - All the children's produced utterances are recorded, transcribed and analyzed

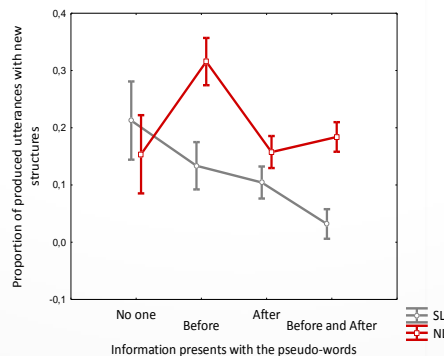
	PSEUDO-VERBS				PSEUDO-NOUNS			
	Maluque	Antupe	Coutine	Poujole	Loura	Chiton	Pali	Josset
Meaning	To chase away somebody with a bucket	To catch the feet of somebody	To caress somebody behind ones ears	To tell something discreetly to somebody				
Example	<i>Maluque</i> la fée ( <i>Maluque the fairy</i> )	<i>Antupe!</i>	L'indien <i>coutine</i> le fantôme ( <i>The Indian coutine the ghost</i> )	Le fermier <i>poujole</i> ( <i>The farmer poujole</i> )	Cache le <i>loura</i> ( <i>Hide the loura</i> )	Le <i>chiton!</i> ( <i>The chiton</i> )	Le <i>pali</i> porte le <i>josset</i> ( <i>The pali carries the josset</i> )	Le <i>josset</i> pousse ( <i>The josset pushes</i> )

## RESULTS

- Total numbers of spontaneous utterances, containing the novel words, in each session, for each word type, for each group is used to assess learning development.



- Significant effect between children with SLI and children with NL:
  - for the non heard structures ( $U=28, p < 0.001$ )
  - for the heard structures ( $U=28, p < 0.001$ )



- Significant effect between children with SLI and children with NL for the structures with information:
  - before the pseudo-word ( $U = 15.5, p < 0.001$ )
  - after the pseudo-word ( $t = -2.75, p < 0.05$ )
  - before and after the pseudo-word ( $t = -8.48, p < 0.001$ )

## DISCUSSION

- Children with SLI are more input dependent than children with NL
  - They produced more heard structures
  - They produced less non heard structures
- Children with SLI present a more important critical mass
  - They have to expose to a greater number of lexical items to construct a category
- Children with SLI produce less complex structures than children with NL
  - They construct less multi-words utterances
  - They have more difficult to insert a new word in another construction
- Difficulties with the construction and the abstraction of verbal and nominal categories
  - Use of more lexicalized forms
  - Difficulties to create the more abstract dimension of linguistic competence
  - Morphosyntactic development slowed down

### References:

- Goldberg, A. E. (2006). *Constructions at work. The nature of generalization in language.* Oxford: Oxford University Press.
- Tomasello, M. (2003). *Constructing a language: A usage-based theory of language acquisition.* Cambridge, MA: Harvard University Press.
- Skipp, A., Windfuhr, K. L., & Conti-Ramsden, G. (2002). Children's grammatical categories of verb and noun: A comparative look at children with specific language impairment (SLI) and normal language (NL). *International Journal of Language & Communication Disorders, 37*(3), 253-271.

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