On the role of phonology and discourse in Francilian French \textit{wh}-questions

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Abstract
In the present paper, it is argued that in Francilian French, the dialect of French spoken in the Paris metropolitan area, in-situ and fronted \textit{wh}-questions have the same answerhood conditions but vary with respect to their respective focus-set (Reinhart, 2006). The difference between the two types of questions lies in the discourse status of their non-\textit{wh} portion. Whereas the \textit{wh}-phrase is never discourse-given, the non-\textit{wh} portion may or may not be, depending on the discourse context. In Francilian French in-situ \textit{wh}-questions the non-\textit{wh} portion must be given. As this language exhibits a strong requirement on sentence stress to be kept rightmost it cannot, contrary to English, assign sentence stress to a fronted \textit{wh}-phrase when the non-\textit{wh} portion is discourse-given and needs to be destressed. The only way to simultaneously destress discourse-given items and keep sentence stress rightmost is by aligning the \textit{wh}-phrase with the right edge of the clause. Whereas in Hungarian prosody triggers movement (Szendrői, 2003), in French, prosody here prevents it from occurring. An Optimal Theoretic analysis in the spirit of much recent work on focus and givenness in declaratives (Samek-Lodovici, 2005; Féry & Samek-Lodovici, 2006) is offered to capture this phenomenon.

1 Introduction
French has long been considered to be a language in which \textit{wh}-movement is optional in matrix \textit{wh}-questions, allowing for both fronted and in-situ \textit{wh}-phrases.\footnote{This paper began its life as a joint project with Eric Mathieu (Hamlaoui & Mathieu, 2007). Although it has undergone many changes since our collaboration ended, I would like to express my}
In a framework in which there is little space for optionality, as in the Minimalist Program (Chomsky, 1995), the idea of an optional \textit{wh}-movement has been considered to be problematic. It has led researchers to better investigate French in-situ and fronted \textit{wh}-questions and to look for possible differences between the two types that would explain their co-occurrence in one and the same grammar. The present study concentrates on the ‘Spoken’ (De Cat, 2007a), ‘non-Standard’ (Lambrecht, 1981) or ‘Demotic’ (Massot, 2003) dialect spoken in Paris and its extended area, Ile-de-France, namely ‘Francilian’ French (Zribi-Hertz, 2006).

The aim of this paper is to show that in this dialect the difference between the two types of \textit{wh}-question does not lie in their answerhood conditions but in their information structure. Adopting Reinhart’s (1995; 2006) interface approach to stress and focus and building upon Chang’s (1997) famous claim that in-situ \textit{wh}-questions are felicitous in ‘strongly presupposed contexts’, I will argue that in-situ and fronted \textit{wh}-questions are distinct with respect to their focus-set. More precisely, my contention is that the difference between the two types of questions lies in the status of their non-\textit{wh} portion with respect to discourse. On the one hand, in the case of in-situ \textit{wh}-questions, only the \textit{wh}-phrase is contained within the question’s focus hence its location in the position in which phonology assigns sentence stress in Francilian French, namely the right edge of an Intonational Phrase. On the other hand, in the case of fronted \textit{wh}-questions, the non-\textit{wh} portion is typically non-given and it consequently belongs to the focus of the question along with the \textit{wh}-phrase, hence the location of the sentence stress within the non-\textit{wh} portion.

From a formal perspective, I adopt Samek-Lodovici’s (2005) Optimal Theoretic approach (Prince & Smolensky, 2004) to the interaction of prosody and syntax in the expression of focus. I propose that \textit{wh}-questions provide evidence that, in Francilian French, the constraint that requires that a \textit{wh}-phrase be fronted (\textit{OP–SPEC}, Grimshaw, 1997) is outranked by the constraint that requires that sentence stress be kept rightmost within the intonational phrase (\textit{HI}, Truckenbrodt, 1995), by the constraint that requires that focused items be stressed (\textit{STRESS–FOCUS}, Truckenbrodt, 1995) and by the constraint that requires that given items do not carry stress (\textit{DESTRESS–GIVEN}, Féry & Samek-Lodovici, 2006).
posed hierarchy accounts for the fact that fronted wh-questions emerge whenever the satisfaction of STRESS–FOCUS and DESTRESS–GIVEN do not create a conflict between syntax and prosody. Whenever the wh-phrase is the only non-given item in the clause, OP–SPEC and HI make conflicting demands. In the present language, prosody gets the upper hand and the wh-phrase consequently stays in situ.

The paper is organized as follows. Section 2 introduces Francilian French, and concentrates on the semantic properties of in-situ and fronted wh-questions in this dialect. Section 3 concentrates on wh-questions information structure. It lays out the proposal, gives a brief outline of previous studies of focus in declaratives and introduces Reinhart’s notion of focus-set. It also offers to capture the difference between the two types of wh-questions within OT. Section 4 closes the paper.

2 The semantics of different types of wh-questions in Francilian French

2.1 Francilian French

As previously discussed in the literature (among others Côté, 1999, 2001; Massot, 2003; Zribi-Hertz, 2006; De Cat, 2007a), there is considerable variation among the numerous dialects of French and the label ‘French’ often refers to a hybrid language not really spoken by any French speaker. In order to avoid this issue as well as unnecessary confusion, the present study focuses on one specific variety of French spoken in Paris and its suburbs: Francilian French. The present paper assumes the diglossic approach to French defended most notably by Massot (2003) and Zribi-Hertz (2006) and according to which all French native speakers have (at least) two separate grammars of French whose intersection is non-empty. ‘Demotic’ French, is the language learned outside school, on ‘one’s mother’s lap’, on playgrounds and in sandboxes. It is spoken and written in casual/informal contexts. The more studied ‘Standard’ or ‘Late classical’ French is the variety of French taught at school and which is as close as possible to what prescriptive grammars advocate in its written as well as in its spoken form. Although the latter variety is not the one spoken in most average-people’s every day life, all French speakers are still frequently exposed to it through different forms of read speech, for instance at school and in the medias.

The dialect of French discussed here has a lot in common with some of the dialects previously discussed in the literature. For instance, Francilian French (henceforth FF) has in common with De Cat’s Spoken Belgian French that it is
characterized by the fact that *nous* ‘we’ is replaced by the otherwise third person singular pronoun *on* and that the first half of the negation *ne* is almost always omitted. It also exhibits a considerable use of left and right dislocation and a frequent use of ‘c’est XP qui/que YP’ (‘left-sentences’) or ‘(il) y a XP qui YP’ (‘presentational sentences’). Also, it shares with Lambrecht’s (1981) non-standard French the property that it is characterized by a loss of Subject–Verb/Aux inversion. As a consequence, *wh*-questions exhibiting a Subject–Verb/Aux inversion will be left out of the present discussion, as they do not belong to the investigated dialect.

The label **FRONTED** *wh*-question here refers to constituent questions with an initial *wh*-phrase such as in the *comment* ‘how’ and *combien de N* ‘how much/many’ questions in (1) and (2). It also refers to fronted *wh*-questions in which the *wh*-phrase is followed by the ‘complex interrogative C0’ *est-ce qu*- (Rooryck, 1994).2 Both types of question are illustrated below.

(1) Comment vous allez le montrer?
   how you go it show
   ‘How are you going to show it?’

(2) Combien de temps ça dure?
   how.much of time it lasts
   ‘How long does it take?’

(3) Qui est-ce qui se réveillait en premier?
   who is it who SE woke up in first
   ‘Who use to be the first to wake up?’

(4) Qu’est-ce que tu fais?
   what.is.it that you do
   ‘What are you doing?’

(5) Où est-ce que je peux l’acheter, ce livre?
   where is it that I can buy this book
   ‘Where can I buy this book?’

(6) Quand est-ce que vous pensez être vraiment libre?
   when is it that you think to.be truly free
   ‘When do you start thinking that you are really free?’

As emphasized by Rooryck *est-ce qu*- is not to be analyzed as an intervening clause containing an inflected form of ‘be’, as *est-ce qu*- does not allow for changes of tense. From a prosodic perspective, it is simply not possible to insert a prosodic

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2See also Martinet (1960) for an analysis of *est-ce qu*- as an interrogative morpheme.
boundary between *ce* and *que* without triggering a cleft interpretation with genuine Subject–Verb inversion. As was already mentioned above, Subject–Verb inversion – although possible in other dialects of French – is not part of the grammar of FF. In the present dialect’s fronted *wh*-questions, the *est-ce que*-complementizer is compulsory with the inanimate and animate direct object *que/qui* as well as the adjunct *quand* ‘when’. It is becoming obligatory with *où* ‘where’ as indicated by the limited distribution of bare *où* and its lack of productivity in basic/authentic requests for information. The subject *wh*-phrase *qui* without *est-ce qui* is possible but in contexts in which the speaker is calling for candidates, such as in the following example. This type of CALL FOR CANDIDATES questions will be excluded from the present discussion.

(7) A: Qui veut effacer le tableau?
   who wants to erase the blackboard
   ‘Who wants to erase the blackboard?’
   B: Moi (je veux l’effacer).
      me I want it to erase
      ‘I (want to erase it).’

