Decomposing French Questions

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1 Introduction

It is well-known that in matrix contexts French combines English and Chinese properties when it comes to *wh*-questions. Like English, French fronts the *wh*-phrase; but it also allows it to stay in situ, much like Chinese.

(1) a. Qu'a acheté Jean? ('What has Jean bought?')
b. Jean a acheté quoi? ('Jean has bought what?')

The optionality that French exhibits is problematic on several grounds. For one thing, it casts doubt on the "Chengian" view on the typology of *wh*-questions (Cheng 1991), which seeks to motivate the cross-linguistic variation found in *wh*-strategies by capitalizing on the nature of (simplifying dramatically) *wh*-words and question-particles. At a more general level, French seems to flatly violate the 'minimalist' ban on 'pure' optionality, fronting appearing at first not to be a Last Resort option in (1). I will not touch upon recent interesting proposals like Bošković (1998a; to appear), and Sportiche (1995), because they all seem to fail to capture the interpretive differences between (1a) and (1b) (both sentences are assigned, roughly, the same LF).

2 French in-situ *wh* revisited

2.1 Interpretive Differences

While it is felicitous to answer a question like (2) (where fronting has taken place) by 'nothing' in French, it is *not* felicitous to answer a question like (3) (where the *wh* stays in situ) by 'nothing' (see also Chang 1997:42).

(2) A: **Qu**'a acheté Jean? 'what has J. bought?'
B: Un livre/une voiture/**rien**/... 'a book/a car/nothing'
(3) A: Jean a acheté **quoi**? 'J. has bought what?'
B: Un livre/une voiture/***!rien**

French has four strategies to form questions, as shown in (4).

(4) a. **Qui** as-tu vu? Fronting
who has you seen?

b. Tu as vu **qui**? In-situ
you have seen who?
c. **Qui** est-ce que tu as vu? Reinforced fronting
who is it that you has seen?
d. (C'est) **qui** que tu as vu? Cleft
(it is) who that you have seen?

When we concentrate on 'possible felicitous answers,' we see that fronting and reinforced fronting pattern alike in allowing an answer like 'nothing.' By contrast, in-situ and cleft strategies disallow such an answer.

There is further interesting evidence that in-situ and cleft strategies pattern alike. Some *wh*-words in French have both a strong and weak (clitic-like) forms (in roughly the sense of Cardinaletti and Starke (to appear)). For instance, the object *wh que* ('what') can surface as *qu'* or *quoi*, thus resembling non-*wh* pronouns like 3rd person *le*, which has a weak and a strong form, *l'* and *ça*, respectively. Depending on the syntactic and prosodic contexts, only one form is allowed to surface.

(5) a. **Qu**' as-tu vu? Fronting
What have you seen
b. **Qu**'est-ce que tu as vu? Reinforced fronting
What is it that you have seen
c. Tu as vu **quoi**? In-situ
You have seen what
d. (C'est) **quoi** que tu as vu? Cleft
It is what that you have seen

Given that the distribution of the strong and weak forms appears to be governed by the amount of focus put on the element, I thought it interesting to examine whether focus might explain some of the restrictions we saw on felicitous answers. And, indeed it seems that it does. Thus, much like it is impossible to answer (5c) by 'nothing,' it is impossible to use an element like *nothing* in a cleft structure.

(6) *!It is nothing/nobody that John saw

In this respect, English disallows an answer like 'nothing' to a cleft-question like (7).

(7) A: What is it that John bought?
B: *!Nothing

Given that, and other cases (like the behavior of the *wh*-NPI *quoi que ce soit* 'what that it be' discussed in Boeckx 1999), I would like to claim that in situ *wh*-phrases in French are focused, 'covert' cleft structures, so to speak, which is why they cannot be felicitously answered by 'nothing.'

Interestingly, Cheng 1991 has noted the implication of focus in optional *wh*-fronting languages like Egyptian Arabic, Bahasa Indonesia, and Palauan. In those languages, fronting seems to correspond to a cleft structure. The interesting aspect of the claim I put forward is that, if I am right, French is just the reverse of Cheng's account: here, the in-situ strategy is equivalent to a cleft structure. If correct, the analysis would then open up another space of parametric variation, leaving the 'principle' (Cheng's "Clause-Typing Hypothesis") intact—a desired result it seems to me.

