

Child language surface forms often differ significantly from the adult forms of similar utterances. The contrasts with adult utterances manifest differently across languages and across utterances within a language. Should these differences, such as in French, null-subject, subject-final, article-less noun phrases, and non-finite main phrase verb forms, be regarded as completely distinct manifestations of incorrect conjectures of child language? Or is it possible to draw some connections between these immature forms that might shed light both on the development of child language toward adult competence and also on the deep structure of adult language itself?

Using evidence from French child language acquisition data, I believe that it is possible to argue for a general behavior which can explain a number of apparently disparate phenomena in child language in contrast with adult production. In particular, we will consider the hypothesis of Rizzi, Crisma, and Friedemann that children will optionally produce truncated structures rather than the maximal projection of the structure as found in adult language; children produce only enough structure to incorporate all components of the utterance. As argued by Friedemann, the truncated structure hypothesis applied to Abney's analysis of full noun phrases as full projections of DP in adult language and truncated projections only to bare NP's in child language. ????? Such an analysis allows the absence of articles in Child French, by describing them as truncated structures in which the full DP is not required. In the remainder of this discussion we will consider evidence for the presence of truncated structures in early child French language in other features of these utterances. In particular, we will consider the contrasts between questions and declaratives, and negatives and declaratives with regard to finiteness of verbs and the occurrence of null subjects, light (Pronominal) and noun phrase subjects and sentence-initial and -final subjects.

1 Subjects and Data

The data for this analysis comes from the transcripts of three primary subjects: Gregoire (Champaud), Nathalie and Daniel (Lightbown), and subsidiary data from Phillippe (Leveille). The primary subjects were studied from ages ranging from 1;8 to 2;3, while Phillippe was studied for a longer period. In counting and coding these utterances, we tried to exclude those which were clear imitations of adult utterances or were unaltered repetitions

of child utterances. We considered only those utterances which included at least a matrix verb, and considered separately those which were clearly imperative. It is, however, difficult to determine both imperative use and tense in some cases where the phonological realization of present tense, infinitive, or past participle are very similar. In these cases, we relied on the transcription and comments of the researchers who gathered the initial data, the context of the utterance, and our own intuitions to make these determinations. Also, following Crisma, we considered the clitic *y* and the contraction *l'* in sentence initial position to indicate the presence of a sentence initial pronominal subject whose phonological realization was unclear. Standard disclaimers about excluding utterances that were clear repetitions of child or adult; ...

2 Past Participles

One of the main contrasts which we wish to explore in this paper is the use of tensed and untensed verb forms in constructions such as wh-questions and negative utterances, and subject-initial and subject-final declaratives. While verbs in the present tense or the full *passé composé* (with both the auxiliary and past participle) are unambiguously tensed and infinitival forms are clearly untensed, the status of bare past participles is somewhat less clear.

They clearly have some morphology associated with tense, but their conjugation remains static with regard to change in subject gender, number, or person, with the exception of some of the stative verbs. Also one can argue that the infinitive forms in French - *er*, *ir*, *re* - are morphological affixes to the bare verb. Are these participles to be treated simply as adjectives? Perhaps the mix of stative and active verbs will have some bearing on this issue.

One might argue that since many participial forms can be used as adjectives that these utterances with only bare participial forms should not enter into an analysis of verb forms. Let us consider those verbs which actually surface as bare participles. If this conjecture were correct, we would expect a much higher proportion of unaccusative or stative verbs than active or transitive verbs. The unaccusative and stative verbs in French generally are those which conjugated with the verb *être* while other classes are conjugated with *avoir*. We have the following verbs which appear as bare participles in the corpus, separated according to their past auxiliary verb.

<i>Etre</i> verbs	<i>Avoir</i> verbs
assis,	casse', ne', coupe', enleve'
debout,	lave', ferme', ote', verse'
tombe'	e'crite, apporte', ouvert
parti	bu, fini, cache', donne', mis,
sorti	leve', range', cherche', perdu,
monte'	mange', touche', repare', jete'
	detache' , passe', puni, porte'
	attrape', pousse', colle', tourne'
#: 42	101

From data above and their contexts of use, we can conclude that these bare participles are not simply adjectival usages, but are, in fact, used as active verbs in past mood by the children.

Then we considered the usage patterns of each of these three groups of verb forms: unambiguously tensed, clearly infinitive, and past participial. The goal was to determine whether the participial forms patterned with the tensed forms or with the untensed forms. We considered a number of different usage patterns that differentiate tensed and untensed forms, including the use of sentence-initial pronouns.

Let us first look at the positioning of the verb with respect to the negative particle. We know that in adult language the negative particle *pas* appears after the tensed verb. This ordering, as will be discussed in more detail later, is also attested in child data from the subjects at hand. Now in the case of infinitive forms, in non-matrix clauses and phrases the infinitive form of the verb follows the negative particle. In child language, again, when infinitive verbs appeared in negative contexts, the negative particle comes before the verb. In the case of participles, we find that the negative particle appears almost exclusively in the preverbal position. Since this ordering is also shared by the infinitive forms, we could take this as evidence that the participle should be treated as an untensed form. However, this evidence, by itself, would seem to be insufficient to constitute strong proof since in the full *pas* compose form, the order is '*ne-AUX-pas-participle*'. Here the negative particle comes before the participle. Thus it is conceivable that since the child knows the *pas* compose, the absence of the auxiliary simply represents a production error on the part of the child, and the negative particles appear in the proper position for the *pas* compose with respect to the particle. On

this analysis, the participial form should be considered tensed as is the *passe compose*.

