# EARLY 'PRAGMATIC' COMPETENCE AND THE NULL SUBJECT PHENOMENON\*

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#### 1. Introduction

It is commonly assumed in language acquisition research that discourse competence belongs to a pragmatic module which does not form an integral part of Universal Grammar (UG) (e.g. Chien & Wexler 1991) and that the relevant competence matures alongside cognitive development. In this paper, I present clear evidence that from the onset of word combinations, children master the basic discourse notion of topic. This evidence goes against the assumption that children at the null subject stage lack the 'pragmatic' competence necessary to identify and encode topics in a target-like fashion (cf. e.g. Wexler 1998; Schaeffer et al. 2002) — an assumption based on the study of languages such as English, where the structuring of information has little impact on the syntactic form of sentences.

#### 2. Background

### 2.1. On topics

In the vast literature on topics, a confusing number of definitions are proposed. The one that will be adopted for the purpose of this article is as general and wide-ranging as possible, to reflect the fact that the phenomenon under study is most probably universal, although different languages resort to different means of encoding it. Topics will be taken to express *what the sentence is about* (following Reinhart 1981), hence the label *aboutness topic*.<sup>1</sup>

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<sup>&</sup>lt;sup>1</sup>This is intended to avoid confusion with another kind of topic which needs not concern us here. The reader is referred to De Cat (2002) for a definition of *stage topics* (based on Erteschik-Shir 1997) and its manifestations in spoken French. In De Cat (2002), I argue in favour of an

Cross-linguistically, aboutness topics strongly tend to be encoded as dislocated elements (Gundel 1975; Reinhart 1981; Rizzi 1997). In all the examples below, dislocated elements are separated from the rest of the sentence by a comma.

(1) Les mures<sub>i</sub>, elles<sub>i</sub> sont mures.<sup>2</sup> the blackberries they are ripe "The blackberries are ripe."

Aboutness topics correspond in most cases to the subject of the sentence/clause (Gundel 1975; Li & Thompson 1976; Givón 1976; Reinhart 1981; Lambrecht 1994). A native speaker of English, if presented with a sentence like (2), will by default interpret the subject (here *your picture*) as the topic. In other words, the context in which a sentence like (2) is felicitous is by default one in which the picture in question is salient (and is being talked about).

### (2) Your picture scared me.

*Thetic* sentences are the only sentence type that is incompatible with an aboutness topic. Such sentences express a state of affairs and are typically uttered out-of-the-blue or after a question like *What happened?*. In thetic sentences, a topic interpretation of e.g. the subject or the object is impossible — hence the dislocation of these elements is not allowed in spoken French. This will be illustrated in the following section.

# 2.2. Topic encoding in (adult) spoken French

In spoken French, the association between dislocated elements and topic interpretation is extremely robust. Topics are obligatorily dislocated (except when they are expressed by a weak pronoun only), and dislocated elements are obligatorily interpreted as topics.

2.2.1. Heavy topics are obligatorily dislocated. In spoken French, topics are obligatorily (left- or right-)dislocated when they are not expressed by a weak pronoun only (De Cat 2002). Weak pronouns include clitics and ca 'it' when unstressed. The presence of a resumptive element such as *elles* 'elles' in (1) can

overarching definition of topichood in terms of *frame within which the predication is evaluated* (following Erteschik-Shir 1997). The point of the present paper, i.e. that children appear to have the required competence to encode topics from the onset of the multiword stage, holds for topics in general, though it is only explicitly made here with respect to aboutness topics.

<sup>&</sup>lt;sup>2</sup>I adopt the new French spelling, proposed by the *Conseil supérieur de la langue française*. Details can be found at http://www.fltr.ucl.ac.be/FLTR/ROM/vdm.html.

be used as a (sufficient, though not necessary) diagnostic for dislocation in that language.<sup>3</sup> The DP *ta photo* 'your picture' can be interpreted as a topic in (3) but not in (4).

