# Calendar

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Children’s production of CLLD. Marking topics in the Left periphery: $\alpha$-Topics. Evidence from language development and crosslinguistic comparison. With remarks on passive and properties of subjects.

HO4
α-Topics in children’s production

- Results from acquisition presented in Belletti & Manetti (2018/2019) from elicited production have indicated that young Italian speaking children make a wide use of α-marking of a left dislocated direct object in the Spec/TopP position in the Left Periphery of the clause: The α-Topic

- They tend to produce CLLD structures as in (1)a, instead of the standard (1)b:

\[(1)\ a. \ Al \ coccodrillo, \ l’elefante \ lo \ lava \\\n\quad \text{to the crocodile the elephant him.Cl washes} \\\n\quad \text{‘The crocodile, the elephant is washing him.’}  \\
\]

\[b. \ Il \ coccodrillo, \ l’elefante \ lo \ lava \\\n\quad \text{the crocodile the elephant him.Cl washes} \\\n\quad \text{‘The crocodile, the elephant is washing him.’}  \\
\]
\( \alpha \)-Topics

- \( \alpha \)-marking of the object Topic \( \Rightarrow \) \( \alpha \)-Topic

\[ \alpha \text{DP}_O \text{DP}_S \text{ClV} \]

- Other order possible: \( \text{DP}_S \alpha \text{DP}_O \text{ClV} \)

(the different order does not appear to play a role, hence collapsed in the results, unless otherwise specified)
Outline and general questions

- How is CLLD elicited?

- The acquisition of the Left periphery: One of the elicitation conditions (two topic condition, see following slides) leads to overt expression of the left dislocated topic, which in turns gives us a clear indication on the acquisition of the left periphery by young developing children.

- The same elicitation design leads to production of passive: difference adults vs children, both in the selection of CLLD vs passive and in the type of passive selected (the latter difference also found in the production of passive object relatives/PORs, cfr. later ho). Adults *venire* passive; children *si-causative* passive (only).

- Focus on the expression of the object topic as a-Topic and crosslinguistic considerations

- a-Topics and featural Relativized Minimality/fRM, in production, then confirmed by results from comprehension
Way to elicit CLLD (and passive) – Experiment 1
(Belletti & Manetti 2018)

1 TOPIC PATIENT

✓ S-CL-V (covert topic)
Q: What happens to my friend, the cat??
(1) La mucca la lecca e il riccio l’accarezza.
‘The cow her.CL licks and the hedgehog her.CL caresses’

2 TOPIC PATIENTS (contrastive topic)

✓ O-S-CL-V (overt topic)
Q: What happens to my friends, the dog and the bear?
(2) Il cane il gatto lo bagna, e l’orso il coniglio lo veste
‘The dog the cat him.CL washes, the bear the rabbit him.CL dresses’

yleft peripheral object topics are more frequently overtly expressed in the two topic condition (contrastive topic)
Answers in the two conditions

- It is in the two topic condition that young children overtly express the topic

- They do so in the form of an a-Topic.

- In both conditions, adults typically produce a passive

- The latter difference between children and adults may in fact be less dramatic than it may appear. We hold this question for the moment (see later on). Let us concentrate on CLLD first.
Main results on the production of pronouns (no overt topic) and CLLDs (overt topic) - Exp.1

Production of pronoun vs. CLLD

- Production of pronouns and CLLDs differed in the two conditions (Pronoun: 191 vs. 23; CLLD: 9 vs. 71; p<.001)

- We thus conclude that young children are discourse appropriate and are able to make use of the Topic position(s) in the Left periphery
Children’s and adult’s answers

Q: *Che cosa succede al mio amico, il re?* 
‘What happens to the king?’