However, I believe that with further evidence it can be shown that this analysis is highly unlikely. First consider the fact that for Gregoire, for instance, participles constitute the matrix verb in 31 of the utterances in the corpus. For this same period, he produced 45 instances of the full past tense. It is unlikely that a production error would produce such a frequent occurrence. Further, there is evidence from other structural features that the bare past participle behaves in child language more like an untensed verb than like a finite verb.

Pierce observed that since the subject pronouns in French behave like clitics associated with Infl, subject pronouns occur frequently with tensed verbs but only infrequently with infinitive forms. Let us examine the cooccurrence of subject pronouns with participles in contrast to clear tensed forms and infinitives. 96% (G), 83%(D), 99%(N) of all subject pronouns were produced with a clearly tensed verb, while 3.3%, 14.5%, 0% occurred with an infinitive. We observe that less than 1%, 2%, 1% of subject pronouns appear in a matrix clause with a bare participle, even though bare participles account for around 10% of all verbs in the data. Clearly, with regard to weak subjects, the bare participles produced by the subjects pattern with the untensed rather than the tensed verbs.

Next let us consider the general relation of verb finiteness to subject position. Here again we find that although there are somewhat fewer overall occurrences of bare participles their behavior with regard to subject position is very much more similar to that of infinitives than to that of tensed verbs. Consider the table below:

Subject	Type	NS	SI:P%	SI:NP%	SF:P%	SF:NP%	total
Greg	TNS	36.7	38	7.5	1	16.9	308
Greg	INF	75.5	7.5	1.9	0	15	53
Greg	PPART	61.8	2.9	11.8	0	23.5	34
Dan	TNS	62.8	23.5	9.5	2.2	1.9	366
Dan	INF	82.5	7.9	6/3	1.6	1.6	189
Dan	PPART	87.5	2.5	6.2	1.2	2.5	80
Nat	TNS	35.8	43.4	16	0	4.7	212
Nat	INF	77.3	0	15.9	0	6.8	44
Nat	PPART	58.8	2.9	26.5	0	11.8	34
Total	TNS	47.6	33	10	1.2	7.5	888
Total	INF	80	6.7	7	1.1	4.9	285
Total	PPART	75	2.8	12.5	0	9.7	144

3 Projection of full-CP; wh-questions vs declaratives and yes/no

Let us first consider the case of questions - in particular wh-questions in child language. According to the truncated structure hypothesis, wh-questions should be distinctive in that since the wh-word must move to SpecCP the full projection of C is required. Thus, the hypothesis would predict that those common features of truncated structure- null-subject and non-finite verb would not occur in such utterances. Crisma's detailed analysis of the data from Phillipe (which we will not repeat here) provides strong support for the hypothesis by bearing out the above predictions.

3.1 Crisma's analysis of Phillipe's data

Crisma compares the percentage of null-subject utterances, sentence-final subjects, and untensed verbs in each of three groups of utterances: declaratives, yes/no questions, and wh-questions. Since only wh-questions involve the movement of a wh-word to SpecC, one would expect wh-question structure to differ from the other two utterance types in failing to exhibit the trademarks of truncated structure with regard to subject presence and position. In other words, the yes/no questions should pattern more closely with the declaratives, and the wh-questions should not. The data provided strong

support for this hypothesis. In the data from Phillippe, there are almost no wh-questions with null-subjects or post-verbal subjects. In contrast, 41%, 39.3%, and 13.2% of the declarative utterances over the time periods studied had null subjects, and 25%, 13.8%, and 7% of the yes/no questions lacked subjects. A similar relationship held with post-verbal subjects as well, with a marked asymmetry between wh-questions on one hand and yes/no questions and declaratives on the other.

The data on finiteness of verbs also indicates an asymmetry between two groups. Crisma noted a complete absence of infinitive forms at all ages in wh-questions, while the declaratives had a steadily decreasing, but still present, number of untensed matrix verbs in the data. This difference was taken as evidence of an underlying difference in structure, specifically the absence of CP-level projection in the declaratives and yes-no questions and its presence in the wh-questions.

3.2 Wh-question structure across subjects

In order to see if this behavior occurred reliably across a range of subjects, we also considered data from Gregoire, Nathalie and Daniel. In this case due to the rarity of questions in the data from the latter two subjects, much of the relevant data was from Gregoire. Again it was found that wh-questions patterned differently from yes/no questions and declaratives. There were no instances of infinitive verbs in the wh-questions produced by any of the subjects. [footnote somewhere about the *ou il est* stuff in dan] Also, with the exception of stylistic inversions in *ou'* questions, there were few (or no?) post-verbal subjects in the data from these three subjects. The number of null subject wh-questions was also quite small. In contrast, null subjects utterances accounted for approximately 50% of both declaratives and yes/no questions across the three subjects, sentence-final subjects constituted almost 20% of the utterances in both these groups as well. Finally, in the case of declarative utterances, untensed verbs were prevalent, and in yes-no questions occurred occasionally. This pattern contrasts strongly with the complete absence of such verb forms in the case of wh-questions.