(3) Ta photo, elle m' a fait peur. your picture she me as made fear "Your picture scared me."

Heavy elements (i.e. elements other than weak pronouns) in the canonical subject position are obligatorily in focus in spoken French.<sup>4</sup> This is the case either if the sentence is thetic (as in (4)) or if there is a narrow focus on the subject (as in (5), where the main stress falls obligatorily on *aussi* 'too').

- (4) [F Ta photo m' a fait peur]. (out-of-the-blue only) your picture me has made fear "Your picture scared me."
- (5) [<sub>F</sub> LES AUTRES AUSSI] me font peur. the others too me make fear "The other ones scare me too."

Evidence to that effect can be found in Individual Level Predicates. I will adopt as a working definition that such predicates (ILPs) express permanent properties (Milsark 1974). ILPs cannot appear in thetic sentences (De Cat 2002). Consequently, a DP expressing the subject of an ILP is obligatorily dislocated in spoken French, unless there is a narrow focus on the subject. In (6), both A's statement and B's amendment of it contain an ILP. In B's utterance, there is a narrow (contrastive) focus on the DP expressing the subject. This DP is thus forced to appear in the canonical subject position (where the contrastive focus reading is allowed). Yet the property reading is allowed in both utterances. In A's statement, the topic is *mon voisin* 'my neighbour' and in B's it is a covert aboutness topic corresponding to something like (horrible) people in A's neigh-

<sup>&</sup>lt;sup>3</sup>The resumptive element of a dislocated subject is obligatorily overt in adult French, but not in child French during the null subject stage. The resumptive element of dislocated objects tends to be covert under a generic interpretation, as in (i).

<sup>(</sup>i) Le cramique, j'adore. the raisin-bread I adore "I love cramique."

<sup>&</sup>lt;sup>4</sup>I take the focus to correspond to the most informative part of the sentence, identified by the most prominent stress (Cinque 1993; Reinhart 1996).

bourhood.

- (6) A: Mon voisin, c' est une crapule. my neighbour<sub>M</sub> it is a ruffian "My neighbour is a ruffian."
  - B: Non, TA VOISINE est une crapule. no your neighbour  $_F$  is a ruffian "No, your neighbour is a ruffian."
- 2.2.2. Dislocated elements are obligatorily topics. Dislocated elements are obligatorily interpreted as topics in spoken French. As a consequence, existential indefinites are banned from the dislocated position in that language (as illustrated in (7-a)). The existential reading is incompatible with a topic interpretation because topic referents must by definition be identifiable in the (discourse) context. That being said, nothing prevents non-existential indefinites from being dislocated. In (7-b), for instance, the dislocated indefinite is interpreted generically, which makes it acceptable as a topic. This sentence is interpreted as transcending particular facts: it is not about a particular child but about a typical behaviour of children. In (7-a), by contrast, the generic reading is not available (due to the tense specification which forces a specific reading) and the sentence is unacceptable as a result.
  - (7) a. #Un enfant, il est arrivé pi il t' a posé une question.

    a child he is arrived then he to-you has asked a question
    - b. *Tsé*, *un enfant*, *il arrive pi il te pose une question* y'know a child he arrives then he to-you asks a question "You know, a child comes and asks you something" (Auger 1994)

# 3. Signs of early pragmatic competence

It has long been demonstrated that even at the one-word stage, children are sensitive to the information status of discourse referents (cf. e.g. Baker & Greenfield 1988). In this section, I provide evidence from spontaneous production showing that, from the onset of word combinations, French speaking children are able to encode topics adequately. The data used for this purpose comes from two longitudinal corpora following the acquisition of French by five children from different dialectal areas: Belgium (Léa, Tom, Chloé), Canada (Max) and France (Anne). The data from Léa, Max and Anne are part of the York corpus and the data from Tom and Chloé are part of the Cat corpus.<sup>5</sup> The data was

<sup>&</sup>lt;sup>5</sup>The York corpus was collected under the direction of Bernadette Plunkett (ESRC grant #R000 22 1972), who has kindly allowed me to use it. The Cat corpus was collected for my

collected fortnightly (York corpus) or monthly (Cat corpus) in an environment familiar to the child, over a period of 18 months in average. Transcription and checking were done by native speakers. The period of study corresponds to the null subject stage. Data from 12 adults interacting with the children were also used for the present analysis.

