

Metasyntactic Awareness and Cross-linguistic influence

Cross-sectional study of school-aged French-Norwegian bilingual children

Sébastien LUCAS

*DYLIS research center, University of Rouen, Normandy, France.
Affiliated to MultiLing research center, University of Oslo, Norway.*

Multilingual Awareness And Multilingual Practices

Tallinn, Estonia

22-23 November 2018

Outline

I- Theoretical framework

Metasyntactic awareness

Crosslinguistic Influence & Awareness

Syntactic transfer

French & Norwegian Syntactic typology

II- Methodology

Participants

Material/Procedure

III- Results

IV- Further research

Theoretical framework: Metasyntactic awareness

Simard *et al.* (2016)

multifaced & variability of
definition/behaviors/measures

**Conscious reflect on, analyze, or exert
control over syntactic structures.**

-using grammaticality judgment task

Metasyntactic ability :

Dynamically access explicit knowledge
(awareness)

Theoretical framework: Metalinguistic awareness (MA)

Sociolinguistics

MA & Metalanguage & Social interactions

Mertz & Yovel (2009)

Social constructed

A mediating framework for interpretation
between social & cognitive aspects.

Squires (2016)

raising of internal knowledge, a **continuum**
of awareness, implicit to explicit

→ Sociolinguistic environment

MA ↗ → metalinguistic reports ↗

Theoretical framework: Crosslinguistic influence (CLI)

Jarvis & Pavlenko (2006) CLI = TRANSFER

“The influence of a person’s knowledge of one language on that person’s knowledge or use of another language”

Complex phenomenon (up to 10 criteria!)

Activation inhibition of languages

Linguistic typology

Degree of perception/awareness

Theoretical framework: Crosslinguistic awareness (XLA)

Angelovska and Hahn (2014)

Aware of CLI

Establishing similarities and differences among the languages

→ Subtype of Metalinguistic awareness

Jessner (2006)

Multilingual Awareness = MA + XLA

→ Interaction

Theoretical framework: Syntactic Transfer

Transfer in this research

French/Norwegian

BFLA (De Houwer, 2009)

- **Linguistic**, Syntactic : word order (verb, prepositional verb construction)
- **Form** : Non verbal - Reading task (grammaticality judgment task)
- **Mode** : Receptive

Link **Metasyntactic awareness & Syntactic transfer**

Interaction **between languages**

Theoretical framework: Syntactic Transfer

Syntactic transfer

Skepticism → <90's : syntax immune to CLI

Jarvis & Pavlenko (2008)

Competition model

Grammaticality judgments are not immune to CLI effects.

CLI does affect language users' judgments.

Foursha-Stevenson & Nicoladis (2011)

Cross-linguistic influence weakens metasyntactic awareness

Theoretical framework: Syntactic Transfer

Grammaticality judgment reading task Early Bilinguals

Foursha-Stevenson & Nicoladis (2011)

French/English

Metasyntactic awareness develops early
Syntactic transfer English → French

Thierry & Sanoudaki (2012)

Welsh/English (Task in English)

Both syntactic systems are coactivated
Language non selective
Syntactic transfer Welsh → English

Theoretical framework: Fr/No Syntactic typology

Declarative sentences

Main/Subordinate clause

Norwegian : V2 word order in main clause

French : S-V in both

Subordinate Clause first

	1	V2	3	4
En	When class is over,	the children	play	in the schoolyard
No	Når timen er ferdig	leker	barna	i skolegården
Fr	Quand la classe est terminée,	les enfants	jouent	dans la cour de l'école
*Fr/(No)	Quand la classe est terminée,	jouent	les enfants	dans la cour de l'école

Adverb in subordinate clause

	1	2	3	4
En	...because	she	always	forgets...
No	...fordi	hun	alltid	glemmer...
Fr	...parce qu'	elle	oublie	toujours...
*Fr/(No)	...parce qu'	elle	toujours	oublie...