*CLLD (with or without overt the topic)*

((a) *Il re*), *la mucca lo lecca*
‘(The king), the cow him.CL licks’

*PASSIVE*

(*Il re*) *viene/è leccato dalla mucca*
‘(The king) comes/is licked by the cow’

**Most typical answer by CHILDREN**

**Most typical answer by ADULTS**

Structures expressing a topic patient vary depending on the experimental setting and the informational context (see Volpato et al. 2015; Manetti 2013; Pivi & Del Puppo 2013). Here example from the one topic condition.
Zooming on the types of overt Topics in children’s CLLD

(adapted from Belletti & Manetti’s 2018/2019 results)

CLLDs with **a-Topics vs. simple O/Topics in DP₁ DP₂ CL-V**

(collapsing SO and OS interpretations; orders: (S) pre-posed O (S) V):

Children produced **88% a-Topics** (n= 44) vs. **12% simple O/Topics** (n= 6) (with S overt lexical noun phrase)
Children’s productions of \(a\)-Topics

\(a\)-Topic:

1. All’orso il coniglio lo sta vestendo
   \[O \quad S \quad Cl \quad V\]
   to the bear the rabbit it-Cl is dressing
   (Davide, 5)
2. Il coniglio all’orso lo veste
   \[S \quad O \quad Cl \quad V\]
   the rabbit the bear it-Cl is dressing
   (Adele, 4)

Simple Topic:

3. Il coniglio l’orso lo veste
   \[S \quad O \quad Cl \quad V\]
   the rabbit the bear it-Cl is dressing
4. L’orso il coniglio lo veste
   \[O \quad S \quad Cl \quad V\]
   the bear the rabbit it-Cl is dressing

When the subject is lexical and preverbal, in 88% of children’s CILDs the left dislocated object is realized as an \(a\)-Topic and not as a Simple Topic.

In the remaining 12% of the cases the object was a Simple Topic.
The new questions raised by the results

- A number of new questions are raised by the results on CLLD and a-Tops.

- The big general question is: Why?

- Let us split it in different sub-questions, and answer them in turn:

1. Do the children tested speak a Differential Object Marking/DOM language?
2. If not, how can we characterize their use of a marker of this type?
   i. Is this marker frequent with topics in standard Italian?
   ii. Is this marker found in other languages?
   iii. Do children use this marker for the topic randomly or can we find some coherent pattern, hence some principled reason leading them to this choice?

3. Are children also good in the comprehension of a-Topics as they appear to be in their production?
Q1: a-Topic is not a DOM effect

(Non southern-central) Italian (in the Tuscan variety spoken by children) is not a Differential Object Marking language. The children acquiring Italian who produced sentences like the one illustrated earlier and repeated here, know that:

Il coniglio a i’ pinguino lo tocca

The rabbit to the penguin him.Cl touches

(Adele 4;9)

They never a-mark the direct object in SVO sentences.
a-Topic is not a DOM effect

Q: Che cosa succede ai miei amici, il pinguino e la mucca?
   what happens to my friends, the penguin and the cow

A:
La giraffa sta leccando la mucca, e il coniglio al pinguino lo sta grattando
the giraffe is licking the cow and the rabbit to the penguin it-CL is scratching
(Omar, 5 y.o., Belletti & Manetti 2018)

Hence, the a-Topic is not the manifestation of an a-marked (DOM) direct object.

Rather, it appears to be the manifestation of a property located in the Left Periphery.
Q2: i-ii
Is this marker found in Italian and in other languages?

- Yes: Some comparative considerations:
  - Standard Italian
  - Modern Spanish
  - Diachronic development in Spanish
  - Balearic Catalan
  - a-marking as a left-peripheral phenomenon first
a-Marking in the left periphery: Comparative considerations

The fact that a-marking of direct objects is a left peripheral phenomenon characteristically affecting left dislocated direct object topics is not an isolated fact concerning Italian speaking children during their development.

Rather, children’s behavior is robustly attested both crosslinguistically and diachronically.

As it is often the case in acquisition, during their development children may typically adopt grammatical options that are manifested in the grammar of some existing language.
a-Marking of object Topics in the Left Periphery: a limited option in adult (standard, non southern) Italian

- With Object Experiencer of psych-verbs (worry class):

  (5) (?)A Gianni, questi argomenti non l’hanno convinto
to Gianni, these arguments him-CL have not convinced

  (6) *A Gianni, la gente non lo conosce
to Gianni, people him-CL do not know

  (Belletti & Rizzi 1988, fn. 27, example due to P.Benincà)

Cfr.: (5’) Questi argomenti non hanno convinto (*a) Gianni
these arguments have not convinced Gianni

(6’) La gente non conosce (*a) Gianni
people do not know Gianni
a-Marking of object Topics in the Left Periphery: a limited option in adult (standard, non southern) Italian

