



### CROSS-LINGUISTIC INFLUENCE (CLI) IN MIRRORED PROPERTIES

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### What is the study about?

This study investigates the potential effect of crosslinguistic influence (CLI) in mirrored properties of the two languages of bilingual children.

Possessive structure: prenominal and postnominal possessives Norwegian and Italian

Heritage language: Italian





# Crosslinguistic influence- factors

#### Language external

- Proficiency of the speaker in each language
- Dominance (Döpke 1998, Yip & Matthews 2000)

#### Language internal

Hulk & Müller (2001) state that CLI occurs (i) at an interface level between two modules of grammar, and (ii) if the two languages overlap at the surface level

But also within syntactic structures / structural overlap is predicative of CLI but CLI is not limited to it





## Status of the HL

- HL is more vulnerable than the majority language.
- Potential simplification of the system (Montrul 2010, Polisnky & Scontras 2020)
- External linguistic factors such as HL language exposure, the size of the HL community, and current exposure to HL instruction positively correlated with not developing a reduced system (Rodina 2020- spcifically for gender)





# Examples of CLI in possessives

#### Italian-Swedish

- Italian: prenominal and postnominal possessives
- Swedish: prenominal possessives
- Effect of dominance- Italiandominant child paired with the Italian monolinguals with a similar distribution of possessive structures, whereas the Swedish-dominant child did not produce postnominal possessives at all (Bernardini 2003)

#### Norwegian-English

- Norwegian: prenominal and postnominal possessives
- English: prenominal possessives
  - Bilingual children have a stronger and longer preference for prenominal possessives when compared to monolinguals (Westergaard & Anderssen, 2015)





# Possessives in Italian and Norwegian

	Italian		Norwegian	
	Pre-nominal	Post-nominal	Pre-nominal	Post-nominal
Example	La mia	La macchina	Min bil	Bilen min
	macchina	mia	My car	Car-the my
	The my car	The car my		
Markedness	Unmarked	Marked	Marked	Unmarked
(contextual)				
Frequency	More (86%)	Less	Less	More (73%)
Bilingual	preferred		preferred	
acquisition				



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Is there structural overlap?

Yes, both languages have two structures





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Is this at the interface level of two modules of grammar?

Syntax-Pragmatics interface





## The current study

- The aim is to explore how languages influence each other when both have two surface structures, but with opposite pragmatic implications.
- CLI effects of structural overlap when both languages have two structures are currently theoretically unexplored





# Possible outcomes

1. CLI based on dominance Since based on the linguistic properties CLI is possible both form Norwegian to Italian and vice versa, we could notice the effects of CLI from the dominant to the weaker language.

#### 2. Cross-linguistic overcorrection

The children use the unmarked variant (prenominal in Italian, postnominal in Norwegian) for both types of contexts. This outcome would entail children pose a strong differentiation of the two languages. Cross-linguistic overcorrection was described for adult bilinguals (Kupisch, 2014)

3. Simplification of a system Children will simplify the system of their heritage language. This process usually witnesses the loss of the marked form, which should result in the loss of the postnominal in Italian (Montrul, Polinsky & Scontras, 2020)

## Participants

- 24 Italian-Norwegian bilingual children (4;1-10;0, F=10)
- 12 Italian-English controls (4;0-7;5), all residing in the UK
- 15 Norwegian-English controls (4,4-9;8), residing in the UK (n=5) or in Norway (n=10)





# Why no monolingual controls?

- Goal: investigate how does CLI manifest in a mirror-image property. Not comparing the bilinguals to a golden standard
- Is it fait to compare HS to monolinguals with the same yard stick?
- An increasing number of studies is finding how within-group comparisons of the bilinguals/HSs can reveal more about the factors guiding their development (Bayram 2019, van Osch 2019, Meir 2018)
- We know from other studies how monolingual children acquire these variants





# Methodology

#### **Cross-linguistic task (CLT)** (Haman et al. 2015)

- Pre-test
- Helped put the child in an Italian/Norwegian setting
- Used for calculating dominance
- Complementary halves in each language

