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THE EMERGENCE OF PERIPHRASTIC QUESTIONS IN CHILD—FRENCH

Bernadette Plunkett

University of York

1. INTRODUCTION

The most common type of question of found in spoken French is the type in (1).

1. Qu'est-ce que tu veux? periphrastic
   what is it that you want
   "What do you want?"

These questions (henceforth "periphrastic") consist of any Wh-phrase immediately followed by the string *est-ce que*, thought by some grammarians to involve an unanalysable chunk. An alternative view treats the string as complex, involving inversion of the main clause subject *ce* and the verb. In this paper child French is examined and it is argued that francophone children acquiring periphrastic questions generally target the complex structure.[1] This explains the late emergence of these questions, despite their pervasiveness in the input data. An apparent exception to the generalisation that children assume a complex analysis is examined and it is argued that although the child concerned initially produces such questions as routines, the pattern of acquisition is such that he too eventually targets the complex structure. The acquisition of such questions is of interest for two main reasons: it helps solve a syntactic puzzle as to the correct analysis of such questions in contemporary French and it provides material for the examination of the interesting question of how a child knows when a potentially simplex string necessitates a complex analysis.

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2. "WH+*EST-CE QUE*" QUESTIONS IN SPOKEN FRENCH

Periphrastic questions like (1) alternate with a number of other question types such as those involving Simple Inversion of a main verb and a pronominal subject (2) and involving no visible Wh-movement (3).

2. Que veux-tu? inverted
   what want you
   "What do you want?"
3. Tu veux quoi? *in situ*
   you want what
   "What do you want?"

Periphrastic questions aside, Simple Inversion is used less frequently in the spoken language than in writing but is obligatory with the moved form of the word for 'what' *que*.

The rate at which periphrastic questions are used varies; the adult speakers from 6 child language corpora were examined.[2] Speakers cover three main dialect areas; their overall rate of use of periphrastic questions varies from 13%–68% of complete Wh-questions. However, when we look at the types of syntactic context where they occur we find that they are heavily favoured in subject and object questions. They are also substantially used when a copular attribute is questioned. Object questions like (1)–(3) form the largest proportion of questions and most of the speakers use the periphrastic form in the vast majority of them.

Traditional grammarians and generative syntacticians are split between those who take periphrastic questions to involve a biclausal sentence structure, with Simple Inversion in the matrix and those who treat them as involving some kind of unanalysed unit.

Let us consider the predictions the two approaches make with respect to the acquisition of these questions.

2.1. Wh+*est-ce que* as Routine

If the bracketed part of (4) is an unanalysed chunk then it should be no more difficult to produce than (5), a monoclausal question in which a Wh-phrase has simply moved to the front of the sentence with no accompanying processes. On this "simplex" analysis it might thus be expected that both periphrastic and uninverted questions would be produced before (6), which involves the added step to inversion.

4. [lequel est-ce que] tu veux?
   which-one *est-ce que* you want
   "Which one do you want?"
5. lequel tu veux? uninverted
   which-one you want
   "Which one do you want?"
6. lequel veux-tu?
   which-one want you
   "Which one do you want?"

[2] Three are new corpora from the above mentioned project.

Within the generative approach to syntax, which I adopt, the *in situ* question in (7) is treated as involving the covert application of Wh-movement so whether it is expected to appear before or after (5) depends on whether overt or covert processes are simpler for the child.[3]

7. tu veux lequel?
   you want which-one
   "Which one do you want?"

In any case, under the simplex analysis, the neutral expectation with respect to the acquisition of such a common question type is that it be amongst the first to emerge.

2.2. Wh+*est-ce* que as a Complex Structure

The complex (henceforth the "inversion") analysis of periphrastic questions, on the other hand, predicts that of all the questions in (4) to (7), (4) should be acquired last. This question involves not only the inversion step, which we know from the anglophone acquisition literature is acquired late (see e.g., Davis, 1987; Stromswold, 1990), but a complex sentence structure. If *est-ce que* involves inversion then *que* must be taken to be a complementiser (subordinating conjunction) which introduces an embedded clause. The analysis assumed might approximate either (8) or (9)

8. Lequel$_k$ est$_j$ ce t$_j$ [que tu veux t$_k$]
9. Lequel$_k$ est$_j$ ce t$_j$ t$_k$ [*op*$_m$ que tu veux t$_m$] (where k = m)

In the first of these treatments the Wh-phrase is extracted from the embedded clause; such questions would thus not be expected until both long-distance Wh-movement and inversion had been acquired.