Theoretical framework: Fr/No Syntactic typology

Preposition string

	1	2	3	4	5	6
En	He	doesn't know	who	he	plays	with
No	Han	vet ikke	hvem	han	leker	med
Fr	Il	ne sait pas	avec	qui	il	joue
(*Fr)/No	Il	ne sais pas	qui	il	joue	avec

Verbs with prepositional constructions

Fr	demander à	écouter X	penser à
No	å spørre X	å høre på	å tenke på
*Fr/(No)	demander X	écouter sur	penser sur

Research Questions

Are there conscious syntactic transfers between both languages? If yes :

- 1 How are they organized ?
- 2 To what degree are they conscious ?

H1 : Syntactic transfers occur, especially from Norwegian to French. Ungrammatical sentences will be judged correctly by French-Norwegian Children.

H2-1 : Children show metalinguistic reflection (explicit, conscious) by describing that mistakes in sentences come from Norwegian syntax use (metasyntactic skills).

H2-2 : Children show crosslinguistic awareness of transfer from Norwegian to French by explicitly comparing both syntax when explaining their strategies.

Methodology

Participants



- French Norwegian bilingual children (33)

Couple – Age – French school – BFLA

- French Children (30)

Only exposed to French

Same sociocultural/economical environment.

Methodology

Materials :

Grammaticality judgment task

- Silent reading grammatically judgement task at school

- 14 phrases **in French**.

Mistakes : Norwegian syntactic calque
(→7 phrases)

Methodology Materials :

Interviews

Semi-structured
One to one, at home

1- Metalinguistic strategies during reading task/Syntactic transfers presence

Strategies used for answering

Bilingualism <-> children's practices
(usage of both language when reading)

2- Ethnographic notes

Methodology Analyses

Silent reading grammatically judgement task (33 + 30)

Results per item coded : Excel

Descriptive/exploratory statistics: Excel

Statistical tests: R

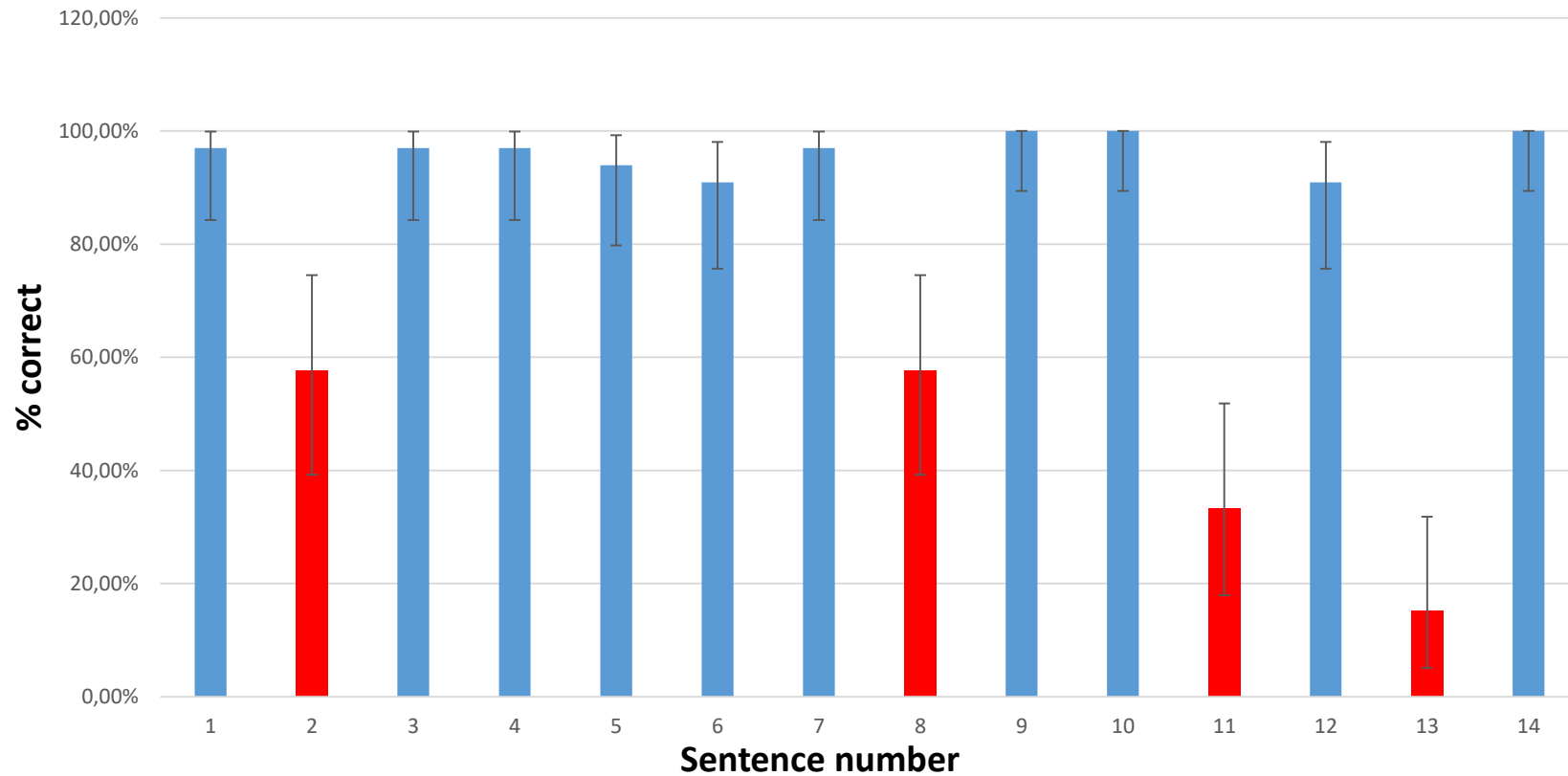
Semi-structured interviews (14)

