Topic-first or Subject-first? A study on children's interpretation of Corrective Focus in the Italian Left-Periphery.

Key words: language acquisition, left periphery, corrective focus

Intro. In this work we investigated children's processing of structures that activate the Italian clausal Left-Periphery, and in particular constructions involving A'-bar movement to Topic and Focus projections. Previous results (see Moscati et al. 2015) investigating children and adults interpretation of sentences with Corrective-focus movement have shown that in both groups sentences like (1) are more challenging than (2). *(See page 2 for the examples).*

This pattern of results, however, is amenable to at least two interpretations: preference for (2) could be either explained by invoking a parsing-bias (e.g. "subject-first") favouring the SOV interpretation, or an information-structure (IS) bias that favours given information first ("topic- first"). Since the Object was always focal and the subject always topical, the experimental design used in Moscati et al. (2015) made previous results inconclusive on this point. Therefore we designed a new experiment aimed at disentangling the role of IS from the role of word order. We did this by inverting the IS assigned to the constituents: in our experiment, we tested constructions in which the subject was focal, while the object topical. If a preference for SOV still persists, in cases where the IS is Focus > Topic, this will add support in favour of a "subject-first" and against a "topic-first" explanation.

The experiment. We investigated corrective-focus fronting in a scenario where the relevant discourse-pragmatic and phonological conditions were satisfied (Bianchi et al. 2015). We used the same methodology of Moscati et al 2015, with the difference that we focalized the subject, while the object was a left-dislocated topic with a resumptive clitic. All test sentences were of the form DP DP cl V, potentially ambiguous between an OSclV or a SOclV interpretation. In our experiment we tested whether both sentences (5) and (6) were accepted at the same rate in a scenario that verifies them (or rejected in a scenario that falsified them) and that constitutes a correction of a previous statement (4). (*See page 2 for the experimental trial).*

Method and Materials: There were two experimental conditions: the OSclV (5) and SOclV (6). Capital letters indicate the Corrective Focus L+H* intonation. In total, participants heard 4 sentences per condition, 6 SVO control sentences and 8 fillers. Test items were counterbalanced so that in half of the cases the correct answer was an acceptance and in the other half it was a rejection. The same held for fillers and controls, so that each participant had to judge 10 true and 10 false trials.

Partecipants: 12 adults (age >18) and 16 children (mean = 5;7) recruited at the Kindergarten Mameli in Florence.

Results: While both children and adults had no general problem in understanding the experimental task and correctly judged SVO sentences (fig.2), they showed two opposite patterns in the experimental conditions (fig.3). Adults had less troubles in correctly accept (or reject) OSclV sentences, those were IS was Topic>Focus. Children instead showed the opposite pattern and they found easier SOclV, the subject-first sentences in which IS was Focus>Topic. Results were analysed in R using the *glmer* function through a Generalized Mixed Effect Model. We set Group and Condition as predictors and Item and Subject as random effects. The model confirmed a main effect of Condition (p<.005) and Group (p<.001) and a significant interaction between Condition and Group (p<.001). *(see page 2 for the results charts)*

Discussion. Children's behaviour in our experiment replicated the findings in Moscati et al (2015): they had no troubles with subject-initial sentences in the SOclV condition. 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. Adults, on the contrary, show a greater sensitivity to IS: the preference for subject-first sentences in (1) found in Moscati et al (2015) disappears once the subject is made focal. In this case, adults prefer the OSclV constructions, that respects instead the Topic>Focus IS. This pattern of results will be discussed in relation to previous studies on children's and adults parsing preference emphasizing the role of subjecthood (Schlesewsky et al. 2000) or topichood (Narasimhan & C. Dimroth 2008).

Examples.

	word-order	inf. structure
(1) $[_{FocP}$ LA TIGRE$_b$ $[_{TopP}$ la zebra$_a$ $[_{IP}$ t$_a$ ha battuto t$_b$]]]	OSV	Foc>Top
(2) $[_{TopP}$ la tigre$_a$ $[_{FocP}$ LA ZEBRA$_b$ $[_{IP}$ t$_a$ ha battuto t$_b$]]]	SOV	Top>Foc

(4) Character A: La zebra ha battuto la giraffa.
　　　　　"The zebra defeated the giraffe"
(5) Character B: No! La giraffa LA TIGRE l'ha battuta.(Condition A: True under OSclV, Top Foc V)
　　　　　no   the giraffe THE TIGER her has defeated
　　　　　"No! the tiger defeated the giraffe."
(6) Character B: No! LA TIGRE la giraffa l'ha battuta. (Condition B: True under SOclV, Foc Top V)
　　　　　no THE TIGER the giraffe her has defeated
　　　　　"No! the tiger defeated the giraffe."