In the second, the structure involves a type of cleft (i.e., "which one is it that you like?"), with the Wh-phrase extracted overtly from the matrix predicate position and a second covert movement applying within a clause type resembling that of a headless relative. On this analysis, both Inversion and Cleft Formation are prerequisites to the acquisition of periphrastic questions. Either instantiation of an inversion analysis thus predicts that periphrastic questions will emerge relatively late and in any case not before both embedded clause structure and inversion have been acquired.

3. CHILDREN'S ACQUISITION OF PERIPHRASTIC QUESTIONS

We have examined data from six francophone children from three main dialect areas. Three of the children, one in France, one in Belgium and one in Canada, were studied as part of a project co-ordinated in York. The other data comes from three CHILDES corpora (MacWhinney & Snow, 1990); two of these children are French and one is a Belgian.

Only one child in the York study, a Belgian girl Léa, fully acquired periphrastic questions; she is the oldest of the three children in the study and was aged 2;8 at the

[3] The children in the Leveillé (Suppes, Smith, & Leveillé, 1973) Champaud and Rondal (Rondal, 1985; Rondal, Bachelet, & Perée, 1985) corpora (Mac Whinney & Snow, 1990) use moved questions first; where their acquisition can be fully tracked, the children in my own study began by using *in situ* questions.

beginning of the project. The other two children were under two when the project started and produced only a small number of periphrastic questions each. Max, a child living in Montreal produced only eleven periphrastic questions up to 3;3. The first was the *où* "where" question in (10).

10. *MAX: où est ce qu' il est? 2;6.12
where is it that he is
"Where is he?"[4]

The remaining ten were "what" questions beginning at 2;10.24, seven of these involved the same verb *faire* "to do" six having an almost identical form. Given this, it will not be possible to come to any conclusion about whether Canadian children acquiring French follow the same pattern as the European children.[5]

Let us consider the three children who produced the most numerous periphrastic questions, Léa (Belgium), Stéphane (Belgium, Rondal corpus) and Philippe (France, Champaud corpus).

Léa, whose data covers the period up to 3;10.23 was producing Wh-questions before we began recording her; her first recorded periphrastic question occurs in the second session.

11. *LEA: QU'[6] est ce que t' as dit? 2;9.5
what is it that you have said
"What did you say?"

The next recorded example is a month later so she clearly had not been producing large numbers of these questions up until this time.

12. *LEA: Minnie, QU' est ce que tu fais? 2;10.7
Minnie what is it that you do
"Minnie, what are you doing?"

In the same session as (11) she produces an embedded inversion in a Pseudo Cleft though this is the only case of embedded inversion found in the corpus.[7]

13. *LEA: <QU' est ce> [$C: ce] qu' on va raconter <à les> [$C: aux] petits
what is it that one goes to tell to the little
copains, c' est <Martine, Petite Maman> [″] 2;10.7
friends it is Martine little mother
"What we're going to tell our little friends is 'Martine, Petite Maman'"

The significance of this is that anglophone children have been found to overgeneralise Subject-Aux Inversion (SAI) to embedded contexts when they first start to use it productively (Davis, 1987). (13) may therefore signal the productive use of Simple Inversion in Léa's grammar; this being the only inversion in French which, like SAI, involves movement of a verb into the complementiser position. Indeed we do see evidence at this time of productive inversion of this type in Léa's grammar as the following examples show.

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[4] Asking about a piece of jigsaw with the character Ernie on it.

[5] However, a long-distance *qu'est-ce que* question at 3;1.14 may suggest acquisition of the construction despite infrequent use of it.

[6] Capitalisation is used to distinguish homophonous items in the York corpora, here the Wh-word is distinguished from the complementiser.

[7] The bracketed element marked $C indicates the target form for the elements which appear in angled brackets.