The label IN-SITU *wh*-questions is here used to refer to *wh*-questions of the type illustrated below, in which the *wh*-phrase is not clause-initial\(^3\). I purposely

\(^3\)As for the intonation of this type of question, Cheng and Rooryck (2000:3), whose study focuses on the licensing environments of *wh*-in-situ, argue that in-situ *wh*-questions are distinct from fronted *wh*-questions in that they require ‘a special intonation that is absent in sentences with *wh*-movement’. Their claim is that whereas fronted *wh*-questions (involving *est-ce que* or inversion) present a non-rising intonation, in-situ *wh*-questions have the same rising intonation as yes/no questions of the type shown below and whose interrogative status is only signaled by intonational means.

(i) Il a acheté un livre?
   he has bought a book
   ‘He has bought a book?’

Based on this claim, they propose that in-situ *wh*-question’s numeration involves a yes/no intonation morpheme which licenses the *wh*-phrase by checking the Q-feature in C\(^0\) and without which the question is ill-formed. Their observation that in-situ *wh*-questions require the same rising intonation as intonational yes/no questions has however been challenged, most notably by Adli (2004) who shows that it is not consistent with what has been observed in previous intonational studies of (mostly ‘Parisian’) French *wh*-questions (among other Delattre, 1966; Wunderli & Braselmann, 1980; Wunderli, 1983). As the special intonation described by Cheng and Rooryck does not seem to be compulsory in Francilian French, there is no strong evidence in favor of the presence of an intonational morpheme in the in-situ *wh*-questions of this dialect.
avoid to define an in-situ *wh*-question as a question in which the *wh*-phrase simply remains in the corresponding argument/adjunct canonical position. As will be made clear in section 3, for an in-situ *wh*-question to be well formed in the present dialect, the *wh*-phrase needs to be rightmost in its syntactic clause/intonational phrase, or in other words “clause-final”. Only the items that cannot be right displaced can separate it from the right edge of the intonational phrase.

(8) Vos parents ils faisaient quoi?  
    your parents they did what  
    ‘What did your parents do?’

(9) Vous étiez habillé comment?  
    you were dressed how  
    ‘What were you wearing?’

(10) Vous avez combien d’enfants?  
    you have how many of children  
    ‘How many children do you have?’

(11) Vous êtes de quel pays?  
    you are of which country  
    ‘Which country do you come from?’

From a syntactic perspective, what is crucial here is that on the surface the *wh*-phrase is not located in a specifier position that c-commands the extended projection of the verb (IP/TP) – possible empty or inaudible syntactic elements as well as possible covert movements play no role in the present account.

The analysis of *wh*-questions presented in section 3 is based on my own intuitions as a native speaker of this language as well as the intuitions of my informants. It is currently checked on a corpus of approximately 30 hours (close to 200 questions) of field interviews from a French daily radio show, *Là-bas si j’y suis* (France inter). All the interviews are led by the same female reporter who consistently uses (non-media and non-read) spontaneous Demotic French. I will provide some examples taken from this corpus when necessary and I will call it the *Là-bas* corpus.

The remainder of this section aims at clarifying which of the interpretive properties that have been previously reported to hold for in-situ or fronted *wh*-questions in other dialects apply in FF.
2.2 Wh-questions in Francilian French and presupposition

As briefly discussed above, when it comes to wh-questions, French allows both wh-movement (12-a) and wh-in-situ (12-b).

(12) a. Qu’est-ce que tu vas lui offrir?
    what.is.this that you will her offer
    ‘What are you going to offer her?’

b. Tu vas lui offrir quoi?
    you will her offer what
    ‘What are you going to offer her?’

Aoun, Hornstein & Sportiche (1981) and Lasnik & Saito (1992) account for the apparent optionality of French wh-movement by suggesting that French has a ‘mixed’ system with regard to the formation of wh-interrogatives. On the one hand, it is like English in that wh-phrases raise to the left periphery of the clause. On the other, it is like Chinese in that wh-phrases remain in-situ. Building upon the claim of Chang (1997, 45), that in-situ wh-questions seek ‘details on an already established (or presupposed) situation’, several analyses have been developed over the years concluding that the two versions of the wh-question are not in fact equivalent semantically, in that they do not have the same answerhood conditions. Boeckx (1999), for instance, reports that in the dialect of French on which his study is based, in-situ constituent questions are comparable to cleft-questions in that ‘nothing’ constitutes a felicitous answer to question (13) and is not a felicitous answer to the questions in (14) and (15) (# indicates infelicity).

(13) A: Qu’est-ce que tu(u) as acheté?
    what.is.it that you have bought
    ‘What did you buy?’

B: Un livre/une voiture/rien.
    a book/a car/nothing
    ‘A book/A car/Nothing.’

(14) A: Tu(u) as acheté quoi?
    you have bought what
    ‘What did you buy?’

B: Un livre/une voiture/#rien.
    a book/a car/nothing
    ‘A book/A car/#Nothing.’

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This claim has since been challenged (see, among others, Mathieu, 2004), suggesting that not all dialects of French make a difference between questions (13) and (14) in terms of presupposition in the sense of Boeckx (1999) and for which the possibility/impossibility to answer by ‘nothing’ is taken to be a test. In FF, there is no presuppositional difference between (13) and (14), that is, both types of questions can be felicitously answered by ‘nothing’. In both cases the speaker does assume (but not presuppose\(^4\)) that the addressee has bought something, otherwise he/she would probably not ask the question.\(^5\) The questions in (13) and (14) being genuine requests for information, the speaker cannot know in advance whether he is right about what the addressee did and whether the addressee actually bought something or not. Imagine, for instance, that the addressee mentions that she is back from the grocery store. Any naturally curious individual could directly ask her what she bought without previously making sure that she has indeed bought something by first asking a yes/no question such as ‘did you buy something?’. However, different types of events could have precluded her from buying anything, such as the store’s employees being on strike, the store being closed, the loss of her purse etc, hence the fact that both types of questions can be answered by a negative answer of the ‘nothing’ type. In order to account for this fact, I propose that the questions in (13) and (14) ask ‘for the set of individuals such that you bought them’ (or ‘which set is the extension of the property of having been bought by you?’). In this case, replying by ‘nothing’ simply amounts to saying that the set of individuals is empty – most probably against the expectations of the person who is asking the question, be it a fronted or an in-situ wh-question.

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\(^4\)Here, it is assumed that a presupposition is triggered by a linguistic expression – for instance a discontinuous definite description in a cleft-sentence – whereas an assumption is extra-linguistic in nature and inferred from a situation – for instance someone coming back from the grocery store. The notion of presupposition is here understood in a semantic sense (not pragmatic). The fact that ‘nothing’ is a possible answer to an in-situ wh-question simply indicates that an in-situ wh-phrase does not trigger a semantic presupposition in FF.

\(^5\)Rhetorical questions fall outside the scope of the present paper. Only genuine requests for information are considered here.
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As a way of illustration, consider the discourse fragments in (16). The following dialogue from the Là-bas corpus is extracted from a discussion between the reporter (R) and one of her interviewees (M), a man belonging to the Roma community, whose father was born in Macedonia and used to live in Italy before coming to France. The man was himself born in Italy and now lives in the South of France.6

(16) R: et vous, votre père, il faisait quoi?
M: lui il travaillait au black au noir parce qu’il possède pas de papiers il a travaillé la ferraille, voitures d’occasion ces choses là. Moi aussi je travaillais en Italie je faisais mes travail comme toujours comme je travaille avec mon père.
R: et vous avez quoi comme papiers alors?
M: zéro, je suis en train de faire [inaudible].
R: vous êtes en train de faire les papiers pour l’apatride?
M: oui j’ai jamais demandé les papiers. Rom sans papiers.7

Here, the topic of the discussion is the man’s father and his occupation. The reporter first asks the man what his father used to do for a living (‘votre père, il faisait quoi?’). The man replies that his father used to be a moonlighter as he had no ID card (‘il possède pas de papiers’). The man mentions that he used to work with his father, after which the reporter asks him what kind of ID card he has (‘et vous avez quoi comme papiers alors?’). His answer is that he has none (‘zéro’), that he is now doing the paperwork in order to obtain a legal status as a stateless person (‘apatride’) and that before that, he had never undergone the administrative procedures in order to obtain an ID card (‘j’ai jamais demandé les papiers’). In this context, it is not semantically odd to substitute a fronted wh-question for the

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6The man is a non-native speaker of French, but this has no impact on the felicity of their exchange. What matters here is the type of wh-structure used by R, the reporter, who is a native speaker.

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in-situ one. However, one cannot substitute the in-situ wh-question with a cleft-wh question of the type illustrated in (15).

(17) Qu’est-ce que vous avez comme papiers?
What.is.it that you have as papers
‘What kind of identity papers do you have?’

(18) #C’est quoi que vous avez comme papiers?
It.is what that you have as papers
‘What (kind) are the papers that you have?’

The above question in (18) is semantically appropriate in a context where the speaker already knows that the addressee has some kind of ID card and wants the addressee to specify what kind. Such a context is provided below. B says that she has some of her papers with her and wants to know if they are the right ones for A to give her some administrative authorization.

