

## French Interrogatives in an OT-LFG Analysis

Although an OT analysis has already been proposed to account for French relatives (Pesetsky 1997) and the differences between formal and colloquial French interrogatives were also treated in OT by different constraint hierarchies, thus different grammars (Ackema & Neeleman 1998), (to my knowledge) no OT analysis has accounted for the complexity French interrogative system.

The present paper aims to provide an OT-LFG analysis of yes/no and wh French interrogatives with simplex and complex forms by specifications in the lexicon or at the level of the constraints. An additional aim is to show that the same constraints with different rankings can be applied in the case of English and colloquial French interrogatives.

In main clause formal interrogatives, French has several options:

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| (1) a. Parlez-vous français ?<br>speak <sub>pl2pres</sub> you French<br>Do you speak French?                 | b. Est-ce que vous parlez français ?<br>is it which/that you speak <sub>pl2pres</sub> French<br>Do you speak French?  |
| (2) a. Qui cherchez-vous ?<br>who <sub>acc</sub> look for <sub>pl2pres</sub> you<br>Who are you looking for? | b. Qui est-ce que vous cherchez ?<br>Who is it that you are looking for?/<br>Who are you looking for?   |
| (3) a. Que faites-vous ?<br>what do <sub>pl2pres</sub> you<br>What are you doing?                            | b. Qu'(e) est-ce que vous faites ?<br>What is it that you are doing?/<br>What are you doing?  |
| (4) a. *Que vous dérange ?<br>what cl <sub>pl2acc</sub> disturb <sub>sg3pres</sub><br>What disturbs you?     | b. Qu'(e) est-ce qui vous dérange ?<br>what is it that cl <sub>pl2acc</sub> disturb <sub>sg3pres</sub><br>What is it that disturbs you?/<br>What is it that disturbs you? |

As the examples demonstrate, optionality between the simple and the bi-clausal alternative is present in all interrogatives, except for the inanimate subject question, where only the bi-clausal version seems to be acceptable.

Following Bresnan (2001), Kuhn (2001) and Sells (2001), the architecture of an OT-LFG grammar consists of the lexicon, where basic selectional, categorial and argumental relations are specified. The Input containing a set of lexical items are simplified LFG f-structures, from which the grammar,  $G_{\text{inviol}}$ , comprising a set of rewrite rules, constructs various c-structures. Gen is conceived as a function between the set of f-structures and that of the candidates (the power set of the analyses in  $G_{\text{inviol}}$ ) that correspond to possible structures generated according to  $G_{\text{inviol}}$ . The candidates are c- and f-structure pairs annotated by coindexation or numbering. The evaluation part of the grammar happens in an OT manner. Depending on the constraint-ranking of the language concerned, more and more structures are gradually ruled out until one is qualified as the optimal one.

We propose that the simplex and complex versions of the questions belong to different, but very similar inputs. The input of the complex version does not contain the dummy interrogative verb *est-ce*, which is added to it in some of the candidates. It is thus an embedded clause introduced by the complementizer *que*, provided equally with a wh+ feature (in yes/no questions) or a wh-word. The inputs of the simplex versions contain all the lexical items present in the optimal candidate. Due to the similarity of these inputs, Gen, in both cases, generates candidate sets that intersect with each other, i. e. the candidate set belonging to the simplex question contains the bi-clausal alternative and vice versa. However, in both cases, the evaluations rule out the candidates containing more faithfulness violations than the one closer to the input (the evaluation belonging to

the simplex one yields the simplex question as optimal candidate outruling the complex that is less faithful to the input and *vice versa*).

The evaluation is built on the following constraints (Grimshaw 1995, Ackema & Neeleman 1998, Newson 2000):

1. *QMark*: a question must be overtly Q (question) marked, which can be fulfilled by the presence of an interrogative (wh+) operator, or, in matrix yes-no questions, by interrogative verb forms in French and by auxiliaries licensing the interrogative CP in English.
2. *QScope*: Q+ elements must have scope over the clause they Q mark
3. *Lexical verb*: lexical verbs cannot Q-mark a question
4. *Faithfulness*: the output contains all elements that are also included in the input and only those.

The question of French interrogative verb forms Q marking a clause needs further clarification. Following Miller and Sag (1997) we assume that French bound pronoun-clitics are best analyzed as lexical pronominal affixes forming one single lexical unit (word) with the verb. This means that some inflected verb forms already contain some or all of the arguments of the verb when entering the syntax. In the same way, a class of suffixes qualify verbs as interrogative in French, incorporating the subject as well. The hyphenated verb forms in the examples (1-4) all illustrate this phenomenon. In French, thus, no dummy auxiliary insertion is needed in order to mark a CP as interrogative.

The constraints above may well account for the optionality in the majority of the questions. However, the problem of inanimate subject interrogatives necessitates further specifications elsewhere. As the wh word *que* ('what') cannot appear in subject positions, it might be supposed that it is specified as '-nominative' already in the lexicon:

*que* OP,(↑PRED) = 'pro'  
 (↑Q) = +  
 (↑ANIM) = -  
 (↑CASE) = -nom

The simplex candidate containing *que* as a subject is generated, but is then eliminated by an additional constraint (*Case*), ranked high in French, which makes it incompatible with the subject position. Optionality is thus ruled out, as both evaluations yield the complex question as the optimal candidate.

Concerning the application of the analysis on other languages (or other registers), it can be shown that the grammar of English and that of *in situ* French interrogatives can be designed by the re-ranking of these constraints. The latter is illustrated by the following examples:

(5) Vous parlez français ?  
 you speak<sub>pl2pres</sub> French  
 Do you speak French?

(7) Vous partez quand ?  
 you leave<sub>pl2pres</sub> when  
 When are you leaving?

(6) Vous cherchez qui ?  
 you look for<sub>pl2pres</sub> who<sub>acc</sub>  
 Who are you looking for?

(8) Vous faites quoi ?  
 you do<sub>pl2pres</sub> what  
 What are you doing?

In colloquial French, the Q Scope constraint is ranked lower than *Q Marking* and *Faithfulness* (the latter being violated by the insertion of an interrogative verb form), thus the interrogative operator can take scope over the clause from their argument position. In English, on the other hand, the *Lexical Verb* constraint is ranked higher than *Q mark*, which, as there are no interrogative verb forms in English, results in the preference for the insertion of the auxiliary *do*.

To conclude, not only can an OT-LFG analysis, with necessary specifications in the lexical entries and the constraint ranking account for the optionality observed in most French interrogatives, and for the lack of it in one case, but it can also be claimed to bring adequate results for other languages, like English, or other registers, like colloquial French.

## References

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