Dislocated elements in the child data were diagnosed on the basis of the presence of resumptive elements, the prosody and apparent disruption of the canonical ordering of constituents (see De Cat 2002 for details, including a preliminary prosodic analysis of the dislocation data in adult and child French). The transcription conventions used in the examples reported in this paper are as follows: (i) Missing elements are indicated either by 0 (in cases allowing multiple possibilities) or by bracketing (where the missing element was clearly identifiable). (ii) Là with a capital is deaccented and is interpreted as a situational deictic rather than as a true locative. (iii) The hash # sign indicates a short pause. (iv) E stands for a verb ending ambiguous between infinitive (-er) and participial (-é) morphology. (v) False starts with or without correction are indicated by [//] and [/] respectively. (vi) xx correspond to an unintelligible word. (vii) The comment in square brackets introduced by =! describes what the child does to enact the (omitted) object of her sentence. (viii) Interrupted words are marked by an ampersand &. (ix) Double commas indicate a tag. (x) A e in the transcription stands for an embryonic element (e.g. a proto-(clitic) pronoun). (xi) Alternative transcriptions are given in square brackets, after a =? sign. (xii) Speakers are designated by a three letter code. E.g. \*TAT is Anne's child minder. (xiii) Proper names are transcribed without capital when dislocated, to distinguish them from vocatives.

A first observation of the data reveals that the children's dislocated elements are always compatible with a topic interpretation, even when the utterance is not fully target-like. Even when the dislocated elements fail to be resumed by a weak pronoun (as in (8-a)) or occur in verbless utterances (as in (8-b)), they still correspond to the topic of the sentence/utterance.

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(8) a. O est pas une fille, isabelle.
is not a girl Isabelle
"Isabelle isn't a girl."
b. O dans les briques, le bonhomme.
in the bricks the man
"The mans('s) in the bricks."
(Anne 1;10.26)
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doctoral research, which was funded by ESRC grant R00429834373. Details on transcription and coding procedures can be found in De Cat (2002) and De Cat & Plunkett (2002).

In sections 3.1-3.3, I point to clear indications that very young children have the competence required for the target-like encoding of topics.

# 3.1. Children comply by the 'ILP requirement'

Individual Level Predicates (ILPs) provide us with an effective means of testing whether children master the notion of topic: the subject of such predicates obligatorily corresponds to the topic of the sentence, except when a narrow focus reading is appropriate. Showing that children comply by this requirement would indicate that they master the notion of topic and that, like adults, they dislocate any non-weak element interpreted as topic. In order to test this, I will apply the following reasoning:

Only heavy elements expressing the subject are targeted by the 'ILP requirement'. So only sentences containing such a heavy element (whether dislocated or in the canonical subject position) need concern us here, not those where the subject is expressed by a weak pronoun only or is missing (on the uncontroversial assumption that missing subjects are missing pronouns). What needs to be shown is that

- 1. children show clear signs of compliance with the 'ILP requirement', i.e. they do dislocate heavy elements expressing the subject of ILPs, and
- children do not violate the 'ILP requirement', i.e. they do not utter sentences containing an ILP with a heavy subject unless there is a clear narrow focus on that subject.

The sentences in (9) prove the first point. In all cases, a property reading of the predicate was clearly intended.

(9) a.	les sucettes, ça finit pas.	(Anne 3;1.15)
	the lollipops it finishes not	
	"Lollipops don't end."	
b.	parce que c' est blanc, un ours.	(Max 2;9.27)
	because it is white a bear	
	"Because bears are white."	

