The Development of Phrase Structure in Child French

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0. Introduction

The three main hypotheses about the development of phrase structure in child language are the lexical-thematic hypothesis, the full competence hypothesis and the reduced competence hypothesis. According to the lexical-thematic hypothesis (e.g. Radford 1986), no functional structure is present in the first utterances with two or more words in child language. Adherents of the full competence hypothesis (e.g. Hyams 1992; Wexler 1992) claim that all functional structure is available from the beginning. Finally, several versions of the reduced competence hypothesis have been formulated during the past few years (e.g. Clahsen 1990; Rizzi 1992; Ferdinand 1996). These proposals have in common that the child starts with a system in which only part of the functional structure is available.

In this article, I argue that some version of the third hypothesis is correct. Further, I try to solve the developmental problem, by formulating a proposal of how the child, starting with partial competence, eventually will reach the adult state of 'complete competence'. The question I try to answer is: 'Which functional projections are present in finite sentences in child French at different ages?' For reasons of space, I present only the development in finite sentences; at the same age also non-finite root sentences occur.

I use the data from the French speaking children Nathalie and Daniel that were collected by Lightbown (1977) as well as the data from Grégoire and Philippe from the CHILDES database (MacWhinney and Snow 1985). Nathalie's data collection goes from 1;9;3 to 2;3;2, and Daniel's from 1;8;1 to 1;11;1. Grégoire's data go from 1;9.14 to 2;3.0. I use Philippe's earliest data recordings, from 2;1.19, till the age of 2;6.21. The data recorded at these ages show a similar development in all of these children with respect to the structure of finite sentences, although-as is made clear in what follows- there is some variation among them in the degree of advancedness.

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1 I acknowledge Patsy Lightbown for making her data available to me, as well as an anonymous LIN-reviewer for comments on this paper.
1. Minimal phrase structure

This section concerns the starting point of development in child French finite sentences. At this starting point, I argue, finite sentences only project up to a level that is 'minimally' necessary in order to generate a finite sentence. This 'minimal phrase structure' contains TP and AgrsP. This is based on the following. In child French, the finite verb moves to a position higher than negation. This can be concluded from the fact that finite verbs precede the negation, whereas non-finite verbs follow it:

(1) marche pas [...] work[+FIN.] not
(2) pas fini not end[PAST PART.]

Sequences like this are analyzed as sentences containing a finite verb in the head of a functional projection above negation (Weissenborn 1988b; Pierce 1989).

An argument in favour of the presence of TP is that the verb moving to a position higher than negation has the feature [+tense]. In Ferdinand (1995b, 1996) it is shown on the basis of the meaning of finite verbs that Tense must be semantically present at all stages in child French. [+tense]-marking has the form of a zero morpheme, as opposed to [-tense]-marking, which is expressed overtly as infinitival or participial morphology.

Under the assumption that one of the functions of Agrs is to license the subject, AgrsP must be taken to be present too, since lexical subjects are licensed at any stage in finite sentences in child French, although in the earliest stage they are always subject clitics. Subject clitics in child French are best analyzed as heads in Agrs (cf. Pierce 1989). This explains why they only cooccur with finite verbs. Another argument in favour of the presence of Agrs is that if the children use morphologically specified subject agreement (visible on irregular verbs) they use it correctly (Ferdinand 1994, 1996).

I found an early stage in the data at which it can be argued that only minimal phrase structure is projected: all sentences project up to AgrsP, but not further. At this stage no constituents, except subject clitics, precede the finite verb. I call this stage 1, which is the period that lacks leftward moved non-clitic elements. Both Nathalie's and Grégoire's data show this stage. For Nathalie this is at age 1;9;3 and for Grégoire at age 1;9.14:

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2 At this early stage postverbal subject-like elements are attested too. However, these must be analyzed as right dislocated constituents that do not occupy an argument position (Ferdinand 1996).
Subject clitics are the only elements that precede the finite verb, whereas all non-clitic elements (NPs, DPs, or adverbs) do not. Under the subject-clitics-as-heads analysis, the specifier of Agrs is never filled with a lexical element at stage 1:

The fact that there is no preposing of any non-clitic constituent is unexpected if AgrsP is projected in any finite sentence. Why then is spec,AgrsP never filled with a non-clitic subject? In the first place this may be due to a tendency in young children to use no nominal subjects, even if the reference of the subject has not yet been made clear for the hearer (Karmiloff-Smith 1980). They use subject clitic pronouns instead or leave the subject phonologically empty. Further, in the next two sections I will argue that one of the functions of preverbal non-clitic subjects is to put contrastive focus on the subject. In that case they occupy the specifier of a Focus Phrase. The hypothesis is that FocusP is absent at stage 1. This leads to projecting maximally the (minimal) structure in (6):

In the next sections I will discuss the question as to when and how more projections are added.