- With pronominal objects:
  1st and 2nd person (singular) (left) dislocated pronouns require preposition a in Topic position (cfr. Renzi 1988)

(7)  A me/*Me non mi si inganna
to me/me one does not me-CL cheat (example from Berretta 1989)

- Sometimes, also non-experiencer pronominal objects and also of 3rd person may be allowed

(8)  a. A te /*te ti licenziano di sicuro
to you/you they you-CL fire for sure
b. A lui /✓lui lo rispettano tutti
to him/him they him-CL respect all
c. A noi sul lavoro non ci assume più nessuno
to us on work nobody us-CL hire anymore (example 5c from Berretta 1989)
(Belletti, 2018a,b)
The nature of a-Topics: A comparative detour in Spanish (and Sicilian)

- As argued in Leonetti (2004) there is a very tight relation between Topicality and a-marking in the overall Spanish DOM phenomenology, which clearly emerges in CLLD:

  **A left dislocated direct object is obligatorily a-marked**

- Sicilian has a similar behavior according to the description in Lemmolo (2010). Specifically a-marking is systematic on left dislocated objects.

- a-Marking is obligatory with topicalized direct objects in CLLD in Spanish, also when the verb allows for both a-marked and un-marked direct objects in simple SVO sentences in which the direct object is not topicalized. Consider the following examples crucially relevant in this respect:
a-Topics in Spanish

From Leonetti (2004; cfr. also Laca 1987)

**Simple declarative:**

(9) a. Ya conocía (a) muchos estudiantes
   already (I) knew many students

b. Habían incluido (a) dos catedráticos en la lista
   (they) had included two professors in the list

**CLLD:**

(10) c. *(A) muchos estudiantes, ya los conocía
   many students, (I) already knew them(cl)

d. *(A) dos catedráticos, los habían incluido en la lista
   two professors, (they) had included them(cl) in the list

These paradigms recall lack of a-marked O in SVO productions by Italian-speaking children, with widespread presence of a-Topics when object is pre-posed in CLLD.
a-Topics in old Spanish

\textit{A} las sus fijas en braço las prendia
\textit{DOM} the his daughters in arm them hold-3.sg
‘He gathered his daughters in his arms’

\textsuperscript{From Heusinger 2008, reporting results from Laca 2006:455}

They point out (in Cid):

- 80\% of (animate) definite direct objects are \textbf{not a-marked}
- 73\% of (animate) definite direct objects are \textbf{a-marked and preposed} and doubled by a clitic
  (in CLLD, and also Right dislocation)

\textsuperscript{This is an interesting diachronic convergence with the child-Italian data and with the (more rigid) Spanish synchronic data from Leonetti (2004) presented earlier.}
a-Topics in Balearic Catalan

- Balearic Catalan has no DOM for definite lexical objects in clause internal object position.

- However, a lexical definite object (human but also non-human to some extent) can be marked with preposition a when it is CLLD.

Again a behavior very close to that of the Italian speaking children.

DOM is more widespread in the language when the direct object is a strong pronouns (also operating in Italian....)

Cfr. the following contrasts from Escandell-Vidal 2009.
a-Topics in **Balearic Catalan**

(24) Balearic (Arxiu, Maó. Minorca)

a. *He anat a agafar es qui ha vist*
   \( \text{have.PRS.1SG} \) gone to catch \( \text{the[one]} \) who \( \text{have.PRS.3SG} \) seen
   \( \text{com matava} \) \( \text{en} \) Fulano o \( \text{en} \) Sutano.
   how \( \text{kill.PST.3SG} \) the Fulano or the Sutano
   ‘I went to catch he who has seen how he killed so-and-so or what’s-his-name.’

b. *I va anar ja a amenaçar es general.*
   \( \text{and have.PST.3SG} \) go already to menace \( \text{the general} \)
   ‘So he went to threaten the general’

(27) Balearic (Arxiu, Sant Josep, Ibiza)

*An aquella al·lota no la deixaven parlar amb so que ella volia.*
   to that girl not her let.PST.3PL talk with the who she want.PST.3SG
   ‘That girl was not allowed to talk to the one she wanted to.’