14. a.*LEA: quel âge a+t il? [% falling intonation] 2;9.5
which age has he
"How old is he?"
b.*LEA: aïe@o aïe@o aïe@o comment va+t on faire? 2;9.13
oh oh oh how goes one to do
"Yikes, what are we going to do?"
c.*LEA: et QUE[7] fais tu là [%add: LEA, Minnie]? 2;10.7
and what do you there
d.*LEA: QUE fais tu là, Minnie?
what do you there Minnie
"What are you doing there, (Minnie)?"
e.*LEA: où est elle euh? [$R][8] 2;11.4
where is she er
"Where is she?"
f.*LEA: je sais p& [///] où est elle, l' éponge? 3;1.7
I know n(ot) where is she the sponge
"(. . .) Where is the sponge?"
g.*LEA: mais où est elle, la bouteille?
but where is she the bottle
"But where's the bottle?"

Léa is thus acquiring periphrastic Wh-questions at precisely the time when she has first acquired Simple Inversion. During this first period (before age 3;5.17), periphrastic questions totalled only twelve, out of 115 full Wh-questions but involved three Wh-words *que* "what", *où* "where" and *pourquoi* "why". During this period she produced fifteen periphrastic yes-no questions.[9] This suggests that Léa acquired periphrastic Yes-No questions before periphrastic Wh-questions. This pattern is once again indicative of a construction involving inversion, since it is claimed in the anglophone literature that children acquire inversion in Yes-No questions before Wh-questions (Bellugi, 1968). Suddenly at 3;5.7 Léa produces thirteen periphrastic questions in a single session; this is out of a total of fifteen Wh-questions. After that time she consistently used this question type at a rate of more than 25% of full Wh-questions; in fact, just over 50% of her full Wh-questions from that time on were periphrastic.

We will further examine the rise in Léa's periphrastic questions later but it is worth noting here that with one exception (15) all Léa's periphrastic questions are target-like in that they contain all the elements found in adult periphrastic questions.[10]

15. *LEA: Qu' est ce (que) tu veux dire? 2;10.7
what is it you want to say
"What do you mean?"

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[8] This symbol indicates that the child repeats all or part of a preceding adult utterance.

[9] In our coded adult Belgian corpus only 17% of all periphrastic questions are Yes-No.

[10] We have adopted the CHAT conventions used in CHILDES so omitted elements are included within parentheses; these conventions have not been consistently implemented in the other francophone corpora.

The complexity of this question may be responsible for the omission.[11] However, this is the type of context in which adult speakers may elide the complementiser in contrast to (16), which is ungrammatical in European French.

16. *Qu' est-ce c'est?
what is it it is

Although we are not sure of exactly when Léa began to produce Wh-questions, it is clear that she is using periphrastic questions only sporadically until the age of nearly three and a half. Even if we assume, as her parents report, that Léa had only just begun to use Wh-questions at the start of the study, these questions are not appearing regularly until six months after others including inverted ones which, by hypothesis, require the projection of full clausal structure. We will return to Léa after examining the other children.

Two other children produced numerous periphrastic questions. The Belgian child Stéphane from the Rondal corpus (Rondal, 1985; Rondal et al., 1985) was studied from 2;3 until 4;9. He produces the most complex periphrastic questions of all the children examined. However, his data is transcribed only phonologically so that it is difficult to search for all cases and a detailed analysis of his questions has not been attempted. Until 4;3 Stéphane was living in the United States and at least after a certain point, his data represents bilingual rather than monolingual acquisition. Plunkett (forthcoming), estimates his acquisition of French questions as being about 6 months behind that of the other francophone children discussed here. From around 3;6 Stéphane attempts periphrastic questions like the one in (17) regularly.[12]

17. *CHI: k e = s e= fe~: ? 3;6.05
qu' est c' (que) e(lle) fait?
"What is she doing?"

Stéphane reaches a stage where around 30% of his Wh-questions are periphrastic about a year later; they are not all target-like at this stage though the *que* element is present. By this time they contain a large variety of Wh-words including "quand", the last of the Wh-words to be acquired by all the children studied.

18. a.*CHI: ka= s ke tu va fe~r sa: ? 4;6.28
quand (est) ce que tu vas faire ça?
'When are you doing to do that?"
b.*CHI: me~ wi me~ ou s k e~l va s aswar: ? 4;6.28
mais oui mais où (est) ce qu' elle va s'asseoir
"Yes but where's she going to sit?"
c.*CHI: koma= s k o= va fe~r: ? 4;6.28
comment (est) ce qu' on va faire
"How are we going to manage?"

