*Rivista di Grammatica Generativa*
33 – 2008

# FEATURE STRIPPING AND WH-MOVEMENT IN FRENCH AND HUNGARIAN*

Lena Baunaz, Genoveva Puskás

## *1. Introduction*

One of the main characteristics of wh-movement is that it is traditionally split into overt and covert movement. Whereas overt movement involves moving a whole wh-phrase, or at least a wh-word, covert movement may involve either phrasal movement of wh-chunks of variable sizes or feature movement (Pesetsky 2000). However, all of these movements are considered as uniform. In this paper, we argue in favor of a 'dynamic' approach to wh-movement. More precisely, we propose that covert wh-movement can transform in the course of the derivation. We label this phenomenon feature stripping, in that in the course of the derivation, a wh-phrase gets rid of a feature in order to move higher. Essentially, we claim that, in French, a wh-phrase in situ moves to reach its scope position covertly. In the course of this derivation, it undergoes feature stripping. We extend this analysis to Hungarian partial wh-movement.

## *2. Feature Stripping*

French wh-questions are well-known to show a strikingly great number of variants, as attested in the paradigm below:[1]

(1) a. Qui as-tu vu?
who have-you seen

* We thank the audiences of the 34th IGG and of the 1stWH-orkshop in Geneva. We are grateful for the many useful, challenging and encouraging questions and comments we received from Andrea Cattaneo, Marcel den Dikken, Mélanie Jouitteau, Eric Mathieu, Jean-Yves Pollock, Luigi Rizzi, Ur Shlonsky, Gabi Soare and Michal Starke.

[1] Except for (1a), which is by now rather formal, all the other variants, which occur in spoken French, sound more natural with the contracted form *t'as* rather than the full form *tu as* ('you have'). Note that (1a) displays genuine wh-movement with I-to-C movement comparable to standard English wh-movement.

b. Qui t'as vu?
who you-have seen
c. Qui est-ce que t'as vu?
who is-that that you-have seen
d. Qui c'est que t'as vu?
who that-is that you-have seen
e. C'est qui que t'as vu?
that-is who that you-have seen
f. T'as vu qui?
you-have seen who
'Who did you see?'

Of these six forms, only the last one involves no overt movement at all of the wh-phrase. The literature on French wh-questions has discussed at length the differences between these forms, essentially from the point of view of the differences in meaning that they support (see Obenauer 1994, Chang 1997, Boeckx 1999, Cheng & Rooryck 2000, Mathieu 2004 a.o.). Wh-in situ has been associated with some version or other of D-linking *à la* Pesetsky (1987). However, as discussed in Starke (2001) and shown at length in Baunaz (2008), French wh-in situ is ambiguous. Baunaz claims that wh-in situ occur in thee different versions, associated with three intonational profiles, and which exhibit three different syntactic behaviors. She claims that only presuppositional types of wh-in situ are interpreted as having wide-scope, even when occurring in an island. These are the wh-in situ that we are concentrating on in this paper.

### *2.1. The in-situ strategy*

In addition to the well-known root phenomenon (2a), the in situ strategy is also widely attested in embedded contexts (2b):

(2) a. Jean a insulté qui?
Jean has insulted who
'Who did Jean insult?'
b. Tu crois qu'on les trouve où ?
you think that one them finds where
'Where do you think one finds them?'

As discussed in Starke (2001), Baunaz (2008), the wh-phrases in (2) have wide-scope if they are interpreted as having some presuppositional import.[2]

[2] In fact, both Starke and Baunaz argue in favor of a three way distinction, including a non-presuppositional version and two types of presuppositional versions for the wh-phrase. However, the more subtle distinction between the two types of presupposition is irrelevant

Presuppositionality has, among other properties, that of enabling a wh-phrase to escape weak islands. This is attested in overt wh-movement:

(3) a. ??/*Qui n'as-tu pas vu?
who ne have-you not seen
'Who didn't you see?'
b. Quel film n'as-tu pas vu ?
the-which film ne have-you not seen
'Which film didn't you see?'

Whereas *qui* is preferably interpreted as an indefinite, *quel film* ('which film') presupposes the existence of a set of films. Wh-movement over negation is fine in this case. The same is valid for in situ wh-phrases:

(4) a. Elle a pas vu quel film?
shehas not seen which film
'Which film has she not seen?'
b. *Elle a pas vu qui diable?
she hasnot seen who devil
'Who the hell has she not seen?'

Here again, *quel film* ('which film') carries a presupposition of existence, and is fine in the context of a negative sentence (4a). The expression *qui diable* ('who the hell') is aggressively non-D-linked (see Pesetsky 1987, den Dikken &Giannakidou 2002, Obenauer 1994, Poletto&Pollock 2004). As illustrated in (4b), it is ungrammatical in a negative context. This leads Baunaz (2008) to conclude that in-situ wh-phrases undergo covert movement. In addition, as shown in (4), only presuppositional wh-phrases can escape neg-islands. We adopt Baunaz (2008) and assume that a presuppositional wh-phrase carries a feature [+presupp].

