

Beyond Deficiency **Reconsidering the null subject phenomenon**

Katérina Palasis-Jourdan and Michèle Oliviéri
Laboratoire BCL, Université de Nice Sophia-Antipolis, CNRS

0. Abstract

This paper investigates the child null subject phenomenon in L1 acquisition within the generative framework. We consider that the traditional hypotheses, usually based on child deficiency, have their limits. We therefore propose a new analysis of this phenomenon, focusing our attention on null subjects in finite clauses. To that purpose we introduce new data recorded from 17 French children between 2;3¹ and 3;1 and a new approach borrowed from dialectology.

Our first section forwards preliminary clarifications with regard to the null subject phenomenon, the existing hypotheses, their limits and our methodology. In the second section we detail our data and demonstrate that the child null subject stage can be accounted for in French and in other non pro-drop languages, taking a step further beyond the traditionally assumed child competence or performance deficiency.

1. Preliminary clarifications

1.1 On the null subject phenomenon

The child null subject phenomenon represents a long-standing issue within the generative framework. We can briefly describe it as follows: children acquiring a non pro-drop language, such as French or English, systematically omit some of their subjects until the approximate age of 3;0. As far as French is concerned, the omission rate amounts to circa one quarter of the children's sentences. Rasetti (1996) for instance forwards a rate of 26.2% and our data show an average rate of 22.4%². This means that French children systematically produce sentences that do not conform to the correct <-pro-drop> value of the adult target language. The question of course is why.

Two types of null subjects have been identified and studied since the 1980s: null subjects with finite verbs –as shown in Table 1 hereafter–, and null subjects with non-finite verbs –also known as ‘root infinitives’ (Rizzi 1993) or ‘optional infinitives’ (Wexler 1992). A few examples of this second type of null subjects are displayed in Table 2. Both types of null subjects have been identified as ungrammatical compared to adult French.

¹ The ages are given in years;months.

² See Palasis-Jourdan (2005) for details. All the examples in this paper come from this corpus, except when specified.

Subjectless sentences	Names and Ages	Grammatical equivalents	Glosses
* <u>e</u> st là	Raphaël, 2;7	“ <u>e</u> lle est là”	“ <u>s</u> he is there”
* <u>v</u> eux livre	Tess 2;7	“ <u>j</u> e veux le livre”	“ <u>I</u> want the book”
* <u>f</u> ais ça	Thibault, 2;9	“ <u>j</u> e fais ça”	“ <u>I</u> make that”
* <u>a</u> cheval	Alizée, 2;8	“ <u>i</u> l y a un cheval”	“ <u>t</u> here is a horse”
* <u>s</u> ais pas	Maxence, 2;9	“ <u>j</u> e (ne) sais pas”	“ <u>I</u> don’t know”

Table 1: A few examples of null subject finite clauses in early French

Subjectless sentences	Names and Ages	Grammatical equivalents	Glosses
* faire un ballon	Thibault, 2;9	“je veux faire un ballon”	“I want to make a ball”
* commenc[e]	Thomas, 2;6	“commencé/er”	“begun/to begin”
* moi pas tombé	Raphaël, 2;7	“moi je (ne) suis pas tombé”	“I didn’t fall”
* m’asseoir là	Raphaël, 2;7	“je veux m’asseoir là”	“I want to sit there”
* pas trouv[e]	Alizée, 2;8	“pas trouvé/er”	“not found/to find”

Table 2: A few examples of null subject non-finite clauses in early French

1.2 Why do we hypothesize only on null subjects in finite clauses?

Our study forwards an in-depth investigation of the null subject phenomenon within finite clauses. This does not mean however that we have left the other type of null subject aside arbitrarily. The reason for this restriction lies in our data. As can be seen in Table 3 hereunder, out of our 240 null subject sentences –22.4% of the entire corpus–, only 15 sentences display a non-finite verb. This figure amounts to the rate of a mere 1.4% of the entire corpus and 6.2% of the null subject sentences. A first obvious conclusion is that this type of null subject bears a very low rate of occurrence in our data³.

Verbal Sentences	Entire Corpus	With Subjects	Without Subjects	Null Subjects + Finite Verbs	Null Subjects + Non-finite Verbs
Numbers	1072	832	240	225	15
Percentages	100	77.6	22.4	21	1.4

Table 3: Null subjects and inflection in our corpus

³ See Section 1.4 for details on our data and approach.

Additionally, among these 15 sentences with non-finite verbs, it appears that 4 of these forms are closely preceded or followed by a finite form of the same verb or of a modal verb, as shown in (1).

- (1) Non-finite forms closely preceded or followed by a finite form:
- a. *Moi moi moi moi moi s' étais caché. Caché. (Raphaël, 2;6)
Me me me me me myself was hidden. Hidden.
“I hid myself”
 - b. *Moi pas tomb[e]. [...]. Ben moi i(l) m' a pas tomb[e]. (Raph., 2;7)
Me not fallen. [...]. Er me he/it me has not fallen.
“I didn't fall”
 - c. *Veux m' asseoir. M' asseoir là. (Raphaël, 2;7)
Want myself sit. Myself sit there.
“I want to sit there”
 - d. xx veux faire un ballon. [...]. Faire un ballon. (Thibault, 2;9)
xx want make a ball. [...] Make a ball.
“xx want to make a ball” (with modelling clay)

It also appears that other non-finite forms come along with finite forms of the same verb during the same recording session. This is illustrated in (2) hereunder.