Again the questions are acquired late, pointing away from a simplex analysis by the child. On the other hand, it is interesting to note that Stéphane's pronunciation of these

[11] Note that even on a simplex analysis this question is long-distance, that is the Wh-phrase must move from within one clause to the front of another.

[12] Details of the transcription system used can be found in the readme file associated with the corpus on CHILDES. Orthographic transcription has been added by the author.

questions typically includes no element corresponding to the verb *est*, a fact which might be taken to favour the simplex analysis. Crucially though, at the stage when he begins to produce these questions in large numbers we suddenly find cases of *est-ce que* in embedded questions, as the examples in (19) show.

19. a.*CHI: tu se~ bi= koma= s k i mote= ?
tu sais bien comment (est) ce qu' i(1) montait
= standard French *tu sais bien comment il montait*
"Do you really know how he went up?"
b.*CHI: ao: s e~ ou s ki so= le~ deu pemye= ?
c' est où (est) ce qu'i (ls) sont les deux p(r)emiers?
= standard French *C'est où qu 'ils sont, les deux premiers?*
"Where is it that the first two are?"

It is unlikely that these forms are dialectal; although some dialects allow such constructions, Stéphane's mother, despite using the *est-ce que* form frequently in direct questions, produces no embedded cases. (19) seems again to be evidence of an overgeneralisation of the inversion structure to embedded contexts. Unfortunately, the nature of the Rondal data impedes a full analysis of Stéphane's acquisition of inversion in questions but there are other examples, particularly in locative questions.

We turn now to Philippe from the Leveillé corpus (Suppes et al., 1973). Philippe was followed from age 2;1.19 until 3;3.12. Of nearly 1000 full Wh-questions, only 171 were object questions (17.5%). Since, in the adult data we collected, object questions represent the biggest proportion, this is a rather low percentage. It results from the fact that most of his questions contained only a copula and questioned an attribute. As Plunkett (forthcoming) shows, this is the first type of question produced by children. The large number of questions can thus not be taken to represent linguistic sophistication. A number of object questions were infinitival and thus incompatible with the periphrastic form. Of the remainder, 82% were periphrastic. Philippe, like the adults, is thus showing a strong preference for the periphrastic strategy in object questions, even in the early stages of development.

Although the first periphrastic questions appear early, they do not begin to take off until 2;6.27. The 25 examples before this included many repetitions of adult speech and only two target-like cases, with *que* present. Most involve the verb *faire* "to do" as in (20).

20. *PHI: qu' estce tu faisais ?
what is it you were doing
"What were you doing?"

Including repetitions, these represent 7% of his full Wh-questions in that period. This count does not include those which were of the form in (21), which seem to involve movement of *que* without the required inversion.

21. *PHI: que c'est ça ?
what/that it is that
"What is that?"

These examples provide evidence for a lack of Simple Inversion in Philippe's early grammar and are used up until age 2;3.21.

Although the overall percentage of periphrastic questions is relatively small in Philippe's early data, he seems to acquire them much earlier than any of the other children. All the periphrastic questions which are not unambiguously object questions are

some variant of the forms in (22). The question in (22b) involves a copular use of the verb *avoir* "to have" and is perhaps more closely parallel to the examples in (22a) than to normal object questions.

22. a.*PHI: qu' estce c' est, ce petit animal ? 2;1.19
what is it it is this little animal
"What's this little animal"
b.*PHI: qu' estce y a à l' école ? 2;1.19
what is it there has at the school
"What is there at the school?"

All of Philippe's periphrastic questions with the exception of one, in the last file, are formed with *qu'est-ce (que)*.

The age at which Philippe begins to use periphrastic questions is so different from that of the other two children that it is most likely that he is treating *qu'est-ce* in these early cases as an unanalysed whole. However, the most appropriate analysis is not one in which the whole of the string *Wh+est-ce que* is taken as a chunk but one like that shown in (23) in which the *que* is treated separately.

23. $[_{CP}$ wh+est-ce $[_{C'}$(que) $[_{IP}$ . . . t . . .]]]