### *2.2. Stripping*

The above discussion leads to a strong prediction, namely that a wh-phrase with a feature [+presupp] will escape weak islands, wherever they occur. However, the contrast in (5) below invalidates the prediction:

(5) a. Tu crois [qu'elle a **pas** vu quel film]?
you think that she hasnot seen which film
'Which film do you think she has not seen?'
b. *Tu crois **pas** [qu'elle a vu quel film]?

here, and we will simply use the term presuppositional for those wh-phrases which attain wide-scope and can escape islands.

you think not that she has seen which film
(= which film don't you think has seen)

The contrast between (5a, b) is unexpected, given that *quel film* ('which film') is [+presupp]. On the other hand, the ungrammaticality of (5b) reveals some sensitivity to negative islands, a characteristic of (some types of) wh-movement. We are facing here a curious case of incompatibility: on the one hand, a presuppositional wh-phrase can escape weak islands, as indeed illustrated in (5a); but on the other hand, the same wh-phrase is blocked by a higher neg-island, a rather unexpected fact.[3]

The same asymmetry appears with overt wh-movement:

(6) a. C'est quoi que tu n'as **pas** acheté ?
that is what that you ne have not bought
'What is it that you didn't buy?' [Mathieu 2002: 61]

b. *Ce n' est **pas** quoi que tu as acheté?
that is *ne* is not what that you have bought
(=What is it not that you have bought?)

In (6), *quoi* ('what') moves overtly. In (6a), it can escape the neg-island because it is presuppositional.[4] In (6b), however, the presence of *pas* in the matrix clause leads to ungrammaticality. Note that the overt landing site of the wh-phrase is below the negative marker, so that the latter is not expected to intervene. However, another wh-strategy reveals that the same asymmetry holds throughout:

(7) a. Qui c'est [que t'as **pas** vu ]?
who that-is that you-have not seen
'Who is it that you didn't see?'

b. *Qui c'est **pas** [que t'as vu ]?

[3] A reviewer suggests that the ungrammaticality of (5b) might be simply due to "neg-raising", with *pas* raised to the matrix clause but interpreted as an embedded negation. However, as the core of our analysis lies in the properties of the (wh)-movement types, whether the negative bare operator syntactically occurs in the matrix clause as the result of base-generation or movement is contingent to the problem.

[4] We assume that *quoi* in wh-clefts is base-generated in the embedded clause and not as an in situ relative (see Baunaz 2008). Crucially, we consider *c'est* and *quoi* as two separate constituents, a fact which enables *quoi* to move covertly beyond *c'est*. The independence of *c'est* and *quoi* can be indirectly shown by the following:

(i) c'est pas Mike qu'elle a embrassé
it is not Mike that-she has kissed
'It is not Mike that she kissed'

Example (i) shows that *c'est* and *Mike* are two different constituents which can be separated by an adverbial element, assuming that wh- and focus-clefts have an identical structure.

who that-is not that you-have seen
(=who is it not that you saw?)

In the *'qui c'est'* strategy, we observe an overt movement of *qui* to the edge of the matrix clause, most likely to the scope position of the wh-phrase.[5] As illustrated in (7a), the movement is not sensitive to an embedded neg-island. The presence of the negative marker in the matrix clause, on the other hand, blocks the movement of the wh-phrase to its scope position. Putting the three pairs of data in (5), (6) and (7) together, we reach the conclusion that what blocks overt movement in (7b) is the same phenomenon which blocks access to a scope position via partial covert movement in (6b) and covert wh-movement in (5b). In all of these cases, movement out of an embedded island is fine, while crossing an intervening negation in the matrix clause leads to unacceptability. Assuming that movement is cyclic, we can reformulate the problem in the following way: the first step is insensitive to weak islands, as is expected for wh-phrases which carry a [+presupp] feature. The second step, however, exhibits the sensitivity to weak islands characteristic of [-presupp] wh-phrases.

So the data in (5,6,7) suggest that the second step of the cyclic process is different from the first one. We propose that the blocking effect of negation in the second step is due to the fact that in the course of the derivation, the wh-phrase loses its presuppositional properties: it strips off its [+presupp] feature and moves on as a 'naked' Q.