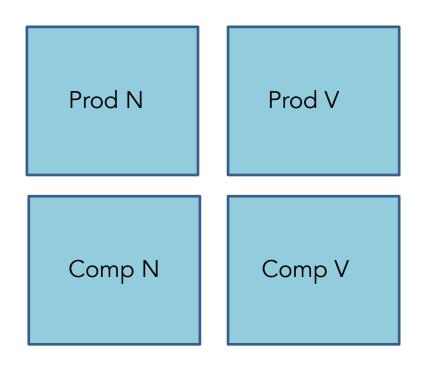
#### **Elicitation task**

- Main task
- Animations designed in ppt
- Neutral and contrast condition



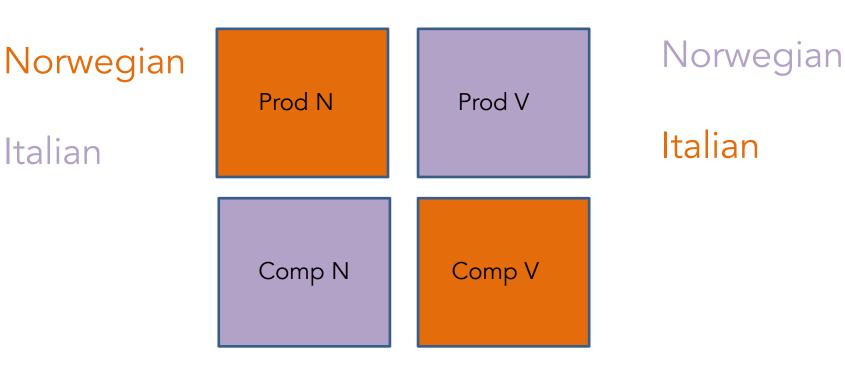
















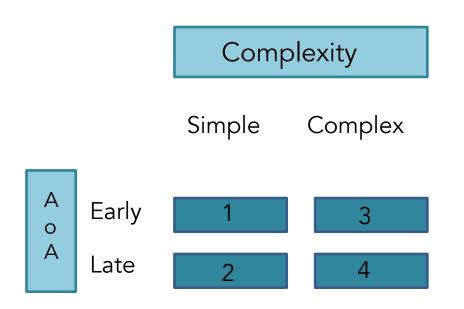








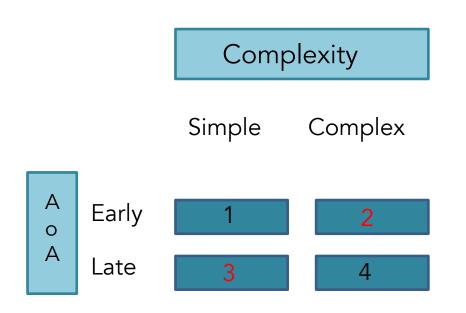
















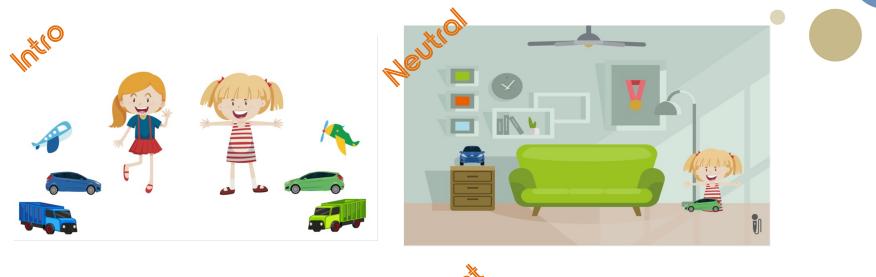
## Elicitation task

- 2 ppt presentations -> Norwegian and Italian
- Animations depicting characters interacting with objects
- Zoom- Screen sharing
- Italian: 9 target scenes (3 for each character)
- Norwegian: 12 target scenes (3<sup>rd</sup> person possessive is gendered)
- Neutral condition: character interacting with own object
- Contrast condition: character interacting with else's object