- (2) Finite and non-finite forms during the same recording session:
- a. *Moi aussi faire un ballon. [...]. (Thibault, 2;9)
Me too make a ball. [...].
“I also (want to) make a ball”
*Moi aussi faire voiture. [...].
Me too make car. [...].
“I also (want to) make a car”
*Va faire. [...].
Will make. [...].
“He will make”
*A fait. [...].
Has made. [...].
“He has made”
*[e] fait pas.
Have [?] made not.
“I have not made”
 - b. *Arriv[e]. [...]. (Raphaël, 2;6)
Managed/to manage. [...].
“I managed (to do something)”
*Arrive pas à faire.
Manage not to do.
“I can not do (something)”

These two sets of examples illustrate the fact that this type of null subject is not a relevant characteristic of the children's utterances in our data. This is the reason why we do not consider these forms as representing an independent grammatical phenomenon. Rather, their low rate and their concomitant appearance with finite forms of the same verb suggest that these children have left this particular null subject stage and we hence analyse these forms as being the result of scarce errors. This is consistent with the ages of the children –between 2;3 and 3;1– as, indeed, this type of null subject is usually observed at an earlier stage –up to around 2– and is assumed to disappear before the other type of null subject. Additionally, we will see in our conclusion that the account we have just proposed for these non-finite clauses proves to be consistent with Wexler (1998)'s hypothesis on optional infinitives.

We are then left with null subjects in finite clauses and we have to explain why we do not apply the same reasoning –i.e. a performance error– to this second type of null subject. Again, the reason lies in our data. Indeed, as already seen in Table 3 above, their rate is much higher (21% of the entire corpus). This percentage hence illustrates the fact that this phenomenon is much more systematic and robust in the linguistic system of the children under investigation. And, indeed, this particular type of null subject has already been widely highlighted and analysed within the generative framework. In the next section, we hence briefly review some of the existing and renowned hypotheses on this matter. We also explain where we think the limits of these analyses are and what kind of new approach we develop in order to provide a fully comprehensive investigation into this phenomenon.

1.3 The existing hypotheses

Traditionally, within the Principles and Parameters framework, the null subject stage has been explained thanks to a child deficient competence or performance compared to the adult. And, indeed, seminal work has been carried out on this matter during the past twenty years or so. With regard to deficiency in competence, an initial mis-setting of a parameter has been argued for, e.g. the Pro-drop Parameter in Hyams (1986) or the Root Subject Drop Parameter in Rizzi (2002). Underspecification hypotheses have also been favoured, such as the initial optional underspecification of I in Hyams (1996). With regard to performance, limited memory, computation or production capacities have been put forward. Jakubowicz and Rigaut (1997) for instance proposed that children have a smaller production capacity than adults and that this induces a more or less important phonological reduction of the pronoun when the utterance is too heavy. Some of the latest hypotheses also look into pragmatics or at the syntax-discourse interface, e.g. Serratrice (this volume).

However, to our feeling, as the omission phenomenon only affects approximately one fifth to one quarter of the children's sentences, these different types of hypotheses all bring the same questioning. Indeed, within these hypotheses, how does one explain: (i) that the children who are producing these null subjects are perfectly capable of producing overt subjects concomitantly and (ii) that this latter

type of sentence represents the majority of their utterances. In our opinion, a hypothesis on the null subject phenomenon should answer this first twofold question. However, a comprehensive analysis should not limit itself to the above and there are two additional issues that we would like to account for: (iii) the omission rate, i.e. why approximately one fifth to one quarter of the sentences and (iv) the disappearance of the phenomenon, i.e. what happens in the child's linguistic system around 3;0 that explains it. So the aim of our investigation is to coherently and concomitantly answer all four of these aspects.

1.4 Our approach

Two major elements underpin our research: new methodology and new data. As far as our theoretical background is concerned, on the one hand, we keep in mind the Principles and Parameters framework, adhering to the Pro-drop Parameter (Chomsky 1981) along with the basic dichotomy between pro-drop vs. non pro-drop languages –as formalised by Rizzi (1997) for instance. Wexler (1998)'s Very Early Parameter Setting hypothesis is also followed. However, on the other hand, as mentioned in the previous section, this traditional generative framework has its limits and we therefore open this theoretical background to another linguistic field, namely dialectology. More precisely, with dialectology we intend to focus on two points. Firstly, the importance of the data. With regard to this matter, our provisos are to work from a *wide* range of *recent* and *homogeneous* information –in time and space–, gathered in *every day* surroundings. Indeed, in our opinion, working from one child or from a very small number of children brings the risk of hypothesizing from individual linguistic characteristics and hence not forwarding a comprehensive theory of acquisition. As far as homogeneity is concerned, our data had to be collected during a restricted and recent period of time. This is why we did not work from existing French corpora such as Patsy Lightbown's⁴, Madeleine Léveillé's⁵, or Christian Champaud's⁶, recorded respectively in 1974/1975, 1971 and 1988 and that hence provide information about French uttered by the previous generation of French native speakers. Neither did we work from the data gathered under the supervision of Bernadette Plunkett⁷ between 1997 to 1999 as this information comes from three children who are geographically heterogeneous –Belgium, Canada and France– and who hence provide data on three different varieties of French. So, besides the fact that it is always scientifically very enriching to confront new and older information, these are some of the reasons why our choice went to recording a new corpus. And, in order to work from a wide range of spontaneous information, we decided to record the children from a class in a French kindergarten. This

⁴ Lightbown (1977): two children (Nathalie and Daniel).