What we identify as "feature stripping" is the extraction of a bare wh-operator out of a phrase which bears a [+presupp] feature. Therefore, we claim that there may be two types of movement involved in the wh in-situ construction:

(i) a "heavy" covert XP-movement , which moves the wh-phrase to an edge position in French, as a presuppositional element:

(8) a. [ [wh-phrase]$_i$…. $t_i$]

(ii) a "stripped" Q-movement; further movement is then peeled off its presuppositional layer and can only carry on as bare Q movement. The idea is that presuppositional movement is restricted to (relatively) local movement:

(8) b. wh-Q$_j$……. [ [wh-phrase $t_j$]$_i$…. $t_i$]

---

[5] Note that *'qui c'est'* and *'qui est-ce que'* are two different constructions. While the former is necessarily presuppositional, the latter is not. This is illustrated by the contrast with aggressively non-D-linked *qui diable:*

(i) a. Qui diable est-ce que t'as vu ?
who devil is-this that you-have seen
'Who the hell did you see?
' *qui diable c'est que t'as vu ?
who devil it-is that you-have seen

The wh-phrase is able to escape from a neg-island, if the latter occurs in the portion of the derivation where the phrase still carries its [presupp] features; if negation occurs in a portion of the clause in which the wh-phrase has already been stripped off its feature, the movement will be blocked, as is expected of a bare Q-movement:[6]

(9) $[_{CP}$ wh-$Q_j$ …***NEG** … $[_{CP}$ [wh-phrase $t_j$ $]_i$ …**NEG**… ..$t_i$ ]

### *2.3. Further application*

Let us now turn to another case where the in-situ strategy differs strongly from overt wh-movement. Wh-movement is also known to be sensitive to Strong Islands:

(10) a. $Qui_i$ crois-tu [que Jean aime $t_i$ ]?
who think-you that Jean loves
'Who do you think that Jean loves?'
b. * $Qui_i$ pleures-tu [parce que Jean aime $t_i$ ]?
who cry-you because Jean loves
(=who do you cry because Jean loves?)

On the other hand, a wh-phrase in-situ can be interpreted with matrix scope despite the fact that it occurs in a Strong Island (see Starke 2001):

(11) Tu crois [qu'elle a dit ça [ pour inciter Pierrot à séduire qui ]]?
you think that-she has said that to incite Pierrot to seduce whom?
(=$who_i$ do you think she said that to incite Pierrot to seduce $t_i$ ?)
[Starke 2001]

However, the wh-phrase in-situ can only be interpreted as presuppositional, as attested by the following contrast:

(12) a. Elle a ri [ parce que Jean s'est moqué de qui ?]
she has laughed because Jean has made fun of who
(=who did she laugh because Jean made fun of?)

---

[6] Note that French exhibits some version of overt "stripping", not necessarily linked to presupposition:

(i) a. Tu penses qu'elle a acheté combien de livres?
you think that-she has bought how-many of books
'How many books do you think that she bought?"
Combien tu penses qu'elle a acheté de livres?
How-many you think that-she has bought of books

However, stripping already applies to the lower clause, leaving the restriction in-situ and moving a bare Q up to the matrix CP. This is attested by (ii):

(ii) *Combien tu penses qu'elle a **pas** acheté de livres?
How-many you think that-she has not bought of books.

b. *Elle a ri [parce que Jean s'est moqué de qui diable?]
she has laughed because Jean has made fun of who devil

Recall that in situ wh-phrases have a non-presuppositional version (see fn 2). We expect (12b) to be grammatical, on a par with (12a). However, the aggressively non-D-linked *qui diable* ('who the hell') wh-phrase is not licensed within a strong island, showing that the wide scope reading is only accessible to a [+presupp] wh-phrase. In other words, the interpretation of (12a) presupposes the existence of the individual known to the speaker, or at least of a set from which the individual is selected.[7]

We claim that the wide scope interpretation obtains via covert movement, even in the case of strong islands. Indeed, the presence of weak islands reveals the same kind of asymmetry as the one that was discussed in section 2.2 above. Whereas the wide scope reading of a [+presupp] wh-phrase is not blocked by negation in the adjunct clause (13a), it is not legitimate in matrix negative contexts (13b):

(13) a. Elle a ri [parce que Jean n'a **pas** aimé quel film ? ]
she has laughed because Jean neg has not liked which film
=For which film is it the case that she laughed because Jean didn't like the film?
b. *elle a **pas** ri [parce que Jean a aimé quel film]?
she has neg laughed because Jean has liked which actor

If *quel film* ('which film') is [+presupp], (13b) is unexpected. But at the same time, this shows that there is some movement, since we have taken sensitivity to weak islands to be a diagnosis for wh-movement. Clearly, it seems unreasonable to claim that there is no movement in the adjunct clause, but that there is movement to the matrix scope position. On the other hand, if there is covert movement of a presuppositional wh-phrase, there is no explanation as to why it is insensitive to negation within the adjunct clause but not outside it.[8]

We propose that (12a) and (13) involve two movements: a first step involves the +presuppositional wh-phrase:

(14) a. [ parce que [wh-phrase]$_i$ …**NEG**…..t$_i$ ]

The second step is an instance of feature stripping: the wh-phrase gets rid of its [+presupp] feature. It moves further as a bare Q. As such, it is sensitive to neg-islands:

(14) b. *Wh-Q$_j$…..**NEG**….[ parce que [[wh-phrase t$_j$]$_i$ …**NEG**…..t$_i$ ]

Note that we argue for an analysis in which the wh-in situ undergoes covert movement throughout to reach its scope position. This might be challenged by an alternative analysis. One might want to claim that the movement of the [+presupp]

[7] On these differences in the interpretation of presuppositional wh-phrases, see Baunaz 2008.