Thus, the data from these three subjects seems to support the hypothesis of truncated structure in general, and the hypothesis by Crisma of the contrast in structure between the wh-questions in which full projection of the CP-level is required in order to allow the wh-word to move to SpecC and

declaratives and yes-no questions where a truncated structure, possibly to AgrSubjP, may appear.

4 Data from negation

A soon-to-be-published paper by Friedemann also explores the question of the presence of functional categories and their full projections in child French language. Friedemann considers these issues and their relationship to evidence for the VP-internal, right-branching subject hypothesis.

4.1 Friedemann and Subject type and negation

Friedemann discusses the underlying position of external arguments in French and makes arguments drawing on data from both adult and child language for right-branching of SpecVP, the VP internal subject. This hypothesis states that the subject of the verb is base-generated in farthest right position of the verb phrase. The subject then moves to the pre-verbal position when it raises to SpecIP in utterances with full projections of higher functional categories. He asserts that this underlying structure provides an explanation for the grammaticality and ungrammaticality of different forms of stylistic inversion in adult language.

Additionally, he claims the strongest evidence from a study of child language. In particular, he claims that the relative positions of post-verbal subjects and other verbal complements and the ordering of the negative particle, subject, and tensed vs untensed verb give evidence for the underlying position of the external argument. If the subject is base generated at the rightmost extreme of the verb phrase and moves to the left of the verb if the higher functional projections are (optionally) projected, then lexical subjects should appear either before or after the verb in child French, but if they occur postverbally in the presence of a verbal complement, which is in the specifier position of V, they should follow the complement, rather than precede it. In the case of negated utterances, the specifier of the inflectional phrase is projected to the left of the negative particle thus if the subject were to undergo V to I raising it should appear to the left of the verb and *pas*, otherwise it should appear to the right of the verb..needs better description The construction pas-subject-verb should be impossible on this hypothesis.

6 Negation, Finiteness and Subject Position

Freidemann made claims in support of his hypothesis for the underlying position of the external argument based on the admittedly scanty data about the positions of negative particles, finite vs. nonfinite verbs, and object position in data from Phillipe and Gregoire. We now consider the structure of negative utterances in the data from Daniel and Nathalie to see if additional, more extensive support may be found. The claim in question is that if there is no raising from V-to-I, as may be claimed for the case of infinitive verbs, then the order 'pas-infinitive verb-subject' is predicted, while the order 'pas-subject-infinitive verb' is indicated as unlikely to occur. Conversely, in the case of tensed verbs, we would expect the negative particle to follow the verb and the subject to occur after the particle or before the verb, in the case that the subject moves to SpecIP as may optionally occur, assuming a truncated structure hypothesis.

For both subjects, only 10% of the tensed verbs are preceded by the negative particle, and there is only a single instance of a postverbal negative particle with an infinitive verb. Although there are 3 (?)instances of negative infinitive utterances with lexical subjects, one of which is preverbal, there are no instances in which the subject occurs between 'pas' and the verb. As below we have:

pas prendre maman.
not take Mama.
pas tomber la poupee'.
not fall the baby.
papachou pas pleurer.
Father not cry.

One issue which may be relevant to the truncated structure hypothesis is the relationship of negation and inflection in structure. Does the use of infinitives in negative utterances mirror the frequency of use of infinitives in general? There are some interesting variations in the use of negatives across the subjects considered. For two subjects, Phillipe and Gregoire, there were very few negated utterances with untensed verbs, 4% in the former case and 0% in the latter; however, untensed verbs account for 13.6% and 21.4% of the utterances overall. In contrast, in the data from Daniel and Nathalie

a different relationship appears to hold. For Daniel, 41% of the negative utterances have nonfinite matrix verbs, and over 40% of the matrix verbs in his transcripts are untensed. Likewise for Nathalie, we found 23.6% of the negated utterances had nonfinite verbs, while 24% of verbs overall were nonfinite. Thus, in two cases, Phillippe and Gregoire, we find that the rate of occurrence of infinitives in declaratives and negatives to be dramatically different - a difference of almost 20%. However, for the other two subjects, we have that the rate of infinitives in negative utterances is almost exactly the same as the overall rate of occurrence of untensed verbs.

In spite of this disparity, though, all of the subjects attest to the absence of 'pas-subject-infinitive verb ordering.'

One interesting additional observation concerns the use of subject pronouns, subject pronominal clitics. None of the subjects examined here produced an utterance in which a preverbal subject pronoun occurred in a negative utterance with an untensed verb. Also, of the 317 utterances in the corpus with a sentence initial pronominal subject, only 23 (7.25%) had nonfinite verb forms. This contrasts with an overall figure of 31% of the utterances having untensed verbs.