

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

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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, ect)
- 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? *Po, Beni e bleu librin.*

Yes Ben *it.cl* buy.past *book.acc*

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

What did Ben buy? *Beni bleu librin.*

Ben buy.pas *book.acc*

**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

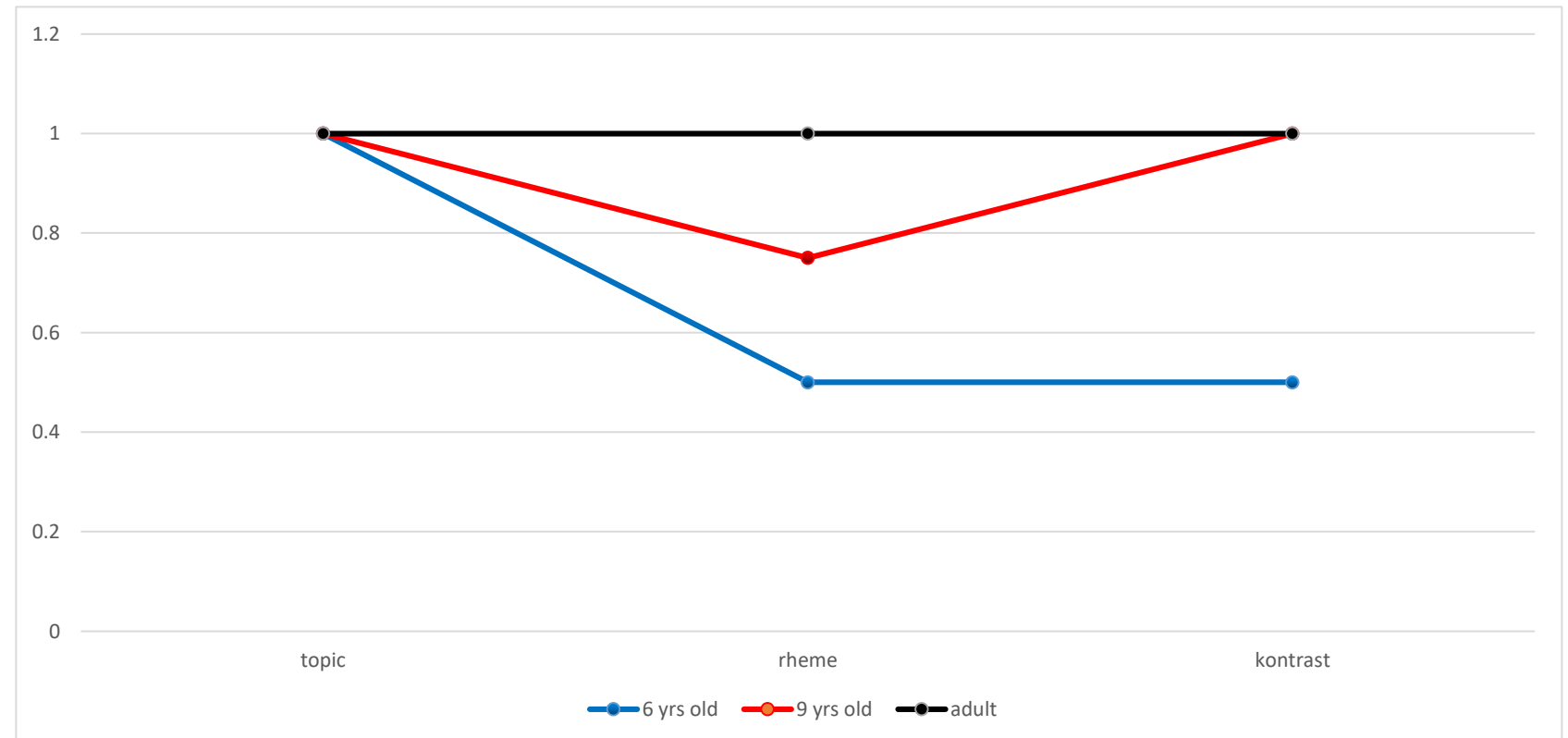
Subjects

- 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



