Accusative object clitics are not all alike

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Aim

- investigate acquisition of ADOCs in Romanian
- analyze spontaneous (longitudinal) data
- start from obligatory contexts
- look at omission and production of ADOCs
- compare subsets of ADOCS: 1st/2nd person vs 3rd person ADOCs

Background

- Acquisition of pronominal co-reference in non-reflexive ADOCs:
  - Germanic: DBPE for pronouns
  - Romance: no DBPE for clitics

  child speech   John$_i$ sees him$_i$.
                              'John sees himself.'

                              Jean$_i$ le$_j$ voit.
                              John CL 3sg m sees
                              'John sees him.'

  => Investigated extensively cross-linguistically

  Philip & Coopmans 1996, Avrutin & Wexler 1992, Baauw 1999, 2000; Sigurjonsdottir 1990, Mc Kee 1992, Hamann & Philip 1997, Padilla 1990, Baauw, Escobar & Philip 1997

Question

- Does early mastery of PB for clitics go hand in hand with early production and low omission rate?
- Do all types of clitics show the same/a different acquisitional pattern?

Contexts for Romanian ADOCs

1. **Obligatory use**

A. at the level of the **clause**:

- Left- and right dislocated direct object

    Cartea$_i$, am dat *(-o$_i$).

    book-the have given-Acc Cl 3rd p.sg.fem

    'I have given the book away.'

    Am dat *(-o$_i$) # cartea$_i$.

    book-the have given-Acc Cl 3rd p.sg.fem

    'I have given the book away.'

- Relative clauses introduced by *care* 'which'

    Pe care$_i$ l$_i$-ai ales?

    acc marker which Acc Cl 3rd sg.m. have chosen

    'Which one have you chosen?'

ADOC contexts (2)

- with a pronominal direct object (prededed by ACC marker *pe*): clitic doubling constructions

    *(L$_i$-)am vazut pe el$_i$/acesta$_i$.
    Acc CL 3rd sg.m have-1st seen acc marker him/this
    'I have seen him/this one.'

    *(Te$_i$-) au întrebat doar pe tine$_i$.
    ACC 2nd sg. have asked only Acc Marker you-ACC 2nd sg
    'They have asked only you'

=> Antecedent is a referentially stable topic, presumably in SpecTopP

ADOC contexts (3)

B. At the **discourse** level:

(Ce ai facut cu marul$_i$?)

What have you done to the apple?

*(L$_i$-) am mîncat.

Acc CL 3rd sg m have eaten.

'I have eaten it.'

$\Rightarrow$ antecedent is salient in discourse and retrievable at the interface

ADOC contexts (4)

2. Optional use

(I$_i$-)am vazut pe unii$_i$.   INDEF PRON
(ACC CL m.pl.) have seen ACC marker some-m.pl.
'I have seen some of them."

(L$_i$-)am salutat pe un vecin$_i$.   INDEF DP
(ACC CL m.sg.) have greeted ACC marker a neighbour
'I have greeted a neighbour.'

(L$_i$-)am ales pe al patrulea$_i$.   NUMERALS
(ACC CL m.sg.) have choosen ACC marker the fourth one
'I have choosen the fourth one.'

(O$_i$) avem aici pe Ruxi$_i$.   PROPER NAMES
(ACC CL f.sg.) have here ACC marker Ruxi.
'Here we have Ruxi.'

$\Rightarrow$ Independent of acc marking !

ADOC contexts (5)

- From previous:
  - for **1st** and **2nd p** clitics: only obligatory contexts

	CL	V	strong obj pron	
	CL	V	strong obj pron	
1st	*(ma)		pe mine	OBLIGATORY
2nd	*(te)		pe tine	

  - for **3rd p** clitics: competing contexts

	CL	V	strong obj pron	
	CL	V	strong obj pron	
3rd	*(îl)		pe el	→ OBLIGATORY
	(îl)		pe vecin	→ OPTIONAL
	*(îl)		pe acesta	→ OBLIGATORY
	(îl)		pe al patrulea	→ OPTIONAL

Subsets of ADOCs

strong/weak pronouns   *vs*   clitics

– *Referential properties*

Avrutin/Wexler 1992   deictic reference   "anaphoric"

– *Feature underspecification*

Baauw e.a. 1997   [Human]   underspecified for [human]

Avram/Coene 2006   [Person]   underspecified for [person]

underspecified for [gender]   [Gender]