(36) Balearic (Majorcan)

*An aquesta darrera [frase] noltros la diríem així*
   to this last [sentence] we it.OBJ say.COND.1PL like-that
   ‘This last sentence, we would say this way.’

\( \text{DP-lex in object position} \)

\( \text{DP-lex in CLLD topic position} \)
The role of affectedness in Spanish DOM

(a) Golpearon a un extranjero.
beam-3PL DOM a stranger
‘They have beaten a stranger.’

(b) *Golpearon un extranjero.
beam-3PL a stranger
‘They have beaten a stranger.’

(a) Odia a un vecino.
hate-3SG DOM a neighbor

(b) *Odia un vecino.
hate-3SG a neighbor
‘(S)he hates a neighbor.’

Torrego 1999, Heusinger 2008
(Psychologically) *affected* object (experiencer) and empathy toward it

**Hypothesis:**

*a-marking of Topics is the manifestation of a property located in the Left Periphery*

-a-marking adds some further feature to the interpretation of the topic.

- Assume, also based on the *crosslinguistic evidence* reviewed, that *a*-Topic is not just a topic, with the specificity and givenness that the topic interpretation carries along, but it is an *affected* topic (linked to the benefactive interpretation induced by preposition *a*).

-(For time reasons, no detailed discussion now of the different status of English ‘to’ and the consequences for *a*-Topics and causatives, on which see also Kayne 2004, Belletti 2019).
Detour:
On the interpretation induced by a

Preposition a is the same preposition expressing the *benefactive* (additional dative) argument of transitive verbs.

- Ho comprato un vestito ai bambini  // Farò una festa ai bambini
- (I) have bought a dress to the kids  // (I) will do a party to the kids

The *benefactive* interpretation expresses a type of *affectedness* similar to the one assumed here for the a-marker of topics. Cfr. Kayne (2004) on the peculiar benefactive interpretation also induced by à in French.

➢ The same preposition is also found in *fare a/faire à* causatives. And the expression of an affected interpretation of the causee has often been recognized in this type of causatives, since Guasti’s (1993) analysis.

Detour: English *to vs Italian *a (and French *à)

- English *to and Italian *a (and French *à) are different in this respect.

- As pointed out in Kayne (2004):
  
  *I bought a dress to the kids
  *I will do a party to the kids
  *They built a house to their family (>> for)

To the extent that an affected interpretation is obtained through preposition *a and to the extent that such interpretation is tightly related to the benefactive role/interpretation, Kayne’s observation above suggests a interesting correlation for lack of *make-to causatives in English (a point also recently rediscussed in Collins 2018).

Causatives will be taken up again shortly.
Detour: *to-Topics in the English left periphery

- The difference between *to and *a/à outlined, based on Kayne’s insight, also suggests a further correlation in the domain of *a-topics.

- It may indicate a route to understand why there are also no *to-topics in English topicalization.

- With a new research question on language development on the (likely) absence of *to-topics in child English.

  (Possible project: testing English speaking children with same experimental design used for Italian).
(Psychologically) *affected* object (experiencer) and empathy toward it

- The a-marking may also express an empathic point of view. A speaker’s perspective of involvement (empathy in the sense of Kuno 1987) so that the speaker (psychologically/emotionally) participates in the event that affects the topic argument (and through empathy he/she may also feel affected by it).

- Possibly sharing similarity with a peripheral Sentence Final Particle/SFP like *ne* in Japanese that signals empathic involvement shared by speaker and hearer, according to Endo’s (2018) recent discussion.

- Assume this is expressed by a [+a] feature that can be associated with the left peripheral topic head in the way described.

- The experimental condition favored the relevant (affected) interpretation of the Topic.
The assumed analysis
a-Topic attracted into the Left periphery

With a further moved/cliticized into a higher head, thus re-establishing the pre-positional order.
From Left peripheral $a$-Topics to DOM

A possible path is also suggested by the crosslinguistic diachronic evidence reviewed:

- **Left peripheral $a$-Topic >> Low vP-peripheral $a$-Topic >> small v**

Belletti 2018
Recall: Not a Differential Object Marking /DOM effect for children

Standard Italian is not a DOM language. And children know that since:

They never *a*-marked the direct object in SVO sentences.