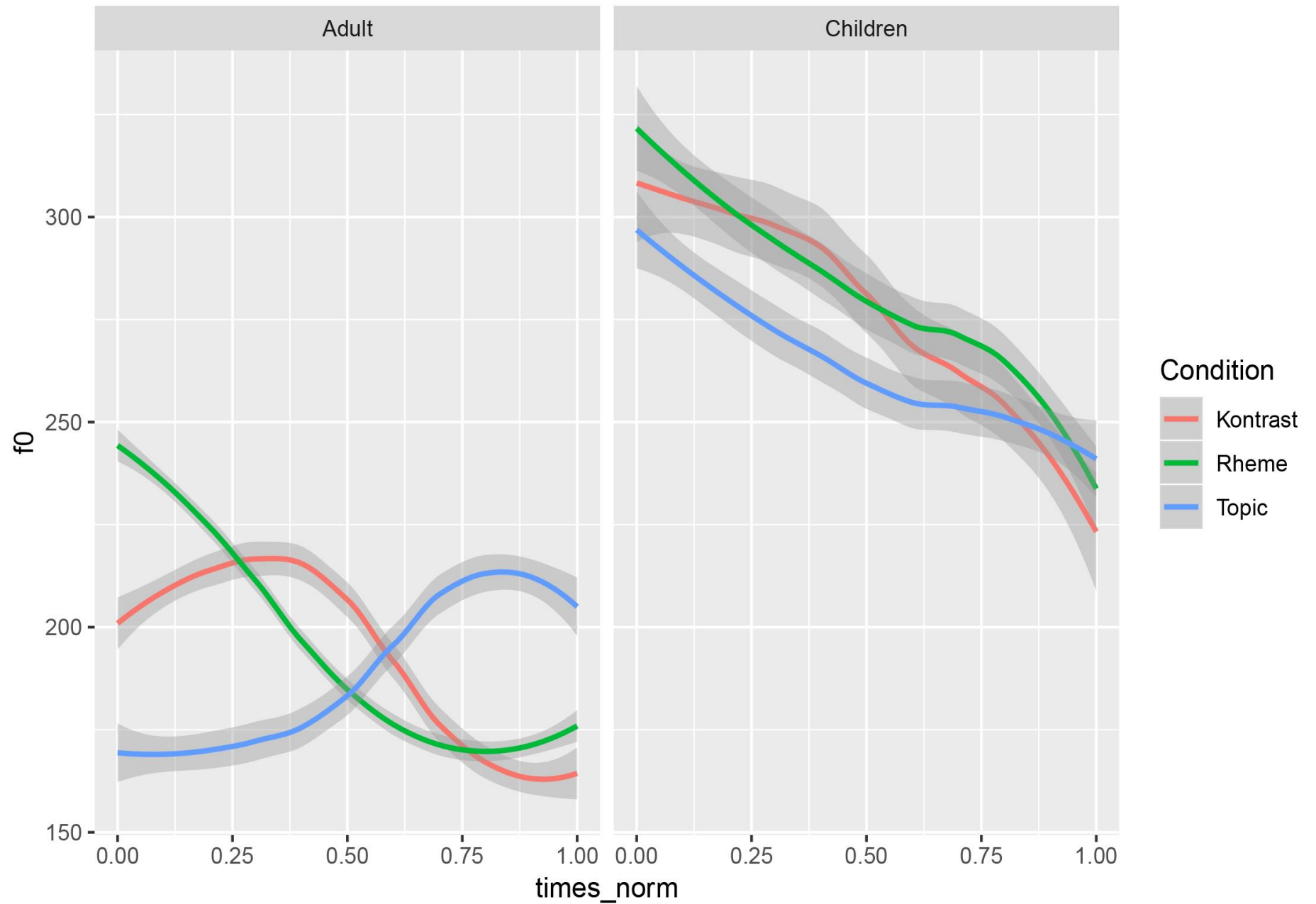
Hypothesis for Prosody Experiment

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

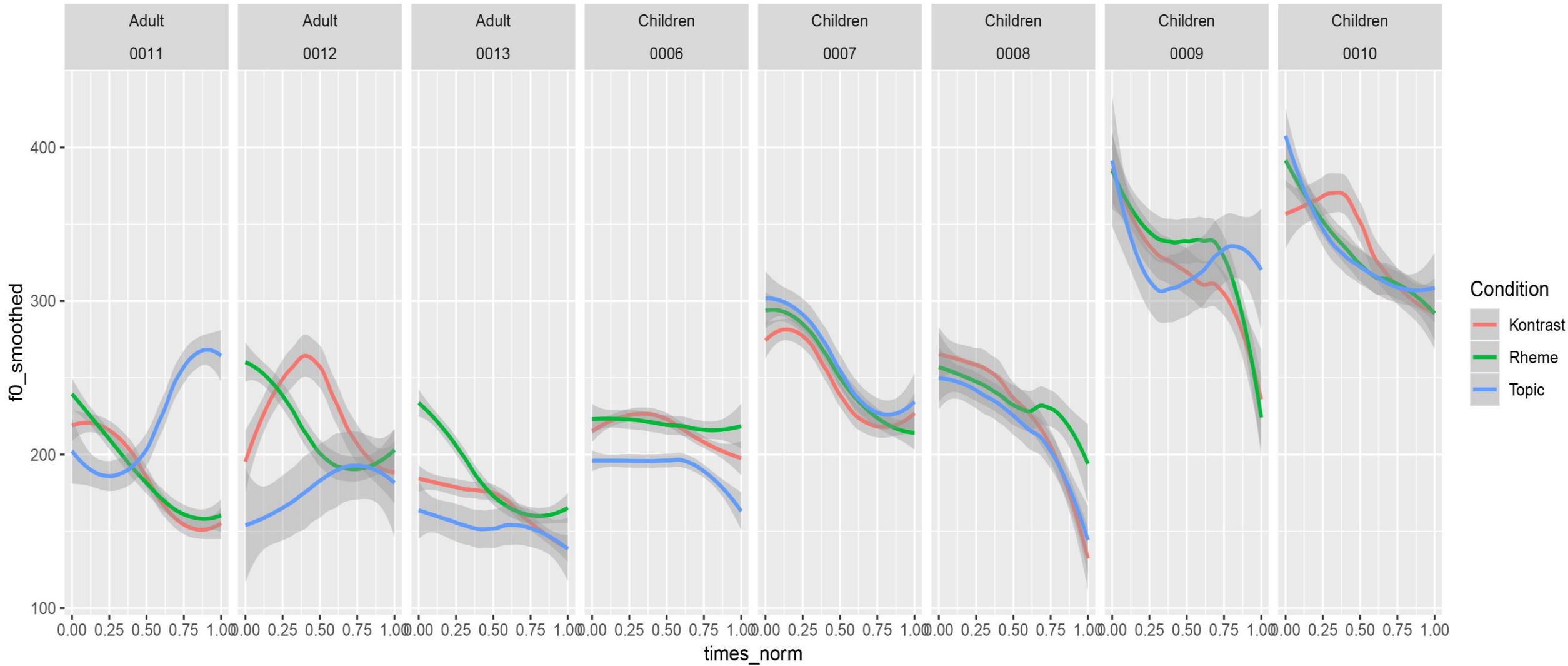
Preparation of Acoustic Data

- Target words labelled in Praat
- Linear time-normalisation of target words to 11 data points
- Median filtered