Transcription : Transcriber/Word

Analysis : NVivo

Results Tests

Results per phrase (French Norwegian children)

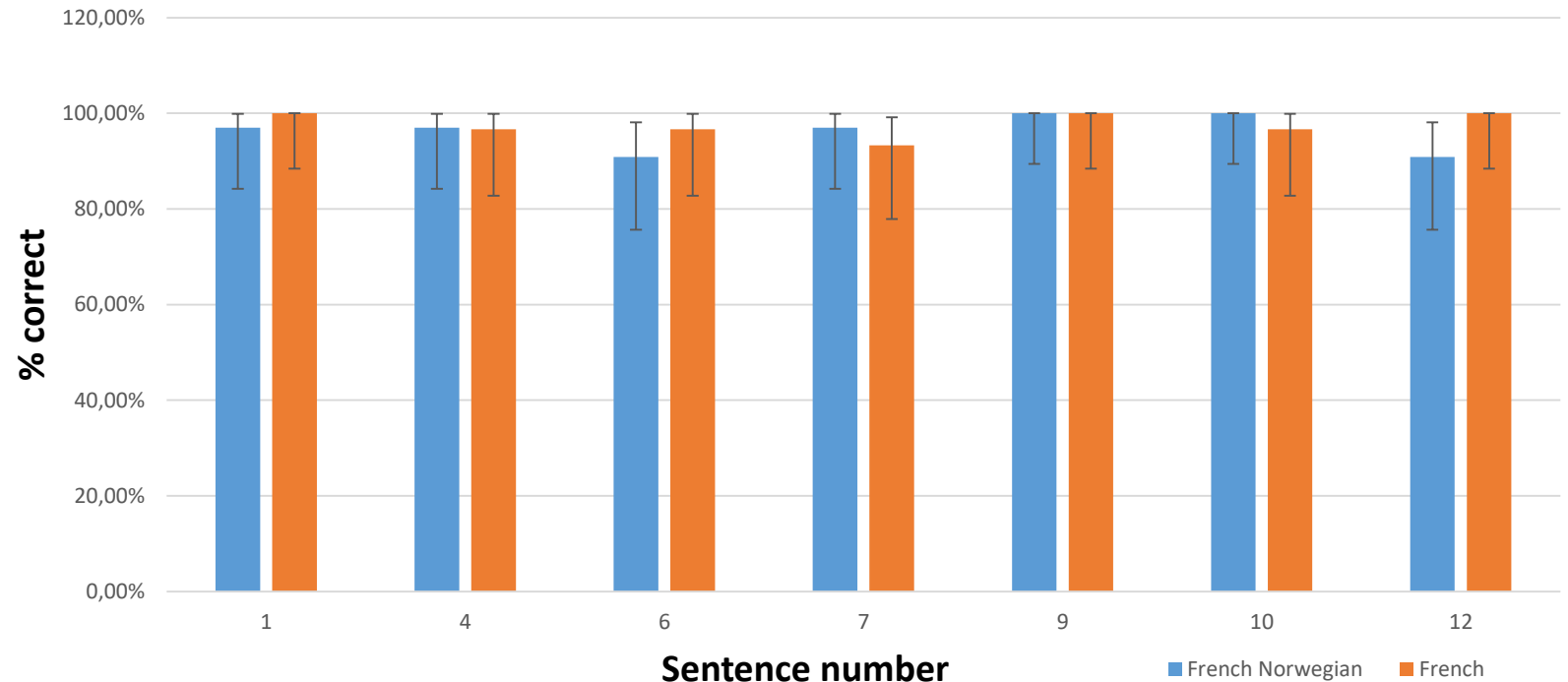


Error due to preposition use.

(No CI overlap).