– *Syntactic status*

Cardinaletti 1994   DP   D

ma

te   îl/o

Unifying account of 3rd p ADOCs

- Romanian: object clitics as agreement identifying *empty null object*

  cf Muller, Crysmann & Kaiser 1996; Pérez-Leroux, Pîrvulescu, Roberge 2005 for French

- A unifying account:
  - Dislocation constructions   Marul$_i$, l$_i$ -am mîncat *e*.
  - Single clitic constructions   (Ce ai facut cu marul$_i$?) L$_i$ -am mîncat *e*.
  - Clitic doubling constructions   Pe acesta$_i$, l$_i$ -am mîncat *e*.

discourse

syntax

salient antecedent $\longrightarrow$ ACC CL$_i$ V   *e*$_i$

Summary

	1st/2nd non-refl	refl	3rd non-refl
Type of clitic	Weak pronoun	Weak pronoun	Syntactic clitic
referent	real world ("exophora")	clause	discourse
Syntactic status	DP	DP	D

1st   Ma îmbraca mama.

Me dresses-3sg mama

REFL   Ma îmbrac.

Me dress-1sg

3rd   Îl îmbraca mama.

Him dresses-3sg mama

Predictions for acquisition
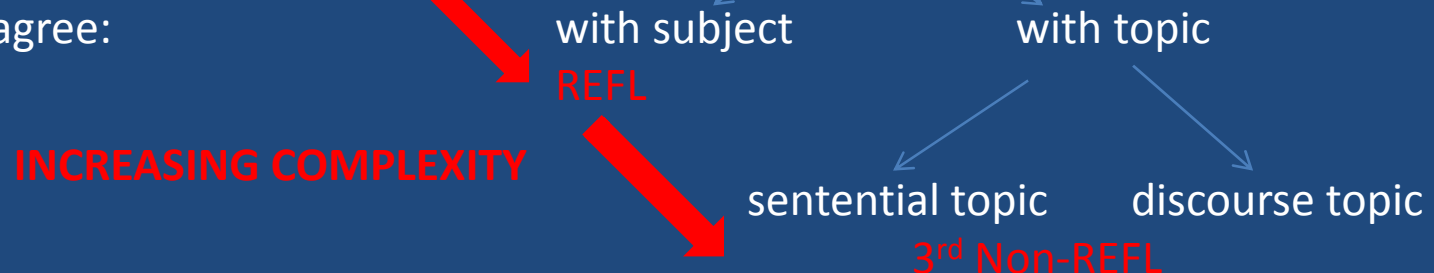
- Increasing complexity:

1) identify ADOC context: obligatory

             always   competing contexts

2) identify referent: in real world   in (preceding) utterance(s)
                      1st/2nd Non-REFL

3) agree: with subject   with topic
                            REFL

INCREASING COMPLEXITY

                           sentential topic   discourse topic
                            3rd Non-REFL
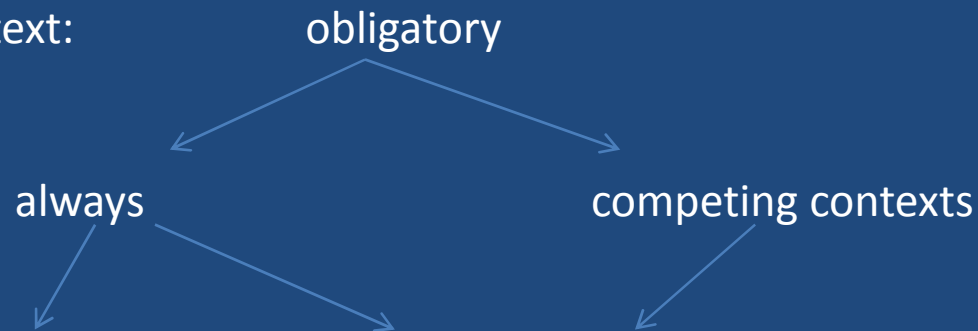
=> natural order of acquisition 1st/2nd < REFL < 3rd non-REFL

Alternative hypothesis

- If a natural order of acquisition is found, it is a reflection of input frequency

- If so, early acquisition of 1st/2nd may be explained by a proportionally high frequency of 1st/2nd person pronouns in child-directed speech

Materials

- Longitudinal data from Romanian monolingual children
- Weekly 60 min. recordings of child and child-directed speech between 1;05-2;11 (B.); 1;09-3;05 (A.)
- Analysis of B.corpus
  - child B.: 31247 tokens in 12398 utterances
  - child-directed speech (MOT/FAT): 44316 tokens in 10706 utterances

Analysis of ADOC omission

- Permissible contexts: do not tell us anything about object clitic omission
  - speaker-dependent
  - regional differences
  - language evolution
- Investigate ADOC omission and production in Romanian child speech:
  - Analyze only obligatory contexts !