- c. le coca, ça soigne le hoquet aussi. (Léa 2;9.5) the coke it cures the hiccough too "Coke cures hiccough too."
- d. et les vaches, # elles mangE # de l' herbe. (Tom 2;1.13) and the cows they eat some the grass "And cows eat grass." (Clearly generic context)

The corpora were then searched for heavy subjects. A total of 186 cases was found in the child data. Only one case (given in (10)) involves an ILP, and it is target-like: the subject is in narrow (contrastive) focus.

(10) mon papa aussi est gentil. (Anne 2;8.3) my dad too is nice "My dad's nice too."

The other cases are clearly not ILPs, and typically contain eventive predicates, as in (11).

- (11) a. ah et tout [/] tout le monde est tombé. (Anne 2;7.1) ah and all all the people is fallen "Ah everybody's fallen over."
  - b. (la) vache # mange # (des) ca(r)ottes. (Max 2;5.29) (the) cow eats (some) carrots "The cow's eating carrots." (Clear ongoing interpretation)
  - c. Parrain, Luc s' est fait mal. (Léa 2;8.22) grandad Luc REFL is done pain "Grandad, Luc's hurt himself."
  - d. et pourquoi#les lunettes s' étaient xx envolées? (Tom 2;6.12) and why the glasses REFL were? flown "And why did the glasses fly away?"

Children's spontaneous production thus clearly suggests that they know that ILPs cannot appear in thetic sentences, which requires them to be able to identify and encode topics in a target-like fashion.

#### 3.2. Children do not dislocate existential indefinites

Another indication that children have the required competence to encode topics adequately comes from the absence from their spontaneous production of dislocated indefinites requiring an existential interpretation.

The overwhelming majority of dislocated indefinites I have found in these five children's spontaneous production clearly required a generic interpretation (as in (12)) or a D-linked one (as in (13)). D-linked indefinites refer to a set previously established in the discourse, which makes them possible topic candidates.

(12) a. parce que c'est pas beau, une table. (Anne 3;9.9) because it is not beautiful a table "Because tables are ugly."

b. on fait comment, un monsieur? (Chloé 3;0.21) one makes how a man "How does one draw a man?"

In (13-a), the child is talking about a set of cars that has just been fixed by the interviewer; in (13-b), the child is referring to a group of animals wanting to enter the zoo enclosure; in (13-c), she is talking about the members of a family she has put to sleep under a leaf.

- (13) a. toutes les autos, elles sont réparées. (Max 2;4.18) all the cars they are fixed "All the cars are fixed."
  - b. les copains, tous les copains, i(ls) veulent entrer. (Anne 2;7.1) the friends all the friends they want to-enter "All the friends want to come in."
  - c. tout le monde, i(l) dort. (Anne 2;8.20) all the people he sleeps "Everybody's sleeping."

The only dislocated indefinites not compatible with a generic or a D-linked interpretation are given in (14), (16) and (17). However, there are good reasons to believe that the use of indefinites here is due to performance errors or the use of unanalysed chunks by the child.

The context immediately preceding (14) is given in (15), where \*CAT is the interviewer. Given this context, and that the child is looking at the little baby in question as he utters (14), it is clear that a specific reading is intended, not an existential one.

- (14) un petit bébé, je sais pas c'est quoi. (Max 2;7.25) a little baby I know not it is what "I don't know what the little baby's called."
- (15) \*CAT: tu as guéri le petit bébé?
  "You cured the little baby?"

  \*CAT: comment il s' appelle, le petit bébé?
  "What is the little baby called?"

The sentence in (16) is clearly a performance error, as it is immediately followed by a self-correction from the child.

(16) des cochons, ils font 0 [=! she swirls]. (Léa 3;0.5) some pigs they go

"Pigs go..." (She demonstrates what pigs do)

As for the dislocated indefinites in (17), they were prompted by adult speech. In (17-a), the child does not seem to be able to identify what *de l'herbe* 'grass' refers to on the picture she's been looking at. The context in which (17-b) is uttered is one in which the child has been asked to place face attributes (eyes, mouth, moustache etc) back onto a sheet, and is highly confused as to what the adults expect from her. In both cases, the intended interpretation is clearly not existential.