[8] See Starke 2001 for a similar observation on strong island extraction.

wh-phrase is restricted to the adjunct clause. In other words, the wh-phrase moves covertly to each the edge of the adjunct clause, where it has scope over the clause. Then, the whole clause moves up covertly to the matrix scope position. This would then give the illusion that the wh-phrase has moved to the matrix scope position. Such an analysis has been proposed for Hungarian (see section 3 below). However, on the basis of examples such as (12b), we reject this approach. Indeed, if *qui diable*, an aggressively non-D-linked wh-phrase occurs in an adjunct clause, it can never have wide scope. Given the clausal movement analysis, it could move to the scope position of the adjunct clause as a non-presuppositional element (as it does overtly, see 15 below). Then, the clause would move as a whole to the matrix scope position, giving the illusion that the non-D-linked wh-phrase has wide scope. But this is not the case: the in-situ version cannot have wide scope, contrary to moved versions:

(15) Qui diableas-tu vu?
who devil have-you seen
'Who the hell did you see?'

### *2.4. Why to strip?*

The question we investigate in this section is the motivation for the feature stripping we propose. Using the same tool, namely negative islands, a diagnosis for bare Q movement, we observe that not all environments trigger identical restrictions on covert movement. Consider the following:

(16) a. Avec quel artiste t'as *dit* [que Marie avait déjeuné t ]?
with which artist you-have said that Marie had had-lunch
'With which artist did you say that Mary had lunch?'
b. ??Avec quel artiste t'as **pas** *dit* [ que Marie avait déjeuné] ?
with which artist you-have not said that Marie had had –lunch
(=with which artist did you not say that Mary had lunch?)

(17) a. Avec quel artiste il a *admis* [ que Marie avait souvent travaillé t ]?
with which artist he has admitted that Marie had often worked
'With which artist did he admit that Marie had often worked?'
b. Avec quel artiste il a **pas** *admis* [que Marie avait
with which artist he has not admitted that Marie had
souvent travaillé t ]?
often worked
'With which artist did he not admit that Marie had often worked?'

The contrast in (16, 17) comes as rather unexpected, given our previous discussion. Indeed, we had observed that when a [+presupp] wh-phrase, such as *avec quel artiste* ('with which artist') occurs in an embedded clause, it is insensitive

to the presence of negation within the embedded clause, but is blocked by matrix negation (see 5 above). And this is what (16) confirms. But (17), which embeds the same kind of clause, allows the wh-phrase to have matrix scope even in the presence of matrix negation. We propose that the crucial difference is linked to the nature of the matrix predicate. Indeed, as already proposed by Cattell (1978), complements of factive predicates are presupposed, while complements of non-factives are asserted. As also observed in Horváth (1997), verbs vary as to the kind of clausal complement they select. She claims that some verbs select a 'D-linked' complement while others select an 'open-ended, non D-linked' clause. We observe, for French, a similar distinction, while giving the phenomenon a slightly different analysis. A verb like *croire* ('think') does not presuppose the content of the embedded clause.[9] The use of a verb like *croire* expresses that the subject of the matrix clause has no guarantee that what is expressed in the embedded clause is an actual state of affairs in the world. In contrast, a verb like *admettre* ('recognize, admit') presupposes the content of the embedded clause. The following contrast can illustrate this:

(18) a. Tu crois que [Jean a parlé avec quel acteur?]
you think that Jean has spoken with which actor
'Which actor do you think that Jean spoke with?'
b. Le plus connu: Robert de Niro!
the most famous: R.de.N.
c. Avec aucun, il est bien trop timide!
With none, he is far too shy

(19) a. T' admets que [Jean a parlé avec quel acteur?]
you-admit that Jean has spokenwith which actor
'Which actor do you admit that Jean spoke with?'
b. Le plus connu: Robert de Niro!
c. #Avec aucun, il est bien trop timide!

Whereas (18c), which denies the content of the embedded clause, is consistent with a question like (18a), such an answer is unacceptable with (19a). We conclude that the two predicates come with different expectations as to their embedded clauses. *Croire* ('think') does not presuppose anything about the embedded clause, whereas *admettre* ('admit') presupposes that the proposition described in the embedded clause actually holds, that is, corresponds to some state of affairs in the world. This is what we call 'presuppose' in the context of an embedded clause.