Results Tests

Grammatical sentence judgment



Means : **Two Sample t-test**

p-value = 0.3953 → $p > 0,05$.

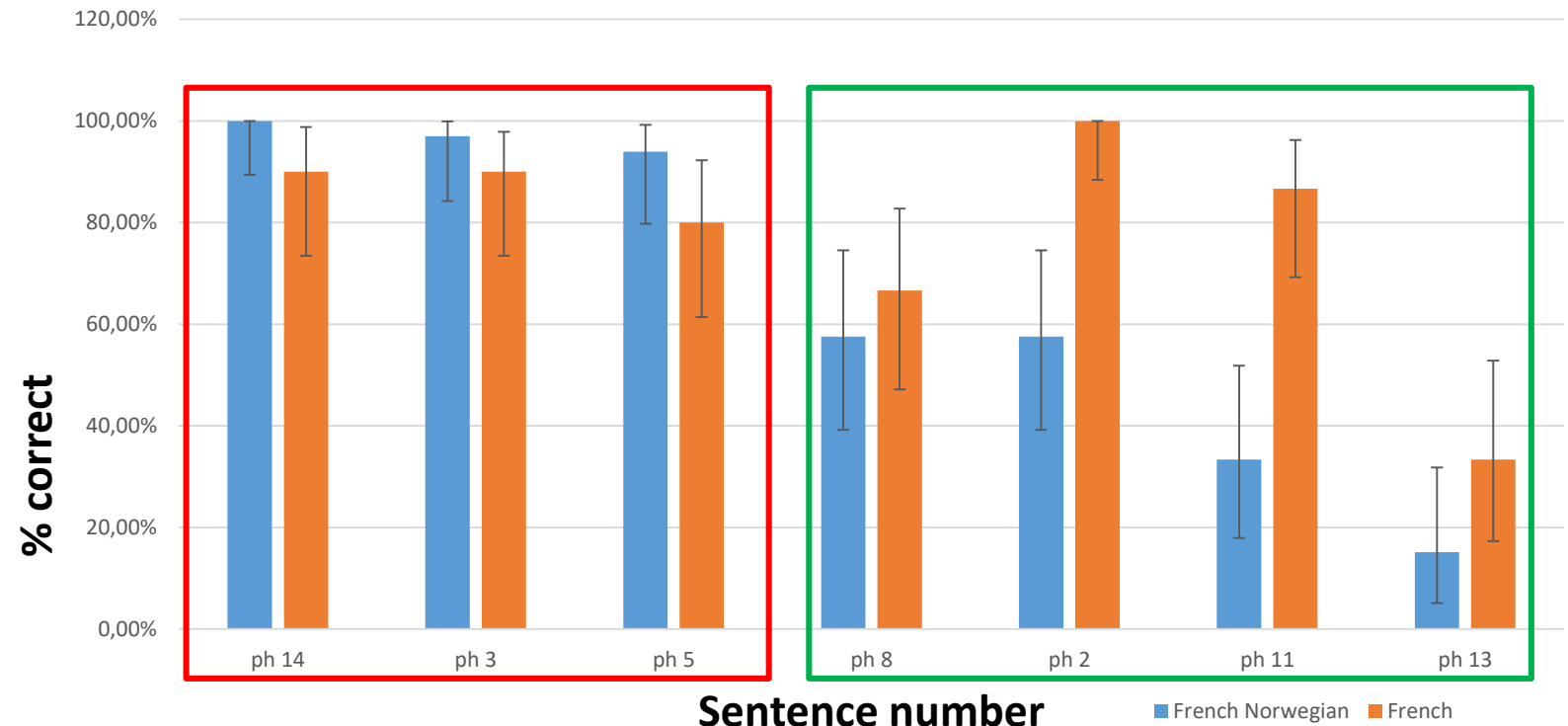
Per sentence : **Fisher's Exact Test for Count Data**