⁵ Suppes et al. (1973): one child (Philippe).

⁶ From the Laboratoire de Psychologie CNRS in Paris: one child (Grégoire). The Léveillé and Champaud corpora are available in the CHILDES database (MacWhinney 2000).

⁷ See De Cat (2002) for details. This corpus is also available in the CHILDES database (MacWhinney 2000).

allowed us to start with as many as 25 different children, nevertheless being from the same latest generation and uttering the same variety of French. From this initial class group, the utterances of 17 children were actually analysed. Indeed, 8 children were not taken into account either because both their parents were not native French speakers, or because they were too shy and did not wish to participate or because they were part of the older children of the class and hence had already left the null subject stage. Working from as many different children enabled us to spot out the individual linguistic characteristics of each child, such as specific constructions, particular verbs or nouns, etc. We hence applied filters to the data, leaving out the verbs used only by one single child for instance. This methodology brings diversity as well as levelling, ensuring us that we are building hypotheses from solid data. In addition to this cross-sectional perspective, our corpus is also longitudinal as it counts five recording sessions spread over four months –from October 2003 to January 2004. The ages of the children range between 2;3 –the youngest child during the first session– and 3;1 –the oldest child during the last session. The data are spontaneous and comprise interactions with the investigator –looking at books, playing games, etc.– as well as interactions between the different children. The utterances selected for this study on null subjects are de facto verbal clauses and they amount to a total of 1,072.

Our second point lies in the way these data are investigated. Indeed, we sought for an explanation to the null subject stage, not within the standardly assumed child deficiency in competence or performance, but rather within their linguistic system, hence going beyond the usual deficiency-based analyses. As an illustration of this reasoning, let's imagine the following situation. A dialectologist, after having gathered data, notices that the language he is studying presents a certain number of null subjects, despite the fact that this language has already been classified as a non pro-drop language. Would this dialectologist, for all that, propose an explanation based on the idea that the adults speaking this language show a deficient competence or a deficient performance? Certainly not. Rather, we suppose that this researcher would study the whole linguistic system –especially the verbal and pronominal sub-systems– and hence seek for an intra-linguistic explanation. This is exactly what we propose to do with the children's data. However, working on French oral subjects implies preliminary clarifications with regard to what the term 'subject' exactly means.

1.5 What does the term 'subject' cover in the 'null subject stage' appellation?

We all know that two types of elements, i.e. pronouns and nouns, can bear the role of subject. However, we also know that, in French, the former category divides into at least two traditional subcategories, i.e. clitics and strong pronouns⁸. Consequently, when it comes to oral data and languages such as French that display clitics and phenomena such as doubling or dislocation, there are many issues that

⁸ We keep to this traditional dichotomy and hence do not use the more recent tripartition proposed by Cardinaletti and Starke (1994) as we assume that it is not relevant here.

can be debated with regard to the notion of what the ‘subject’ of a sentence is. Indeed, an additional variable lies in the fact that nouns, clitics and strong pronouns can be found either on their own or combined in different ways, as shown in our child data in (3) hereunder.

(3) Different combinations of nouns, strong pronouns and clitics in our corpus:

- a. Les filles elles jouent là. (Raphaël 2;8)
“the girls they play there”
- b. Il dort le monsieur. (Raphaël, 2;6)
“He sleeps the man”
- c. Moi je fais ça. (Kassandra 2;9)
“Me I do that”
- d. Je fais le pain moi. (Julia, 3;0)
“I make the bread me”

We know that the issues are numerous with regard to these different sentences and that they are still under debate. It is obvious that, within the scope of this article, we can not address all of them. We hence have to leave the very interesting issue about the status of the clitics –arguments or verbal inflections– and how these constructions should be analysed –dislocations or doublings– aside⁹. The main issue we address here is: what does the term ‘subject’ stand for exactly in the appellation ‘null subject stage’? The first step we take in order to answer this question is to detail the different types of ungrammatical sentences with regard to the absence of a subject in our corpus. The results of our analysis are presented in Table 4 hereafter.

Types ¹⁰	Examples	Glosses	N	%
–C –N	* _ veux un camion	“(I) want a lorry”	151	14.1
+PrP –C	* moi _ fais	“me (I) do”	33	3.1
–C +PoP	* _ veux vert moi	“(I) want green me”	33	3.1
–C +PoN	* _ est fermé le manège	“(It) is closed the roundabout”	15	1.4
+PrP –C +PoP	* et moi _ veux ça moi	“and me (I) want that me”	8	0.7
Subtotal for ungrammatical subjects			240	22.4
Subtotal for grammatical subjects			832	77.6
Total entire corpus			1072	100.0

Table 4: The different types of ungrammatical ‘subjects’ in our corpus

Table 4 highlights that these different types of null ‘subject’ clauses can be subsumed under one slightly altered and more refined appellation, i.e. null ‘clitic’ clauses. Indeed, these sentences either display a pre- or post-verbal strong pronoun,

⁹ But see De Cat (2005) for a review on this matter.