(19) A: Je dois voir vos papiers d’identité pour vous donner ce permis.
I.must see your papers of identity for you to give this permit
‘To give you this permit I need to see some of your identity papers.’

B: J’ai certains de mes papiers sur moi, est-ce que ça va
I.have some of my papers on me is.it that that will suffice?
‘I have some of my papers with me, will that be alright?’

A: Ça dépend. C’est quoi que vous avez comme papiers?
It.depends it.is what that you have as papers
‘It depends. What ARE the papers that you have?’

The impossibility to answer a question such as the one in (15) or the one in (19) by ‘nothing’ comes from the fact that a cleft-sentence, be it an interrogative or a declarative, contains a discontinuous definite description on the form of the demonstrative pronoun and the relative-like clause (see Clech-Darbon, Rebuschi & Rialland (1999) for a detailed account based on French and Hedberg (2000) on English). Informally, the question in (15) amounts to inquiring about the value of ‘x such that x is THE INDIVIDUAL such that you bought it/them’ and (19) about the value of ‘x such that x is the identity paper(s) that is such that the addressee
has x with her, hence its ‘specificational nature’. Such questions do not allow for an answer such as ‘nothing’ because replying to (15) by ‘nothing’ leads to a contradiction. It amounts to saying that ‘the individual x such that you bought equates to nothing’ or ‘the identity papers such that the addressee has them with her are nothing’. So in FF, the semantics of wh-cleft questions generally prevents them from having the same distribution as fronted and in-situ wh-questions. Information structure aside, what is worth noting is that the contexts that semantically license wh-cleft questions include the ones licensing both in-situ/fronted wh-questions – but not the opposite, as witnessed by the fact that an in-situ or a fronted wh-question can ‘replace’ a wh-cleft question but a wh-cleft question cannot ‘replace’ an in-situ/fronted wh-question.

2.3 Francilian French wh-questions and exhaustivity

Another semantic difference between in-situ and fronted wh-questions that has been reported is in terms of exhaustivity. Zubizarreta (2003), for instance, claims that whereas the fronted question in (20-a) can receive a non-exhaustive answer, the in-situ version cannot. This is also an argument in favor of a unified analysis for wh-cleft and in-situ questions (for a detailed account, see Boeckx, 1999). The fact that wh-phrases can or cannot be modified by par exemple ‘for instance’ is taken to be a test for this exhaustivity requirement. This is illustrated in the following examples adapted from Zubizarreta.

(i) C’est qui qui vous a retenu?
   it.is who that.SUBJ you has prevented.from.doing
   ‘Who prevented you from doing it?’

To sum-up, in the special case of subject wh-questions, using a wh-cleft allows satisfying prosodic and information structural constraints that in-situ wh-questions usually satisfy in the case of non-subject wh-questions.
(20)

a. Qu’est-ce que tu lui as acheté par exemple?
   what.is.it that you him have bought for instance
   ‘What did you buy him for instance?’

b. #Tu lui as acheté quoi par exemple?
   you him have bought what for instance
   ‘What did you buy him for instance?’

c. #C’est quoi que tu lui as acheté par exemple?
   It.is what that you him have bought for instance
   ‘What is it that you bought him for instance?’

Again, this feature of the in-situ constituent question is not shared by all dialects of French, as the question in (20-b) is well-formed in FF. The following dialogue exhibiting a wh-phrase in-situ modified by par exemple comes from the Là-bas corpus. The reporter (R) spends the day with her two interviewees, a woman (W) and a man (M) in their sixties. The topic of the interview is ‘on the way to school’. They all walk to the man and woman’s primary school while the reporter inquires about what used to happen on their way to school. When they finally stand in front of the school’s playground, the following dialogue takes place.

(21) R: et vous, vous jouez à quoi par exemple? Dans la cour, puisque là on est devant la cour et que c’est la récréation, vous jouez à quoi?
   W: à la marelle
   M: ah ba les filles elles jouaient à la marelle
   W: et au mouchoir
   M: et on jouait aux billes. Moi j’ai connu même le jeu avant avant les billes: les boutons ...  

11 Here the reporter asks the woman and the man what games they used to play for instance (‘vous jouez à quoi par exemple?’). The interviewees give a few examples of the games they used to play: hopscotch (‘à la marelle’), marbles

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R: What kind of games did you play for instance? On the playground, as we are in front of the playground and it is recess, what kind of games did you play?
W: hopscotch
M: the girls played hopscotch
W: a game called ‘handkerchief’
M: and we played marbles. I even knew the game that preceded marbles: (a game called) ‘buttons’
As mentioned above, fronted and in-situ \textit{wh}-questions have in common that they ask for the identification of a set of individuals. Modifying the \textit{wh}-phrase with \textit{par exemple} explicitly tells the addressee that a partial answer is sufficient, that giving some of the individuals is enough or in other words, that a \textit{representative subset} of the set asked for will ‘do the job’. The in-situ \textit{wh}-question appearing in (21) cannot be replaced by a \textit{wh}-cleft question as the following, which is not a possible question.

\begin{equation}
\text{C'est à quoi par exemple que vous jouez?} \\
\text{it is at what by example that you play} \\
\text{‘What games do you play for instance?’}
\end{equation}

Considering the \textit{wh}-cleft question’s semantics indicated above, any answer to this type of constituent question is exhaustive due to the presence of the definite description which, by definition, is exhaustive. Lifting the exhaustivity is hence not an available option.

2.4 Summary of section 2

To sum-up this section, so far it has been shown that Francilian French speakers have far less freedom in forming their \textit{wh}-questions than what has sometimes been reported in the literature on other French dialects. First, they make no use of Subject–Verb/Auxiliary inversion and second the presence of the interrogative particle \textit{est-ce qu-} is compulsory for a subset of \textit{wh}-phrases.

An analysis as the one proposed by Boeckx (1999) or assumed by Zubizarreta (2003) in which in-situ questions are analyzed as covert cleft-sentences does not hold for FF, as in this dialect in-situ \textit{wh}-questions do not pattern like \textit{wh}-cleft questions in terms of presupposition and exhaustivity. \textit{Wh}-cleft questions, contrary to in-situ and fronted \textit{wh}-questions, contain a definite description and ask for it to be equated with an individual (which can be inanimate or plural, \textit{à la} Link 1983). This characterization has enabled us to account for the fact that this type of constituent question can neither be answered by a negative word such as ‘nothing’ nor be modified by ‘for instance’.

Contrary to what has been reported for other dialects of French, it has been argued that replying to an in-situ \textit{wh}-question by a negative answer such as \textit{rien} ‘nothing’ can be felicitous because it simply means that the set of individuals asked for turns out to be empty. The speaker can also specify that he will be satis-
fied with a partial answer by modifying the *wh*-phrase in-situ with ‘for instance’. In-situ *wh*-questions are thus similar to fronted *wh*-questions in terms of presupposition and exhaustivity. I have proposed that in FF the two types of questions ask for the identification of a set of individuals. The main argument in favor of a unified semantic analysis of in-situ and fronted *wh*-questions is that, so far, any congruent answer to one type of *wh*-question constitutes a congruent answer to the other type.

Now that it has been shown that in Francilian French the difference between in-situ and fronted *wh*-questions does not lie in their answerhood conditions, let’s turn to what distinguishes the two types of *wh*-questions and explains their co-occurrence in one and the same grammar: their respective focus-set.

3 A closer look at *wh*-question’s information structure

3.1 *Wh*-questions, focus and givenness

It has often been claimed in the literature on *wh*-questions that *wh*-phrases are like focused phrases in that they constitute the non-presupposed part of the sentence (among others Zubizarreta, 1998) or that they introduce a set of alternatives (Rooth, 1992; Beck, 2006; Krifka, 2007). In his recent work on intervention effects in Japanese *wh*-questions, Tomioka (2007) considers it to be a ‘relatively uncontroversial assumption’, that ‘the non-*wh* portion of a question is discourse-old (in the sense of Prince, 1981) or given (in the sense of Schwarzchild, 1999), whereas the Wh acts as the sentence focus’. In relation to the claim that the *wh*-phrase is the question’s focus, *wh*-phrases and focused constituents have often been argued to occupy the same syntactic focus position (among others É. Kiss 1981 for Hungarian, Ortiz de Urbina 1989 for Basque, Jayaseelan 2001 for Malayalam). However, what has often been considered as puzzling is that, in languages like English, the *wh*-phrase tends not to attract main prosodic prominence, contrary to focused items in declarative sentences (among others Ladd, 1996; Zubizarreta, 1998; Mycock, 2005).