To summarize, we observe that in contexts where the matrix predicate selects a presuppositional embedded clause, matrix negation does not block covert movement

[9] This is true at least for one version of *croire* which means thinking that P, but not being sure that P is true.

of a wh-in situ. Context where the predicate selects a non-presuppositional clause will be islands to covert wh-movement. Other examples in (20) through (23) further illustrate the point:

(20) a. Tu crois que [Jean a **pas** invité quelle célébrité]?
you think that Jean has not invited which celebrity
'Which celebrity do you think that Jean did not invite?'
b. T'admets que [Jean a **pas** invité quelle célébrité]?
you-recognize that Jean has not invited which celebrity
'Which celebrity do you recognize that Jean did not invite?'

(21) a. *Tu crois **pas** [que Jean a invité quelle célébrité ] ?
you think not that Jean has invited which celebrity
(=which celebrity don't you think that Jean invited?)
b. T'admets **pas** [que Jean a invité quelle célébrité] ?
you-recognize not that Jean has invited which celebrity
'Which celebrity don't you recognize that Jean invited?'

(22) a. Tu penses [qu'elle avait **pas** vu quel film ]?
you think that she had not seen which film
'Which film do you think that she hadn't seen?'
b. Il a avoué [qu'elle avait **pas** vu quel film]?
he has admitted that she had not seen which film
'Which film did he admit that she hadn't seen?'

(23) a. *Tu penses **pas** [qu'elle avait vu quel film]?
you think not that she had seen which film
(= which film don't you think that she had seen?)
b. ?Il a **pas** avoué [qu'elle avait vu quel film ]?
he has not admitted that she had seen which film
'Which film did he not admit that she had seen?'

All the examples in (20-23) contain a [+presupp] wh-phrase. As such, the wh-phrase raises past the embedded negation (recall that we have argued that [+presupp] wh-phrases are insensitive to the presence of negation). While (21a) and (23a) exhibit typical cases of feature stripping, covert movement being blocked by matrix negation, (21b) and (23b) do not. The wh-phrase reaches the matrix scope position despite the presence of a neg-island. We conclude that wh-phrases undergo feature stripping when they occur in a clause which is non-presuppositional. Note that it is not a phenomenon that might be attributed solely to the nature of the predicates. A non-presuppositional wh-phrase cannot escape matrix neg-islands, even with a verb like *admettre:*

(24) *Avec qui diable il a **pas** *admis* [que Jean a déjeuné ]?
with who devil he has not recognized that Jean has had-lunch
(=with who the hell did he not recognize that Jean had lunch?)

Recall that extracting from an adjunct island across negation is also impossible (see 13b). We attribute this behavior precisely to the fact that adjunct islands are, by definition, non-presuppositional. Therefore, the split is not between selected versus non-selected (adjunct) clauses, but rather between presuppositional versus non-presuppositional clauses.

We claim that the absence of a presuppositional component in the embedded clause will trigger feature stripping. The mechanism we argue for is the following.

As discussed above, the type of predicate will determine the nature of the embedded clause. Some verbs, like *admettre* ('admit') *avouer* ('admit') etc, will license a +presuppositional clause. We propose that the feature is encoded on $C^0$, in the form of an interpretable feature P which is unvalued. We adopt Pesetsky and Torrego's (2004) approach (henceforth P&T) and assume that valuation and interpretability are two independent concepts. We also adopt the notation they propose, namely that unvalued features are signaled by bare square brackets. C will then have *i*P [ ]. C also carries an uninterpretable Q feature which is unvalued, uQ [ ], as proposed in P&T for cyclic wh-movement. The wh-phrase in situ bears an uninterpretable Q feature with the value +interrog, as well as an interpretable feature P with the value +presupp.[10] The unvalued Q and P features on $C^0$ receive a value by Agree. However, in this phase, the uninterpretable Q features have not been deleted. The wh-phrase moves to the next phase, which contains the C head of the matrix clause. The latter bears a feature iQ [ ]. By Agree with the wh-phrase, the feature is assigned a value (see P&T for a discussion of successive Agree relations). The uninterpretable Q feature of the wh-phrase is finally checked off against the interpretable Q feature of matrix C. As for the P feature on the wh-phrase, it values the unvalued P feature on C. But the feature being interpretable, no feature checking actually takes place, and the wh-phrase retains its full P feature specification. It is as a full [+presupp] wh-phrase that it enters the higher phase, and is thus able to ignore a neg-island. For a visual aid to the process, we propose a schematic representation *à la* P&T:

(25) a. _____ _____*Agree*

↓ ↓

$C^0$……*admettre*…. $C^0$ …… wh-phrase

*i*Q [ ] *u*Q [ ] *u*Q +interrog ⇒

[10] On the legitimacy of assigning an interpretable presuppositional feature to wh-phrases, see Baunaz 2008.