But detecting the role of focus is just the starting point. We have to provide an answer as to why French in-situ structures are reverse clefts, and make the semantics of in-situ questions in French more precise.

I believe that such questions can only be addressed if we are willing to look at all sides of the grammar, for I am convinced that the cluster of properties of French in-situ questions are the result of the confluence of syntactic, semantic, and phonological (prosodic) factors.

2.2 Why Do Focused *Wh*s (Have To) Appear In Situ?

The role of focus is well-known in the literature on questions, and has often been appealed to in order to account for language-internal properties, and cross-linguistic variations. See Horvath 1986, amd much important work in its wake (Bošković (1998b), and Stjepanović (1998), e.g.)

But despite the view that focus matters, we still lack an explanation for why French differs from other Romance languages, and from Germanic languages.

To address that issue, I will capitalize on Zubizarreta's 1998 study of the interaction of focus, prosody, and word order. Zubizarreta notes that there are various, not necessarily mutually exclusive, ways of licensing focus in natural languages: via prosody (the focus of her investigation), morphology, and syntactic positioning.

As for prosody, Zubizarreta claims that the relevant 'rules' are the Nuclear Stress Rule (NSR), and the Focus Prominence Rule (FPR).

(8) Nuclear Stress Rule
Selection-driven NSR: Given two sister categories C_i and C_j, if C_i and C_j are selectionally ordered, the one lower in the selectional ordering is more prominent

Constituent-driven NSR: Given two sister categories C_i and C_j, the one lower in the asymmetric c-command ordering is more prominent

(9) Focus Prominence Rule
Given two sister categories C_i (marked [+F]) and C_j (marked [-F]), C_i is more prominent than C_j.

As Zubizarreta notes, the coexistence of the FPR and NSR in the grammar gives rise to cases in which the output of the NSR contradicts the output of the FPR. Detailed discussion leads Zubizarreta to conclude that those conflicts are resolved in Germanic via a mechanism of metrical invisibility, whereas in Spanish (and Italian), conflicts are resolved via P(rosodically-motivated) movement. For French, Zubizarreta arrives at the interesting conclusion that both metrical invisibility and P-movement are used to resolve conflicts, which according to her indicates no optionality, but coexistence of grammars (language change process, dual grammar).

Regarding interrogative sentences involving *wh*-phrases (i.e., inherently focused words), Zubizarreta notes that here, in contrast to statements, Nuclear Stress is contained within the presupposed, not the focused, part of the sentence. She therefore argues that in both Germanic and Romance focus is licensed syntactically in questions, in contrast with focus in statements, which is licensed prosodically. This leads her to make the following claim (p. 92):

(10) A fronted *wh*-phrase is licensed by virtue of occupying the specifier position of a functional category with the feature [+wh] (i.e., via the feature-checking mechanism)

For *wh*-words in situ, however, the licensing mechanism is prosody (the *wh*-word bears Nuclear Stress), as in (11).

(11) (I wonder) who bought *whát*?

She therefore assumes (p. 93 (168)):

(12) In the languages under discussion [i.e., German, English, Spanish, French—CB], a *wh*-phrase is licensed either syntactically, or prosodically, if a *wh*-phrase is already licensed syntactically.

I would like to challenge this claim, and argue that French is an exception to (12), much in the same way that it is an exception to the way a language re-

solves conflicts between NSR and FPR. Note the parallel:

(13) In French, a *wh*-phrase is licensed either syntactically (*wh*-movement), or prosodically (NS on the *wh*-in situ)
(14) In French, conflicts between NSR and FPR are resolved either syntactically (P-movement), or prosodically (metrical invisibility)

The question now consists in determining whether (13) is a case of pure, 'anti-minimalist' optionality, or whether the apparent optionality results in interpretive differences at the interfaces. To know this, we have to go deeper into the realm of focus.

2.3 Refining The Notion 'Focus' And Its Relation To Cleft

The notion 'focus' has been used with a very wide denotation, so that using the term is no trivial issue. It is well-known that some type of focus, referred to as 'Focus-in-situ,' 'focus-operator,' possibly related to (some use of) 'contrastive focus' (see Szabolcsi 1981,and much subsequent work), entails uniqueness, and exhaustivity.

This type of 'Exhaustive focus' is what is found in clefts. Here I rely on Percus's 1997 analysis of clefts.