¹⁰ +=uttered, -=not uttered, Pr=preverbal, Po=postverbal, C=clitic, N=noun, P=strong pronoun.

a post-verbal noun or a pre- and post-verbal strong pronoun. However, the ungrammaticality of all these different combinations appears to always be the same: the absence of a clitic. Let's now see in Table 5 how this new appellation fits in with the grammatical subjects uttered by the same children.

Types ¹¹	Examples	Glosses	N	%
+PrC	Elle est grande	“She is tall”	459	42.8
+PoC			0	0.0
+PrN			0	0.0
+PrN +C	Le renard il a mangé	“The fox he has eaten”	16	1.5
+C +PoN	Il est là la galette	“It is there the pie”	30	8.1
+PrP +C	Lui i(l) s’appelle Raphaël	“Him he is called Raphaël”	87	2.8
+C +PoP	Je peux jouer moi ?	“I can play me?”	64	6.0
+PrP +C +PoP	Moi j’ai un grand vélo moi	“Me I have a big bike me”	6	0.5
NI	attends !	“ wait!”	170	15.9
Subtotal for grammatical subjects			832	77.6
Subtotal for ungrammatical subjects			240	22.4
Total entire corpus			1072	100.0

Table 5: The different types of grammatical ‘subjects’ in our corpus

The above data allow us to observe a perfect complementary distribution between the absence of a clitic in the ungrammatical sentences in Table 4 and its recurrent presence in all the types of grammatical sentences in Table 5¹². The fine-grained appellation unveiled thanks to the first set of data is hence confirmed: the nature of the null element reduces to clitics. In parallel, Table 5 puts forward another very interesting characteristic of this child system: the total absence of preverbal nouns uttered on their own. Indeed, preverbal nouns always appear with an accompanying clitic. It can also be noticed that, even under this condition, these preverbal nouns remain very rare (16 sentences out of 1072). The pattern ‘noun + finite verb’ –considered as the canonical template for French written clauses– is hence not part of what a child under 3;0 utters spontaneously. This observation from child data is consistent with Blanche-Benveniste (1994, 2003)’s work on adult oral French. Indeed, Blanche-Benveniste (1994) for instance forwards a rate of 5.9% of preverbal nouns in her oral data and an additional interesting observation that most of these preverbal nouns appear in subordinate clauses. Other studies on oral French, such as Jeanjean (1981), had already given these directions. So, as adults do not produce many preverbal nouns either, it appears that the template ‘noun + finite verb’ is mainly applied only in written French. This is another investigation field that we have to leave aside here.

¹¹ Same codes as in Table 4 adding NI=null imperative.

¹² With the expected absence of a subject of any type in imperative clauses.

These results for child oral data lead us to assume that the bounds between what is grammatical and what is ungrammatical for children under 3;0 lies in the dichotomy ‘presence of a clitic’ vs. ‘absence of a clitic’. According to our data, the phenomenon we are talking about is not a null *subject* stage but rather a null *pronoun* stage and more particularly a null *clitic* stage as far as French is concerned. This is also why we favour the appellations *Pro-drop* Parameter and *pro-drop* or non *pro-drop* languages instead of the possible null *subject* appellations¹³.

2. Our analysis of this null pronoun phenomenon

2.1 A few words on input

We propose an analysis of our data in three steps: study of the children’s verbal system, study of their pronominal system and crossing of these first two analyses. This study hence mainly deals with the children’s output. However, input also has to be considered. Indeed, it must be noted that the data a child hears daily do not always conform with the French minus value of the *Pro-drop* Parameter. Micro-variation exists¹⁴ and French displays overt pronouns as well as grammatical null pronouns, particularly in all the imperative sentences and in some oral expressions with defective verbs such as *falloir* ‘have to’. A few examples of these grammatical null pronouns are displayed in (4) hereafter.

(4) Grammatical null pronouns in adult French:

- a. All the imperative verbs, whatever conjugation type the verb belongs to:
 - parler ‘talk/speak’:
 - _ parle ‘speak 2sg’
 - _ parlons ‘let’s speak’
 - _ parlez ‘speak 2pl’
 - faire ‘do/make’:
 - _ fais ‘do 2sg’
 - _ faisons ‘let’s do’
 - _ faites ‘do 2pl’
- b. Some expressions with defective verbs, such as *falloir* ‘have to’, both in matrix and in embedded clauses:
 - _ faut faire attention
 - ‘(one) has to be careful’
 - Quand _ faut y aller, _ faut y aller
 - ‘when (one) has to go, (one) has to go’¹⁵

These examples show that input does not constantly provide clear-cut information to the child with regard to the value of the *Pro-drop* Parameter and that

¹³ It has to be noticed that the English literature displays a choice whereas French only displays one translation, i.e. ‘Paramètre du *Sujet* Nul’.

¹⁴ See Kayne (1996) and Oliviéri (2004).

¹⁵ Example from Haegeman (1997).

this duality could hence be considered as misleading for a young child. Let's now turn to the children's output.