$0,2 < p\text{-values} < 1$ → $p\text{-values} > 0,05$.

No significant difference between both groups

Results Tests

Ungrammatical sentence judgment

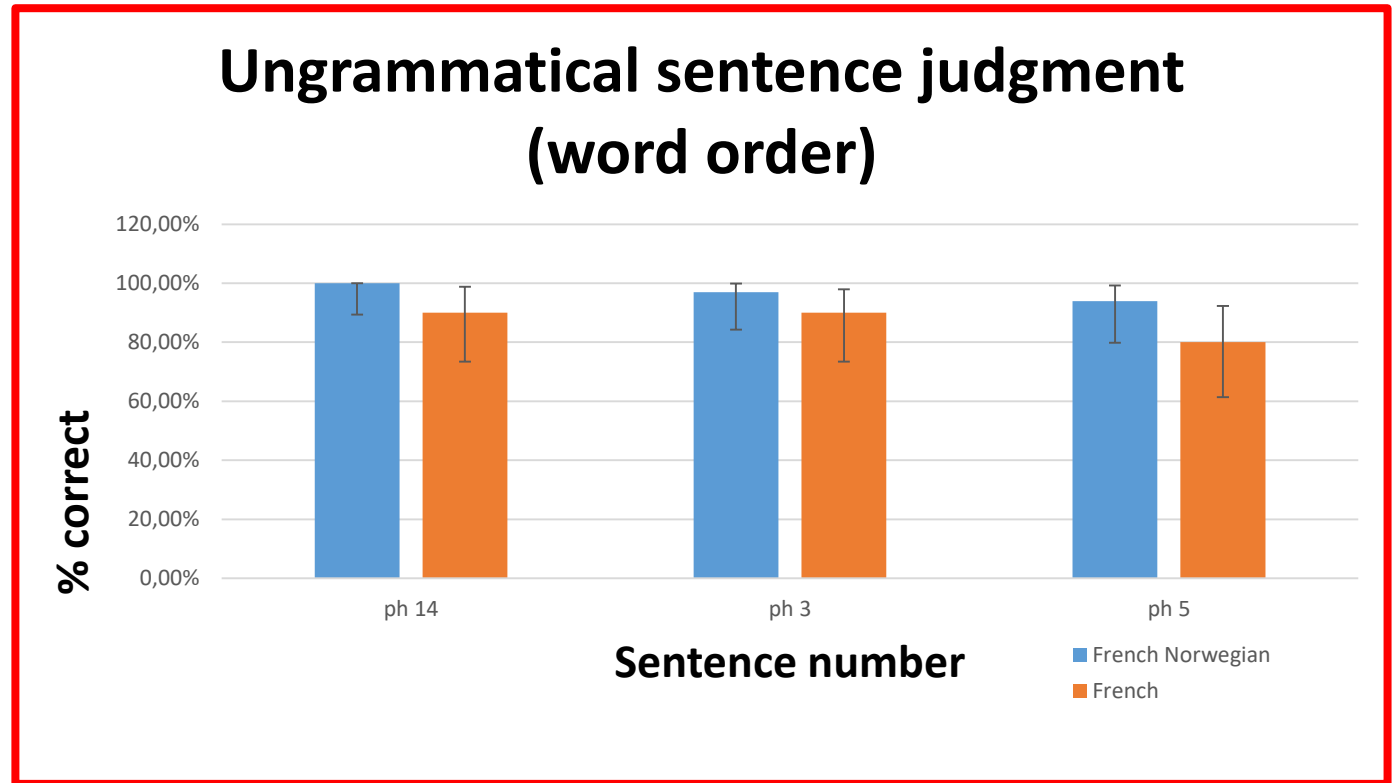


Sentences 14-3-5 : word order

Sentence 8 : word order related to preposition string