In the present study, it is assumed that *wh*-phrases are inherently focused, in the sense that alternatives play a role in their interpretation. While an important part of the literature concentrates on the syntactic/morphological, semantic, discourse or prosodic properties of the *wh*-phrase itself (among others Pesetsky, 1987; Mathieu, 2004; Baunaz, 2005, 2008), I depart from this view by concen-
trating on the remaining part of the \textit{wh}-question, namely on the non-\textit{wh} part of the sentence. My proposal is the following: the principles of information structure and prosody that apply in declaratives and discussed in a number of recent studies of focus (Reinhart, 1995; Szendrői, 2001, 2003; Samek-Lodovici, 2005; Féry & Samek-Lodovici, 2006; Reinhart, 2006) also apply to constituent questions. Although it seems quite obvious that the reverse, namely that constituent questions function differently from declaratives, would be surprising, this claim has not been much explored (however, for a similar claim in a different framework, see Lambrecht & Michaelis, 1998). I claim that the difference between in-situ and fronted \textit{wh}-questions lies in the discourse-status of the non-\textit{wh} portion of the sentence and as a consequence on the content of the question’s focus-set: in-situ \textit{wh}-questions are possible only if their non-\textit{wh} portion contains no information which is presented as discourse-new. This claim is thus along the lines of Engdahl’s (2006: 93) proposal, namely that ‘different contexts require different realizations of questions’. It is also close to Chang’s (1997) original claim except that in order to avoid confusion it has no relation with the standard notion of presupposition put forward in subsequent works related to French dialects distinct from FF and discussed in section 2.

The difference between the two types of \textit{wh}-questions can be captured within the Optimal Theoretic framework (Prince & Smolensky, 2004), through the interplay of syntactic, prosodic and information structural constraints, in the spirit of analyses that have recently been proposed for focus in Italian or English declaratives (Szendrői, 2001; Samek-Lodovici, 2005; Féry & Samek-Lodovici, 2006). The next section gives a brief outline of Samek-Lodovici’s analysis and introduces Reinhart’s notion of focus-set as well as some of the syntactic, prosodic and information structural constraints that will be used in section 3.2.

3.2 Focusing strategies in declaratives: an OT approach

French has in common with English and Italian that it is an SVO language in which sentence stress can be said to be ‘neutrally’ assigned to the right edge of the clause. This is illustrated in the following all-focus examples in which sentence stress is indicated in bold.

\begin{equation}
\text{(23) A: What happened?}
\end{equation}

English: My sister brought the \textbf{flowers}.
Italian: Mia sorella ha portato i \textbf{fiori}.
French: Ma soeur a apporté les \textbf{fleurs}.
It has long been claimed that the focus interpretation of a sentence is crucially related to the location of sentence stress (among others Jackendoff, 1972). The requirement that focus bear main stress within a certain (prosodic or semantic) domain has been expressed in many ways. For instance, Reinhart (1995, 2006) proposes the following Focus Rule (also called STRESS–FOCUS CORRESPONDENCE PRINCIPLE, Szendrői, 2001, 2003).

(24) Focus Rule or Stress–Focus Correspondence Principle
The focus of IP is a(ny) constituent containing the main stress of IP, as determined by the stress-rule.

Through this Focus Rule, Reinhart captures the fact that in the above mentioned languages, a sentence with rightmost main stress is ambiguous and can be associated with different focus interpretations. This is illustrated in the following question-answer pairs, in which the sentence (23)A can be a felicitous answer to three different questions.

(25) A: What happened?
    B: My sister brought the flowers
    Focus: TP

(26) A: What did your sister do?
    B: My sister brought the flowers.
    Focus: VP

(27) A: What did your sister bring?
    B: My sister brought the flowers.
    Focus: DP

In sentences (25)B and (26)B the focus is projected from the item carrying main stress, ‘flowers’, to the entire TP and the entire VP respectively. Reinhart proposes to call the set of all potential foci of a sentence its focus-set. The above sentence’s focus-set appears below.

(28) a. My sister brought the flowers.
    b. Focus-set: \{IP, VP, DP_{object}\}

With sentence stress on its right edge, this sentence cannot however be interpreted as having the DP_{subject} in its focus-set or, in other words, it cannot be interpreted as having narrow focus on its subject. The fact that sentence (28) is infelicitous as an answer to a subject constituent question is illustrated in the following question-
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answer pair.

(29)  A: Who brought the flowers?
B: #My sister brought the flowers.

There are actually two aspects that make (29)B inappropriate in this context: first the subject is not among the constituents that carry main stress and second, an item which is discourse given, ‘flowers’, is assigned prosodic prominence. The issue of givenness is further discussed in section 3.3.

The inappropriateness of a sentence such as (29)B as an answer to a subject wh-question also applies in Italian and in French. However the three languages vary in the way they actually express narrow focus on the subject (for a detailed account, see Samek-Lodovici, 2005). In order to express narrow focus on the subject, English gives priority to syntax in keeping its canonical SVO order and shifting sentence stress to the DP \textit{subject}. This is illustrated in the following example.

(30)  A: Who brought the flowers?
B: My \textbf{sister} brought the flowers. / My sister did.

It is worth mentioning that considering Reinhart’s focus-rule stated in (24) the above sentence with sentence stress on the preverbal subject has both the DP \textit{subject} and the whole TP ‘My sister brought the flowers’ within its focus-set. However, in Reinhart’s approach, shifting main stress to the left-edge of the clause is a ‘costly operation’, as it amounts to an alteration of the neutral pattern. Since TP is in the focus set of the candidate with rightmost main stress, a sentence like the one in (30)B with a broad focus interpretation is simply non-economical and does not emerge as an actual product of the grammar of English.

Italian gives priority to prosody in keeping rightward sentence stress and locating the focused subject in clause final position, right before the clitic right dislocated object.

(31)  A: Who brought the flowers?
B: Le \textit{ha portato mia sorella, i fiori.}  
\textit{them has brought my sister the flowers}  
‘My sister brought them’.

As for FF, it resorts to a (often reduced) cleft-sentence, such as in (32)B.

(32)  A: Who brought the flowers?
B: C’est ma \textbf{soeur} (qui les a apportées).
Samek-Lodovici (2005) proposes that the strategy adopted by each of the above-mentioned languages reflects the way the following *STRESS–FOCUS* constraint – which is in effect similar to Reinhart’s Focus Rule – interacts with the alignment constraints in (34) and (35) as well as with the syntactic constraints in (36) and (37).

\[(33) \quad \text{**STRESS–FOCUS**} \]
\[
\text{For any } \text{XP}_f \text{ and } \text{YP} \text{ in the focus domain of } \text{XP}_f \text{ [= the entire clause], } \text{XP}_f \text{ is prosodically more prominent than } \text{YP}.
\]

Samek-Lodovici’s *STRESS–FOCUS* constraint directly penalizes candidates that locate sentence stress outside the focus of the clause. According to him, *STRESS–FOCUS* interacts with prosody in order to determine the location of main stress.

The following alignment constraints (see McCarthy & Prince, 1993; Truckenbrodt, 1995; Samek-Lodovici, 2005) govern the position of heads (stress) in prosodic phrases and push sentence stress toward the right edge of the clause.\(^\text{12}\)

\[(34) \quad \text{**HEAD-P (HP):** Align (P, R, Head(P), R)} \]
\[
\text{Align the right boundary of every phonological phrase with its head.}
\]

\[(35) \quad \text{**HEAD-I (HI):** Align (I, R, Head(I), R)} \]
\[
\text{Align the right boundary of every intonational phrase with its head.}
\]

Following previous accounts of the syntax-phonology interface, it is assumed that prosodic domains correspond to syntactic phrases: lexical XPs are parsed into phonological phrases, and clauses (here CPs) into intonational phrases (among others Downing, 1970; Pierrehumbert, 1980; Selkirk, 1984; Truckenbrodt, 2005).\(^\text{13}\)

The syntactic constraint *STAY* (Grimshaw, 1997) is in the same spirit as Chomsky’s (1991; 1992; 1995) economy of movement and is violated by each trace (or copy).

\[(36) \quad \text{**STAY:** No traces.}\]

\(^\text{12}\)These constraints are gradient, as they are ‘violated once for every position separating the head from the right edge of its prosodic phrase’ (Samek-Lodovici, 2005, 701). However, for reasons of convenience, all constraints are here treated as being categorical. Here I also assume the constraint *STRESS–XP* – which ensures that each lexically headed XP contain a phrasal stress – to be at play. This constraint is violated whenever a phonological phrase fails to realize a phrasal stress.

\(^\text{13}\)Extending Truckenbrodt (1995, 1999) distinction between syntactic segments and syntactic categories, I take it that Intonation Phrases are mapped with the lowest segment of CP. As dislocated phrases are adjoined to the root clause level, they are considered to be outside the Intonational Phrase.
EPP is equivalent to Grimshaw’s (1997) SUBJECT constraint and equals to Chomsky’s Extended Projection Principle.

(37) EPP: Clauses have subjects.

Samek-Lodovici follows Grimshaw (1997) in assuming that this constraint requires that ‘the highest A-specifier – or the specifier of I-related heads such as T$^0$, Agr$^0$, Neg$^0$ – be overtly filled’. As for English and Italian focusing strategies, he proposes the ranking of constraints in (38) and (39).

(38) English
STRESS–FOCUS, EPP ≫ STAY ≫ HP ≫ HI

(39) Italian
STRESS–FOCUS ≫ HI ≫ HP ≫ EPP ≫ STAY

In the Optimal-Theoretic approach adopted here, a candidate such as (30)B – a canonical sentence which shows sentence stress on the subject – is in competition with the candidate in (25) – a canonical sentence with rightmost sentence stress – as a potential reply to a question such as ‘What happened?’. Candidate (30)B does not emerge in this context because in addition to satisfying STRESS–FOCUS, STAY and EPP, candidate (25)B, better satisfies HI and wins the competition.