2. Evidence for a Wh-Phrase and a Focus Phrase

After stage 1, Nathalie and Grégoire go through a second stage, during which at most one non-clitic constituent precedes the finite verb. Clitics are the only elements that may be preposed too, when a non-clitic element precedes the finite verb. I attested stage 2 in the earliest recordings of Daniel and Philippe as well.

The non-clitic constituents that occur to the left of the finite verb are subjects (7), adverbs (8), question words (9-10), direct objects (11) and argument PPs (12):
Examples (11-12) represent utterances that require some discussion. Both the direct object in (11) and the argument-PP in (12) must be preposed constituents. Normally, such elements occupy a postverbal position in the children’s data, but here they are moved to a sentence-initial position. Further, the argument-PP must be preposed because it does not have scope over the entire sentence, but only over the VP.

I analyze this type of movement, which places a constituent in a sentence-initial position, as focus movement. In traditional terms, this construction would be called ‘topicalization’ (Chomsky 1977). Yet, focus movement is a more adequate expression, since the preverbal elements in (11-12) are preposed in order to receive contrastive focus.

I distinguish contrastive focus from informational focus. Informational focus is defined as the part of a sentence containing new information (e.g. Lambrecht 1984). If a constituent is indefinite, it is the informational focus of a sentence, since it refers to new information. Contrastive focus, however, is the type of focus involved in focus movement. A constituent can be contrastively focused, either by the highest pitch accent in the sentence or by movement to a focus position. Contrastive focus marks the focused element as relevant as opposed to other members of the same set.

The two types of focus may coincide, but do not need to. In un âne faut faire là ‘A DONKEY (one) must make there’ (Philippe 2;6.20) the constituent bearing contrastive focus is indefinite, and hence it is also the informational focus of the
sentence. In (11-12), however, contrastive focus is put on given information (contra e.g. Choi 1996, who defines contrastive focus as both ‘prominent’ and ‘new’).

I want to argue that focus movement in child French places a contrastively focused constituent (containing new or old information) in a focus position preceding the finite verb. This movement also exists in adult spoken French:

(13) ça je n’aime pas
That I *n(e)* like not
‘THAT I do not like.’

Focus movement is clearly distinguishable from left dislocation. First, contrastive focus is excluded on a left dislocated element. Second, constituents undergoing focus movement may contain either old or new information, whereas left dislocated constituents necessarily refer to old information. This means that indefinites can undergo focus movement, but cannot be left dislocated, since they contain new (or ‘non-presuppositional’, see Diesing 1992) information. Focus-moved direct objects in child French can be indefinite, which excludes a left dislocation analysis.

The child French data show many cases of focus movement. The analysis of the discourse context shows that this construction is used in order to contrastively focus a particular element. I looked at the utterances like (11-12), which clearly contain preposed elements, and analyzed the discourse contexts in which they occur. These contexts make clear that the construction has a contrastive focus function. There are two kinds of typical uses. In the following example, there is a clear contrast between la chaise ‘the chair’ which Philippe does not want and le tabouret ‘the tabouret’, which he does want. Therefore, le tabouret must have

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3 The only difference with adult French focus movement is that the French children also move the negative element pas ‘not’ to the focus position (Ferdinand 1996):

(i) Mother: je mets le manteau? ‘Shall I put the coat on?’
   Nathalie 2;0;1
   Nathalie: pas mets la ‘teau
   not put [+FIN] the coat, ‘[I] do NOT put the coat on.’

Focus movement of pas is not possible in adult French, and hence must be a syntactic overgeneralization in child French. Lack of positive evidence (‘indirect negative evidence’) may cause its disappearance. The fact that cases like (i) do not occur in the input, may lead to their disappearance in the child’s output.

4 Generic indefinites have a presuppositional interpretation (Milsark 1974), which allows them to be left dislocated:

(i) Un garçon, ça mange beaucoup
   a boy, that eat [+FIN.] much ‘A boy (in general) eats much.’