### Elicitation task



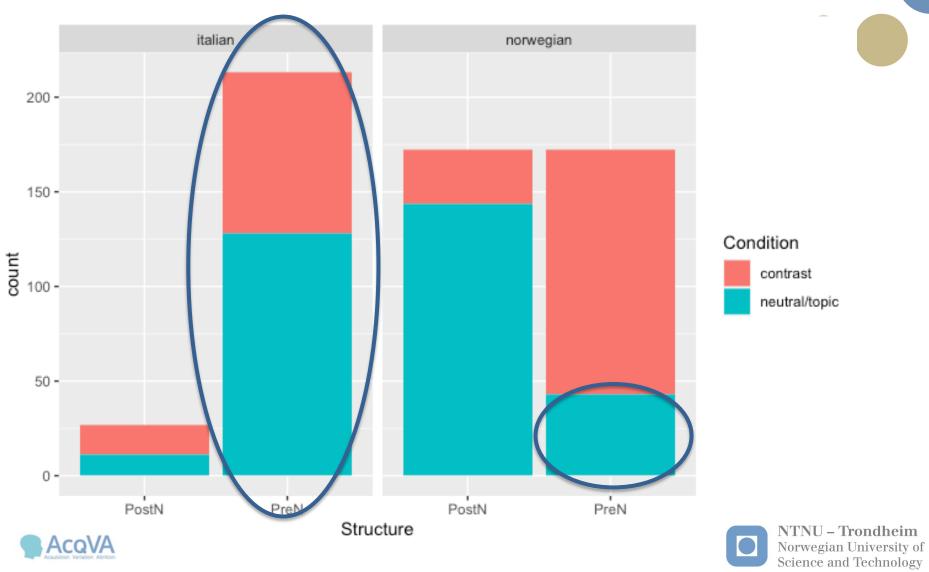








### Results



### Statistical results

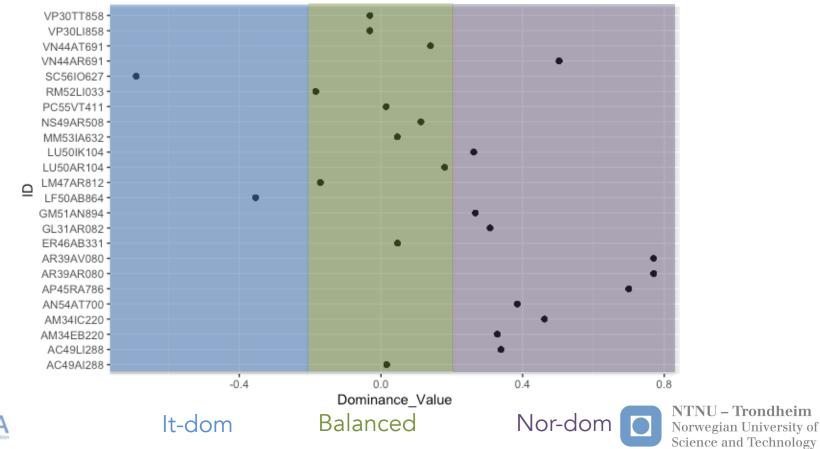
	Estimate	Std.err	df	t-value	p-value
Intercept	0.09123	0.04047	54.03464	2.254	0.02828
Contrast	0.07822	0.04661	559.65311	1.678	0.09388
Norwegian	0.14644	0.04450	49.21606	3.291	0.00185
Interaction	0.50253	0.06045	558.40997	8.313	7.14e <sup>-16</sup>





### Dominance

- Calculated based on the CLT pre-test
- Subtracted the Italian CLT score from the Norwegian score for each child
- Set 0,2 as a cut-off point