La giraffa sta leccando la mucca, e il coniglio al pinguino lo sta grattando

*the giraffe is licking the cow and the rabbit to the penguin it-CL is scratching*

(Omar, 5 y.o., Belletti & Manetti forthcoming)

‘a’: The manifestation of a property located the Left Periphery.
The stage of Italian speaking children

- Given the empirical findings and the suggested analysis of the phenomenon, Italian speaking children’s appear to illustrate the first stage of the path:

  - Widely attested a-marking of Topics in their elicited production of CILD
  - No a-marking of object in clause internal direct object position
Italian speaking children’s $\alpha$-Topics: children’s overextension

In their productions children have overextended the $\alpha$-Topic option of (standard non-southern Italian) in at least two ways:

- All of their $\alpha$-Topics were lexical noun phrases (not 1$^{st}$ or 2$^{nd}$ person pronouns)
- All of their $\alpha$-Topics were object patients of agentive verbs (they were not object Experiencers of psych-verbs)
Q2: iii
can we find some coherent pattern in children’s productions?

❖ This is in fact a **why-question**:  

❖ The search for a reason of children’s unexpected behavior: **why did they overextend the limited grammatical option of standard Italian?**

❖ Recall:

\[ a \text{DP}_O \ \text{DP}_S \ \text{ClV} \]
\[ \text{DP}_S \ a \text{DP}_O \ \text{ClV} \]

where both DPs are lexically restricted.

an account in terms of locality/fRM of the kind proposed for other object A’-dependencies suggests itself.
a-Marking of the topic as a way to modulate intervention

- Use of $a$-Topics can be analyzed in terms of the grammatical principle featural Relativized Minimality/fRM (Rizzi 1990, 2004, Starke 2001, along the lines proposed in Belletti and Manetti 2018/2019, Belletti 2018a, b, within the approach developed in Friedmann, Belletti & Rizzi (2009) and Belletti et al. (2012), discussed earlier):

**Main insight:**

- $a$-Topics allowed children to deal with the intervention configuration arising in the CILD structure by resorting to a featural intersection relation between the two DPs, a relation that children are known to master well at this age.
Intervention and lexical restriction

Pre-posing a lexical direct object $\text{DP}_O$ over a lexical $\text{DP}_S$ instantiates the intervention configuration:

\[
\text{DP}_S \quad \text{DP}_O \left[ \langle S \rangle - \text{CL} - V \langle O \rangle \right] \quad \text{DP}_O \quad \text{DP}_S \left[ \langle S \rangle - \text{CL} - V \langle O \rangle \right]
\]

The hardest intervention situation whose computation is notoriously difficult for young children is the one where both $\text{DP}_O$ and $\text{DP}_S$ are **lexically restricted** (FBR, 2009 and crosslinguistic literature on $A'$-dependencies such as Relative Clauses and Wh-questions).
a-Topics and intervention locality

More precisely, the realization of the pre-posed object as an a-Topic opens up the possibility of better coping with intervention locality, RM in its featural formulation/fRM by modulating the long distance relation, as pre-posing of lexical DP₀ over lexical DPₛ, in either order (DPₛ DP₀ or DP₀DPₛ), instantiates the intervention situation that young children are unable to master:

*Picture: Rabbit dressing bear*

(1) Il coniglio all’orso lo veste

\[
\begin{array}{cccc}
S & O & \text{Cl} & V \\
+\text{Top}+\text{NP}+\text{u} & +\text{Top}+\text{NP}+\text{a} & \text{……………}
\end{array}
\]

the rabbit to the bear it-Cl is dressing

(Davide, 5)

(2) all’orso il coniglio lo sta vestendo

\[
\begin{array}{cccc}
O & S & \text{Cl} & V \\
+\text{Top} & +\text{NP}+\text{a} (+\text{Top})+\text{NP}+\text{u} & \text{……………}
\end{array}
\]

to the bear the rabbit it-Cl is dressing

(Adele, 4)
Recall: Relations w.r.t. relevant features between Target and Intervener expressed in set theoretic terms