Sentences 2-11-13 : prepositional verb construction

Results Tests



~~Means : Two Sample t-test~~

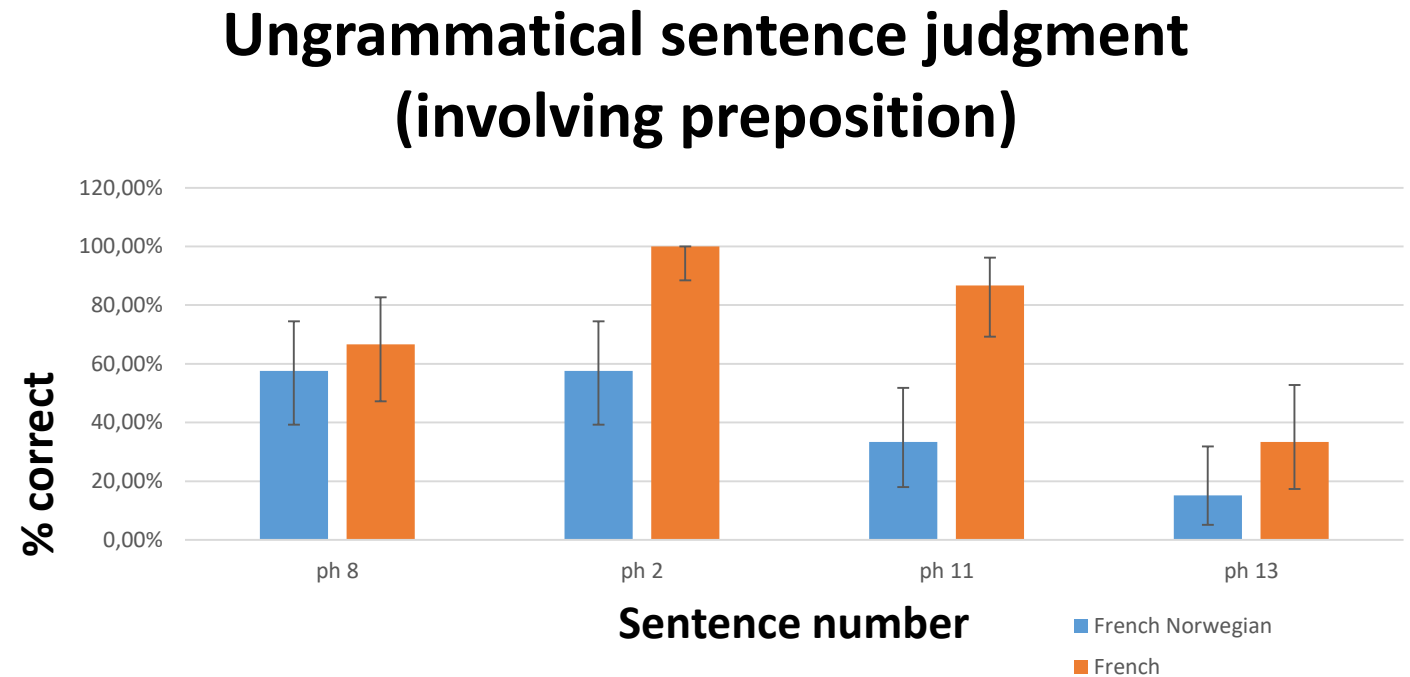
~~p-value = 0,211 \rightarrow p > 0,05.~~

Per sentence : **Fisher's Exact Test for Count Data**

0,1 < p-values < 0,34 \rightarrow p-values > 0,05.