Method

- Identification of obligatory contexts
- Evaluation of clitic omission:
  - illicit:
    - in dislocation constructions
      Floricica am udat *[-o]   B. 2;10
      Flower-DIM-f.sg. have watered her-f.sg.
    - in clitic doubling constructions
      Am luat *[-o] pe vrăjitoarea cea rea.   B.2;09
      Have taken her-f.sg. ACC marker the bad witch
    - in single clitic constructions:
      if antecedent mentioned in previous discourse
      Si cînd vine vulpea la fetita, *(o) iau în brate.   B.2;08
      And when comes the fox to the girl, her-f.sg. take in arms

Method

– permissible:

- in single clitic constructions:

  with no discourse antecedent

INV:	ce ai gasit?	B. 2;08
	what have you found	
CHI:	am gasit ceva aici.	
	have found something here	
CHI:	stai ca vad eu aicea.	
	wait that see I here	
	'Let me see here.'	

  Not taken into account !

Results

- Early emergence of ADOCs: at 2;00

- Omission rate in obligatory contexts:

    - No omission of 1°/2°p non-refl
    - Early decrease in omission of reflexives
    - Slow decrease in omission of 3rd p non-refl
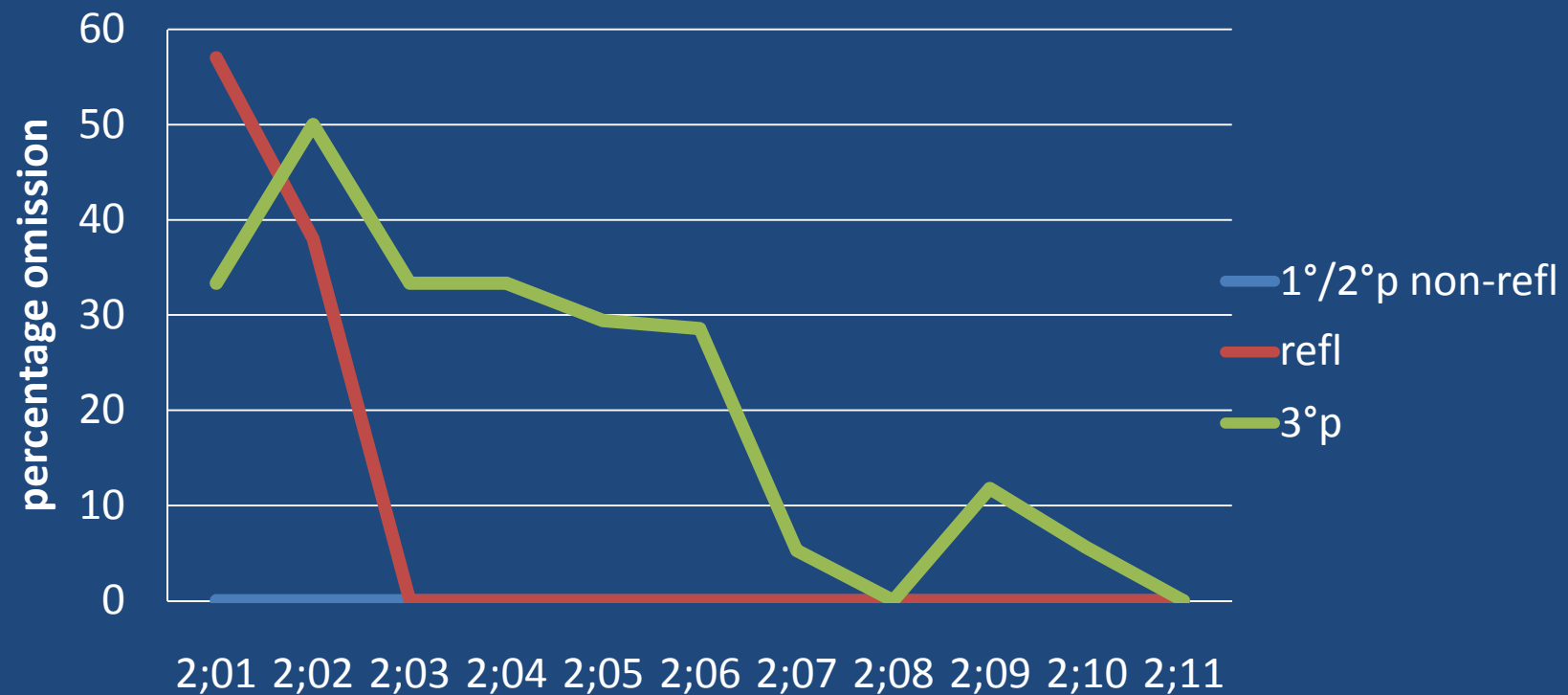
Errors