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<th>Z</th>
<th>Y</th>
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<td>+A</td>
<td>+A</td>
<td>&lt;+A&gt;</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Inclusion</td>
<td>+A</td>
<td>+B</td>
<td>&lt;+A,+B&gt;</td>
<td>*</td>
<td>ok (harder)</td>
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<tr>
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<td>+B+D</td>
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<td>&lt;+A&gt;</td>
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Types of CLLDs and the intervention configuration

*Picture: Rabbit dressing bear*

(11) L’orso il coniglio lo veste <_
the bear the bear him.Cl dresses
+Top +NP (+Top) +NP cl V

(12) All’orso il coniglio lo veste <_
To the bear the rabbit him.Cl dresses
+Top +NP +a (+Top)+NP +u cl V
A case of *grammatical creativity* against a poor input

- Children’s extended use of a-Topic thus results in a case of *grammatical creativity* against an otherwise poor input.

- Despite poor and limited evidence, children have picked up a grammatical option that has allowed them to cope with an otherwise too complex structure for them to compute, due to intervention.

- Thus, children’s linguistic behavior is not at random: it takes place within a defined grammatical space. In the case under study, it occurs under the pressure of locality.

- Further indications in the same direction come from the following:
The realization of the a-Topic depends on the nature and position of the subject

- CLLD with aTopics vs. simple O/Topics

- Hence, realization of the preposed object as either a-Topic or simple O/Topic is clearly influenced by the nature – null vs overt/lexical - and by the syntactic position – pre-verbal vs post-verbal - of the lexical subject.

- Null or post-verbal subject: no difference emerges in the aTopic vs. simpleO/Topic production.

- (χ² = 14.840; p< .0001).
No intervention with post-verbal and null subject

*Picture: Cat washing dog*

il cane lo sta lavando il gatto  
(Niccolò, 4)

*Picture: boy combing king*

Il re *pro* lo sta pettinando  
(Alice, 4)
No intervention with post-verbal and null subject

- Recall that in the experimental conditions the subject was expected to be:
  - Overt in order for the answer to be completely informative
  - Preverbal as the subject was not new info

- Whence the relatively limited number of these productions whose presence is all the more interesting, since children have shown to be generally discourse appropriate, also in the use of subjects.

- The locality pressure is the source of the not fully felicitous answers.
Experiment 2
Number Mismatch between subject and object (Experiment 2)

Number Mismatch condition.
- Singular object and plural subjects
- 36 children (from 4 to 6 y.o.) and 20 adults

One patient topic vs. Two patient topics

(13) Il coniglio i gatti lo toccano
The rabbit the cats him.Cl touch

(14) La formica le rane la coprono
The ant the frogs her.Cl cover
Results on the use of lexical vs. null subject in Exp2

<table>
<thead>
<tr>
<th>CILDs</th>
<th>Lexical S</th>
<th>Null S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children</td>
<td>39 20%</td>
<td>154 80%</td>
</tr>
</tbody>
</table>

- Most salient feature of these results:
- In Experiment 2 most subjects in CILD were **null**
- In Experiment 2 most subjects in CILD were **null and plural**
Zooming on types of subjects in CLDs in Exp. 2: The plural null subject

- O pro CI V  
  Null/plural subject  
  
  (a)l cane lo lavano  ‘(To) the dog him.CL wash’  
  → 80%

- (S) O (S) CI V  
  Preverbal lexical subject  
  
  (a)l cane i gatti lo lavano  ‘(To) the dog the cats him.CL wash’  
  → 13%

- O CI V (S)  
  Postverbal lexical subject  
  
  (a)l cane lo lavano i gatti  ‘(To) the dog him.CL wash the cats’  
  → 7%
Exploring the nature of the plural null subjects

- The plural null subject is likely to be a generic (plural) subject, a possibility allowed in several languages, including standard Italian. The generic plural null subject is compatible with both a singular and a plural referent as in the exchange in (15):
  - (15)  a. Hanno bussato
          (they) have knocked at the door
  b. Deve essere Gianni
     (it) must be Gianni
  c. Devono essere gli invitati
     (they) must be the guests

The null plural option was only seldom used in Experiment 1, where the referent of the subject was always a singular character in the stimuli and the subject was mostly overt in children’s CLIDs answers.