*i*P [ ] *i*P +presupp

b. _____ _____

↓ ↓ ↓

C……*admettre*…. C …… wh-phrase

*i*Q [1 ] ***u***Q [1 ] ***u***Q +interrog [ 1]

*i*P [2] *i*P +presupp [2]

Let us now turn to the feature stripping case. As in the previous case, the wh-phrase bears an uninterpretable Q features valued for +interrog., as well as an interpretable P feature valued for +presupp. The intermediate $C^0$ head also bears an uninterpretable Q feature which is unvalued. However, because the matrix predicate is of the type *croire*, C bears an uninterpretable P feature, which is unvalued. Unvalued features will act as probes and Agree values the Q and P features. The Agree operation will be represented as follows:

(26) a. _____ _____*Agree*

↓ ↓

C……*croire*…. C …… wh-phrase

*i*Q [ ] *u*Q [ ] *u*Q +interrog ⇒

*u*P [ ] *i*P +presupp

b. _____ _____

↓ ↓ ↓

C……*admettre*…. C …… wh-phrase

*i*Q [1 ] ***u***Q [1 ] ***u***Q +interrog [ 1]

***u***P [2] *i*P +presupp [2]

The difference between the two case**s** illustrated in (25) and (26) lies in the nature of the P feature. In (26), the P feature on $C^0$ is an uninterpretable feature. The wh-phrase moves cyclically up to the matrix C. In the process, it checks off the uninterpretable P feature of the intermediate C. We assume that feature checking makes features inactive.[11] The wh-phrase thus checks off the +presupp feature and

[11] This can be illustrated with agreement features. Once the features have been checked, they are not active anymore and seem invisible for further operations:
(i) ??Quels artistes tu as dit qui t vont venir ?

moves on – it still has an uninterpretable Q feature to check – as a bare, non-presuppositional Q.

The last question which remains to be discussed is that of the stripping itself. A simple assumption could have been that since a feature is checked, the wh-phrase does not have to – or even is not allowed to – be active in a higher phase. Actually, as is already suggested in the discussion, we view the wh-phrase as a bundle of features, which are hierarchically organized. In a cartographic approach, we propose the following simplified structure for a presuppositional wh-phrase:

(27) PresuppP
3
[+presupp] QP
3
[+$Q_{wh}$] DP
4

When the structure reaches the intermediate $C^0$ and checks the P feature, the top layer strips off the structure and leaves the lower layers "bare", as a QP. This QP moves up to the matrix C, to check off its uninterpretable Q feature. See also Starke 2005 who independently proposed a similar mechanism for case-feature peeling.

## *3. Hungarian partial wh-movement*

The feature stripping mechanism discussed above turns out to have another application, in a language which does not have wh-in situ. As Hungarian cannot leave a wh-phrase in-situ, the most straightforward strategy is overt movement which forces the wh-phrase to appear in its scope position. However, the language also has a partial movement strategy, whose constraints are similar to those of French wh-in situ, in that it appears, among others, as a strategy to escape strong islands. We propose that the same feature stripping mechanism is at play in the Hungarian partial wh-movement, and that the second part of the 'partial movement' is actually covert bare Q-movement.

---

Which artists you have-2sg said that-agr will come
'Which artists did you say will come?'

(ii) *Quels artistes ont dit qui t vont venir?
Which artists have-3pl said that-agr will come

See also Rizzi & Shlonsky 2007.

### *3.1. Partial wh-movement*

As mentioned above, Hungarian wh-phrases move overtly to their scope position:

(28) a. Kinek telefonált Mari ?
who-dat telephone-pas-3s Mari-nom
'Who did Mari call?'
b. Kinek gondoltad [hogy telefonált Mari t ]
who-dat think-pas-2s that telephone-pas-3s Mari-nom
'Who did you think that Mari called up?'

The language also has a strategy in which the wh-phrase moves up to an intermediate position, the embedded scope position, while an expletive wh-element appears in the matrix scope position:

(29) **Mit** gondolsz, [ hogy **kinek$_i$** telefonált Mari $t_i$ ]?
WH think-pres-2s that who-dat telephone-pas-3s Mari-nom
'Who do you think that Mari called up?'

Partial wh-movement is optionally available in many contexts. We come back to the relevant cases below. What is of particular interest, though, is that partial wh-movement typically enables to by-pass strong island restrictions. While full wh-movement is sensitive to strong islands, the partial wh-movement construction is not:

(30) a. *Kivel$_i$ vagy dühös [mert találkoztál $t_i$] ?
who-with are-you angry because you-met
b. Miért vagy dühös [ mert kivel$_i$ találkoztál $t_i$] ?
Why-expl are-you angry because with-whom you-met
[Horváth 1997]

Horváth (1997) analyses the partial wh-strategy in the following way: the contentful wh-phrase moves to the spec of the embedded CP;[12] there is gets rid of its wh-feature, which percolates up to the CP. The CP thus "inherits" the [+wh] specification and becomes a +wh clause. The matrix clause contains an expletive element with a [+wh] morphological form which moves to the focus position, where it formally satisfies the wh-criterion and indicates the scope of the wh-element. Expletive replacement moves the whole [+wh] CP to the matrix scope position, giving the illusion that the embedded wh-phrase has matrix scope. This is what

[12] Note that standard analyses of wh-movement in Hungarian claim that it targets a position FocP below CP (see a.o. Brody 1990, Puskás 1992). On the other hand, Lipták (2001) proposes a two step procedure, with overt movement to FocP followed by covert movement to specCP.

explains the apparent Strong Island violation in (30b): the contentful wh-phrase does not leave the island; it is the island as a whole which moves to the matrix scope position.