- Error analysis of ADOC production:
    - 1st/2nd person and REFL:
        - case-errors:
          ACC pro DAT : still 67% at 2;11

          Ma faci parfum (2;08)
          ACC CL-1sg make-2sg perfume
          'You make me perfume.'

          Ma-i dai   (2;04)
          ACC CL-1sg ACC-m.pl. give-2sg
          'You give them to me.'
        - dative used only in high frequent contexts
          Mie îmi place.
          STR PRO-DAT-1sg me-DAT-1sg pleases-3sg
          'I like it.'

        $\Rightarrow$overuse of ACC in DAT contexts
        $\Rightarrow$1st/2nd non-REFL and REFL underspecified for case

ACC pro DAT in 1/2 p contexts
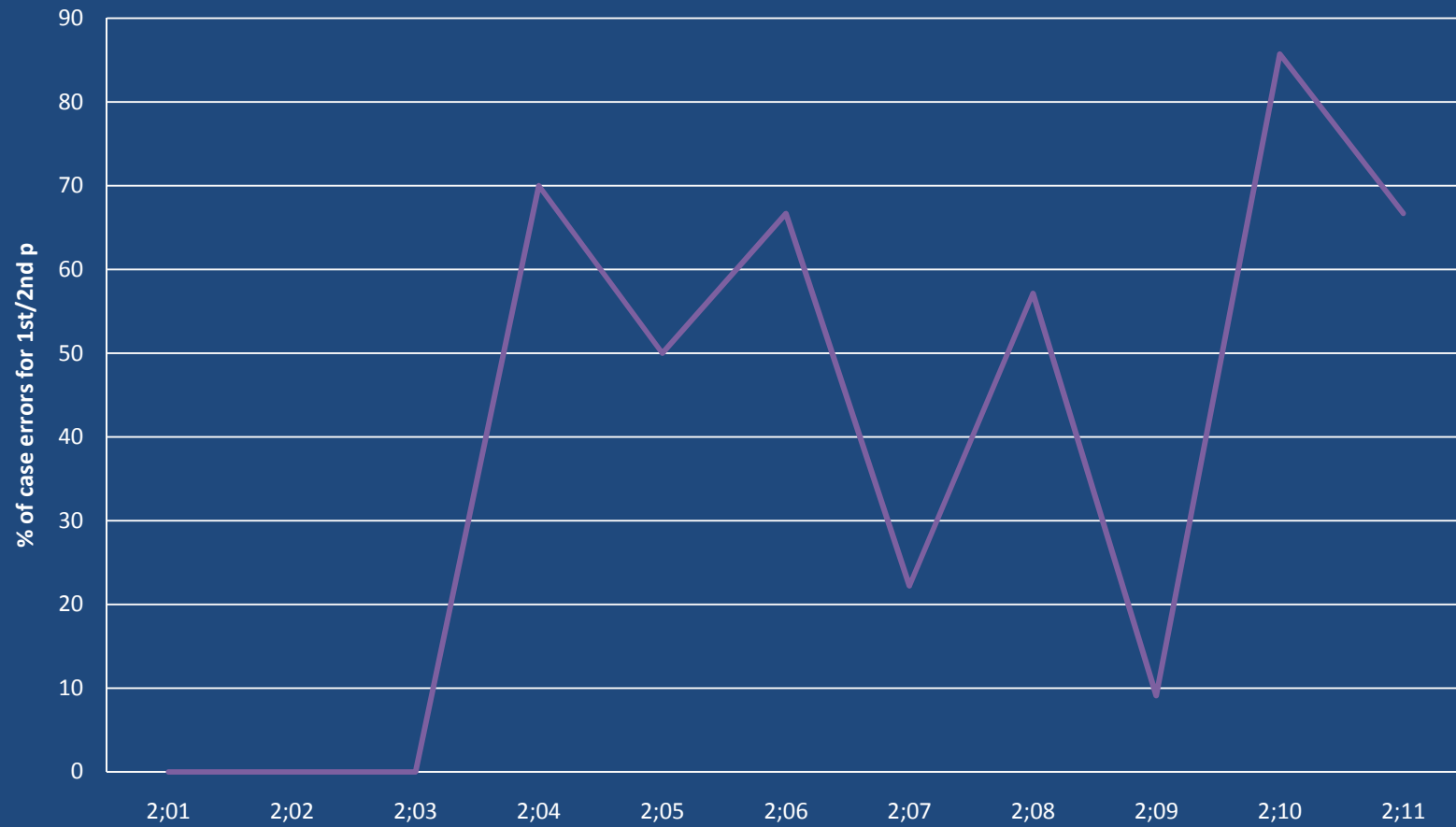
3rd person

