Topic-first or Subject-first?

A study on children’s interpretation of Corrective Focus in the Italian Left Periphery

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WOLP17 – Word Order in the Left Periphery
October 18th, 2017 – Oslo
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When do the single projections become available in children's grammar?

- **Force**: che (work in progress on corpus analysis)
- **Int**: perché (work in progress on corpus analysis)
- **Focus**: wh-movement (Guasti 1996)
- **Fin**: di (work in progress on corpus analysis)
- **Topic**: CLLD (Manetti & Belletti forthcoming)
Single projections

• By the age of 4, Italian children produce elements that in the adult grammar are generated or landed in each CP-projection.

• From the activation of single projections, it does not follow that children have a multi-layered full-fledged Italian left-periphery.

• Sentences with more than 1 left-dislocated constituent are unattested at this age.
Layered Structure

- What we know about the focus/topic system at around age 4 is compatible with at least these three possibilities:

  1. Monadic  Top or Foc
  2. Reduced  Top > Foc or Foc > Top
  3. Full fledged  Top > Foc > Top
Layered Structure

• (2) and (3) are still unsupported by evidence.

• Assuming a conservative learning based on positive evidence alone, children's grammar progresses from (1) to (3)

  (1) Monadic
  (2) Reduced
  (3) Full fledged

  Top or Foc
  Top > Foc or Foc > Top
  Top > Foc > Top

• Under this view, sentences with multiple movements are part of the Primary Linguistic Data and are crucial to the development of the left-periphery (TRIGGERS)
Processing multiple movement to L-Periphery

• Are children able to process multiple movements to the left periphery?

• Can they correctly parse both Top>Foc and Foc>Top structures?
Corrective Focus Fronting

• It is the right type of focus since it is non-criterial and allows testing both:
  a. Top > Foc
  b. Foc > Top
Corrective Focus


**Properties:**

- **Pragmatics**: it is used in a reply immediately following an assertion, which is the target of the correction

- **Syntax**: it can trigger A’-movement to the sentence left-periphery

- **Prosody**: its constituent is marked by a distinctive profile L + H*
• Example:

(context: there is a novel and a comic on the table)

Speaker A: Maria ha letto il libro.

Mary has read the novel.

Speaker B: No, IL FUMETTO ha letto!

No, THE COMIC has read!
Correctively Focused Object


• They investigated the interpretation of sentences with two sentence-initial DPs.

• DPs were marked by Top and Focus prosody and presented against a background that made clear the new/given distinction.
Correctively Focused Object

(1) Top>Foc/SOV

\[ \text{[Top}_{p} \text{ la tigre}_{a} \ [\text{Foc}_{p} \text{ LA ZEBRA}_{b} \ [\text{IP} t_{a} \text{ ha battuto} t_{b}]])} \]

the tiger THE ZEBRA has defeated

"the tiger has defeated THE ZEBRA"

(2) Foc>Top/OSV

\[ \text{[Foc}_{p} \text{ LA ZEBRA}_{b} \ [\text{Top}_{p} \text{ la tigre}_{a} \ [\text{IP} t_{a} \text{ ha battuto} t_{b}]])} \]

THE ZEBRA the tiger has defeated

"the tiger has defeated THE ZEBRA"
Correctively Focused Object
Both children and adults find (1) easier than (2):

(1) \([\text{Top}_P \text{ la tigre}_a [\text{Foc}_P \text{ LA ZEBRA}_b [\text{IP} \text{ t}_a \text{ ha battuto} \text{ t}_b]]] \text{ SOV/Top}>\text{Foc}\)

the tiger      THE ZEBRA     has defeated

"the tiger has defeated THE ZEBRA"

(2) \([\text{Foc}_P \text{ LA ZEBRA}_b [\text{Top}_P \text{ la tigre}_a [\text{IP} \text{ t}_a \text{ ha battuto} \text{ t}_b]]] \text{ OSV/Foc}>\text{Top}\)

THE TIGER      the zebra      has defeated

"the tiger has defeated THE ZEBRA"
• Both children and adults find (1) easier that (2):

(1) \[\text{SOV/Top>Foc}\]

the tiger \hspace{2cm} THE ZEBRA \hspace{2cm} has defeated

"the tiger has defeated THE ZEBRA"

• Consistent with two HPs:

   A. Subject-first parsing preference

   (Sauermann, Höhle, Chen & Järvikivi 2011; Müller, Höhle, Schmitz and Weissenborn 2006)

   B. Topic-first bias

   (Clark & Haviland 1977)
New experiment: disentangling Topichood from Subjecthood

• Same procedure, but we manipulated the information structure: we focalized subjects instead of objects

A. **Subject-first parsing preference:** it predicts that preference for subjects won't change

A. **Topic-first bias:** it predicts that object initial sentences will be now favored.
New Experiment

• A truth-value judgment task (Crain & Thornton 1998)

• Test children acceptance of TRUE sentences and rejections of FALSE sentences

(1) $O_{Top} S_{Foc} cl V$  $\leftarrow$ Topic first
(2) $S_{Foc} O_{Top} cl V$  $\leftarrow$ Subject first
Condition 1: $O_{Top} S_{Foc} cl \ V$

Character A: *Puffetta ha battuto il romano.*
Character B: $[Top_P il \ romano_b \ [Foc_P IL \ PILOTA_a \ [Ip_l't_a \ ha \ battuto \ t_b]]]$  
the roman  THE PILOT  cl_him  has defeated

- **Discourse pragmatics:**
  - the second DP expresses a contrast on the Subject
  - Object is given information

- **Prosody:**
  - $L+H^*$ prosody on the second DP, the focused Subject
  - Higher Topic with $L^*+H$ contour

Condition 1: OSclV / TopFoc

Pitch(Hz)

<table>
<thead>
<tr>
<th>Time (s)</th>
<th>il romano</th>
<th>IL PILOTA</th>
<th>l’ha battuto</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>DP1</td>
<td>DP2</td>
<td>cl+Aux+V</td>
</tr>
</tbody>
</table>
Condition 2: $S_{\text{Foc}}O_{\text{Top}} \text{cl} V$

*Character A:* Il fotografò ha battuto il pilota.