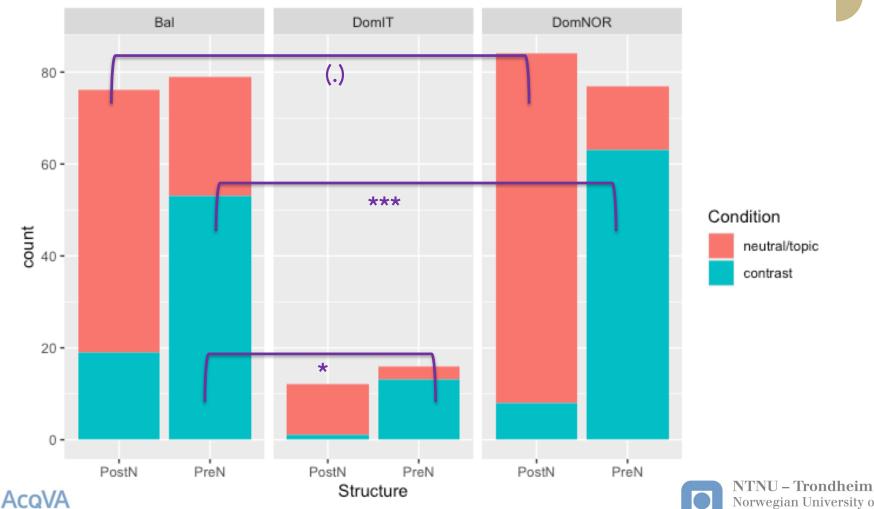


### Dominance

- Obtained by comparing the CLT scores of each child
- Simplistic measure: indication of dominance
- Three categories: Italian-dominant, Balanced, Norwegian-dominant
- Statistical analyses run separately for the Italian and the Norwegian task
- No significance for the Italian task- due to the uniformity of the results



## Dominance: Norwegian task



Norwegian University of Science and Technology

# Controls

- Italian task compared to Italian-English controls
- Norwegian task compared to Norwegian-English controls
- No significance difference for the Italian- but the controls used more prenominals overall (effect from English)
- For Norwegian: the controls use significantly more prenominal in the neutral condition (p<0.01)





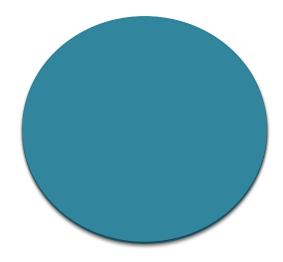
# Norwegian controls: a closer look

- *Imer* with residency as an independent variable
- The significant difference between targets and controls is lost (although the controls still use more prenominals)
- Significant effect of residency: participants residing in the UK have a much higher use of prenominal in the neutral condition (p<0.05)