Experimental trial.

"*The goal of this game is to collect as many balls as possible. The giraffe challenges the tiger and the zebra. At the end of the contest, the tiger has three balls, the giraffe two and the zebra only one.*" The outcome then is that the tiger defeats both the giraffe and the zebra while the giraffe defeats the zebra only.

Fig. 1. Visual scenario at the end of the story:
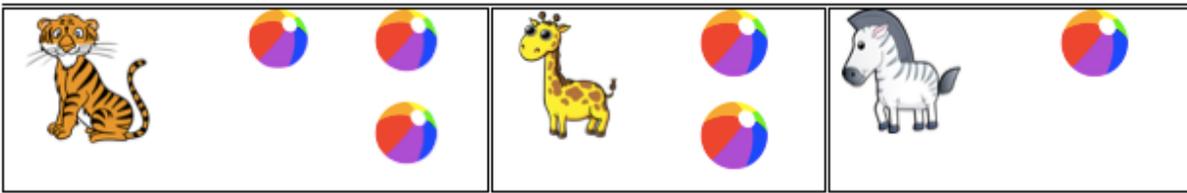
Results charts.

Fig. 2. Proportion of correct answers in the two experimental conditions. Error bars = 1 S.E.
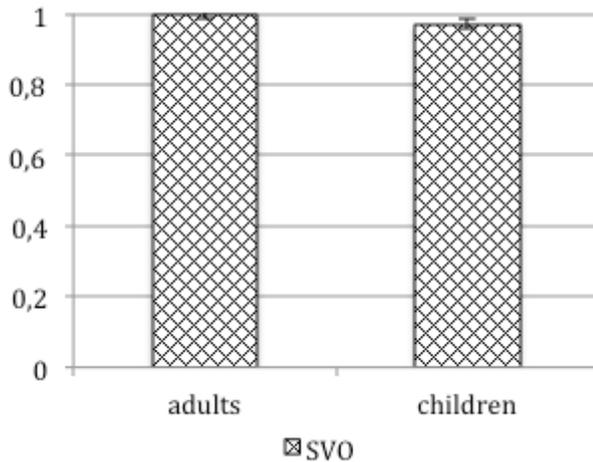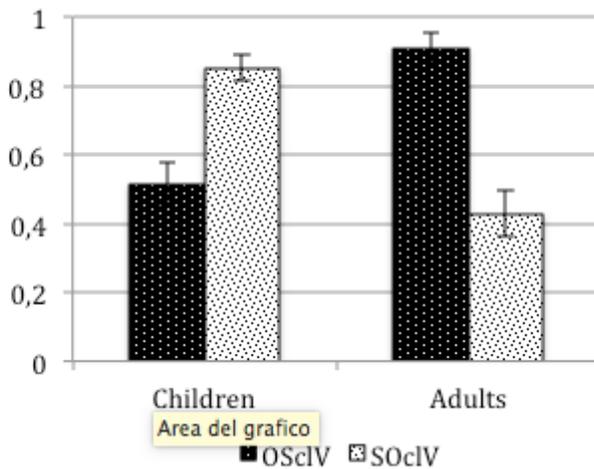
Fig. 3. Proportion of correct answerd in the two experimental conditions. Error bars = 1 S.E.

Selected references

Bianchi, V., G. Bocci and S. Cruschina (2015). Focus fronting and its implicatures. In Romance Languages and Linguistic Theory 2013: Selected papers from 'Going Romance' Amsterdam 2013, Ed. by E. O. Aboh, J. C. Schaeffer and P. Sleeman. J.Benjamins. 1–20.

Moscati V., C. Manetti, A. Belletti, L.Rizzi (2016). Children's sensitivity to prosody and discourse-pragmatic conditions: the case of corrective focus in Italian. BUCLD 40 online proceedings.

Narasimhan, B., & Dimroth, C. (2008). Word order and information status in child language. Cognition, 107, 317- 329.

Schlesewsky, M., Fanselow, G., Kliegl, R., & Krems, J. (2000). The subject preference in the processing of locally ambiguous Wh-questions in German. In B. Hemforth & L. Konieszny (Eds.) German sentence processing. (pp. 65-93) Dordrecht, The Netherlands: Kluwer