Possibly, the image picturing a plural subject constituted a kind of priming for the use of the (generic) plural null subject in Experiment 2.
Exploring the nature of the plural null subjects

Although the exact interpretation of the largely present plural null subjects cannot be precisely determined, most likely they are \textit{not referential} null subjects. This is indicated by the following facts:

- At age 4, children already master appropriate use of lexical vs. null referential subjects in general (Belletti & Guasti 2015).

- In Exp.1: children appropriately used lexical vs. null subjects in both active and passive sentences in virtually all types of structures. In particular they were correctly informative as to who performed the action on the patients:
  - CILD: \( (1) \ (\text{a}) \) \textit{Il cane}._obj \textit{il gatto}._sub \textit{lo lava}  
    the dog the cat him.Cl washes
  - Pronoun: \( (2) \) \textit{Il gatto}._sub \textit{lo lava}  
    the cat him.Cl washes
  - Passive: \( (3) \) \textit{Il cane} \textit{si fa lavare dal gatto}  
    the dog si-makes wash by the cat

- And they did \textbf{not} use null referential subjects (vs (1); as seen in previous slide 44 this happened seldomly):
  - \( (4) \) *(O)-CL-V: (Il cane) \textit{pro} \textit{lo lava}
fRM: Disjunction with a null plural subject

- Use of null plural subject is clearly due to the complexity of the intervention configuration.
- This is also shown by the fact that when the left dislocated object is overtly expressed as in CLD the null (plural) subject is the much preferred option, whereas when the object is not overtly expressed (i.e. in the so called Pronoun structures) the use of lexical or null subject is almost evenly distributed in the same Experiment 2. See the following table that integrates the one in slide 43:

<table>
<thead>
<tr>
<th>Pronoun structures</th>
<th>CLLDs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lexical S</td>
</tr>
<tr>
<td>Children</td>
<td>120</td>
</tr>
<tr>
<td></td>
<td>41%</td>
</tr>
</tbody>
</table>
fRM: Disjunction with a null plural subject

(Al) coniglio                       pro_{plu}     lo toccano     <_
(To) the rabbit                    pro_{plu}     him.Cl wash
+Top +NP                           Cl V

- The use of a (null plural) subject creates a disjunction relation between target and intervener: no [+NP] feature with a (null, plural) pronoun, as no lexical restriction with pronouns in general.
In conclusion:
Types of CLLDs and the intervention configuration

(1) Il coniglio il gatto lo tocca \_\_\_ (7%) - Simple Topic (Exp1)
The dog the cat him.Cl touches
+Top +NP (+Top) +NP cl V

(2) Al coniglio il gatto lo tocca \_\_\_ (57%) - aTopic (Exp1)
To the rabbit the cat him.Cl touches
+Top +NP +a (+Top)+NP +u cl V

(3) (Al)coniglio pro\textsubscript{plu} lo toccano \_\_\_ (80%) - Null Subject (Exp2)
To the rabbit pro\textsubscript{plu} him.Cl touch
+Top +NP cl V
Comparing children’s and adults’ answers with some first consideration on passive and possible alternatives to its use
Comparing children’s and adults’ answers

- The preferred answer provided by adults was a passive answer (in both experiments, irrespective of number condition between subject and object).
- Children preferred CI LD (to different extents in the two experiments).
Comparing children’s and adults’ answers

 Proposal:

 Despite their apparent major difference, the two types of answers may in fact be taken to be much closer to each other than meets the eye at first glance.

 The left dislocated DP is the object with children
 The left dislocated DP is the subject with adults

 Both children and adults adopt the same type of answer about the same discourse TOPIC.
Children’s and adults’ ClLDs

**Children**

a. \[ \text{[Force ... [TOP *Al cane]*i ...[Fin[TP il gatto } lo_i lava............} \]

- to-the dog
- the cat
- him-Cl washes

b. \[ \text{[Force ... [TOP *Il cane]*i ...[Fin[TP pro}_{pl} } lo_i lavano............} \]

- the dog
- (they)
- him-Cl wash

**Adults**

c. \[ \text{[Force ... [TOP *Il cane]*i ...[Fin[TP pro}_{i} viene } lavato <__> dal gatto.....} \]

- the dog
- - is/comes washed
- by the cat

- Intervention modulated in a.
- No intervention in b. and c., in the same ‘construction’ used, i.e. ClLD
Speculation on the relation between active with generic plural null subject and passive

- The relation between the active sentence with plural null subject (children) and the passive sentence (adults) appears to be supported by the fact that use of the generic plural subject in active sentence may often function as a suitable alternative to the passive.