### *3.2. Constraints on the partial wh-strategy*

We claim that the partial wh-strategy is more constrained than it seems. Consider the following:

(31) a. Mit hitt Mari, [ hogy kivel **nem** találkoztál?]
WH think-pas-3s Mari-nom that who-dat neg meet-pas-3s
(=who does Mari think that you did not meet?)
b. Miért sírtál [ mert kivel **nem** találkoztál?]
WH cry-pas-2s because who-instr neg met-pas-2s
(=who did you cry because you didn't meet?)

Recall that only presuppositional wh-phrases can escape a neg-island. Given that both (31a) and (31b) are fine, it seems that the wh-phrase occurring in islands in a partial wh-strategy is presuppositional.[13] This is confirmed by the following:

(32) a. *Mi a fenét nem vettél?
What the devil-acc neg buy-pas-2s
(=what the hell didn't you buy)
b. *Miért sírtál [ mert ki a fenével$_i$ találkoztál t$_i$] ?
Wh cry-pas-2s because who the devil-instr meet-pas-2s
(=who the hell are you angry because you met?)

As expected, the aggressively non-D-linked expression *ki/mi a fene* ('who/what the hell') cannot escape a neg-island (32a). But, as illustrated in (32b), it is not licensed in a partial wh-construction either. So we conclude that the partial wh-construction with an apparent Strong Island violation involves a presuppositional wh-phrase, very much like the French wh-in situ strategy.

The second parallelism we can draw relates to the presence of a negative marker in the matrix clause. Horváth notes the following contrasts:

---

[13] (31b) might not be straightforwardly acceptable to speakers of Hungarian. As in French, the bare wh-phrase is ambiguous between the non-presuppositional and the presuppositional readings, and it requires a special intonation to be acceptable as a presuppositional element. However, the acceptability of (i), an unambiguously presuppositional wh-phrase, confirms our claims:

(i) miért sírtál [ mert melyik szinésznővel nem találkoztál?]
WH cry-pas-2s because which actress-instr neg met-pas-2s
(=which actress did you cry because you didn't meet?)

(33) a. *Mit nem gondolsz [hogy kivel beszélt Mari ?]
WH neg think-pres-3s that who-instr speak-pas-3s Mari-nom
b. Mit nem ismert be János, [hogy hányszor
WH neg admit-pas-3s part János that how-may-times
hamisította az aláírásodat?
forge-pas-3s the signature-2poss-acc
(=how many times did Janos not admit that he forged your signature?)

Horváth concludes that the main predicate plays a role in the behavior of the partial wh-construction. Verbs like *beismer* ('confess', 'admit'), as well as *elárul* ('reveal'), *tagad* ('deny'), *észrevesz* ('notice'), *megenged* ('permit') select what she calls a "D-linked" complement, while verbs like *gondol* ('think') but also *mond* ('say'), *hall* ('hear'), *érez* ('feel') select a non-D-linked complement. We have translated this into a distinction between presuppositional and non-presuppositional complements. So, as in French, only presuppositional complements can extract over matrix negation.

We also observe that matrix negation blocks the partial wh-strategy from adjunct islands:[14]

(34) *Miért **nem** sírtál [mert kivel$_i$ találkoztál t$_i$]?
WH neg cry-pas-2s because who-instr meet-pas-2s
(= Who did you not cry because you met?)

[14] While the negative counterpart of Horváth's example (30b above) is also ungrammatical, as illustrated in (i), a reviewer observes that a positive adjective as in (ii) does not give rise to these intervention effects, questioning thus the parallel with French:
(i) *Miért nem vagy dühös [mert kivel találkoztál] ?
WH neg be-2s angry because who-instr meet-pas-2s
'Why aren't you angry because you met whom'
(ii) Miért nem vagy vidám [mert kivel találkoztál] ?
WH neg be-2s happy because who-instr meet-pas-2s
'Why aren't you happy because you met whom'
However, we observe that the same applies to French (iii) and (iv)
(iii) *Tu n'est pas fâché [parce que tu as rencontré quelle actrice?]
You are not angry because you met which actress
(iv) Tu n'es pas heureux [parce que tu as rencontré quelle actrice ?]
You are not happy because you met which actress
We think that the examples with BE+ predicative adjective are special, as they involve some kind of 'internal' or constituent negation (see e.g. Giannakidou 1998 for a discussion of these). The negation is not sentential, as it cannot deny the fact of 'being', but rather amounts to asserting a state of negative happiness (i.e. unhappiness). The details of such an analysis as well as why exactly there is a contrast between (i) and (ii) and between (iii) and (iv) remain to be explained, but are beyond the scope of this paper.