No significant difference between both groups

Results Tests



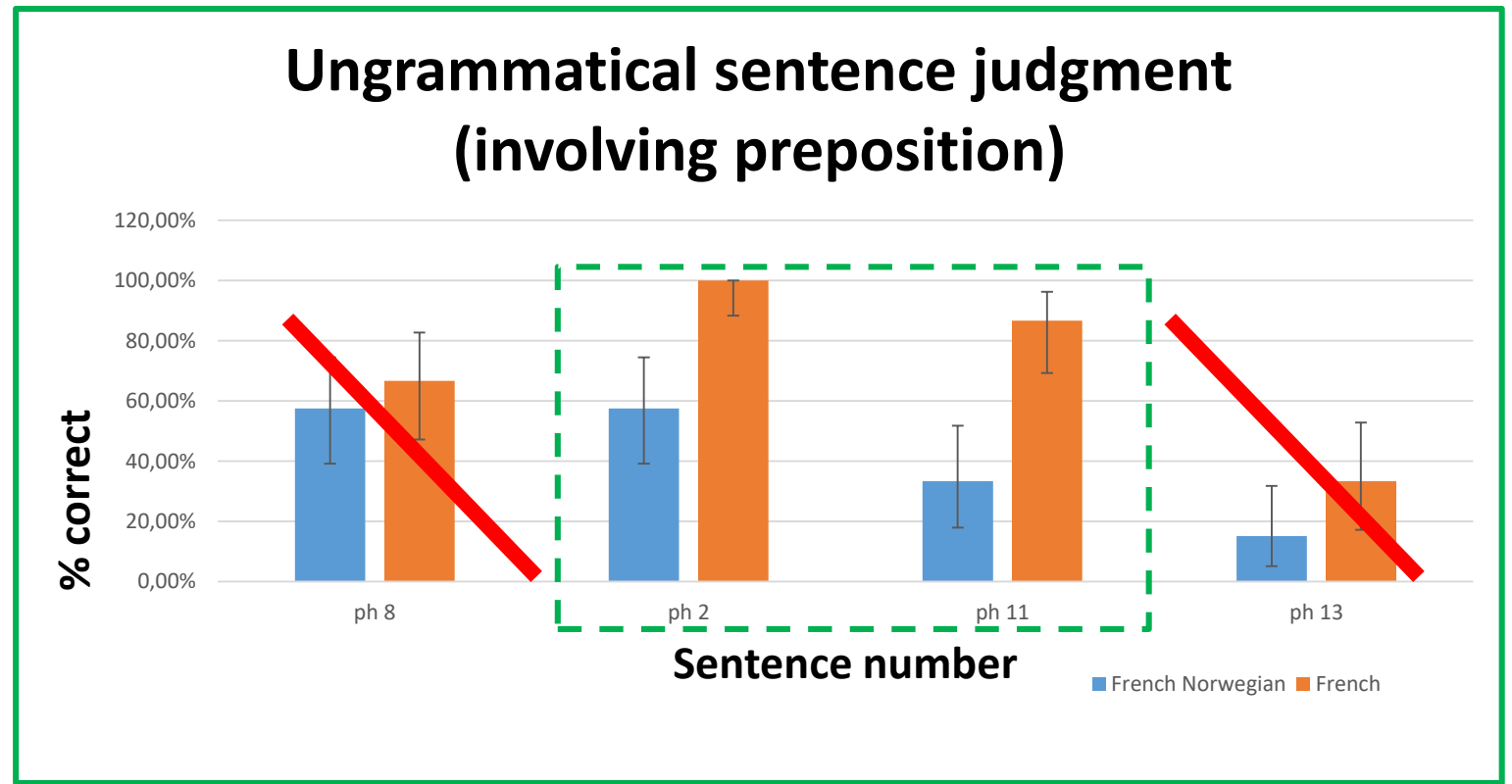
Means : **Two Sample t-test**

p-value = 4,37e-08 \rightarrow p<0,001.

French Children outperformed French Norwegian Children

But...let's look closer at each sentence...

Results Tests



Pearson's Chi-squared test (with Yates' continuity correction)

8 : $\chi^2 = 0,23$ $p=0,63$

p-values >0,05

13: $\chi^2 = 1,94$ $p=0,16$

No significant difference between both groups

2: $\chi^2 = 14,001$ $p=1,8e-4$ **p-values<0,05**

11: $\chi^2 = 16,307$ $p=5,39e-5$

→ French Children outperformed significantly French Norwegian Children ONLY for sentence 2 and 11.