*Character B:* $[\text{Foc}_p \text{L’INDIANO}_a [\text{Top}_p \text{il pilota}_b [\text{IP l’}t_a \text{ ha battutot}_b]]]$  
  THE INDIAN     the pilot     cl_him     has defeated

- **Discourse pragmatics:**
  - the first DP expresses a contrast on the Subject
  - Object is given information

- **Prosody:**
  - $L+H^*$ prosody on the first DP, the focused Subject
  - Low Topic with $L^*$ contour

Condition 2: SOclV/FocTop

<table>
<thead>
<tr>
<th>Pitch (Hz)</th>
<th>L’INDIANO</th>
<th>il pilota</th>
<th>l’ha battuto</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DP1</td>
<td>DP2</td>
<td>cl+Aux+V</td>
</tr>
</tbody>
</table>

| Time (s)  | 0         | 2.285     |

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20
Procedure: test trials

Experimental sentences were introduced by narrating brief stories that made true and felicitous either the OSV or the SOV interpretation.

All the stories were presented on a computer screen showing a series of pictures that accompanied the narration.

e.g.:
initial visual display of a story
Character A: *Il coccodrillo ha battuto l'ippopotamo.*

*The crocodile has defeated the hippopotamus*

Character B: No, [TopP l'ippopotamo<sub>a</sub> [FocP IL LEONE<sub>b</sub> [IP t a l’ha battuto [b]]]]

*No, the hippopotamus THE LION cl_him has defeated*

OSV=supported by discourse and prosody, TRUE
SOV=unsupported, FALSE
Answers

We collected three dependent variables:

- % of correct acceptances and rejections (overall correct)
- % of correct acceptances only
- % of correct rejections only
Materials

• Design: 2 (group: adult, children) x 2 (SOoclV, OScclV)

• 4 sentences per condition, 2 T and 2 F

• 4 SVO control sentences

• 8 fillers

• Total: 20 trials
Participants

• 20 children (mean = 5;6, SD = 2;9 months), recruited at the Kindergarten Mameli in Florence.

• 17 adults, from Tuscany
Results

• 2 children were excluded: they did not provide SVO correct answers above 50%
Results: Proportion of Correct Answers (Acceptances & Rejections)
Results: Proportion of Correct Answers (Acceptances of True Sentences only)

Experiment 2 - Subject Focus fronting

Proportion of Correct acceptances (TRUE)

Group

- Adults
- Children

Comparison:
- Top > Foc
- Foc > Top

Translation of abbreviations:
- OSclV
- SOclV
Experiment 2: Results

• Opposite preferences in adult and children

• Children favor the $S_{Foc}O_{Top}clV$ interpretation. A result consistent with the prediction of a Subject-first parsing preference

• Adults favor the $O_{Top}S_{Foc}clV$ interpretation. A result consistent with the prediction of a Topic-first bias
Results: Experiment 1 and 2

Experiment 1 - Object Focus fronting

- Foc > Top OSV
- Top > Foc SOV
- Foc > Top OSV
- Top > Foc SOV

Experiment 2 - Subject Focus fronting

- Top > Foc OSclV
- Foc > Top SOclV
- Top > Foc OSclV
- Foc > Top SOclV
Results: Experiment 1 and 2

CHILDREN. Correct Acceptances

- OScV 44.44
- SOV 81.25

ADULTS. Correct Acceptances

- OScV 92.86
- SOV 100.00
Conclusions: Children

They have less troubles with **Subject-first** sentences

• This result supports the conclusion that a “subject-first” bias is operative in child language (Schlesewsky et al. 2000), regardless of the information structure assigned to the initial constituent.

• They are inclined to parse the first DP as the sentential subject. The parser makes this choice and ignores all the other weaker elements (e.g. prosody)

• Are children able to exploit the prosodic information at all?
  → work in progress
Conclusions: Adults

They have less troubles with Topic-first sentences: In $S_{Foc} O_{Top} cl V$ discourse-pragmatic and prosody do not help.

- Why?
Adults preference for Topic-first sentences

1. General pragmatic principle: "given before new” maxim (Clark & Haviland 1977)

2. Language-specific factors:
   • Post-focal topics in Italian are generally disfavoured (Benincà & Poletto 2004, but see Cardinaletti 2016)
   • Post-focal topics work better without clitics (Belletti 2004, Samek-Lodovici 2006)

3. Experimental design: the context identifies aboutness-shift-topics. So the low-toned post-focal prosody is inappropriate (Frascarelli, M. & Hinterholzl, R. 2007)
Thank you for the attention!

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References


Object Focus: +/- prosody