The main reason for this is that, as we have seen, the *que* element is rarely present. If this word belonged to a routine there would be no reason for its absence. In addition, Philippe like other francophone children initially fails to pronounce the complementiser *que* in his early use of embedded clauses. As his grammar matures, the presence of *que* becomes more and more reliable both in this type of question and in other complementiser contexts. In fact, in the early questions, when *que* is absent the landing site of *qu'est-ce* is not necessarily [spec,CP] as suggested here but may well be lower, perhaps [spec,IP], as suggested for anglophone children in Plunkett (1991) and elsewhere and for French by Hulk (1996). The fact that the *est-ce que* construction is not used productively by Philippe with different Wh-phrases bolsters the idea that for him, such questions initially involve routines.

Alongside numerous cases like those in (21) we find some cases of the type in (24).

24. *PHI: que ce c' est ça, maman ?
what it it is that Mum
"What's that, Mum?"

Along with (21), these might suggest that Philippe is beginning to treat *Qu'est-ce* as containing the Wh-word *que*. Although in (25) too *que* may be being identified as a Wh-word, it is erroneously used without an adjacent verb.[13]

25. *PHI: j' ai joué dans la mer et encore que j' ai fait ? 2;6.13
I have played in the sea and again what I have done
"I played in the sea and what else did I do?"

To sum up: Philippe, in contradistinction to the two children examined so far, uses questions containing *est-ce que* very early, apparently as soon as he begins to ask ques-

[13]The only alternative analysis is that here and in (21) the Wh-phrase is missing altogether with *que* representing a complementiser. Whilst cases of missing Wh-phrases do exist in Philippe's data, most appear much earlier than this and his complementisers are still otherwise generally absent.

tions. The limited array of question types in which *est-ce que* is used suggests that *qu'estce* (transcribed as a unit in this corpus) is being treated as a variant of the Wh-word *que*. It is perhaps significant that in the early stages, all of Philippe's Wh-questions are moved, so that for "what" questions no alternative strategy which is grammatical is available to him. Philippe does not begin to productively use *in situ* questions containing a finite verb until 2;6.13.[14] However, even once the alternative strategy is available, *qu'est-ce que* questions are maintained, though now more frequently with the complementiser present and around 2;8 subject *qu'est-ce que* questions are used. By this time then, it is likely that Philippe is able to apply a complex analysis since the complementiser appears in the form *qui* in subject questions and is always present when he produces one. Except in dialects with matrix complementisers, this change in the form of the complementiser happens only when an embedded subject has been extracted. However, Philippe may not be applying the complex analysis consistently. The complementiser *que* continues to be omitted from time to time and Philippe uses *qu'est-ce que* in embedded questions in nearly all cases. This is not the pattern seen with overgeneralisation; in that case it is usually short-lived and it alternates with the correctly uninverted form while in the case of Philippe, the large majority of his embedded "what" questions have the *qu'est-ce que* form over a period of more than 6 months. (files 21–33)

Let us turn now to the remaining two children.

Anne, a child from the York study living in Paris, spontaneously produced only seventeen periphrastic questions, the first being the two in (26).[15]

26. a.*ANN: là, QU' est (ce) que c' est ? 2;8.20
there what is that it is
"What is that there?"

b.*ANN: oui et QU' est (ce) qu' i(l) fait, le garçon ? 2;8.20
yes and what is that he does the boy
"Yes, and what's the boy doing?"

Anne produced other Wh-questions before the age of two, though at the time of these first examples she did not yet productively use indirect questions and very few questions involved overt Wh-movement. Of the fifteen remaining examples, twelve were essentially of the same form, involving the string *qu'est-ce qu'il y a* "What is there". Five of the total occurred just before the end of the study at 3;4.23 and one of these was a clear long-distance question. It seems likely then that her pattern of acquisition resembles Léa's, with productive use beginning just before the age of 3;6.

Another child who, like Anne, produced few periphrastic questions was Grégoire from the Champaud corpus; the only clear case in the early data that include video recordings resembles those produced by Anne.

27. *GRE: qu' est (ce) que c' est ça ? 2;4.29
what is that it is that
"What is that ?"

However, Grégoire, like Philippe and unlike Anne, used only moved questions in the early stages.