- high omission rate, steady decrease until 2;11
- Gender/number errors in 3rd p ADOC production data, steady decrease until 2;10

  unde sunt piticii ca sa *le pun aicea   (2;08)
  where are dwarfs-m.pl. that them-f.pl. put-1sg here

  unde e băiatu(l) să *o pun pe scăunel
   where is boy-the that her-f.sg. Put-1sg on chair-dim

% gen/num errors 3°p ADOCs
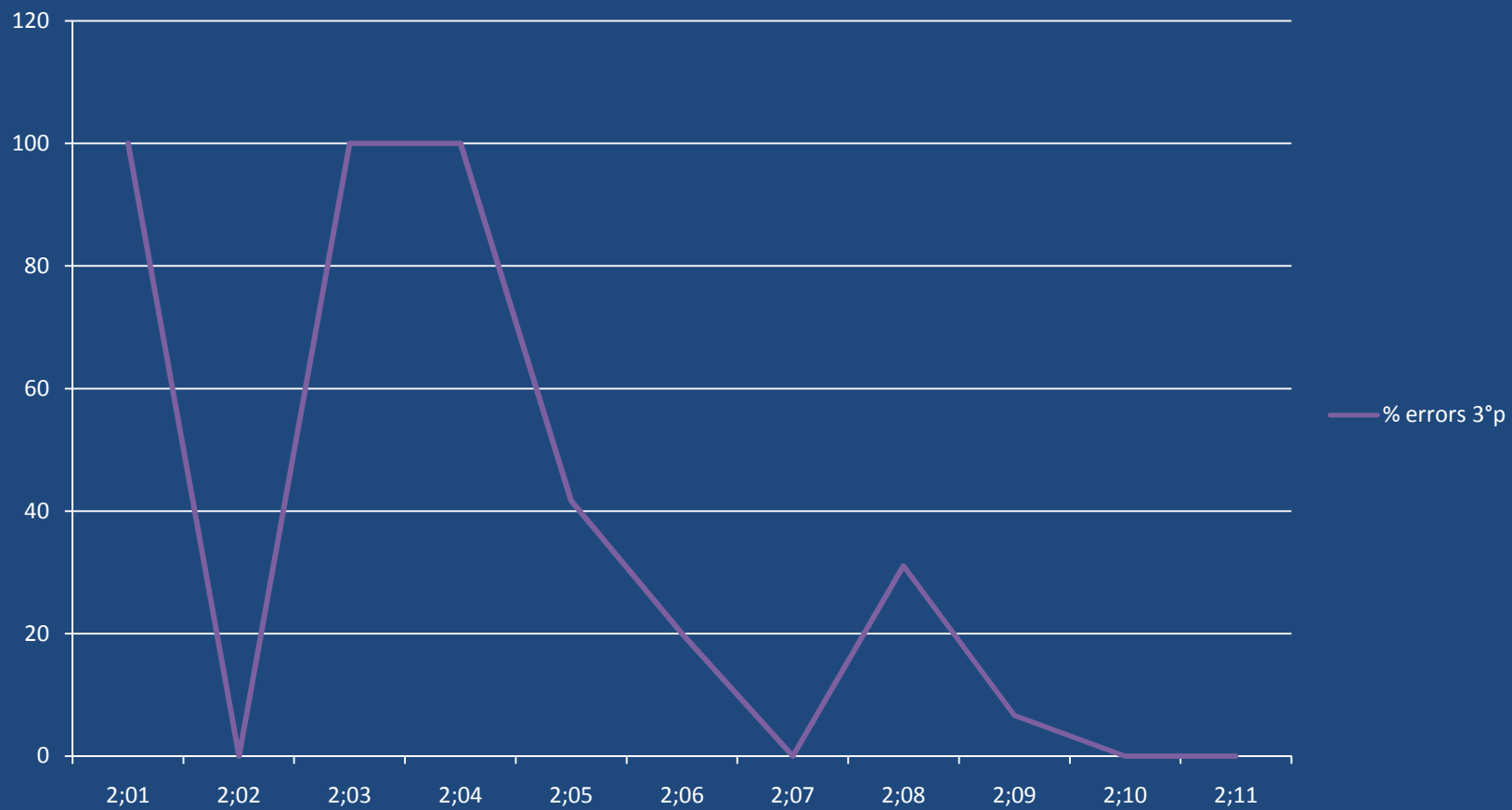
Questions

- Natural order: why are 1st/2nd p ADOCs acquired before REFL and before 3rd p non-REFL?

- Why case errors with 1st/2nd p/REFL and gen/num errors with 3rd non-REFL?