In order to account for Francilian French – which is not the dialect of French discussed in Samek-Lodovici – Hamlaoui (2008) proposes that in this language EPP and HI are unranked. In this approach, clefting enables satisfying the STRESS–FOCUS requirement while keeping main stress to the right edge of an intonation phrase (corresponding the matrix clause) as well as having an overtly realized preverbal subject in both clauses in the form of the demonstrative pronoun c’ in the matrix clause and the suffixed -i in the relative-like clause.

Whether a subject can or cannot be focused in its preverbal subject position in French, such as in the following example from Delais-Roussarie (2005), is a controversial issue.

(40) A: Who made the tart?
B: Jean-François a fait la tarte.
Jean-François has done the tart
‘[Jean-François]$_\text{focus}$ baked the tart.’

Whereas some studies dealing with French focusing strategies systematically use constructed example sentences in which subjects are focused in-situ (among oth-
ers Beyssade, Delais-Roussarie, Doetjes, Marandin & Riallrand, 2004; Delais-Roussarie, 2005), others mention them as being controversially accepted (Samek-Lodovici, 2005) or absolutely ill-formed (Lambrecht 2001, Hamlaoui 2008). The fact is that if in-situ subject focusing is well-formed in French, it is only well-formed in Standard French and not in Francilian French. The following example, from Delais-Roussarie, is also an illustration of some data which is not part of the intersection between Standard and Demotic French, as it only belongs to Standard French.\footnote{Although Delais-Roussarie refers to syntax in order to determine which syllable is most prominent within certain prosodic groups – for instance rhythmic groups – at the utterance level, this author considers that information structure, and particularly focus, solely determines prosody, a view which is widespread among researchers working on focus in French. Delais-Roussarie (2005, 59) argues that at the utterance level, the most prominent syllable is the last ‘full’ (non-schwa) syllable of the FOCAL DOMAIN. The notion of focal domain is defined as the domain extending from the beginning of the utterance to the right edge of the focus. Although this approach does account for Standard French data – in which main stress can be considered as rather ‘plastic’ (Vallduví, 1992) – it fails to account for the fact that, applying Zerbian’s (2005) terms on Northern Sotho to FF, in FF ‘phono-syntactic processes like deletion, morphosyntactic operations like pronominalization and syntactic movements like dislocation and inversion conspire in order to place the focused constituent in clause-final position’. I consequently depart from the view that at the utterance level the location of the most prominent syllable is solely determined by focus. Instead I claim that in the case of FF, prosodic constraints pushing main stress toward the right edge of the clause interact with information structural and syntactic constraints in order to favor structures exhibiting a clause-final focus over structures of the type in (40) and (41) exhibiting a non clause-final focus.}

(41)  
A: How many novels did he write?  
B: Il a écrit dix-sept romans  
he has written seventeen novels  
‘He wrote [seventeen] focus novels.’

In FF, the following structure with rightmost main stress at the intonational phrase level is favored.

(42)  
A: How many novels did he write?  
B: Il en a écrit dix-sept, (de romans)  
he of.them has written seventeen of novels  
‘He wrote [seventeen] focus novels.’

To summarize so far, it has been shown that FF has in common with better studied languages like Italian and English that it is an SVO language that neutrally assigns...
sentence stress rightmost. We have laid out the fact that the three languages vary in the way syntax and prosody interact in order to express focus and that this is particularly visible in the expression of narrow focus on the subject. On the one hand, FF has in common with English that it strongly requires an overtly realized pre-verbal subject in every clause. The two languages however differ in that the ranking of HI does not preclude sentence stress from appearing leftmost in English whereas it does in FF. On the other hand, FF shares with Italian a strong requirement on sentence stress to be kept rightmost but it differs from it in that Italian simply locates the focused subject rightmost whereas French needs to resort to a more complex (bi-clausal) structure in order to achieve this goal. Finally, I have proposed that the controversy related to the possibility of focusing a subject in its preverbal position in French is related to the fact that in-situ subject focusing is not part of the intersection between Standard French and Demotic (Francilian) French. It only belongs to Standard French, which in this respect is similar to English in its low-ranking of HI.

At least in the case of French and English, I believe that the key to a better understanding of the syntax and prosody of wh-questions is found in the expression of focus in declaratives. The subsequent section turns to wh-questions and how their realization is also determined by the interaction of constraints that have been introduced.

### 3.3 An OT approach to focus and givenness in Francilian French and English wh-questions

Fronted wh-questions, in English as well as in French, typically exhibit a rightmost primary stress and a secondary stress on the wh-phrase (Ladd, 1996). Although the wh-phrase is often considered to be the focus of the wh-question, in these languages’ fronted wh-questions, the non-wh portion is generally neither deaccented nor dephrased as is typically the case for post-focal items.

In the case of English, Engdahl (2006:101) observes that although fronted wh-phrases tend not to carry main stress they sometimes do. As a way of illustration, consider the following dialogue taken from her paper, in which A, B and C have been discussing a possible trip to Edinburgh and B and C are side-tracked.

(43) A: So **when** are we going to Edinburgh?
A1: #So, when are we going to **Edinburgh**?

Engdahl’s observation is that ‘speakers may modify questions in subtle ways to
make them fit in with the current stage of conversation’. This is the case in A, in which ‘by stressing the initial when’, the speaker ‘conveys that the issue she is introducing is one that has already been raised in the conversation, but not been resolved’. What indicates that the introduced issue has already been raised is, in my view, not the stressing of the wh-phrase, but the deaccenting of the non-wh portion which is responsible for the main stress ending up on the wh-phrase. The deaccenting of these items indicates that the non-wh portion is outside the sentence’s focus – in other words, that it is given. In the present study, any item that was mentioned in the immediately preceding context (Krifka, 2007), as well as any conversational implicature to what has been mentioned (Tancredi, 1992) is considered as given.\(^{15}\) As all the other items of the question are given, in (43)A the wh-phrase ends up being the narrow focus of the clause.\(^ {16}\) As for the question

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\(^{15}\)The following dialogue from Chang (1997) illustrates a case of conversational implicature leading to an in-situ wh-question.

(i) A: C’est l’anniversaire de Pierre la semaine prochaine.
    ‘It is Pierre’s birthday next week.’
B: Et tu vas lui acheter quoi?
    ‘And what will you buy him?’

Although the items of the non-wh portion of the question cannot be considered to be given in the sense of being anaphorical, they are given because they constitute a conversational implicature to the statement in (i)A. B’s knowledge of the world is such that when it is someone’s birthday, people usually buy them a gift. Her use of an in-situ wh-question is related to the conversational implicature drawn from (i)A and not to her expectations on her addressee’s future answer. As was discussed in section 2.2, as this question is a genuine request for information, she has no way to know for sure that the addressee will indeed buy something to Pierre or at least no more than if she would have used a fronted wh-question.

\(^{16}\)An anonymous reviewer notes that claiming that the in-situ wh-phrase is always interpreted as a narrow focus wrongly predicts that a broad VP-type answer should only be felicitous following the fronted wh-question in (i) and not to the in-situ wh-question in (ii).

(ii) A: Qu’est-ce qu’il a fait?
    ‘What did he do?’
B: Il a dormi/ un dessin.
    ‘He slept/(he did) a drawing.’

(ii) A: Il a fait quoi?
    ‘He has done what
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in (43)A1, it is felicitous in a conversational context in which ‘we are going to Edinburgh’ has not yet been raised in the conversation or, within Tancredi’s (1992) approach to discourse-felicity, the focus-related topic ‘we are going to Edinburgh’ is not instantiated/has not recently been added to the context/is not ‘taken to be “active” in the mind of the discourse participants’ by the utterer. Such context is provided below. A and B are now in Balloch (Scotland) and are discussing their coming days’ excursions. Before coming to Scotland, they had planned to visit many cities, among which Edinburgh.

(44) A: I suggest that we stay here at Loch Lomond for a few days.
B: So when are we going to Edinburgh?

The question in (44)B is very much like a broad focus/all-focus such as the ones in (23): sentence primary stress appears rightmost because the whole CP is the focus.

As was discussed in section 3, FF exhibits a strong requirement on main stress to be kept rightmost at the intonational phrase level. The option of assigning main stress to a leftmost item is marked in this language, in the sense that it is only available as a last resort strategy, if no other structure is available that satisfies the same semantic, syntactic and information-structural requirements at the same time as better satisfying HI in keeping main stress rightward.