2.2 The children's verbal system

Table 6 presents an overview of the children's verbal system. All their verbs from all their different types of sentences –with and without a clitic– are noted and taken into account here. The reason for this lies in the fact that we found no difference between the verbs uttered with a clitic and those uttered without a clitic. Consequently, we could not follow a hypothesis such as Lorusso et al. (2005)'s study for early Italian, who, for this pro-drop language, establish a link between the presence of a subject and the type of verb in the sentence. Table 6 hereafter displays the list of the main verbs uttered in the corpus as well as their occurrence rates and their conjugation types.

Verbs	Glosses	%	Conjugation types	%
Etre	“be”	48.7	3 rd and être/avoir	94.9
vouloir	“want”	17.2		
faire	“make/do”	16.2		
avoir	“have”	7.0		
savoir	“know”	3.6		
voir	“see”	2.2		
manger	“eat”	1.5	1 st	5.1
rouler	“roll”	1.0		
jouer	“play”	0.9		
tomber	“fall”	0.7		
cacher	“hide”	0.5		
marcher	“walk/work”	0.5		
		100.0		100.0

Table 6: An overview of the children's verbal system

This table sheds light on a very interesting fact. Indeed, it can be noticed that nearly all the verbs used by these children –94.9% of them, in the upper part of the table– belong to the French third-conjugation type. This fact, in itself, is not really surprising despite the fact that we know that 90% of the French verbs belong to the first-conjugation group¹⁶. Indeed, this latter figure does not mean that 90% of the verbs uttered by adults in a conversation belong to this group and it also has to be considered that some of the verbs of the third-conjugation type are extremely frequent ones. Rather, we would like to focus the attention on the fact that third-conjugation verbs along with the verbs *être* “be” and *avoir* “have”, in their present tense paradigms, in French, display more phonetically different forms than first-

¹⁶ See Carelli et al. (1996).

group verbs do. Table 7 hereafter details these present tense paradigms and the number of phonetically different forms within each paradigm (in bold print): *être* and *avoir* display five different forms out of six, *vouloir*, *faire* and *savoir* have four, whereas *voir* and first-conjugation verbs only display three phonetically different forms out of six. This observation is interesting when we recall that the type of verb that is usually referred to when considering French as a non pro-drop language is the first-conjugation type. Indeed, Pierce (1992), Haegeman (1997), Jakubowicz and Rigaut (1997) or Rizzi (1997), among others, all refer to the first-conjugation verb *parler* “talk”.

	être	vouloir	faire	avoir	savoir	voir	1 st conj.
1sg	suis	veux	fais	ai	sais	vois	mange
2sg	es	veux	fais	as	sais	vois	manges
3sg	est	veut	fait	a	sait	voit	Mange
1pl	sommes	voulons	faisons	avons	savons	voyons	mangeons
2pl	êtes	voulez	faites	avez	savez	voyez	mangez
3pl	sont	veulent	font	ont	savent	voient	mangent
%	48.7	17.2	16.2	7.0	3.6	2.2	5.1
≠ forms	5	4	4	5	4	3	3

Table 7: The entire paradigms of the main verbs used by the children

This first step sheds light on two characteristics of this verbal system: (i) it displays nearly no first-conjugation verbs –only 5.1% of the data– and (ii) most of the verbs used by the children display four or five different forms out of six when their paradigms are complete –for 92.7% of the verbs. These peculiarities, compared to the adult system of the same language, lead us to approach the child French verbal system with a pro-drop verbal system, such as Italian. In fact, the French and Italian paradigms for the verb “be” –as shown in (5) hereunder– are quite relevant of this fact. Indeed, the bold print emphasizes that this verb displays five different forms out of six in both languages.

- (5) être: **suis**, **es** [e], est [e], **sommes**, **êtes**, **sont**
 essere: **sono**, **sei**, è, **siamo**, **siete**, sono

Thus the French verb *être* stands on a par with the Italian verb *essere* as far as rich verbal morphology is concerned. And bearing in mind that the French children use this verb in nearly half of all their sentences (48.7%), it would henceforth appear very contradictory to consider the children’s verbal system the same way as the adult system, i.e. as a system with poor verbal morphology. Rather, our first two conclusions are that: (i) the child verbal system is different from the adult verbal system, and (ii) the verbal system we are investigating here bears similar features to a pro-drop verbal system such as Italian.

2.3 The children's pronominal system

It would be interesting now to know if the children use all the different verbal forms displayed in Table 7 or only some of them. We hence turn to the second step of our analysis and investigate the children's pronominal system. Table 8 hereafter shows an overview of our study. It indicates which verbal forms the children used during our recordings –1sg, 2sg, 3sg, 1pl, 2pl and 3pl– and with which pronoun each verbal form was uttered. For 3sg forms for instance, the range of possible pronouns is: referential *il* “he”, expletive *il* “it/one/there”, *elle* “she”, *ce/c'* “it”, *ça* “this/that”, or *on* “one/we”. Both the overt pronouns sentences as well as the null pronoun sentences are included in this table. This means that, when a pronoun is null in the data, it is reconstituted according to context in order to classify all the verbal sentences. A null pronoun sentence such as * *_est vert* “(it) is green” for instance is part of the 23.4% of *c'* sentences and hence part of the 60.9% of 3sg verbal forms.

