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Manifestations of SLI in LSF: Focus on argument structures

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Specific Language Impairment (SLI)

Heterogeneous language skills

Spoken Languages clues

- Phonology
- Syntax
- Pragmatics
- Developmental verbal dyspraxia

Sign Languages clues

- Semantico-syntactic use of space
- Agreement morphology (regarding plain verbs, spatial verbs, agreement verbs)
- Classifier system and personal reference



Atypical language development in SL

Only a few studies on SL disorders

BSL case study

Significant delay (in both production and reception), exhibiting restricted BSL grammar and reduced sentences

(Morgan et al., 2007)

LSF case study

Comprehension deficit regarding negation, aspect, argument structure
 Lack of explicit reference in production

(Puissant-Schontz, 2013)



Typology of LSF predicates

(Puissant-Schontz, in progress)

Properties Existence Action

Discriminative Morphological Traits (DMT)

- Anchored (on the body) Vs Floating (no anchor)
 - With Configuration (Handling classifier)
 - Oriented (palm orientation)
 - Itinerary (source-goal path)

Anchored		Floating					
C+	C-	C+		C-			
		O+	O-	O+	O-		
		I+	I-	I+	I-		
AC	A	FCO	FCI	FC	FO	FOI	F

Hypothesis

SLI clues in SL comprehension:

- Deficit regarding negation, aspect, argument structure

SLI clues in SL production:

- Lack of explicit reference
- Less efficient discourse

+ Insight from LSF predicates typology?

Sutton-Spence R. & Woll B. (1999). The Linguistics of British Sign Language: An Introduction. Cambridge: Cambridge University Press.
 Morgan G., Barriere I. & Woll B. (2003). First verbs in British Sign Language development. Working Papers in Language and Communication Science, vol. 2 pp 57-66
 Morgan G., Herman R. & Woll B. (2007). Language impairments in sign language: breakthroughs and puzzles. International Journal of Language and Communication Disorders, 42, 97-105
 Puissant-Schontz L. (2013). Création d'un outil d'évaluation de la morphosyntaxe en LSF (Mémoire de Master 2 en Sciences du Langage). Université Paris Ouest Nanterre la Défense, Nanterre.
 Quinto-Pozos D., Forber-Pratt A. & Singleton J.L. (2011). Do developmental communication disorders exist in the signed modality? Perspectives from Professionals. Language, Speech and Hearing Services in Schools, 42 (4), 423-443

Methodology

Four deaf signing children, one is SLI suspected

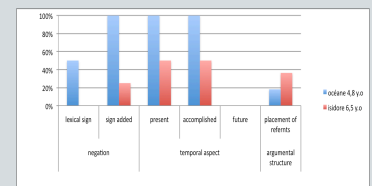
- Three signers aged 4;8, 7;10, 8;11
- One signer with atypical language development (communication disorders, LSF delay)
- Tested at 6;5 and 8;2, speech therapy

Production Tasks	Reception Task

Results

Production tasks	Reception task
Delay of Isidore	
<ul style="list-style-type: none"> ✓ Lack of explicit reference ✓ Less efficient discourse 	<ul style="list-style-type: none"> ✓ Deficit regarding negation, aspect, argument structure

Jeanne 8;11	THREE BOYS MIDDLE BOY PUSH CL-PERSON-FALL
Isidore 8;2	THREE BOY MIDDLE CL-PERSON CL-PERSON MIDDLE BOY HIT (other boys) BOY PUSH (other boys) BOY HIT (other boys) BOY PUSH (other boys) FIGHT BOY PUSH (other boys)
Louane 7;10	TREE THERE ARE 3 BOYS BOY HIT (other boys)



Jeanne, 8;11



Isidore, 8;2



Production tasks	Reception task
Progression of Isidore	

Production tasks	Reception task
Insight from LSF predicates typology?	

=> Action predicates with 3 DMT are easier to understand than to use.

Discussion

Discriminative Morphological Traits are clues that help comprehension, but they seem difficult to acquire from the production point of view.

Following step: A new assessment tool including our LSF predicates typology (Puissant-Schontz, in progress)