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[14] This was the first session after a three month gap. An isolated example occurred in file 6 and at 2;3 he began to use *quoi* in infinitival questions. At 2;6 he is using indirect questions and complementisers are appearing in other constructions.

[15] A repetition of an adult periphrastic question of the form in (26a) also occurred at 2;5.18.

The examples in (28) were transcribed as attempted periphrastics but these hardly differ from that in (29)

28. a.*GRE: <(qu'est c)e que c'est> [?] (l)e b(r)uit) ? 2;0.5
e that it is
"What is it?"
b.*GRE: (qu'est+ce) que c'est ? 2;5.13
that it is
"What is it?"
29. *GRE: que c'est ça ? 2;5.13
what/that it is that
"What is that?"

It is not clear why these should have been distinguished in the transcription, unless it was on phonological grounds. Later data consists of only diary notes; no other periphrastic questions are noted until a year later when he produces the question in (30) twice and ten days later a periphrastic Yes-No question. Nothing indicates if these were the first such examples.

30. *GRE: avec une maman fatiguée et un garçon petit # sans forces # qu' est ce'
with a mum tired and a boy little without strength what is it
qu' on va faire? 3;5.10
that one goes to do
"With a tired mum and a little weak boy what are we going to do?"

Given that Grégoire too began producing Wh-questions before the age of two, we can safely conclude that together with Anne, Grégoire acquired periphrastic Wh-questions rather late, just like the first two children we examined.

It appears that the early use of periphrastic questions seen in Philippe's data is the exception and that the majority of children immediately target the complex structure which is compatible only with an inversion analysis. The challenge arising from this acquisition pattern then is to uncover what triggers this complex analysis. Although this will require further study with data from a larger number of children it may be useful as a preliminary to compare the pattern of acquisition with that found in children acquiring inversion in English. The next section will make this comparison for Léa and Philippe, exemplars of the two patterns found.

4. INVERSION AND EMBEDDED QUESTIONS

Jill de Villiers (1991) showed that in English *Why* questions (the last to be consistently inverted), there is a remarkable correlation between the time at which inversion takes off and the time at which the child begins to use *Why* in embedded contexts. The pattern found was one in which, using cumulative totals, it could be seen that the number of inverted matrix questions began to rise in parallel with and at the same time as indirect questions. Indirect questions are generally only half as frequent as direct ones so this means that when the children begin using the former they were starting to invert in matrix questions but roughly only half the time. De Villiers' charts show that the rises continue in parallel until a certain point at which the inversion line rises steeply, indicating that inversion has now been fully acquired. In Plunkett (1992) I argued that this pattern could be explained if the child was unable to determine the correct landing site for Wh-phrases until she was able to analyse both matrix and indirect questions. The contrast between

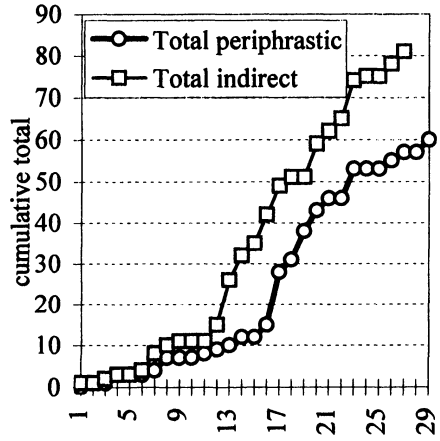

Figure 1. Léa: rise in periphrastic questions.

matrix inversion and embedded non-inversion was claimed to be a prerequisite for the successful acquisition of inversion.

In French, because inversion is not categorical in moved questions, we would not expect such charts to look identical; in particular, successful acquisition of inversion might result in a line parallel to that of embedded structures, given that alternative strategies to inversion are available. However, if inversion is involved in *est-ce que* questions, as our data suggests, then we expect the acquisition of indirect questions to be a prerequisite in the same way so that we expect to see the rise in the use of inversion to happen either around the same time as or shortly after the acquisition of indirect questions.