Percus argues that exhaustivity, and uniqueness in clefts come about by the presence of a covert definite description. Percus assigns a structure like (16) to a sentence like (15).

(15) It is John that killed Bill
(16) a. It is $[\alpha]_F$ that has property P
b. $[_{IP}\ [_{DP}$ the $\varnothing\ [_{CP}\ OP_i$ that t_i has property P$]]_j\ [_{VP}\ t_j$ is $\alpha]$

(16) is then converted into (17) by a rule of extraposition:

(17) $[_{IP}\ [_{DP}$ the $\varnothing\ t_k]_i\ [_{VP}\ t_j$ is $\alpha][_{CP}\ OP_i$ that t_i has property P$]_k$
$\quad\quad\quad

(19) the one that killed Bill is $[JOHN]_F$

The major properties of clefts Percus seeks to account for are roughly the one identified above for *wh*-in situ in French:

1. Its presupposition: a cleft, and a *wh* in situ have the same presupposition as a sentence containing the definite description *the individual that has property P*. This will be explained by capitalizing of Percus's case for an empty D head.

2. Independent constraints on extraposition account for restrictions on clefts. I will show that similar constraints account for restrictions on the licensing of *wh*-in situ in French, most notably, the ban on in situ *wh*-phrases in embedded contexts.

The question we now have to answer is why the *wh*-phrase has not moved. That is, why the in-situ strategy corresponds to the cleft structure.

An answer is readily available if we adopt Percus's idea of an empty D head in clefts. Assume that when they appear in situ, *wh*-phrases in French are headed by an empty D. This immediately accounts for their presuppositionality (on the semantics of D and presuppositionality, see Heim and Kratzer 1998). Being headed by an empty D, *wh*s in situ have more structure than preposed ones. Could this additional structure account for why wh-Ds stay in situ? I believe it can. Cardinaletti and Starke have extensively argued that pronouns have various structural compositions, and that 'heavier' pronouns tend to stay in situ, which has syntactic and prosodic consequences. The rationale behind Cardinaletti and Starke's theory is that 'defective' elements have to move to get what they do not inherently possess. As already noted in section 2, Cardinaletti and Starke call heavy pronouns strong forms. Remember that we noted that strong forms are used in in-situ contexts. All those details converge to show that there seems to be syntactic, morphological, and prosodic evidence in favor of some additional structure in *wh*s in situ in French. The likely candidate is Percus's D head, which covers the *wh*-phrase, making it presuppositional.

The presence of an empty D has important consequences for the syntax, and semantics of French *wh*s in situ, as it does for clefts in general. As originally noted by Halvorsen 1978, and also discussed in Rooth 1999, clefts carry a specific presupposition, viz. that there is some individual that has the property P: $\exists x\, P(x)$. As Rooth 1999 has observed, this existence presupposition cannot be attributed to focus on the head: parallel sentences of the form '$[\alpha]_F$ has the property P' don't exhibit the presupposition in question. Likewise, preposed *wh*-phrases are often said to be inherently focused, but they do not carry the presupposition of their in-situ counterparts. For instance, as

already discussed above, (20b) is an acceptable answer to (20a), unlike (20c). This is because the presupposition of (20c) conflicts with the assertion that (20c) is making. No such conflict arises in the case of (20b).

(20) a. Who saw John?
b. [NObody]$_F$ saw John
c. *it is [NObody]$_F$ who saw John

So it seems that clefts introduce a presupposition that mere focus does not carry.

Besides existence, clefts also carry an exhaustivity requirement, paralleled by *wh*s in situ in French: $\forall x\ P(x) \rightarrow x = \alpha$: a presupposition that only αhas property P.

The uniqueness and existence presuppositions has broad consequences which I analyze in some detail in Boeckx 1999. For present purposes, I limit myself to noting that the uniqueness and existence presuppositions are those of the definite description (the Strawsonian view), which is precisely what Percus capitalized upon to propose a concealed description in clefts. As Percus notes (p. 342), it is known that presuppositional requirements sometimes appear to vanish under operators like negation. But it is also known that this does not happen under certain conditions. These conditions obtain when some constituent in the same clause as the presupposition carrier but not containing the presupposition carrier is in focus. If the head of a cleft obligatorily receives focus (or, if the *wh*-in situ does), then these conditions are fulfilled. So it follows that the presuppositional requirement of the definite description will always survive under operators like negation. In other words, the pattern on (20) reduces to (21).