Input

- verify whether parents use proportionally more 1st/2nd p vs 3rd person ADOCs

- longitudinal effects: does increase in 3rd person ADOC use reflect change from 1st/2nd > 3rd person in child-directed speech?

- does child-directed speech show occasional case, gender or number errors?

proportion of ADOC subtypes in INPUT
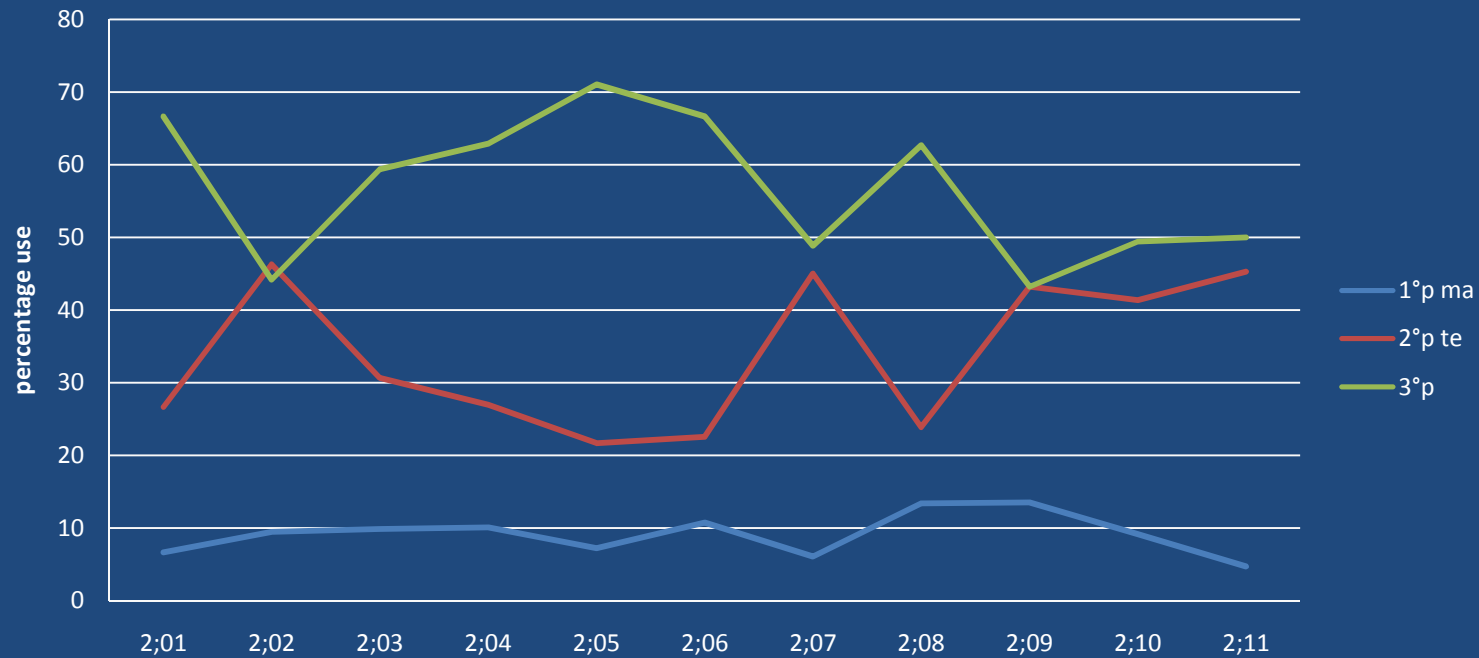
- No higher proportion of 1st/2nd vs 3rd p ADOCs (other way around!)
- No longitudinal effects: proportions remain steady over time
- No case-, gender- or number errors found