French in-situ \textit{wh}-questions are similar to the type of fronted \textit{wh}-question in (43)A in which main stress is not located on an item within the non-\textit{wh} portion but on the \textit{wh}-phrase. In-situ \textit{wh}-questions are felicitous in contexts where the non-\textit{wh} portion is given. This is illustrated in the following dialogues, where the \textit{wh}-question is a reply to a yes/no question containing the non-\textit{wh} portion of the

\begin{verbatim}
A: #Il a dormi./ un dessin.
B: He slept/(he did) a drawing.
\end{verbatim}

The analysis of \textit{wh}-questions offered in this paper does not establish a correlation between the breadth of the focus in the \textit{wh}-question and its breadth in the answer. Here I consider that there are two dimensions to take into account: first the semantics of the \textit{wh}-phrase, namely the restriction that it contributes, and second the discourse context in which the \textit{wh}-question is meant to fit in, hence the \textit{wh}-question’s information structure. I take it that the questions in (i) and (ii) are both ambiguous between an \textit{ACTIVITY} and a \textit{THING} reading (see Krifka, 2001) which explains why both questions can be answered either by a VP or DP. The semantics of the \textit{wh}-phrase does not determine its location within the \textit{wh}-question but it is responsible for the breadth of the focus in the answer.
subsequent question.

(45)  
A: i faudrait que j’m’achète une couette.  
EXPL should that I.to.myself.buy a duvet  
‘I should buy myself a duvet.’
B: tu sais où j’l’ai achetée moi ma couette?  
you know where I.it.have bought me my duvet  
‘Do you know where I bought mine?’
A: non, tu l’as achetée où?  
no you it.have bought where  
‘Where did you buy it?’
A: #non, où est-ce que tu l’as achetée?  
no where is.it that you it.have bought  
‘Where did you buy it?’

(46)  
A: Tu sais qui il a vu ce matin?  
you know who he has seen this morning?  
‘Do you know who he saw this morning?’
B: non, il a vu qui?  
no he has seen who  
‘Who did he see?’
B: #non, qui est-ce qu’il a vu?  
no who is.it that.he has seen  
‘Who did he see?’

(47)  
A: Tu sais comment il a fait ça?  
you know how he has done that  
B: non, il a fait ça comment?  
no he has done that how  
‘how did he do that?’
B: #non, comment il a fait ça?  
no how he has done that  
‘How did he do that?’

A fronted *wh*-question with rightmost main stress – as it is associated with a all-focus reading – is not completely impossible in these contexts, as it expresses the same informational need as an in-situ *wh*-question and it correctly includes the *wh*-phrase in the focus of the clause. However the in-situ *wh*-question is more appropriate in the sense that it is less redundant as it does not assign stress to a given item. The reverse is true for in-situ *wh*-questions: they are less appropriate
than their fronted counterparts in contexts in which the non-\(wh\) portion is non given. Consider again our example (21) from the \(Là-bas\) corpus, repeated below for convenience.

(48) R: et vous, vous jouez à quoi par exemple? [pause: 372ms] Dans la cour, puisque là on est devant la cour et que c’est la récréation, vous jouez à quoi?
W: à la marelle
M: ah ba les filles elles jouaient à la marelle
W: et au mouchoir
M: et on jouait aux billes. Moi j’ai connu même le jeu avant avant les billes: les boutons ...

R, W and M are standing in front of the school’s playground during recess. M is explaining that this school is the one where girls used to go and that when he went there, he was already a teenager. By asking them what games they used to play (‘et vous, vous jouez à quoi par exemple?’), the reporter changes the topic of discussion and introduces a new one. This change of subject is here felt to be abrupt, as indicated by the silent pause of 372 ms that follows the question and the fact that the reporter has to explicit why she is bringing up that topic: because they are standing in front of the playground and that the pupils are presently having their break and playing (‘Dans la cour, puisque là on est devant la cour et que c’est la récréation’). To her, but obviously not to her hearers, what she is referring to in the non-\(wh\) portion of her question is situationally given. I take this to explain why she uses an in-situ \(wh\)-question instead of a fronted one in this context.

Another context in which \(wh\)-phrases naturally occur in-situ is with contrastively topicalized items. In Francilian French, contrastively topicalized items are typically left-dislocated and realized within a separate prosodic constituent. They typically exhibit an important lengthening as well as an F\(_0\) rise and they are almost inevitably followed by a pause (for a detailed prosodic account, see De Cat, 2007a). What is crucial in the two following dialogues in (49) and (50) is that the \(wh\)-question’s predicate is given/instantiated in the utterance’s context.

(49) A: Dorothée et moi on va pas au même endroit cet été. Elle Dorothée and me we go not at-the same place this summer she elle va à l’île Maurice.
she goes to the-island Mauritius
‘Dorothée and I are not going to the same place this summer. She is going to Mauritius.’
B: Et toi, tu vas où?  
and you you go where  
‘Where are YOU going?’

The following dialogue is the same as the one in (44) except that A suggests that after spending a few days at Loch Lomond, A and B spend a few days in Glasgow. Edinburgh is here contrasted with Glasgow.

(50) A: on reste au Loch Lomond et demain on ira à Glasgow  
we stay at the Loch Lomond and tomorrow we will go to Glasgow  
for some days  
‘Let’s stay at Loch Lomond today and tomorrow, we’ll leave for Glasgow and stay there for a few days.’

B: Et à Edinburgh, on y va quand?  
and to Edinburgh we there go when  
‘And when are we going to EDINBURGH?’

From a formal perspective, I propose to capture the difference between FF and English using the constraints STRESS–FOCUS17, HI and STAY that were introduced in section 3.2, in addition to Grimshaw’s (1997) OP–SPEC constraint and Féry & Samek-Lodovici’s (2006) DESTRESS–GIVEN constraint. In a nutshell, in English the ranking of OP–SPEC above STAY and the ranking of HI below these two constraints are responsible for the emergence of fronted wh-questions with main stress on the wh-phrase instead of in-situ wh-questions when the non-wh portion is discourse-given. On the other hand, in FF, the ranking of HI above OP–SPEC and STAY is responsible for the emergence of the in-situ wh-phrase to the detriment of a fronted wh-phrase carrying main stress in the same context. The proposed rankings of constraints appear below:

(51) Francilian French:  
STRESS–FOCUS, DESTRESS–GIVEN, HI ≫ OP–SPEC ≫ STAY

(52) English:  
STRESS–FOCUS, DESTRESS–GIVEN, OP–SPEC ≫ STAY ≫ HI

In order to be satisfied, the constraint OP–SPEC requires that wh-phrases be located in a specifier position.

17 The version of STRESS–FOCUS used here is slightly weaker than the one used in Samek-Lodovici (2005) as it only involves phrasal stress and not sentence stress.
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(53) \ OP-SPEC: \ Syntactic operators must be in specifier position.

This constraint is satisfied in fronted \(wh\)-questions as the \(wh\)-phrase overtly occupies ‘a Specifier position from which it c-commands the verbal extended projection’—taken to be Spec,CP (Chomsky, 1986) – and violated in in-situ \(wh\)-questions as the \(wh\)-phrase is not overtly realized within the same type of specifier position.\(^{18}\) The ranking of \ OP-SPEC \ above \ STAY \ gives way to the possibility of the occurrence of \(wh\)-movement occurs in French, contrary to languages in which all \(wh\)-phrases appear in-situ.

As for the constraint \ DESTRESS–GIVEN \ appearing below, it is satisfied whenever none of the discourse-given items carries stress (phrasal stress and \textit{a fortiori} sentence stress).

(54) \ DESTRESS–GIVEN: \ A given phrase is prosodically non-prominent.

French and English vary in how they satisfy this constraint: in similar environments, French resorts to clitic right dislocation of discourse given DPs – and thus expresses givenness on the form of an inherently unstressed clitic pronoun – whereas English simply fails to realize the head of discourse-given phonological phrases.\(^{19}\) Following De Cat’s (2007b) analysis, dislocated DPs are adjoined to the clause – in the present case the CP level. The lowest syntactic segment of CP is mapped onto an intonational phrase to which they attach (Truckenbrodt, 1999; Szendrői, 2003).

The definition of the \ STRESS–FOCUS \ constraint adopted here is repeated below for convenience.

(55) \ STRESS–FOCUS

For any \(XP_F\) and \(YP\) in the focus domain of \(XP_F\), \(XP_F\) is prosodically more prominent than \(YP\).

In the present study, this constraint is violated whenever a non-given item fails to

\(^{18}\)In Grimshaw (1997), the constraint \ OP-SPEC \ is ‘based on the insight of Rizzi (1991) and Haegeman (1992), that there is a special relationship between the Specifier position and a syntactic operator, a scope-bearing expression which takes its scope by virtue of its syntactic position’. Although I adopt this constraint, for the time being I remain agnostic to the reason that here motivates \(wh\)-fronting. However, I depart from analyses such as the one suggested by Zubizarreta (1998) or Mycock (2005) according to which \(wh\)-fronting is meant to syntactically focus a \(wh\)-phrase in French and English.

\(^{19}\)The source to this difference between English and Francilian French is left open for future research.
realize a phrasal stress.  

The proposed ranking for English is illustrated in tableaux 1 and 2. In tableau 1 below, in which the *wh*-question’s focus consists in the content of the whole CP (see example (44)), candidate *a* is the optimal candidate.