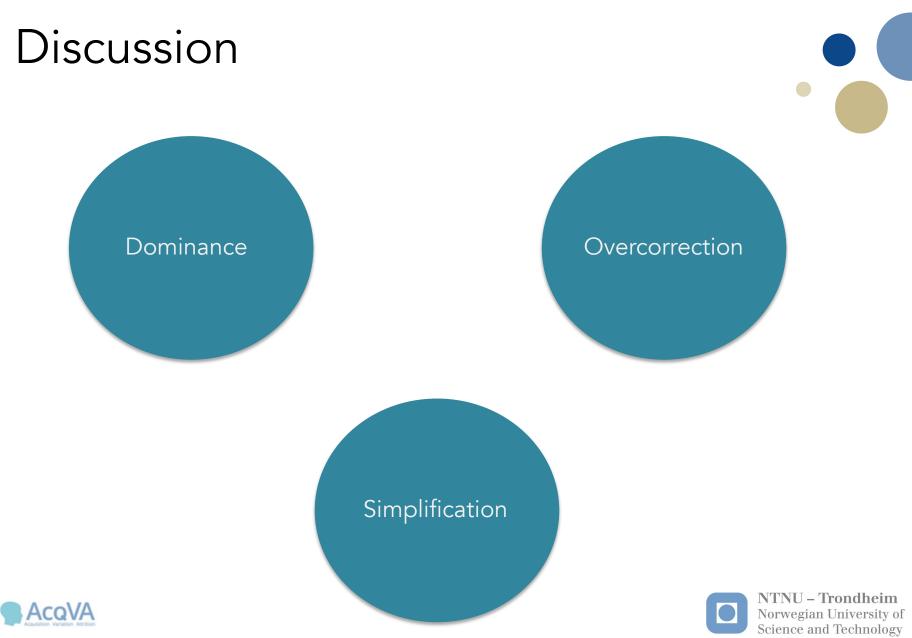
### Discussion

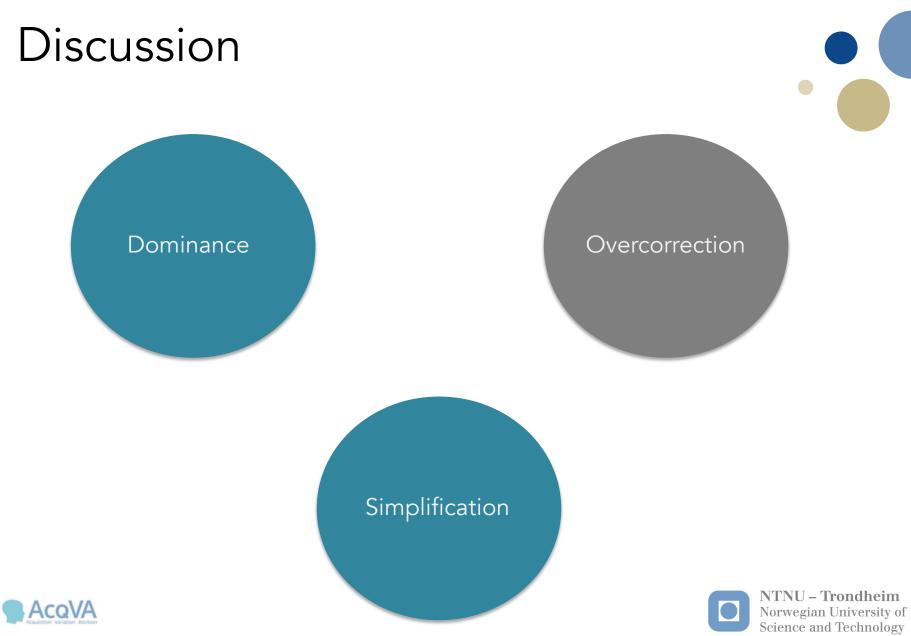


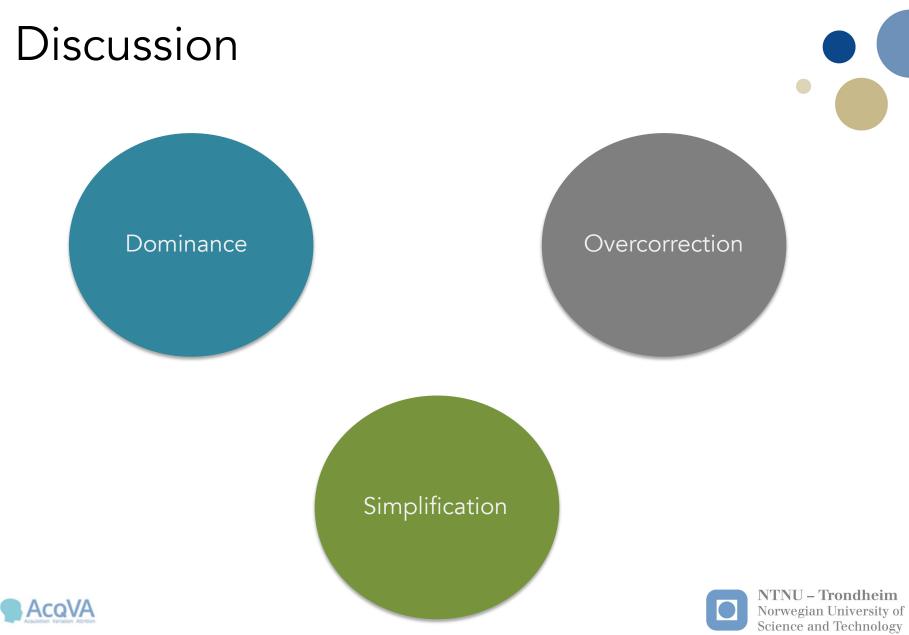


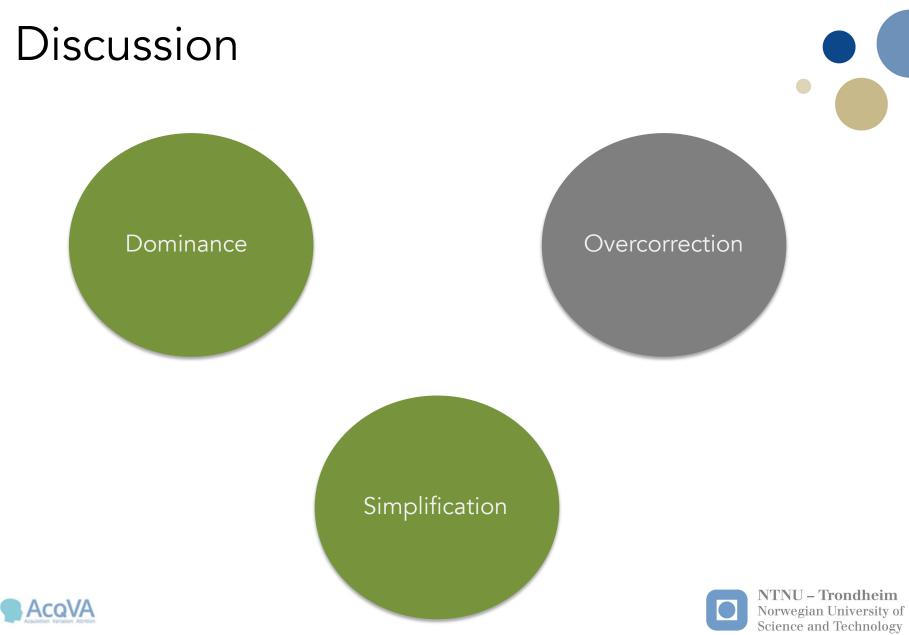


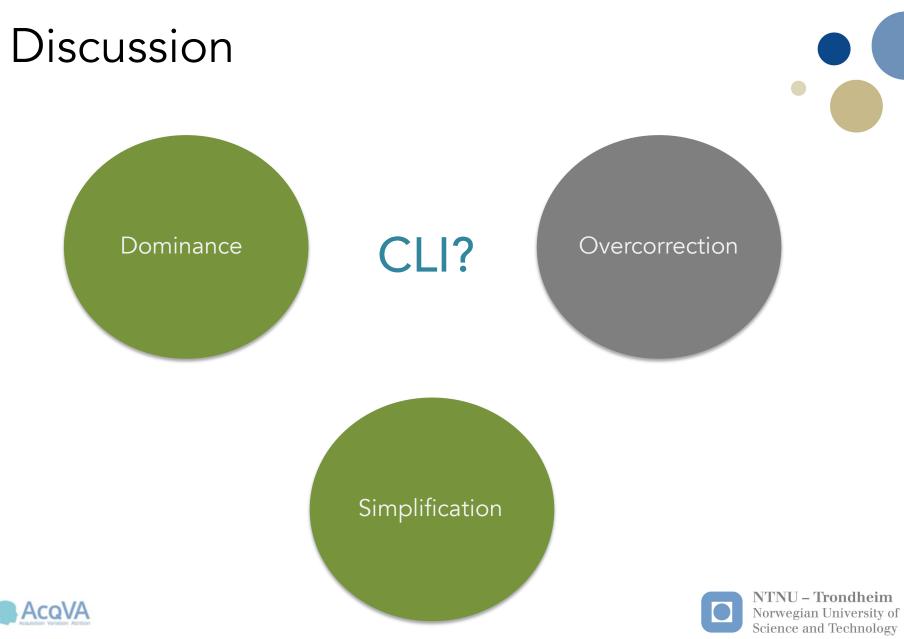












# Conclusions

- Simplification of the Italian system (HL)
- The status of the language, along with the linguistic properties, plays a role in CLI
- The simplified system can still influence the majority language
- CLI cannot be attested in an already simplified system
- Dominance may influence the accuracy of the nonsimplified system





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