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(17) a. c'est où, le l' &her [/] le l' herbe [//] de l' herbe?

it is where the the gra-
"Where's 'the grass'?"

b. oui,, un [/] un oeil, (ç)a va où?

yes a an eye it goes where
"Where does (that) eye go?"

[Max 2;4;4)
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I conclude that children's spontaneous production gives no indication that they ever dislocate existential indefinites. This does not appear to be due to a sampling artifact, given that dislocated indefinites do appear in their speech (though in accordance with target usage).

# 3.3. Target-like use of left- vs. right-dislocation

Left- and right-dislocated elements both express the topic of the sentence, but they do so in a slightly different manner (cf. e.g. Lambrecht 1981; Ashby 1988). Essentially, these differences stem from a greater (prosodic and structural) saliency of the left periphery (De Cat 2002). As a result, some nuances are available to left-hand topics but not to their right-hand counterparts.

Wh-questions are an environment in which the left- vs. right-dislocation contrast is most visible: the majority of dislocated elements coreferential with the subject (henceforth dislocated subjects) appear in the right-periphery in such questions. Significantly, the very same proportion of right-dislocated subjects is observed in adult speech (78%)<sup>6</sup> and in child speech: In the speech of Max, Anne and Tom between the ages of 1;9 and 2;6, dislocated subjects in wh-questions appear in the right-periphery in 76% of cases in average. This is shown in Table 1. Very similar results are obtained even if this period of development is broken into two (with Period 1 corresponding to the core of the null subject stage, when subjects are omitted in at least 15% of obligatory contexts).

<sup>&</sup>lt;sup>6</sup>This is the proportion observed in a random sample of 5613 utterances from the adult speakers of the York and the Cat corpora, out of which 479 are root *wh*-questions.

	Left-dislocation		Right-dislocation	
Period 1	28%	(54/190)	72%	(136/190)
Period 2	17%	(24/140)	83%	(116/140)
All	24%	(78/330)	76%	(252/330)

Table 1: Wh-questions involving a subject dislocation in child French

Other indications that children differentiate between left- and right-dislocation in a target-like fashion can be found in their exclusive use of left-dislocation to express contrastive topics (as illustrated in (18)) or whenever there is a need for emphasis on the topic (i.e. whenever structural/prosodic saliency is required — as for instance in the repair strategy illustrated in (19)).

(18) maman, e fait xx # moi, e fais (le) drapeau. (Anne 2.0.27) mum e makes ?? me e make (the) flag "Mum makes the ?? and I make the flag."

(19) \*ANN: i(l) est où, mon cass(er)ole? (2;4.2) it is where my saucepan

"Where is my saucepan?"

\*TAT: qu'est ce que tu cherches?

"What are you looking for?"

\*ANN: mon cass(er)ole, (e)lle [=? (i)l] est où? my saucepan it is where

"Where is my saucepan?"

I conclude that children not only know that heavy topics must be dislocated, they are also aware from an early age of the subtle differences between left- and right-dislocation of topics.

### 4. Implications for the study of null subjects

It has been proposed in the acquisition literature that subject omission in finite contexts was due to a lack of ability to license topics adequately (e.g. Bromberg & Wexler 1995; Wexler 1998; Schaeffer, Gordishevsky, Hadar, & Hacohen 2002). On the assumption that subjects can be dropped in adult English under certain pragmatic conditions, these researchers postulate that children lack the ability to evaluate such pragmatic conditions and that as a result, they omit more subjects than the target grammar would allow.

What the relevant pragmatic conditions for subject drop are is however left rather vague, as no precise account of the workings of subject drop in adult English is provided. The closest one comes to a definition is that dropped subjects have to be *very strong topics* (Wexler 1998:35). I suppose *strength* here is to be understood in terms of saliency in the context.