- This is the case in languages in which passive has a limited distribution (registers etc.). One such language is Hebrew, another one is Greek.....

- Also in Italian the same discourse conditions allow for use of a passive or of an active with a generic plural null subject.

- The two type of answers are judged perfectly natural by Italian speaking adults in the same discourse conditions.
In conclusion as for the production CLLD and passive

- The results reviewed indicate a still limited access to or anyway a dispreference for the passive computation by children at the age investigated.

- Such access remains low.

- Moreover, in the limited number of cases in which it is produced, it appears to be limited to a particular type of passive to which we will refer to as the *si-causative* passive, an issue to which we will return shortly.

- Both children’s and adults’ answers share preference for the optimal compliance with locality/fRM: No intervention, *disjunction*, in both cases: through *pro-pl* children, through *passive* adults (recall from Syntactic Structures: no intervention in the *smuggling* derivation of passive).
To complete the picture:
Back to a-Topics in comprehension. Comprehension parallels production
a-Topics are properly comprehended

- Recent results from a new comprehension study show high comprehension of structures containing an a-Topic, which children (5 y.o.) always interpreted unequivocally as the object (and never as the subject).

- (12) All’orso il coniglio lo veste <_
  To the bear the rabbit him.Cl dresses

(Manetti 2019 for detailed description of the comprehension results)
a-Topics in children’s comprehension.
Comprehension results in detail

Overall children provided 83% (= 319/384) of correct responses (SD= 11%).

Graph 1: Accuracy by participants

Manetti 2019
Comparing \(a\)-Topics in comprehension and production

83\% \(>>\) comprehension of \(a\)-Topics in CLIDs

88\% \(>>\) production of \(a\)-Topics in CLIDs

Children’s comprehension of \(a\)-Topics is high

It is as high as one might expect given children’s high production of \(a\)-Topics

- Results from production and comprehension are remarkably parallel, in line with the grammatical account in terms of fRM.
Comparing the role of different features in the comprehension of CLLDs: *a*Topic, *gender* and *number mismatch*

Graph 2: Accuracy

<table>
<thead>
<tr>
<th></th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>a-Topic</td>
<td>83%</td>
</tr>
<tr>
<td>Gender Mismatch</td>
<td>51%</td>
</tr>
<tr>
<td>Number Mismatch</td>
<td>89%</td>
</tr>
</tbody>
</table>
Zooming on the comprehension of the two possible orders of DPs

Graph 3: Comprehension of SO vs. OS

<table>
<thead>
<tr>
<th></th>
<th>aTopic</th>
<th>Gender Mismatch</th>
<th>Number Mismatch</th>
</tr>
</thead>
<tbody>
<tr>
<td>OScIV</td>
<td>74%</td>
<td>49%</td>
<td>84%</td>
</tr>
<tr>
<td>SOcIV</td>
<td>92%</td>
<td>53%</td>
<td>93%</td>
</tr>
</tbody>
</table>

Overall: $\text{DP}_S > \text{DP}_O$

In the aTopic condition, better comprehension in SO than in OS reaches significance ($p<0.001$). Close to be significant also in Number condition. No difference in Gender condition.
Zooming on the two possible orders of DPs

$\text{DP}_O \text{ DP}_S \text{ CL V}$

The whole DP$_S$ chain intervenes anyway (with S in Spec/TP or in Spec/TopP)

$\text{DP}_S \text{ DP}_O \text{ CL V}$

Crossing is partial for both DP$_S$ and DP$_O$ chains (not the whole chains in both S crossing over O in the Left Periphery, and O crossing over S in TP).

This may provide a possible advantage, that combines with the one coming from $\alpha$-marking.

Preferred order may be a consequence of this. (Krapova and Cinque 2008; see also Mognon 2017, MA-Thesis University of Siena, for similar conclusion on parallel results from agrammatic aphasics).

Recall no preference in the order of DPs in the gender match condition (see the discussion in Manetti et al. 2016).

$\alpha$-marking of Topic DP$_O$ modulates intervention through feature intersection.