=> children do not just "copy" their parents

Previous accounts

- Omission of direct object clitics
  - Low acoustic salience (Lightbown 1977)
  - Syntactic accounts:
    - Computational Complexity (Jakubowicz & Nash 2001)
      » Object clitics are highly complex and will be acquired late
    - Violation of principle of categorial uniformity (Hamann 2003)
      » Children expect objects to be full DPs, therefore use *pro*
    - Processing difficulties in chain crossing (Chillier Zesiger 2003)
      » Subject and object chains cross each other

Complexity

- Core idea in line with previous accounts:
  more complex structures are acquired later

- 1st/2nd p non-REFL: relatively "easy"
  - Deictic reference   => pragmatics only
    - » Cfr early acquisition of demonstratives
- REFL: "intermediate"
  - Inflection   => syntax only

Proposal

- Double Interface Complexity Hypothesis: identification of ADOC antecedent dependent on pragmatics & phonology

Syntax

Pragmatics   Phonology

Syntax-Pragmatics interface

- Intersentential anaphoric use:
  - Knowledge of sequential flow of identical referents
  - Introduction of new antecedents
- Antecedent accessibility: gradual difference with which the speaker/hearer can access the referent in the discourse
  - Distance
  - Number of competing antecedents

$\Rightarrow$ hierarchy in antecedent accessibility:

highly accessible antecedents have been mentioned very recently and have little competing antecedents in the nearby context (Givon 1983, Ariel 1990, Gundel e.a. 1993)

Syntax-Phonology interface

- Topic identification:
  - Relation between information structure and prosody
  - Germanic languages: defocused elements often deaccented

  - BUT more recently: Romanian claimed to share some properties with Germanic languages in allowing deaccentuation of given information
   Winkler & Göbbel 2002, Göbbel 2003

Syntax-Phonology interface (2)

- Coene 2008: acoustic analysis of focus/topic DPs

  Aş dori să fac **o comandă** pentru zece cutii cu artificii de Crăciun,
  I would like to make **an order** for ten boxes of firework for Christmas,
  cinci cutii cu biscuiți amestecați şi trei prăjituri mari de Crăciun. V-aş
  five boxes of mixed biscuits and three big Christmas cakes. I would
  fi recunoscător dacă nu ați dezvălui cine a făcut **comanda**.
  be grateful if you would not reveal who has made **the order**.

⇒ Focus/topic have different intonational patterns: rising *vs* falling pitch accent