Results

Interviews:

Strategies

A dominant French language mode
(**but** Norwegian consciously activated as a tool)

Hesitation/difficulties ? → Norwegian

Translation, comparison to French

Strong relationship Semantics/Grammar.

(it makes sense...)

What's "orally accepted" and what's judged
"correctly written"

→input impact, social environment.

Difficulties to express : perception but not noticing.

Results

Interviews : Metalinguistic discourse

Continuum of explicitness

Comments about syntax :

Word order (wrong, missing, reverse, between ...)

Comparison with Norwegian syntax

Use of metaphors

- activation/inhibition processes in languages and CLI (e.g., Park)

- transfer of knowledge between languages (e.g., Rosetta Stone)

Results Conclusions

H 1 :

- Syntactic transfer occur when prepositional constructions are involved
 - preposition string
 - no preposition in Norwegian vs preposition construction in French
- Metasyntactic skills weaken.
- Explicit activation of Norwegian Language as a strategy to solve ambiguity or mistake.

Results Conclusions

H2-1 (nuances)

- Type 1 : Epilinguistic skills (perception, meaning, difficulties to explain)
- Type 2 : Children show metasyntactic skills and awareness :

Metalinguistic comments referring to/showing manipulation of syntax

Children aware of syntactic typology

H2-2

- Children show XLA by comparing French & Norwegian grammar to describe and explain mistakes
- Attests Multilingual awareness development

Discussion

Further research

- Correlation in Multilingual awareness between :
 - metasyntactic awareness,
 - crosslinguistic influence
 - crosslinguistic awareness
 - ...determinant weight?
- Sociolinguistic indicators in a sociocognitive framework to understand better those findings



Aitäh!

Merci !

Tusen takk !

Thank you !

- **ANGELOVSKA T.**, 2018, "Cross-linguistic awareness of adult L3 learners of English: a focus on metalinguistic reflections and proficiency", *Language Awareness*, Vol.27, n°1-2, pp. 136-152.
- **ANGELOVSKA T. & HAHN A.**, 2014, "Raising language awareness for learning and teaching grammar", in A. BENATI, C. LAVAL & M. ARCHE (Eds.), *The grammar dimension in instructed second language learning* London, Bloomsbury Academic, pp. 185-207.
- **DAVIDSON D., RASCHKE V. R. & PERVEZ J.**, 2010, "Syntactic awareness in young monolingual and bilingual (Urdu–English) children", *Cognitive Development*, Vol.25, n°2, pp. 166-182.
- **DE HOUWER A.**, 2009, *Bilingual first language acquisition*, Bristol, Multilingual Matters.
- **FOURSHA-STEVENSON C. & NICOLADIS E.**, 2011, "Early emergence of syntactic awareness and cross-linguistic influence in bilingual children's judgments", *International Journal of Bilingualism*, Vol.15, n°4, pp. 521-534.
- **JARVIS S. & PAVLENKO A.**, 2008, *Crosslinguistic influence in language and cognition*, New York, Routledge.
- **SERRATRICE L.**, 2013, "Cross-linguistic influence in bilingual development", *Linguistic Approaches to Bilingualism*, Vol.3, n°1, pp. 3-25.
- **SQUIRES L.**, 2016, "Processing Grammatical Differences: Perceiving versus Noticing", in A. M. BABEL (Ed.), *Awareness and Control in Sociolinguistic Research*, Cambridge, Cambridge University Press, pp. 80-103.
- **SIMARD D., LABELLE M. & BERGERON A.**, 2016, "Measuring metasyntactic abilities: On a classification of metasyntactic tasks", *Journal of psycholinguistic research*, Vol.46, n°2, pp. 433-456.
- **THIERRY G. & SANODAKI E.**, 2012, "Activation syntaxique non- sélective à la langue chez le bilingue précoce", *Revue française de linguistique appliquée*, Vol.17, n°2, pp. 33-48.