Pronouns	Glosses	%	Forms	%	%
je	“I”	35.0	1sg	35.0	98.8
tu	“you”	2.9	2sg	2.9	
il	“he”	23.4	3sg	60.9	
il expl	“it/one/there”	2.2			
elle	“she”	4.3			
c'	“it”	23.4			
ça	“this/that”	2.5			
on	“one/we”	5.1			
nous	“we”	0.0	1pl	0.0	1.2
vous plu	“you plural”	0.0	2pl	0.0	
vous pol	“you polite”	0.0			
Ils	“they masc”	0.7	3pl	1.2	
elles	“they fem”	0.5			
		100.0		100.0	100.0

Table 8: Overview of the children's pronominal system

Within the six possible verbal forms, thirteen different pronouns are detailed. The above rates unveil the following characteristics. Firstly, this system can be described as being mainly singular. Indeed, Table 8 shows that only a mere 1.2% of the clauses include a plural form. Additionally, we can see that not all of the plural forms are uttered by the children at this stage as the first and second plural pronouns are never used. Moreover, it has to be noted that these plural forms all come from the same child thus the feature [±Singular] does not really apply in the average system yet. Secondly, within the singular forms, it can also be noticed that not all of the different forms are uttered. Indeed, most of this system –95.9%– is composed of

two main different forms only: the first singular form –with the pronoun *je*– representing 35% of the sentences and the third singular form –with different pronouns– found in 60.9% of the clauses. The second singular form hence shows a very low occurrence rate of 2.9%. This system can consequently be characterized as displaying one single opposition between two singular forms: 1sg –which represents the feature [+Speaker]– vs. 3sg. –which can be defined by opposition with the feature [–Speaker].

As for the verbal system studied in the previous section, the data clearly show that the children’s pronominal system is not identical to the adult’s one. Indeed, even if we take into consideration the fact that, in oral French, the first plural form with the pronoun *nous* is often replaced with the third singular form with the pronoun *on*, adults use the second singular and third plural forms whereas children do not at this stage.

2.4 Crossing the analyses

What happens now if we cross the information gathered in Tables 7 and 8 above? We obtain Table 9 that displays the actual occurring verbal forms, listing the main verbs uttered by the children but reduced this time to their two main forms, i.e. 1sg and 3sg.

	être	vouloir	faire	Avoir	savoir	Voir	manger
	“be”	“want”	“do”	“have”	“know”	“see”	“eat”
1sg	suis	veux	fais	ai	sais	Vois	Mange
3sg	est	veut	fait	a	sait	Voit	Mange
%	48.7	17.2	16.2	7.0	3.6	2.2	1.5

Table 9: The actual occurring verbal forms in the data

The bold print in Table 9 highlights the fact that the verbs *être* and *avoir* –which appear in a total of 55.7% of the children’s sentences– display phonetically different forms in this system. This amounts to say that the 1sg and the 3sg forms for these two verbs display rich verbal morphology insofar as the oppositions between *suis* and *est* on the one hand and *ai* and *a* on the other hand are totally distinctive. This pattern is then exactly the same as the one traditionally found in pro-drop languages such as Italian, which presents, for the same verbs, the forms *sono* vs. *è* and *ho* vs. *ha*. Consequently, we argue that such verbal forms are reminiscent of the mechanism that licences null pronouns in pro-drop languages. So when a child like Alizée (2;8) says *_ suis là* “(I) am here”, we claim that, within the child’s system, this type of sentence finds an explanation in the fact that the only other form that the child uses at this stage is distinctive, i.e. it does not require the presence of a pronoun in order to be identified as the 1sg form of the verb *être*¹⁷. In a nutshell, it can be said that part of the child’s verbal system is similar to a pro-drop system.

¹⁷ This point is also made in Van Kampen (2006), with a different analysis though.

Consequently, the architecture of the French child verbal system does not yet correspond to the one found in the adult system, insofar as the former displays richer verbal morphology than the latter. We hence argue that this is precisely why the children's utterances include more null pronouns than the adult's ones and we identify this initial duality between the correct value of the parameter and the reality of the child system as the trigger to the null pronoun phenomenon.

This hypothesis is strengthened by the fact that, for some of the poor verbal morphology verbs such as *vouloir* "want", the two-person paradigm described above nearly reduces to a one-person system. Indeed, the data show that the verb *vouloir* for instance, when uttered with a null pronoun, is in 59 sentences out of 60 in the 1sg form –the only 3sg occurrence being *oui, _ veut voler* "yes, (she) wants to fly" (Raphaël, 2;6, talking about his friend Alisson). There is hence hardly no opposition in this paradigm. This observation is thus consistent with our hypothesis that the trigger to the phenomenon lies within the morphological richness of the child's reduced verbal paradigms. Moreover, the behaviour of the verb *vouloir* parallels the one of a defective verb such as *falloir* "have to". This latter verb does not appear in Table 6 as it is uttered by one single child –Raphaël. However the pattern is similar as, when it is used by Raphaël –11 times in the whole corpus–, it appears 9 times without a pronoun, such as in the sentence *_ faut mettre les palmes* "(one) has to wear the flippers". This verb is a defective verb, i.e. it is exclusively used in the 3sg form: *il faut* "one has to". Again, this observation is consistent with our analysis: this paradigm presents only one form so the presence of the pronoun is not necessary to identify the person. This is also consistent with the adult occurrences of this defective verb since *falloir* is also often used orally by adults without a pronoun.

