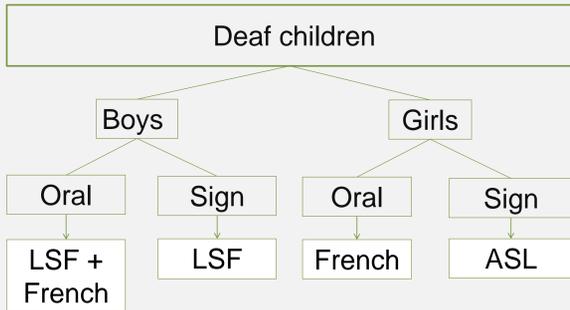


Syntactic Order Variation in Deaf Seniors' production of Quebec Sign Language (LSQ)

1. Introduction

Previous research on LSQ has revealed linguistic differences between deaf women and deaf men who have been educated in distinct religious institutions before 1960 (Dubuisson & Grimard, 2006). These differences can be explained by the exposure to different educational methods in regards to i) the sign language used by the "sign" groups (French Sign Language (LSF) for men, American Sign Language (ASL) for women (Veillette *et al.*, 2005)) and ii) the degree of exposure to spoken French by the "oralist" groups (more for women than men) (Perreault, 2006).



Although these contact situations have already been shown to have influenced the LSQ lexicon (Delaporte, 2006), no research describes the distinct effect of these contact situations **on the syntactic structure** of LSQ.

Are there syntactic order differences in the productions among three groups of deaf seniors

- > oralist-educated women ?
- > oralist-educated men ?
- > sign-educated men ?

2. Syntactic order

Alongside the formal and functional proposals supporting distinct theoretical perspectives on syntactic organization (i.e. generative, semiological, cognitive), descriptive studies of each language in contact (ASL (Neidle *et al.*, 2000; Kegl *et al.*, 2004); LSF (Yau, 1993); French (Kayne, 1977; Muller, 2008)) show structural differences regarding the order of syntactic constituents subject (S), object (O) and verb (V).

French = SVO
ASL = SVO
LSF = SOV

O-final
V-final

In comparison, LSQ has been described as following a flexible order (**with SOV and OSV tendency**) and governed by articulatory and conceptual constraints (Bouchard *et al.*, 1999). Studies show that these orders can be influenced by linguistic factors, as the category of verbs (Kegl, 2004), the presence of a classifier verb (VCL) (Engberg-Pederson, 2002) and the presence of constructed actions (Ferrara & Johnston, 2014).

The hypotheses are that the productions of the...

- oralist-educated women will show influence of French and ASL (O-final pattern)
- sign-educated men will show influence of LSF (V-final pattern)
- oralist-educated men might fall in between the other two groups.

Bouchard, D., Dubuisson, C., Lelièvre, L., & Poulin, C. (1999, June). *L'ordre en langue des signes québécoise (LSQ)*. Paper presented at the Association Canadienne de Linguistique, Sherbrooke.
Delaporte, Y. D. (2006). Les signes FATHER et MOTHER revisités : une famille lexicale franco-américaine. In A.-M. Parisot & D. Daigle (dir.), *Surdité et société: Perspectives psychosociale, didactique et linguistique* (143-155). Québec : PUQ.
Dubuisson, C., & Grimard, C. (2006). *La surdité vue de près*. Québec: PUQ.
Engberg-Pedersen, E. (2002). Gestures in signing: the presentation gesture in Danish Sign Language. In R. Schulmeister & H. Reinitzer (ed.), *Progress in sign language research: in honor of Siegmund Prillwitz* (143-162). Hamburg: Signum.
Ferrara, L., & Johnston, T. (2014). Elaborating Who's What: A Study of Constructed Action and Clause Structure in Auslan (Australian Sign Language). *Australian Journal of Linguistics*, 34(2), 193-215.
Kayne, R. S. (1977). *Syntaxe du français: le cycle transformationnel* (Translated by A. Pierre). Paris: Éditions du Seuil.
Kegl, J. A. (2004). ASL syntax: Research in progress and proposed research. *Sign Language & Linguistics*, 7(2), 173-206.