(21) ??the one who saw John was [NObody]$_F$

As for the exhaustivity of focus in clefts, it is nothing other then the uniqueness requirement of the concealed description.

As we can see, Percus's proposal for clefts translates straightforwardly to cases of *wh* in-situ in French. The intricate interplay of syntactic, semantic, and prosodic factors account for the cluster of properties identified above.

The cleft-analysis of *wh* in situ in French has important consequences for an account of Intervention effects (Beck 1996), and begs the question of the relation of in situ *wh*-phrases in French, and D-linked *wh*-phrases ('*which*'-phrases) in English, for which an empty D-analysis has recently been put forward (See Rullmann and Beck 1998). Addressing these ques-

tions here would require much more space that I can devote here, I therefore refer the interested reader to Boeckx 1999.

In the remaining of this study, I will briefly address two questions: (i) are in-situ questions in French echo-questions?, and (ii) what explains the ban on in-situ *wh*-phrases in French in our framework?

An answer to question (i) depends on what we mean by echo question. If by echo question we mean "questions with a high + rising 'echo intonation'." or "any question said in immediate response to an utterance which is surprising, deserving repetition, or which was in part not heard, or thought not to have been heard correctly," " a request for repetition, or confirmation, or a showing of politeness, or concern, or an expression of surprise or disbelief, or the like," then clearly French in-situ *wh*s are not echo-questions. Their distribution does not match the descriptions just given. By contrast, as pointed out to me by Željko Bošković and Maribel Romero (p.c.), some definitions of echo questions may apply to our characterization of *wh*-phrases in situ in French (I give some such definitions in Boeckx 1999). So characterizing some question as 'echo' is a matter of terminology. Traditionally, echo-questions are disregarded as "syntactically uninteresting" in the literature. They seem to be licensed prosodically, period. By contrast, even if we were to say that French *wh*-in situ questions are 'echo'-questions of some sort, I believe that they exhibit interesting behavior. Moreover, there is evidence (e.g., the intervention effects studied in Boeckx 1999) that under some circumstances, *wh*-phrases in situ 'lose' their truly interrogative, cleft-readings, to become mere (repetitive) echo-questions, which is one more reason to study them in some detail.[1]

The final question I would like to address here is the ban on *wh*s in-situ

[1]Although I believe it to be a matter of terminology, hence not part of the scientific study of language, I am inclined to think that French in-situ interrogatives share many aspects of the Spanish "incriminatory" questions studied in Uriagereka 1988 (which he contrasts with "inquisitory" questions), and Grohmann's 1998 German "*wh*-topics," both of which show apparent 'superiority' violations.

Though space limits prevent me from going into any detail, what Uriagereka characterizes as incriminatory is a reading where what is being asked is the specific role each of the participants in the event played: the participants, and the whole event are background knowledge, the question is detail-seeking. Interestingly, Uriagereka notes that the incriminatory question has the normal declarative order that sentences have in Spanish.

For reasons that are still unclear to me, such readings are found only in multiple interrogatives in German and Spanish. An interesting avenue to explore, I think, would be to capitalize on Pesetsky's (to appear) taxonomy of "C-filling requirements," according to which languages vary as to how many *wh*-phrases must move to C. I leave this idea for future research.

in embedded contexts discussed extensively in Bošković (1998a; to appear), the crucial distinguishing factor between pure *wh*-in-situ languages like Chinese, and French.

(22) a. *Jean a dit que Marie a vu **qui**?
Jean has said that Marie has seen who
b. **Qui** Jean a-t-il dit que Marie a vu *t*?

(22a) can only be assigned an echo-reading (where by 'echo,' I mean purely repetitive). As Bošković (1998a, to appear) observes, the correct generalization seems not to be 'embedding' but 'embedding' under CP. As shown in (23), *wh*-phrases are allowed in situ in restructuring contexts (which have often been analyzed as either monoclausal, or VP-embedded, not CP-embedded contexts).

(23) *Jean veut que Pierre achète **quoi**?
(24) Jean veut acheter **quoi**? ('Jean wants to buy what?')

Based on this, and some intervention-data (see Boeckx 1999), Bošković concludes that covert movement of the *wh*-in situ is more constrained than overt movement. But that conclusion is not warranted once we recognize that the in-situ and preposing strategies are really distinct. The properties they exhibit might account for one being more constrained than the other without appeal to the nature of movement. However, I do think that Bošković's insight that there cannot be an intervening CP (a case of relativized minimality) is correct, but I would like to give it a different motivation.