3. Conclusion

The well-known child null 'subject' phenomenon is reconsidered here thanks to our new data and a different approach associating the generative framework with a dialectological point of view. Firstly, an in-depth investigation into the ungrammatical sentences uttered by the children allows us to forward a more fine-grained appellation to this phenomenon. Indeed, the data show that the missing element is not any type of subject but only pronouns, and more precisely clitics as far as French is concerned. We hence identify this phenomenon not as a null 'subject' phenomenon but as a null 'pronoun' one (cf. Section 1.5). Secondly, our methodology invites us to investigate the entire verbal and pronominal systems of the children. The outcome is that the children, at this particular stage, manipulate a linguistic system which is different from the adult system. Indeed, our data highlight that the former system is reduced compared to the latter in terms of different verbal forms as the children's paradigms mainly display only two forms –1sg vs. 3sg. Many of these verbal forms hence turn out to be distinctive –e.g. *suis* "(I) am" vs. *est* "(he) is"– and consequently do not require the presence of a pronoun to be identified. The child system presents a richer verbal morphology than the adult and this characteristic is reminiscent of the rich verbal morphology that is found in pro-drop languages. Consequently, we claim that it is this particular characteristic of the

child linguistic system that represents the trigger to the null pronoun phenomenon in his reduced system. However, this hypothesis only represents one piece of the whole puzzle so the last part of this conclusion aims at placing it correctly and coherently together with the rest of the picture.

Firstly, the children fix the value of the Pro-drop Parameter correctly, during their first months, thanks to the data they receive daily from their surroundings. This corresponds to what Wexler calls the Very Early Parameter Setting (VEPS) and this correct fixing of the parameter forwards an explanation to the approximately 75% of the children's grammatical sentences with regard to the presence of a pronoun. However, the VEPS hypothesis does not provide an explanation to the 25% of the sentences that do not display a pronoun. The picture is hence incomplete for the moment.

Secondly, on the one hand, this value of the Pro-drop Parameter corresponds to the adult verbal system that displays six different forms for most of the verbs and a majority of verbal paradigms that present a poor morphology. On the other hand, this value does not yet fully correspond to the architecture of the child reduced system insofar as this latter system displays two-person paradigms and a majority of distinctive forms. We hence claim that this discrepancy between the child and the adult systems is the trigger to the null pronoun phenomenon, i.e. the child drops some of his pronouns because they are not as necessary as in the adult system. This hypothesis hence explains not only the phenomenon in itself but also gives a clue to its occurrence rate of 25%. Indeed, our data show that not all the children's verbs provide this rich verbal morphology so the impact of this characteristic is not pervasive. So far our analysis answers the first three points mentioned in Section 1.3, i.e. (i) explain the null pronoun phenomenon, (ii) explain its concomitancy with overt pronouns and (iii) justify its occurrence rate. We also mentioned –in Section 1.2– that our analysis of the non-finite verbs in our corpus was, in a way, consistent with Wexler's hypothesis on Optional Infinitives. Indeed, Wexler assumes that there are Optional Infinitive languages, such as French, and non-Optional Infinitive languages, such as Italian. We have just argued that French children display a verbal system that is close to the one found in Italian for instance. It then follows that, within such a verbal system, no genuine Optional Infinitives should be found.

An additional advantage of our hypothesis is that it can be extended to other languages. Indeed, Benveniste (1946) points out the fact that the 3sg forms are different from the other forms in many languages throughout the world. English with its 3sg *-s* morpheme is a very relevant example. Null pronoun sentences¹⁸ such as *is broken* (Naomi), *get down* (Peter) or *goes front* (Peter) could not require a pronoun if the system were reduced to the 1sg and the 3sg forms. And if it turned out that the children worldwide, at this stage, manipulated a reduced two-person system, it would follow that, in many cases, the 3sg form would be distinctive in such reduced systems. Consequently, our hypothesis is trans-linguistic and this entails that it might shed light on certain aspects of UG.

¹⁸ These examples come from Pierce (1992).

We are now left with our aim (iv) of Section 1.3 concerning the disappearance of this null pronoun phenomenon. So far, we have often called it a ‘phenomenon’. However, it has to be noted that it only represents a stage in the evolution of the child’s linguistic development as its disappearance is usually attested around 3;0. An important aspect of a hypothesis on this phenomenon thus has to include an explanation to this disappearance. We hypothesize that the null pronoun phenomenon fades away as the child grows out of his reduced verbal and pronominal systems: (i) verbwise, i.e. when the child acquires additional verbs, especially verbs from the first conjugation type that do not display as many different forms in the present paradigm and (ii) pronounwise, i.e. when the child uses additional forms such as the 2sg form which is often phonetically similar to the 1sg form in French. On the whole, the child leaves this null pronoun stage when his linguistic system gets closer to the adult’s system, i.e. when the discrepancy between the two systems –which is identified as the trigger– fades away.