Consider now the pattern found in Léa's data. Overall the pattern is precisely as predicted. In Figure 1 the rates of use parallel each other closely and the two constructions emerge together; however, the sharp increase in use happens in indirect questions two months before it happens in periphrastic questions (beginning file 12 versus file 16). But indirect "what" questions in French pose an additional difficulty; the uninverted *ce que* structure behaves syntactically like a relative clause rather than an indirect question. Interestingly, as Figure 2 demonstrates, in this case Léa begins to use the

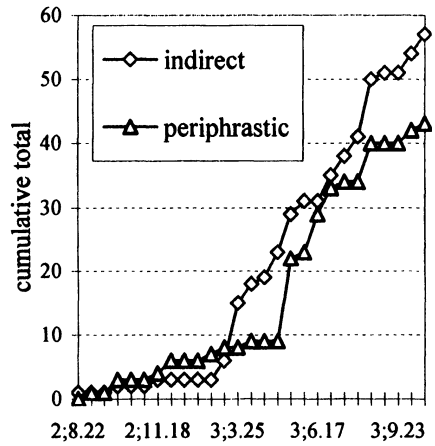

Figure 2. Léa: rise in indirect and periphrastic *Que*.

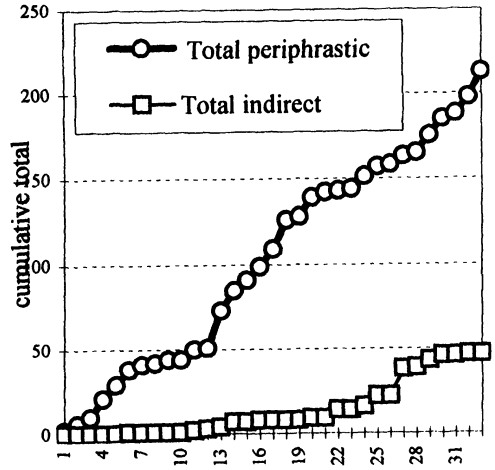

Figure 3. Philippe: rise in periphrastic questions.

periphrastic structure before the embedded one, but once again it is not until some time after the indirect questions have been mastered that the steep rise in periphrastic questions occurs.

Consider, in contrast, the pattern found in Phillippe's data. In Figure 3 we see that at the end of the study Philippe has barely begun to use the target form of indirect "what" questions, while he uses periphrastic questions from the beginning of the study with an increase in the rate of use beginning in file 13. Even the initial use of embedded *que* structures lags, beginning around the time of the increase in his periphrastic questions but with little development until file 21, when he begins to use *est-ce que* in embedded contexts. The contrast with Léa's charts shows clearly that Philippe is not initially employing the same analysis of periphrastic questions as Léa.

However, if we compare Philippe's target-like periphrastic questions with the total, we see that the target forms are appearing at just the time when Philippe first begins to use indirect "what" structures (file 12).

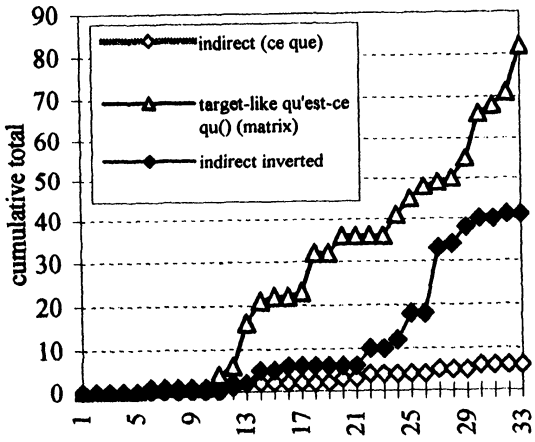

Figure 4. Philippe: rise in indirect and periphrastic *Que*.

The complication in the *ce que* construction blurs the situation and because Philippe has not acquired the *est-ce que* form in conjunction with any other Wh-words we cannot see the full pattern. The single example in the last file of a different *Wh+est-ce que* question may confirm a reanalysis; with the generalisation of the structure to other Wh-words, the contrasting pattern between matrix and embedded questions will become clearer.

We have seen evidence that francophone children target the more complex of two potential structures for what we have called periphrastic questions. This complex structure involves a type of inversion similar to Subject-Aux inversion in English and just like that inversion, the type discussed here is also seen to arise only once indirect questions are beginning to emerge. However, we have seen in addition that some children may initially misanalyse the construction involved. That this should happen does not seem surprising but what requires further research is the reason for the much more interesting fact that most children do not do this, but are able to target the complex structure immediately.

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