FOCUS
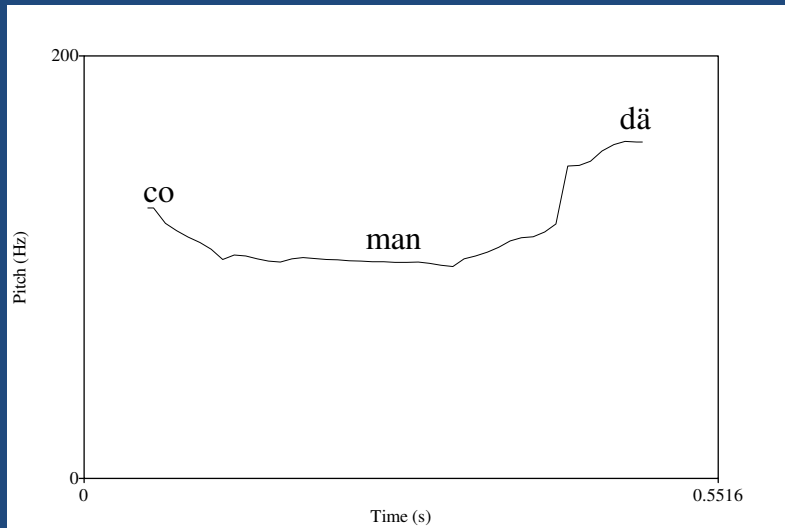
TOPIC
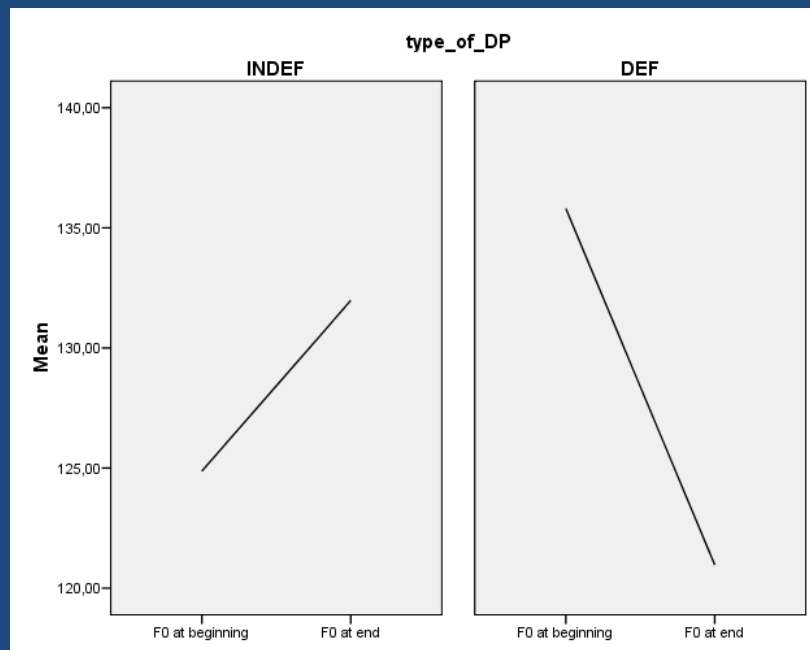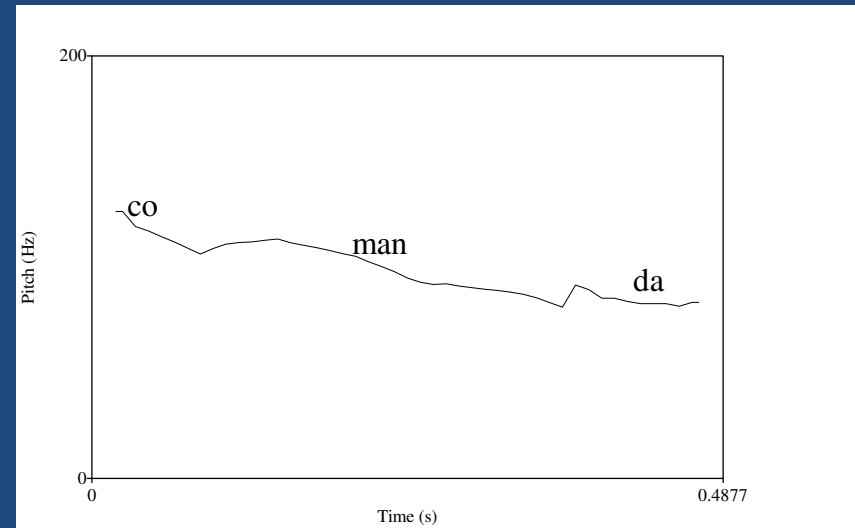
different change in fundamental frequency
from beginning to end (t = 3.132; p = .003)

Syntax-Phonology interface (2)

- Metric structure:
  - Trochaic foot proposed as the metric template that guides children in acquisition
    (Allen/Hawkins 1978, 1979; Klein 1984; Fikkert 1994)
  - Children map their intended utterances on a trochaic template
  - Weak syllables that do not fit the trochaic template are omitted more frequently
  - Subject and article omission have been said to be guided by the trochaic template (Gerken 1994, 1996; Crisma/Tomasutti 2000)

=> Syntactic clitics are omitted less frequently if they belong to the metric foot

Double Interface Complexity Hypothesis

- Problems may arise

  » Pragmatic level: low working memory (discourse coherence)

  » Phonological level: deaccented elements are easily missed in incoming speech

  » Syntactic level:

    - feature underspecification

    - copy features into clitic is last resort and thus language specific (costy operation)

Conclusions

- All accusative clitics are not alike:
  - 1st/2nd p: weak pronouns, DPs, deictic reference
  - 3rd non-refl: true syntactic clitics, Ds, copy features of null object
- Associated with different acquisition patterns:
  - 1st/2nd p no omissions as early as 2;00 – underspecified for case
  - 3rd person: gradual decrease in omission between 2;00-3;00 – gender & number errors

Conclusions (2)

- Interface Complexity Hypothesis:
  - 3rd p acquired later for complexity reasons
  - a combination of syntactic, pragmatic and prosodic information is needed
- puzzle to be solved:
  - in production: weak pronouns less complex than clitics
  - comprehension: DPBE in clitics but not in weak pronouns
  - ⇒ do Romanian children show a DPBE in the comprehension of clitics?

THANKS !