References

- Benveniste, E. (1946) ‘Structure des relations de personne dans le verbe’, in: *Problèmes de linguistique générale, 1*. Paris: Editions Gallimard, 1966, 225-236.
- Blanche-Benveniste, C. (1994) ‘Quelques caractéristiques grammaticales des "sujets" employés dans le français parlé des conversations’, in: M. Yaguello (ed.) *Subjecthood and Subjectivity. Proceedings of the Colloquium "The Status of the Subject in Linguistic Theory"*. Gap, Paris and Londres: Editions Ophrys, 77-107.
- Blanche-Benveniste, C. (2003) ‘Les formes grammaticales de réalisation des sujets et leur inégale représentation en français contemporain’, in: J.-M. Merle (ed.) *Le sujet*. Paris: Editions Ophrys, 73-90.
- Cardinaletti, A. and M. Starke (1994) ‘The Typology of Structural Deficiency: A Case Study of the Three Classes of Pronouns’, in: H. van Riemsdijk (ed.) *Clitics in the Languages of Europe*. Berlin and New York: Mouton de Gruyter, 1999, 145-233.
- Carelli, E. et al. (1996) *Le Robert and Nathan conjugaison*. Paris: Editions Nathan.
- Chomsky, N. (1981) *Lectures on Government and Binding: The Pisa Lectures*. Dordrecht: Foris.
- De Cat, C. (2002) *French Dislocation*. PhD Thesis, University of York.
- De Cat, C. (2005) ‘French Subject Clitics are not Agreement Markers’. *Lingua*, 115, 9, 1195-1219.
- Haegeman, L. (1997) ‘Adult Null Subjects in Non Pro-drop Languages’, in: M.-A. Friedemann and L. Rizzi (eds.) *The Acquisition of Syntax. Studies in Comparative Developmental Linguistics*. London: Longman, 2000, 129-169.
- Hyams, N.M. (1986) *Language Acquisition and the Theory of Parameters*. Dordrecht: D. Reidel Publishing Company.
- Hyams, N.M. (1996) ‘The Underspecification of Functional Categories in Early Grammar’, in: H. Clahsen (ed.) *Generative Perspectives on Language Acquisition*. Amsterdam and Philadelphia: John Benjamins, 91-127.
- Jakubowicz, C. and C. Rigaut (1997) ‘L’acquisition des clitiques nominatifs en français’, in: A. Zribi-Hertz (ed.) *Les pronoms : morphologie, syntaxe et typologie*. Saint-Denis: Presses Universitaires de Vincennes, 57-99.

- Jeanjean, C. (1981) 'L'organisation des formes sujets en français de conversation : étude quantitative et grammaticale de deux corpus'. *Recherches sur le français parlé*, 3, 99-136.
- Kampen, J. van (2006) 'Early Operators and Late Topic-drop/Pro-drop', in: V. Torrens and L. Escobar (eds.) *The Acquisition of Syntax in Romance Languages*. Amsterdam: John Benjamins, 203-223.
- Kayne, R.S. (1996) 'Microparametric Syntax. Some Introductory Remarks', in: R.S. Kayne (ed.) *Parameters and Universals*. Oxford: Oxford University Press, 2000, 3-9.
- Lightbown, P. (1977) *Consistency and Variation in the Acquisition of French*. PhD Dissertation, Columbia University.
- Lorusso, P. et al. (2005) 'Overt Subject Distribution in Early Italian Children', in: A. Brugos et al. (eds.) *Supplement to the Proceedings of the 29th Boston University Conference on Language Development (BUCLD)*. Boston, MA.
- MacWhinney, B. (2000) *The CHILDES Project. Tools for Analyzing Talk, Third Edition*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Oliviéri, M. (2004) 'Y a-t-il des frontières dialectales en syntaxe ?'. *Etudes corses*, 59, 77-93.
- Palasis-Jourdan, K. (2005) *Problèmes d'acquisition et le Paramètre du Sujet Nul*. Mémoire de Master, Université de Nice-Sophia Antipolis.
- Pierce, A. (1992) *Language Acquisition and Syntactic Theory: A Comparative Analysis of French and English Child Grammars*. Dordrecht: Kluwer Academic Publishers.
- Rasetti, L. (1996) 'Null Subjects and Root Infinitives in the Child Grammar of French'. *Geneva Generative Papers*, 4, 2, 120-132.
- Rizzi, L. (1993) 'Some Notes on Linguistic Theory and Language Development: The Case of Root Infinitives'. *Geneva Generative Papers*, 0, 2, 102-114.
- Rizzi, L. (1997) 'A Parametric Approach to Comparative Syntax: Properties of the Pronominal System', in: L. Haegeman (ed.) *The New Comparative Syntax*. Harlow: Addison Wesley Longman, 268-285.
- Rizzi, L. (2002) *On the Grammatical Basis of Language Development: A Case Study*. Ms., University of Siena.
- Serratrice, L. (this volume). 'Null and overt subjects at the syntax-discourse interface. Evidence from monolingual and bilingual acquisition'.
- Suppes, P. et al. (1973) 'The French Syntax of a Child's Noun Phrases'. *Archives de Psychologie*, 42, 207-269.
- Wexler, K. (1992) 'Optional Infinitives, Head Movement and the Economy of Derivation in Child Grammar'. *Occasional Paper*, 45, Center for Cognitive Science, Cambridge, MA: MIT.
- Wexler, K. (1998) 'Very Early Parameter Setting and the Unique Checking Constraint: A New Explanation of the Optional Infinitive Stage'. *Lingua*, 106, 1-4, 23-79.