Adult French French
contrastive focus:

(14) [situation: Philippe is sitting on a tabouret] Philippe 2;6.13
Mother: tu veux pas la chaise philippe?
'You don’t want the chair, Philippe?'
Philippe: non. non le tabouret je veux
No. no the tabouret I[CL.] want[+FIN.]
'No. No, I want THE TABOURET.'

Further, the focus-movement construction is used as an answer to a question. The element that is preposed in the answer corresponds to a question word in the question. In the following example a non-finite sentence is preposed:

(15) Mother: qu’est-ce que tu fais? Philippe 2;3.7
'What are you doing?'
Philippe: rentrer la chaise je fais
bring-back[-FIN.] the chair I[CL.] do[+FIN.]
'I am BRINGING BACK THE CHAIR.'

The question word in (15) selects a set of possible entities that can be expected in the answer. In the answer, one element of this set is given as the one that is chosen. Therefore it forms a contrast with all the other elements of that set. This is a reason to analyze the preverbal constituent as being contrastively focused.

Summing up, the French children’s data show a second stage at which maximally one non-clitic element is preposed. The preposed constituents are subjects, focus-moved elements and wh-expressions. This is schematized in table 1.

Table 1. Stage 2: Non-clitic elements higher than the finite verb.

<table>
<thead>
<tr>
<th>Child</th>
<th>age</th>
<th>subject</th>
<th>adverb</th>
<th>wh-word</th>
<th>focus movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nathalie</td>
<td>1;10;2 - 2;2;2</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Grégoire</td>
<td>1;9;28 - 2;3.0</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Daniel</td>
<td>1;8;1 - 1;8;3</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Philippe</td>
<td>2;1.19 - 2;2.3</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>
With respect to stage 2, the question arises as to the form of the grammar generating sentences with the different types of movement found in the data. I want to give an analysis in the minimalist framework (Chomsky 1993) in which a particular type of movement is always related to a functional head that contains the feature triggering this movement. Following this assumption, I view syntactic development as the development of functional heads. As soon as the child's grammar projects a functional head, the corresponding type of movement becomes possible.

For stage 2 child French, this means that finite sentences can project a Focus Phrase, since focus movement is triggered by the head Focus. Furthermore, I would like to claim that a Wh-Phrase is present, too, since wh-elements are present in the data. Because no positional distinction can be made between focused elements and wh-elements, there is no evidence for overt wh-movement to the specifier of the Wh-Phrase. It may be the case that wh-elements move overtly to the spec,FocusP, and check the wh-feature at LF. Yet, the fact that wh-elements are present shows that there is a wh-feature to be checked, either in syntax or at LF. In other words, the wh-feature may be either strong or weak, but it must be present, which leads to the assumption that the stage 2 grammar contains a Wh-Phrase as well:

\[(16) \text{Stage 2}\]
\[
[\text{WhP}[\text{FocusP}[\text{AgrsP}[\text{NegP}[\text{TP}[\text{VP}]])]]
\]

The structure in (16) shows that the maximal structure from stage 1 has been extended with a FocusP and a WhP at stage 2. Nevertheless, at most one non-clitic constituent precedes the finite verb.

3. The feature [+focus]

Given the presence of WhP, FocusP, and AgrsP, it should be explained why at most one non-clitic element is moved to a preverbal position. In principle, there are enough positions higher than Agrs to host a wh-expression, a focused element and a non-clitic preverbal subject. Yet, these three types of constituents are in complementary distribution. Utterances with orders as in (17-19) are not attested:

\[(17) \text{ou ça elle fait?} \quad \text{[unattested]}\]
\[\text{where THAT she[CLITIC] does}\]
\[(18) \text{ça nathalie a fait} \quad \text{[unattested]}\]
\[\text{THAT nathalie has done}\]
\[(19) \text{ou nathalie est allée?} \quad \text{[unattested]}\]
\[\text{where nathalie has gone}\]
My account of these data is based on the minimalist assumption that a syntactic feature can be checked only once. In other words, since focus is considered as a syntactic feature, only one element in each phrase in child French can receive contrastive focus. This situation is also found in languages like Hungarian (Lindhout-Lengyel 1991):

(20) *TEGNAP dolgozta át JANOS a tervet Hungarian YESTERDAY wrote re JANOS the project
‘JANOS rewrote the project YESTERDAY.’ Lindhout-Lengyel (1991)