3. Methods

Participants

M-M	O-M	O-W	M-W
6	5	11	0
N=22			

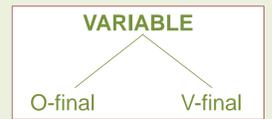
- > Profound deafness (only)
- > Language use = LSQ
- > Age = 60 and +
- > Born in Quebec
- > Attended school for deaf

Tasks

Depiction task ("Tell us in your own words the story you just saw.") from silent scenes of everyday comic event, calibrated to elicitate specific grammatical construction (plural, definiteness, classifier, etc.)

Analysis

- > Goldvarb X (Sankoff *et al.*, 2005)
- > LSQ data
- > 200 tokens



Social factors

- > Educational experience (exclusively oralist, oralist with signs, and exclusively signs)
- > Onset of deafness (native/non-native)
- > Family environment (with/without deaf family members)

Linguistic factors

- > Phonological category of verbs
- > Expression of the subject (simultaneity/non-simultaneity)
- > Classifier verbs (classifier verb/non-classifier verb)
- > Constructed action/speech (presence/absence)

4. Results

Social factors

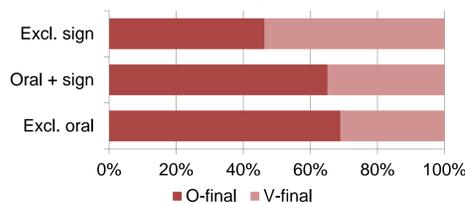
- > Women, who received spoken French education, produced more frequently O-final order proposition than men exclusively taught in sign language (V-final).
- > Oral- and sign-educated men are between the two groups, producing more frequently O-final structures than sign-educated men, but less than oral-educated women.

Multivariate analysis: social factors effect on O-final order

Corrected mean	.62		
Log likelihood	-128.91		
Significance	p = 0,02		
Total N	200		
	Weight	%	N total
Educational experience			
Exclusively oral	.57	69	103
Oral with signs	.53	65	43
Exclusively signs	.34	46	54
Range	23		

*Non-significant factors: family environment, onset of deafness.

Distribution of O-final and V-final order among the three groups



O-final : INDEX3a 3a-BUY SHOE
She/he buys shoes.

V-final : SHOEb INDEXb GIRLa 3a-WANTb
The girl does not want these shoes.

Linguistic factors

- > The propositions that include a classifier verb are more likely to follow a V-final pattern.
- > Other linguistic factors (verbal category, constructed action/speech, subject expression), unlike what was found in other studies, are not significant in this multivariate analysis.

Multivariate analysis: linguistic factors effect on O-final order

Corrected mean	.63		
Log likelihood	-127.74		
Significance	p < 0,001		
Total N	200		
	Weight	%	N total
VCL			
Non-classifier verb	.62	73	97
Classifier verb	.39	52	103
Range	23		

*Non-significant factors: Phonological category of verbs, expression of the subject, constructed actions.

Non-classifier verb	Classifier verb
O-final : GIRLa 3a-WANTb BOOKb The girl wants the book.	V-final : INDEX3a NEW SHOE [VCL]3a-PUT-ONb She/he put on new shoes.

5. Conclusions

- > Beyond the lexical differences previously documented (Dubuisson & Grimard, 2006), the language contact situations and the type of educational approach have influenced the syntactic order actually observed in LSQ of deaf senior.
- > Syntactic order variation is also conditioned by a semantic characteristic of the verbs (classifier or non-classifier).
- > For further studies, the distinction between the verbal incorporation of argument and the presence of non-manual agreement marker could contribute to a better understanding of the sign order variation among deaf seniors.

Correlation between the educational experience and the % of O-final propositions



Acknowledgements

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