Table 1: *Wh*-question with a new non-*wh* portion in English

<table>
<thead>
<tr>
<th>( \lambda x [\text{GO}_F(\text{Edinburgh}_F)(\text{we})(x)], \text{TIME}) )</th>
<th>SF</th>
<th>DG</th>
<th>OS</th>
<th>ST</th>
<th>HI</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. [When, are we going to Edinburgh ( t_i)_F )</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. [When are we going to Edinburgh ( t_i)_F )</td>
<td></td>
<td></td>
<td>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. [We are going to Edinburgh when] ( t_i)_F )</td>
<td></td>
<td></td>
<td>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. [When are we going to Edinburgh ( t_i)_F )</td>
<td></td>
<td></td>
<td></td>
<td>*</td>
<td></td>
</tr>
</tbody>
</table>

All the candidates in tableau 1 vacuously satisfy DESTRESS–GIVEN (henceforth DG). Candidates *a*, *b* and *c* satisfy STRESS–FOCUS (SF), as every non-given item is stressed. Candidate *d* – which is harmonically bound by candidate *a* – violates this constraint, as *to Edinburgh* fails to realize a phrasal stress. This candidate is consequently eliminated. Both candidates *a* and *b* satisfy OP–SPEC (OS) as they both move the *wh*-phrase to Spec,CP. The trace/copy left in this process violates STAY (ST). This violation is not however fatal as ST is relatively low-ranked. The only candidate that satisfies ST in tableau 1 is candidate *c*. Although candidate *c* satisfies ST by leaving the *wh*-phrase in-situ, it fails to satisfy OS and is consequently eliminated. The constraint that breaks the tie between candidate *a* and candidate *b* is here HI. By locating sentence stress leftmost, candidate *b* – which is also harmonically bound – fares worse on this constraint than candidate *a* and is thus eliminated.

---

20 This version of the constraint STRESS–FOCUS is not redundant with STRESS–XP as a non-given DP expressed on the form of a clitic pronoun violates STRESS–FOCUS without violating STRESS–XP.
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In the following tableau, the focus of the clause is the *wh*-phrase, as the non-*wh* portion is discourse-given (cf. the example (43)A discussed in section 3.1). In order to satisfy SF and DG, sentence stress and *wh*-phrase must match. Candidate *a*, the winning candidate, satisfies SF as the *wh*-phrase is stressed. It also satisfies DG as the given items are correctly destressed. OS is satisfied at the expense of ST by the *wh*-phrase’s location in the left-periphery of the sentence. Finally, sentence main stress on *when* violates HI as the head of the intonational phrase is not aligned with its right edge.

<table>
<thead>
<tr>
<th><em>SF</em></th>
<th><em>DG</em></th>
<th><em>OS</em></th>
<th><em>ST</em></th>
<th><em>HI</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>⟨λx[GOG(EdinburghG)(we)(x)], TIME⟩</td>
<td>SF</td>
<td>DG</td>
<td>OS</td>
<td>ST</td>
</tr>
<tr>
<td>a. [When,]F are we going to Edinburgh ti</td>
<td></td>
<td></td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>b. [When,]F are we going to Edinburgh ti</td>
<td></td>
<td></td>
<td>*!</td>
<td></td>
</tr>
<tr>
<td>c. We are going to Edinburgh [when]F</td>
<td></td>
<td></td>
<td>*!</td>
<td></td>
</tr>
</tbody>
</table>

The location of sentence stress on *Edinburgh* as well as the stressing of *going* in candidate *b* violate DG, as these items are given. This violation is fatal to candidate *b*. Candidate *a*’s *wh*-in-situ counterpart in *c* also violates DG, as it shows stress on given items. Besides, and above all, it fares worse than candidate *a* on OS, as leaving the *wh*-phrase in-situ violates this constraint. This fatal violation causes its elimination.

Let us now turn to the FF data. The ranking of constraints presented in (51) is illustrated in tableaux 3 and 4. A few more candidates than in English have to be considered as Francilian French resorts to clitic right dislocation of given phrases. Although the following candidates present more syntactic variety than the ones considered in English, they all realize the same predicative structure.

In tableau 3, the winning candidate – candidate *a* – is the counterpart of candidate *a* in tableau 1: it satisfies all the constraints except ST. Candidate *b* – which is harmonically bound by candidate *a* – is candidate *a*’s equivalent, except that main stress is carried by the fronted *wh*-phrase. This configuration causes a fatal...
Table 3: Francilian French wh-question with a new non-wh portion

<table>
<thead>
<tr>
<th></th>
<th>((\lambda x[GO_F(Edinburgh_F)(we)(x)], \text{TIME})</th>
<th>SF</th>
<th>DG</th>
<th>HI</th>
<th>OS</th>
<th>ST</th>
</tr>
</thead>
<tbody>
<tr>
<td>f</td>
<td>(x \quad x \quad x \quad x \quad \text{P} )</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. [Quand est-ce qu’on va à Edimbourg (t_i)]_F</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. [Quand est-ce qu’on va à Edimbourg (t_i)]_F</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. [Quand est-ce qu’on va à Edimbourg (t_i)]_F</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. [On va quand à Edimbourg]_F</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. [On va (e_j) quand à Edimbourg]_F</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

violation of HI hence the elimination of candidate b. Candidate c – also harmonically bound by a – is the optimal candidate in a context in which à Edimbourg is given but not va, such as in the following example.

(56) On (n’) arrête pas d’en parler, mais quand est-ce qu’on va, à Edimbourg?  
‘We keep talking about Edinburgh, but when are we going there?’

In the context proposed in tableau 3 however, this candidate fails to satisfy SF as à Edimbourg is wrongly expressed on the form of the intrinsically stressless clitic pronoun y. This violation of SF leads to the elimination of this candidate. Candidate d is the winning candidate in the context in which on va à Edimbourg is discourse-given, such as in tableau 4. In the present context, in which neither aller ‘go’ nor à Edimbourg are given, this candidate violates SF and is consequently eliminated. Finally, candidate e is the (harmonically bound) wh-in-situ version of candidate a, with the extraposition of à Edimbourg due the preference for ‘heavy’ constituents to come last (on the End Weight Principle, see for instance Arnold,
Wasow, Losongco & Ginstrom, 2000). This candidate satisfies DG as well as HI. The lack of fronting of the \textit{wh}-phrase violates OS and the extraposition of \textit{à Edimbourg} causes a violation of ST (if one considers that any type of movement violates this contraint). However the violation that is fatal to this candidate is the one caused by the lack of stressing of the non-given item \textit{va}. It is worth noting that although this candidate is syntactically and prosodically well-formed, it never surfaces as a genuine request for information in FF.

Tableau 4’s optimal candidate – candidate \textit{a} – is the in-situ \textit{wh}-question with clitic right dislocation of \textit{à Edimbourg}. This candidate fares well on the three high-ranked constraints SF, DG and HI by ensuring that the \textit{wh}-phrase is stressed (destressing the \textit{wh}-phrase would violate SF), by correctly destressing/unstressing every given item and by aligning the head of the intonational phrase with its right edge. The location of sentence stress on \textit{va} shown by candidate \textit{b}, although it satisfies HI, violates DG and leads to the elimination of this candidate. Candidate \textit{c} differs from candidate \textit{b} in that it does not exhibit a clitic right dislocation of \textit{à Edimbourg}. This candidate also violates DG in that it exhibits stressed given items. Finally, candidate \textit{d}, in which the \textit{wh}-phrase stays in-situ and the phrase \textit{à Edimbourg} is extraposed, fails to satisfy DG, OS and ST and is consequently eliminated.

Table 4: Francilian French \textit{wh}-question with a \textit{given} non-\textit{wh} portion

<table>
<thead>
<tr>
<th>(\lambda x[\text{GO}<em>{G}(\text{Edinburgh}</em>{G})(\text{we})(x)], \text{TIME})</th>
<th>SF</th>
<th>DG</th>
<th>HI</th>
<th>OS</th>
<th>ST</th>
</tr>
</thead>
<tbody>
<tr>
<td>(\lambda x [\text{GO}<em>{G}(\text{Edinburgh}</em>{G})(\text{we})(x)], \text{TIME})</td>
<td>x )(I) x )(P) x )(I) x )(P) x )(I) x )(P) x )(I) x )(P) x )(I) x )(P) x )(I) x )(P) x )(I) x )(P)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. On y va [quand]_{F} \text{à Edimbourg}</td>
<td>x )(I) x )(P)</td>
<td>x )(I) x )(P)</td>
<td>x )(I) x )(P)</td>
<td>x )(I) x )(P)</td>
<td>x )(I) x )(P)</td>
</tr>
<tr>
<td>b. [Quand,]<em>{F} est-ce qu’on y va \text{à Edimbourg} \text{t}</em>{i}</td>
<td>x )(I) x )(P)</td>
<td>x )(I) x )(P)</td>
<td>x )(I) x )(P)</td>
<td>x )(I) x )(P)</td>
<td>x )(I) x )(P)</td>
</tr>
<tr>
<td>c. [Quand,]<em>{F} est-ce qu’on va à Edimbourg \text{t}</em>{i}</td>
<td>x )(I) x )(P)</td>
<td>x )(I) x )(P)</td>
<td>x )(I) x )(P)</td>
<td>x )(I) x )(P)</td>
<td>x )(I) x )(P)</td>
</tr>
<tr>
<td>d. On va e_{j} [quand]_{F} \text{à Edimbourg} \text{j}</td>
<td>x )(I) x )(P)</td>
<td>x )(I) x )(P)</td>
<td>x )(I) x )(P)</td>
<td>x )(I) x )(P)</td>
<td>x )(I) x )(P)</td>
</tr>
</tbody>
</table>
3.4 Summary of section 3

