Syntax and Prosody in Child and Adult Albanian: Evidence from Monolinguals and Bilinguals

Enkeleida Kapia
Jonathan Harrington
Ulrich Reubold
Overview of Talk

• Information Structure (IS)
• L1 and L2 Acquisition of IS
• IS in Albanian
• Syntax and Prosody Experiments with Monolinguals & Bilinguals
• Results
• Discussion and Conclusion
Present Study Questions

• Which prosodic and syntactic means do children use to encode Information Structure (IS)?

• What is the developmental pattern of these means? Are some means (prosody vs syntax) acquired earlier than others?
Information Structure (IS)

• describes how information is formally packaged within a sentence
• works with two basic notions: FOCUS and TOPIC

• Topic (T) indicates that part of the utterance that is OLD information in the discourse context
  • Who bought the book? Tom BOUGHT THE BOOK.

• Focus (F) indicates that part of the utterance that is NEW information in the discourse context
  • Who bought the book? TOM bought the book.
IS in the Syntax-Prosody Interface

Typical Questions of this research program

• What is the role of syntax in the realization of IS?
• What is the role of prosody in the realization of IS?
• What is acquired earlier: topic or focus?
• Does comprehension of IS come before production?
• Is IS in L2 different from IS in L1?
Syntax and Prosody of IS in Language Acquisition

• Studies have varied in their focus:
  • children's prosodic and syntactic choices to encode IS (Chen and Höhle, 2018; Chen, Szendrői, Crain and Höhle, 2016; Arnhold et al., 2016; Moscati, Manetti and Rizzi, 2015; Lobo, Santos and Soares-Jesel, 2015; Chen, 2011; De Cat, 2009; Müller et al., 2009, etc)
  • children's interpretation of constructions encoding IS (Aravind et al., 2018)
  • differences between the development of such constructions in typical and atypical language development (Pivi, Del Puppo & Cardinaletti, 2016)
  • BUT mainly in FIRST language acquisition (L1), not in L2
Some Consensus in L1

- Children do not develop all aspects of IS at the same rate

- Topic before Focus
  - Dutch acquire the intonation contour to mark T before the contour for F (Chen, 2011)

- Syntax Production before Prosody Comprehension
  - Portuguese acquire the syntactic marking of F, while they still struggle with the computations required to interpret stress shift as a focus marker (Costa and Szendrői, 2006)

- Comprehension of Focus intonation is acquired before production (Szendrői et al., 2018; Chen, 2010, but see Szendrői, 2004; Gualmini et al., 2003; Paterson et al., 2003 for a different point of view).
Less consensus in L2

• Topic acquired earlier than Focus in L2, regardless of L1 (Fuller and Gundel, 1987)

• A transfer from L1 characteristics (Jin, 1994; Jung, 2004)

• Difficulties acquiring the syntax-pragmatic and IS interface (Sorace, 1993; Sorace & Filiaci, 2006; Alvaro, 2018)

• Full acquisition of L2 properties and functions, they become more advanced (Reichle and Birdsong, 2013; Hughes, 2010; Dominguez and Arche, 2010; Donaldson, 2011a, 2011b)
Questions again

• Which prosodic and syntactic means are used by children to encode Information Structure (IS)?

• What is the developmental pattern of these means? Are some means (prosody vs syntax) acquired earlier than others?
Present Study

- investigates Focus and Topic in two groups:
  - L1 Albanian monolingual speakers (children and adults)
  - L2 Albanian speakers with L1 English (children and adults)
- looks at clitic doubling of accusative objects

Part of a larger study on prosody of Albanian

- much larger corpus
- production data from 20 adults (more to come)
- perception data from 35 adults (more to come)
- 4 bilingual children (more to come, extension to german-albanian bilinguals)
Albanian or SHQIP

• Free word stress, but prefers penultimate

• Prosody studies, very limited, AND, with varying methodology
  • early “inspection” by ear (Beci, 2004)
  • preliminary ToBi analysis (Kapia & Brugos, 2016)
  • polynomial model (Themistocleus & Muller, 2015)
Why clitic doubling of accusative objects in Albanian?