I would like to relate the ban on CP-embedded in-situ *wh*s to some version of the right-roofed constraint, which makes extraposition upper-bound, and an island for movement. Remember that Percus wanted to derive constraints on clefts from the extraposition part he assumed for cleft-formation.

It is, I think, impossible to maintain an extraposition mechanism in French *wh*-in situ contexts,[2] but I would still like to propose that CP makes 'movement' of the *wh* in situ upper-bound (that some movement is involved to license the *wh* in situ is argued in Boeckx 1999 on the basis of Intervention data).

Note that the cleft structure requires 'adjacency' between the D-head

[2]Except under Sportiche's 1995 account (coupled with a Kaynian view on extraposition (Kayne 1994)). But Boeckx 1999 shows that Sportiche's analysis is untenable, on independent grounds.

and the element α of which property P is predicated. *That*-clauses have also been argued to have a D-feature (see Bošković 1995, e.g.), which might amount to imposing an 'upper-bound' requirement on the licensing of the *wh* in situ: a *wh*-in situ is licensed by the closest CP.

This has the immediate consequence of ruling out (22); the intermediate CP blocks association of the *wh* with the highest CP: a straightforward case of Relativized Minimality.

(25) $[_{CP} \ldots [_{CP} \ldots wh]]$
$|_____x____|$

By contrast, (24), containing no CP other than the matrix one, is correctly ruled in.

For the account to work, it is crucial that the intervening CP have a D-feature (to maintain the parallelism with clefts). In other words, we predict that if the intermediate CP has a non-D, non-assertive value, *wh*-phrases will be licensed in situ in embedded contexts. Here I have to disinguish two cases. One abstractly corresponds to the following cleft-structures:

(26) it is JOHN that said that it is MARY that Bill kissed

which I would like to relate to:

(27) Jean a dit à **qui** que Pierre a vu **quoi**?
J. has said to who that P. has seen what

This structure shows that clefting is recursive, but crucially the two cleft elements have separate 'domains.' This explains why (27) cannot have a pair-list, but only single-pair reading. (See Boeckx 1999 for discussion.)

If we follow a long tradition that assumes that pair-list readings are available when all *wh*-phrases are licensed by the same Comp, clearly (27) cannot have a pair-list reading (the embedded *wh* is licensed by the embedded CP), but the presence of an interrogative matrix C has some repercussion on the embedded C: it makes a true interrogative reading available.

The second case I would like to mention is the following:

(28) **Qui** a dit que Jean a vu **quoi**?
Who has said that J. has seen what

Here, the *wh* in situ takes matrix scope, and a pair-list reading is available. I assume that this is possible because once the *wh* has reached/associated with

the embedded C (whether by movement or not, see Boeckx 1999), the latter associates in turn with the matrix *wh*, by a mechanism of absorption. The crucial difference between (27) and (28) is that the matrix clause in (28) is not a cleft, it is a true interrogative clause that takes everything it c-commands under its scope.

To sum up so far, *wh*-phrases are licensed by the closest CP. If an interrogative is contained in some higher clause, the embedding C receives some special value, licensing a recursive cleft structure (narrow scope for the lowest *wh*), or triggering absorption (high scope for the *wh*).

This explanation holds for matrix verbs of the 'believe/say type;' for verbs like 'wonder' or 'ask,' facts are not different: a *wh* gets matrix scope if it is adjacent to the matrix verb (another case of absorption, I assume) (29). If it stays in situ, it can only take narrow scope (30).

(29) Jean se demande **qui** Marie a embrassé
J. wonders who M. has kissed
(30) Jean se demande si Marie a embrassé **qui**
J. wonders if M. has kissed who

3 Conclusion

To conclude this study, I have offered a new view on *wh* in situ in French, which proved necessary to account for the interpretive differences among interrogative strategies rarely discussed in the literature. I have shown that there is a definite correlation between in-situ and cleft strategies, which I have analyzed in terms of focus, capitalizing on Zubizarreta 1998 (on the PF-side), and Percus 1997 (on the LF-side). All in all, the present study strengthens the Chengian view on the typology of *wh*-questions, for which French was often seen as a major stumbling block.

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