Given the striking parallelism between the French in-situ strategy and the Hungarian partial wh-movement, we would like to propose, contra Horváth (1997), that it is not the whole CP which moves covertly. Such an analysis could not account for the ungrammaticality of (32b). Rather, the same mechanism of feature stripping applies. The difference, on the other hand, resides in the fact that Hungarian has no in situ wh-construction. Some element must raise overtly to the scope position. The presuppositional feature is able to pied-pipe the whole wh-phrase to the embedded scope positions. But once it has stripped only feature-movement can take place. This is by essence covert movement. But as the matrix scope position needs to be filled overtly by expletive material, the expletive wh-element appears in the matrix clause. The covert features will raise to the expletive, accounting for the wide scope reading.

## *4. Conclusion*

In this paper, we have shown that French wh-movement is able to circumvent island restrictions due to the fact that it is not a uniform movement. We have proposed a mechanism which raises covertly wh-phrases in two different steps, a full phrasal movement, followed by a stripped movement.

We have shown that a stripping analysis as discussed for French can be extended to other wh-phenomena, such as partial wh-movement in Hungarian.

However, overt wh-movement cannot strip. Feature stripping seems to be a property of covert wh-movement, at least in languages like French and Hungarian. Why this is so remains to be investigated.

## *References*

Baunaz, Lena 2008. Split-DP and Floating Quantifiers: a syntactic approach to French Quantification. Doctoral dissertation, Université de Genève.

Boeckx, Cédric 1999. “Decomposing French Questions”. In J. Alexander, N.R. Han & M. Minnick Fox (eds) *University of Pennsylvania Working Papers in Linguistics 6.1*, 69-80.

Brody, Michael 1990. “Some remarks on the Focus field in Hungarian”. *UCL Working Papers in Linguistics 2*, 201-225.

Cattell, Ray 1978 “On the source of interrogative adverbs.” *Language 54*, 61-77.

Chang, L. 1997. *Wh*-in situ in French. MA thesis, U. of British Colombia.

Cheng, Lisa and Johan Rooryck 2000. “Licensing wh-in-situ”. *Syntax* 3.1: 1-19.

Den Dikken, Marcel and Anastasia Giannakidou 2002. “From hell to polarity: ‘Aggressively non-D-linked’ wh-phrases as polarity items”. *Linguistic Inquiry* 33(1): 31-61.

Giannakidou, Anastasia 1998. *Polarity Sensitivity as (Non) Veridical Dependency*. Amsterdam: John Benjamins.

Horváth, Julia 1997. "The status of 'wh-expletives' and the partial wh-movement construction of Hungarian". *Natural Language and Linguistic Theory* 15: 509-772.

Lipták, Aniko 2001. On the Syntax of wh-items in Hungarian. PhD dissertation, Universiteit Leiden.

Mathieu, Eric 2004. "The Mapping of Form and its Interpretation: the Case of Optional WH-Movement in French". *Lingua*114: 1090-1132.

Obenauer, Hans 1994. Aspects de la Syntaxe A-Barre, Thèse de Doctorat d'Etat, Université de Paris VIII.

Pesetsky, David 1987. Wh-in-situ: Movement and unselective binding. In E. Reuland and A. ter Meulen (eds) *The Representation of (In)definiteness*, 98-129. Cambridge, Mass.: MIT Press.

Pesetsky, David 2000. *Phrasal Movement and its Kin*. Boston, Mass: MIT Press.

Pesetsky, David and Esther Torrego 2004. "The Syntax of Valuation and the Interpretability of Features". In S. Karimi, V. Samiian and W. K. Wilkins (eds) *Phrasal and Clausal Architecture: Syntactic derivation and interpretation. In honor of Joseph E. Emonds*, 262-294. Amsterdam: John Benjamins.

Poletto, Cecilia and Jean-Yves Pollock 2004. "On wh-clitics and wh-doubling in French and some North Eastern Italian dialects". *Probus* 16 (2): 241-272.

Puskás, Genoveva 1992. "The Wh-criterion in Hungarian", *Rivista di Grammatica Generativa* 17: 141-186.

Rizzi, Luigi and Ur Shlonsky 2007. "Strategies of Subject Extraction". In H.M Gärtener, and Uli Sauerland (eds) *Interfaces + Recursion =Language? Chomsky's Minimalism and the View from Syntax-Semantics*, 115-160. Berlin: Mouton de Gruyter.

Starke, Michal 2001. Move Dissolves into Merge: A Theory of Locality. Doctoral dissertation, Université de Genève.

Starke, Michal 2005. *Nanosyntax*. Class lectures. Spring 2005, CASTL, University of Tromsø.