• If accusative object is TOPIC (i.e. old), it is invariably clitic doubled
  
  Did Ben buy the book?  \textit{Po, Beni e bleu librin.}
  
  Yes Ben \textit{it.cl} buy.past \textit{book.acc}

• If accusative object is FOCUS (i.e. new), it is never clitic doubled

  What did Ben buy?  \textit{Beni bleu librin.}

  Ben buy.pas \textit{book.acc}

  \*\textit{Beni e bleu librin.}
Two experiments

• Syntax Experiment
  • target words with no sound restrictions
  • no repetitions of same words
  • half ungrammatically primed to control for learning effects

• Prosody Experiment
  • target words with sonorant materials
  • repeated measures of each target word
Two Correlates of Focus

• Rheme
  • What did the boy touch? The boy touched THE WALL.

• Kontrast
  • Did the boy touch the window? No, the boy touched THE WALL.
Materials & Procedure

• Elicitation production task

• saw picture
• heard question & replied
• trained to reply in SVO
• target word always final

• example of a rheme

What did the boy touch?

Djali preku murin.

boy touch.past wall.acc
Experiment 1 -- Syntax

- 24 experimental items + 6 fillers

- 3 conditions (topic, rheme, kontrast)
  - half were primed grammatically
  - half were primed ungrammatically to control for learning effects

- 4 practice items

- a puppet who is learning Albanian asks the questions
Experiment 2 -- Prosody

• 36 items altogether

• 3 sonorant target words
  • 8 Topic/Rheme/Kontrast

• 4 fillers

• experimenter asks the questions
Subjects

• Monolinguals
  • five 5-7 year old children
  • three adults (mean age 38.6)

• Bilinguals
  • one 5-6 year old
  • one 9-10 year old
  • two adults (mean age 43.5)

• simultaneous bilinguals --> learned English and Albanian from birth
• currently they are not Albanian dominant
Results from Syntax Experiment

- Monolinguals
  - perfect adult-like performance

- Bilinguals
Hypothesis for Prosody Experiment

1. Adults differ in the way they mark prosodically Topic vs Rheme vs Kontrast.

2. Children show an emerging pattern of a difference between Topic vs. Rheme vs. Kontrast
Preparation of Acoustic Data

- Target words labelled in Praat
- Linear time-normalisation of target words to 11 data points
- Median filtered
Results from Monolinguals
All monolingual Speakers
Results from Bilinguals
Summary of Prosody Results - Hypothesis 1

• Adults differ in the way they mark prosodically Topic vs Rheme vs Kontrast.

  • True for monolinguals -- pitch differs for Topic, Rheme and Kontrast

  • True for bilinguals -- pitch patterns differ Topic, Rheme, Kontrast for the female speaker, but not for male speaker
Summary of Prosody Results - Hypothesis 2

• Children show an emerging pattern of a difference in pitch between Topic vs. Rheme vs. Kontrast

• NOT true for monolinguals -- 5-7 year olds do not show different pitch patterns for Topic, Rheme, Kontrast

• TRUE for bilinguals, but only for the older child -- seems to show a difference in height, but not in pitch accent
General Discussion 1

• Which prosodic and syntactic means do children use to encode Information Structure (IS)?

• **Monolingual** 5-7 year old children use syntax, but not prosody

• **Bilingual** 9-10 year old child uses syntax and prosody to differentiate between Topic vs Focus, but not between Rheme vs Kontrast

• **Bilingual** 6-7 year old child uses syntax to differentiate Topic vs Focus, but not Prosody
General Discussion 2

• **What is the developmental pattern of these means? Are some means (prosody vs syntax) acquired earlier than others?**

• In 5-7 year old **monolinguals**, syntax is acquired before prosody for Topic, Rheme, Kontrast

• In the **bilingual** group, syntax is acquired for both children for Topic only

• Prosody, on the other hand, only from the 9-10 year old child
Conclusions

• Monolingual and Bilingual Adults use both syntax and prosody to mark Topic vs Focus in Albanian

• Monolingual children do not use pitch to distinguish between Topic vs Focus at age 5-7 years old
  • similar results (for pitch duration and range) were reported for Dutch 4 year olds, but Dutch 7 year old can use pitch range only (Chen et al, 2011, 2009; Romøren, 2011)

• Bilingual 5-6 year old cannot use pitch to distinguish between Topic vs Focus, but the 9-10 year old can (difference in height, but not accent).