Assuming that in a wh-question a wh-phrase is intrinsically focused, I have argued that not all wh-questions have the same focus-set – contra most accounts of wh-questions, which consider that the wh-phrase and only the wh-phrase equals to the focus of the wh-question. I have proposed that English wh-questions with initial main stress and French in-situ wh-questions have in common that the wh-phrase carries main stress and that their focus-set only consists of the wh-phrase. French fronted wh-questions and English wh-questions with rightmost main stress have in common that their focus-set consists of the entire interrogative CP.\footnote{More precisely, French and English fronted wh-questions have in common that at least one item in the non-wh portion is non-given and thus eligible to realize sentence stress.} Contrary to declaratives with rightmost main stress, French wh-questions are thus unambiguous: fronted wh-questions are cases of broad focus and in-situ wh-questions are cases of narrow focus on the wh-phrase. One should however keep in mind that an in-situ wh-question’s focus-set is a subset of its fronted counterpart’s focus-set (cf. section 3.3). Using a fronted wh-question in a context in which the non-wh part is discourse-given is just not the most economical way to express the question, but it is still possible as they both express the same informational need. Using an in-situ wh-question in a context in which the non-wh portion is discourse-new is also possible but requires a type of accommodation on the part of the hearer. In French, the location of main stress on the wh-phrase is a consequence of the discourse-given status of the non-wh portion and this is the only aspect that makes the wh-phrase more ‘focused’ in in-situ wh-questions than in fronted ones.

4 Closing Remarks

In this paper I have argued that in Francilian French, fronted and in-situ wh-questions express the same informational need and have the same answerhood conditions. They are nonetheless distinct with respect to their focus-set: in fronted wh-questions the non-wh portion (or at least a part of it) is included in the question’s focus whereas in wh-in-situ questions, it is excluded from the focus. This proposal is thus reminiscent of Chang’s (1997) original proposal that in-situ wh-questions are felicitous in ‘strongly presupposed contexts’ and Engdahl’s (2006) claim that wh-questions are comparable to declaratives in that they may be slightly modified in order to fit their discourse context. I have proposed to capture the difference between the two types of questions within Optimality Theory (Prince &
Smolensky, 2004), using a set of constraints that have recently been proposed in order to account for focus and givenness in declaratives (Szendrői, 2001; Samek-Lodovici, 2005; Féry & Samek-Lodovici, 2006). It has been argued that prosody plays a role in constituent linearization in wh-questions. More precisely, prosody helps choosing among several wh-structures made available by grammar. The emergence of in-situ wh-phrases in Francilian French is an effect of the ranking of HI above OP-SPEC, which favors rightmost main stress over wh-phrase fronting when the context requires the non-wh part to be destressed, namely when the non-wh portion is discourse-given. English is distinct from Francilian French in that its ranking of HI below OP-SPEC allows for main stress to be situated on a fronted wh-phrase when required by the discourse context.

By laying out the semantic similarity between the two types of French wh-questions, this paper offers an explanation to their well-known seemingly free interchangeability. By highlighting their differences with respect to information structure, it accounts for why in-situ and fronted wh-questions co-occur in one and the same grammar. It also makes the location of sentence stress in French and English wh-questions more consistent with what has long been observed in these languages’ declarative sentences.

Finally, if one believes that ‘an important key lies in the information structure of Wh interrogatives’ (Tomioka, 2007) in order to account for the widespread phenomenon of ‘intervention effects’ in wh-questions, the present paper offers a new perspective on this phenomenon. In his recent pragmatic account to ‘intervention effects’ in Korean and Japanese, Tomioka (2007) argues that in these languages, an ‘intervention effect’ occurs whenever an intervener is wrongly located outside the ground/given portion of the wh-question. Several types of items can act as interveners depending on the language (Beck, 2006). In French wh-questions, any nominal or adverbial quantifier, negation, modal-adverbs and focused items of any sort (with or without a focusing particle) are prohibited from c-commanding/linearly preceding a wh-phrase left in-situ. The present account of wh-questions, if it is on the right track, shows that, at least in FF, an ‘inter-

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Some of the previous accounts of French wh-questions have claimed that wh-in-situ have a limited distribution and, for instance, do not co-occur with modals (Chang, 1997; Cheng & Rooryck, 2000). As many of the above-cited claims, this one has also been challenged (see for instance Adli, 2004). In FF, modals are perfectly acceptable in both in-situ and fronted wh-questions. Here are a few examples.

(i) Et ce soir, tu dois faire quoi?
and this evening you must do what
“What do you have to do this evening?”

---
vention effect’ occurs whenever an intervener is located within the ground/given portion of the \textit{wh}-question. When the intervener is an acknowledged focused item, what might cause the ungrammaticality of the \textit{wh}-questions in which it precedes a \textit{wh}-phrase in-situ is that the focused item and the \textit{wh}-phrase are in competition with each other to carry main stress. Keeping sentence stress rightmost, namely on the \textit{wh}-phrase, leaves a narrowly focused item – the intervener – unstressed, which violates \textsc{stress–focus} whereas shifting sentence stress leftward onto the narrowly focused item has the effect of destressing the \textit{wh}-phrase as well as violating HI. As the \textit{wh}-phrase is inherently focused, appearing outside the sentence’s focus is not an available option for it. How do ‘intervention effects’ created by a focus-sensitive item relate to ‘intervention effects’ created by the presence of negation, a nominal quantifier, an adverbial quantifier, or a modal adverb,\textsuperscript{23} such as in the following examples?

(57) a. Qu’est-ce qu’il a pas mangé?
\hspace{1cm} what.is.it that.he has not eaten
\hspace{1cm} ‘What didn’t he eat?’

(ii) Il peut en prendre combien?
\hspace{1cm} he can it take how.much
\hspace{1cm} ‘How much (of it) can he take?’

(iii) Et l’année prochaine, t’aimerais faire quoi?
\hspace{1cm} and the.year next you.would.like to.do what
\hspace{1cm} ‘What would you like to do next year?’

However, when the modal(-like) is contrastively focused, such as in the following dialogue in which the speaker corrects herself after realizing that considering his job, her addressee does not always do what he wants when he is on break, the in-situ \textit{wh}-question becomes ill-formed and only the fronted \textit{wh}-question is well-formed.

(iv) A: Tu vas faire quoi, pendant les vacances?
\hspace{1cm} you will to.do what during the break
\hspace{1cm} ‘What are you going to do during the break?’

A: (En)fin, qu’est-ce (que) t’aimerais faire?
\hspace{1cm} well what.is.it that you.would.like to.do
\hspace{1cm} ‘Well, what would you like to do?’

A’: #/*(En)fin, t’aimerais faire quoi?
\hspace{1cm} well you.would.like to.do what?
\hspace{1cm} ‘Well, what would you like to do?’

\textsuperscript{23}I would like to thank an anonymous reviewer for pointing out this last category of interveners.
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b. #/*Il a pas mangé quoi?
   he has not eaten what?
   ‘What didn’t he eat’

(58) a. Où est-ce que certains étudiants ont mangé?
    where is.it that some students have eaten
    ‘Where did some of the students eat?’

b. #/*Certains étudiants ont mangé où?
    some students have eaten where
    ‘Where did some of the students eat?’

(59) a. Qu’est-ce qu’elle mange souvent?
    what.is.it that.she eats often
    ‘What does she often eat?’

b. #/*Elle mange souvent quoi?
    she eats often what
    ‘What does she often eat?’

(60) a. Qu’est-ce qu’il a probablement mangé?
    what.is.it that.he has probably eaten
    ‘What did he probably eat?’

b. #/*Il a probablement mangé quoi?
    he has probably eaten what
    ‘What did he probably eat?’

To the best of my knowledge, none of the previous accounts of ‘intervention effects’ have discussed the type of context in which questions such as the ones from (57)a to (60)a would fit – and hence the prosodic realization of such questions and the location of main stress in them. None of the previous accounts have discussed the informational need expressed by the speaker or the type of mental operation or knowledge required from the addressee in order for him/her to be able to answer such a question. In my view, what seems worth noting and what probably needs more investigation is that all these items are scalar items of some sort. The nominal quantifiers ⟨*all, most, many, some*⟩ constitute a Horn scale and so do ⟨*always, often, sometimes*⟩. This is also the case of ‘probably’, which can be seen as part of a scale with at least ‘certainly’ and ‘possibly’ (⟨*certainly, probably, possibly*⟩). By selecting one of these items in expressing her informational needs, the speaker excludes the other items of the scale or in other words, other alternatives, which should remind us of focusing. However, as this topic is beyond the scope of the present paper, I leave it open for future research.
References


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French. Ms. MIT.


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Fatima Hamlaoui