Lindhout-Lengyel proposes that focused elements move to spec,FocusP, which is triggered by a focus feature in Focus. Child French at stage 2 can be analyzed in a similar way. Suppose that all preposed wh-expressions have the feature [+focus]. Then, if both a wh-word and a non-wh focused element need to check the feature [+focus], the derivation crashes. This correctly predicts that overt wh-movement and focus movement are in complementary distribution, and excludes (17). In cases of wh-movement, the wh-expression moves overtly to spec,FocusP, to check the focus feature. The wh-feature can be checked either in syntax or at LF. The adult French grammar still resembles the stage 2 grammar, since wh-movement and focus movement are still in complementary distribution.

Further, it has to be explained why non-clitic preverbal subjects are excluded when a focus-moved element is present (which is either [+wh] or not), as in (18-19). Here, a distinction must be made between pronominal and non-pronominal subjects. French pronominals can be divided in clitics and non-clitic (or tonic) pronouns. The subject clitics are never contrastively focused, and they refer to given information. They have the characteristics of inflectional elements (see section 1). Hence, they may accompany any preverbal [+focus] constituent.

The non-clitic pronouns may occur in a position preceding the finite verb, where they are always contrastively focused in order to put emphasis on the subject. This can be compared to adult Italian and other pro-drop languages:

(21) parli
    you speak
    ‘You are speaking.’

(22) tu parli
    YOU speak
    ‘YOU are speaking.’

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5 They may occur as well in dislocated positions, where they have the status of topics, in the sense that they refer to given information.
In (22) the subject is stressed, because it has the form of a lexical pronoun (see Lambrecht 1994). The hypothesis that I would like to put forward is that child French is similar to Italian in that preverbal non-clitic pronominal subjects are only present when the subject is [+focus]. The [+focus] feature is checked in syntax or at LF. The presence of this feature on preverbal non-clitic pronominal subjects entails their complementary distribution with wh-moved and other focus-moved elements, since all of them carry the feature [+focus], which can be checked only once. In this respect adult French is again the same as stage 2 child French; here too, preverbal focused pronominal subjects cannot accompany another focus-moved element, nor a wh-moved constituent.

Finally, it has to be explained why preverbal non-pronominal subjects do not cooccur with focus-moved elements in child French. In adult French, one of the functions of non-pronominal subjects is to introduce a new topic. After being introduced, this topic is referred to by subject clitics:

(23) Marie est venue. Elle restera deux jours.
Marie[NEW TOPIC] is come[PAST PART.]. She[TOPIC] stay[FUTURE] two days.
‘Marie came yesterday. She will stay for two days.’

Combining the introduction of a new topic as in (23) with focus movement of another element may be too complex for stage 2 child French. The development toward adult French, in which non-pronominal subjects can cooccur with wh-moved and focus-moved elements, may then be explained as the result of the acquisition of a more complex information structure, in which both a focused element and an element introducing a topic can occur. However, further analysis of child data is necessary in order to determine precisely which function is fulfilled by non-pronominal preverbal subjects.

4. Left dislocation and adverbs

Interestingly, a third stage can be distinguished in the development of phrase structure. During this stage, the maximum number of non-clitic constituents preceding the finite verb goes up to two. If two non-clitic constituents precede the finite verb, the first is either a left dislocated element or an adverbial expression, whereas the second is a focused element, a wh-expression, or a subject. Stage 3 is attested in Nathalie’s, Daniel’s and Philippe’s data:

(24) poupée pas mange
doll not eat[+FIN.]
‘The doll is NOT eating.’
(25) et ça que c’est?  
and that what it[CL.] is+[FIN.]?  
‘And what is that?’  
Philippe 2;2.10

(26) là un petit trou fais là  
there a little hole make+[FIN.] there  
‘There, I make A LITTLE HOLE there.’  
Philippe 2;3.21

(27) là petit chien saute  
there little dog jump+[FIN.]  
‘The little dog is jumping there.’  
Daniel 1;10;2

(28) hier où je suis allé?  
yesterday where I[CL.] be+[FIN.] gone?  
‘Where did I go yesterday?’  
Philippe 2;6.20