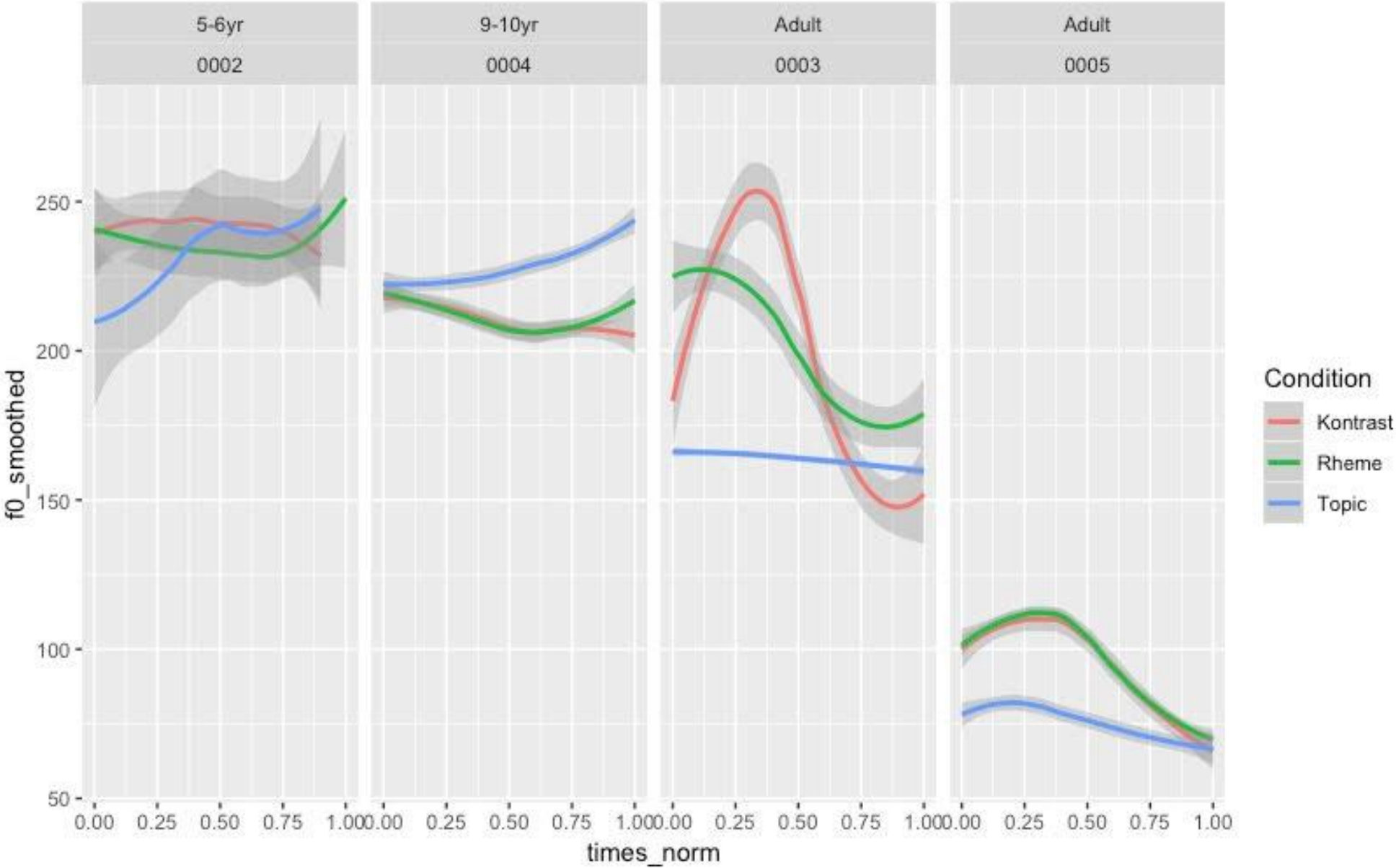
Results from Monolinguals



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).