While I do not dispute that missing subjects are (interpreted as) topics, I believe that I have presented here clear indications that throughout the null subject stage, children have the ability to identify and encode topics adequately. It is therefore highly unlikely that they would omit certain subjects erroneously *because* they are (salient) topics.

Looking at the language production of French speaking children during the null subject stage, I have found no indication that subject omission was influenced by the level of saliency of the subject referent. The relevant figures are given in Table 2 below. The data is from Anne, Max and Tom from the York and Cat corpora, while they were at the null subject stage.

Period 1	with	without	Total
	overt subject	overt subject	
with dislocated	435	164	599
subject topic	73%	27%	
without dislocated	984	436	1420
subject topic	69%	31%	

Period 2	with	without	Total
	overt subject	overt subject	
with dislocated	548	18	566
subject topic	97%	3%	
without dislocated	2027	89	2116
subject topic	96%	4%	

Table 2: Realisation of the subject of finite verbs according to the presence of a coreferential dislocated topic during the null subject stage

Assuming that *very strong topics* correspond to topics that are very salient in the context, we could deduce that such topics will not need to be identified explicitly, and can be encoded simply by using a pronoun (without coindexed, dislocated DP). One could think of such cases as involving a covert dislocated element, following e.g. Gundel (1975); Erteschik-Shir (1997). By default, the topic of the sentence corresponds to the grammatical subject (as we have seen in section 2.1), so the assumption that the pronominal subject of a sentence without

overt dislocated topic is interpreted as the topic of that sentence seems reasonable. Given this, if children tend to omit only very salient topics in their finite sentences, we could expect the rate of subject omission to be higher in the absence of a dislocated topic. But this is not what we find: in either of the subperiods of the null subject stage, there is no statistically significant difference between the omission of subjects in the presence and in the absence of coreferential dislocated element (Period 1:  $\chi^2 = 2.230$ , p < 0.20; period 2:  $\chi^2 = 1.227$ , p < 0.30).

An alternative interpretation might be that the presence of a dislocated topic coreferential with the subject would facilitate the identification of the subject referent and hence increase the chances of subject omission, but this hypothesis is equally untenable, given the absence of significant difference discussed above.<sup>7</sup>

I conclude that attributing subject omission to a lack of pragmatic competence regarding topic identification/encoding does not appear to be a tenable hypothesis.

#### 5. Conclusion

The competence required to encode topics has been shown to be available to children from the earliest attested stages of language production. Dislocated elements expressing the topic appear at the onset of word combination in child French, and children's use of left- and right-dislocation not only resembles target usage but also complies with its requirements: the present corpora suggest that children only dislocate indefinites when a topic interpretation is allowed, and that they abide by the requirement that the heavy subject of ILPs be dislocated except when it is in focus, which requires them to be able to identify and encode topics in a target-like fashion.

These signs of very early competence in handling information structure phenomena are compatible with the findings of Baker & Greenfield (1988), who have shown that in their first year of life, children are already able to distinguish new from established information. By contrast, no support has been found for the hypothesis attributing subject omission in finite sentences to a lack of 'pragmatic' competence relating to topic encoding.

Such early evidence for information structure competence indicates that at least some of what has been considered 'pragmatic' competence in the literature (e.g. Wexler 1998; Schaeffer 2000) is available from the earliest stages of

<sup>&</sup>lt;sup>7</sup>Left- and right-dislocated topics have been collapsed in one category in Table 2 because the direction of the dislocation had no effect on subject omission. In particular, subjects do not tend to be omitted more when there is a left-dislocated topic. Having explicitly identified the topic *before* uttering the sentence does not increase the likelihood that the element resuming the topic would be omitted.

language acquisition. Further research will be necessary to determine whether information structure competence does or does not, in fact, belong to the realm of Universal Grammar.

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