Examples (24-25) both contain a left dislocated element: la poupée ‘the doll’ and ça ‘that’. In (24) the left dislocated element is followed by the focus-moved constituent pas ‘not’, whereas in (25) it is followed by the wh-word que ‘what’. Example (24) then has an information structure like the following:

(24’) [As for the doll]TOPIC, [it does [NOT]CONTRASTIVE FOCUS eat]INFORMATIONAL FOCUS

In (26-28), an adverb occupies the sentence-initial position. In (26) it is followed by a focused element, in (27) by a subject, and in (28) by a wh-expression. The situation at stage 3 is schematized in table 2:

<table>
<thead>
<tr>
<th>LD + focus</th>
<th>LD + subj</th>
<th>LD + wh</th>
<th>Adv + focus</th>
<th>Adv + subj</th>
<th>Adv + wh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nathalie 2;3;2</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Daniel 1;9;3- 1;11;1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Philippe 2;2.10- 2;6.27</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

The data presented here lead to the conclusion that at stage 3 more structure must be available to the child than at the previous stages. The complementary distribution of left dislocated elements and sentence-initial adverbs suggests that they either occupy the same position, or check the same functional feature. This may be the topic feature. Sentence-initial adverbs in child French may occupy a

6 See footnote 3 for focus movement of negation.
topic position (cf. Costa 1995 for adult English). Left dislocated elements also function as topics, in the sense that they refer to old information, and provide the issue that the sentence is ‘about’. This may cause their incompatibility with a sentence-initial adverb.\(^7\)

For child French at stage 3, I want to advance the hypothesis that, at this stage, the phrase structure maximally projected is the following:

\[
(29) \quad \text{Stage 3: } [\text{TopicP} \ [\text{WhP} \ [\text{FocusP} \ [\text{AgrsP} \ [\text{NegP} \ [\text{TP} \ [\text{VP}]}}]])]
\]

At stage 3 the child is able to combine a left dislocated element or a sentence-initial adverb with focused elements and wh-expressions. During the development toward adult French, the child has to acquire the ability to combine more than one topic per sentence, given the possibility of multiple left dislocations in the adult language, and their compatibility with sentence-initial adverbs.

5. Concluding remarks

The conclusion of this paper is that in finite sentences in child French initially only part of the functional projections are projected, which supports the reduced competence hypothesis. The data studied show that their number increases over time. This development is summarized in (30):

\[
(30) \quad \begin{align*}
\text{Stage 1:} & \quad [\text{AgrsP} \ [\text{NegP} \ [\text{TP} \ [\text{VP}]]]}] \\
\text{Stage 2:} & \quad [\text{WhP} \ [\text{FocusP} \ [\text{AgrsP} \ [\text{NegP} \ [\text{TP} \ [\text{VP}]]}}]])] \\
\text{Stage 3:} & \quad [\text{TopicP} \ [\text{WhP} \ [\text{FocusP} \ [\text{AgrsP} \ [\text{NegP} \ [\text{TP} \ [\text{VP}]]}}]])]
\end{align*}
\]

At stage 1, the minimal structure of finite sentences in child French goes up to AgrsP. I call this minimal phrase structure. It may be the case that Agrs and Tense must be acquired in all languages in order for any finite sentence to be projected and that a variety of other functional heads may be added to the minimal structure, depending on the specific language the child is acquiring. In child French, a Focus Phrase and a Wh-Phrase are added at stage 2. Evidence for their presence comes from the use of focus movement and wh-expressions. At stage 3, left dislocated elements and adverbials provide evidence for the acquisition of a Topic Phrase. The data show an incompatibility of focus

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\(^7\) The combination of a left dislocated element with a non-clitic subject is still absent (see table 2). I do not have an explanation for this yet. Focus-moved subjects should be allowed, since sentence-initial adverbs cooccur with focus movement. Similarly, nominal subjects, introducing a new topic, cooccur with sentence-initial adverbs and hence should be able to cooccur with left dislocation too.
movement, wh-movement and contrastive focus on the subject. This is explained by the minimalist assumption that a syntactic feature, here the feature [+focus] can be checked only once. Similarly, the incompatibility of left dislocation and sentence-initial adverbs is explained by a structure with only one [+topic] position. The results give rise to the more general conclusion that phrase structure in child French obeys the same conditions as in adult French, although it is projected only partially. The gradual extension of functional structure can be seen as a process in which each functional head, in order to be projected, needs to be confirmed by the input the child receives.

References