

Prosody of exclamatives in French

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Introduction: aim of the talk

- Prosody of *wh*-exclamatives in French compared to *wh*-interrogatives.
- Part of a more general investigation of the relations between prosody on the one hand and clause types or Speaker's discourse acts on the other.

Plan of the talk

- Section 1. Background: definitions of the categories used to describe/analyze the data
- Section 2. Elicited corpus
- Section 3. Description and analysis
- Conclusion



Section I

Background

Clause types

- In line with Ginzburg & Sag 2000, we assume a constructional definition of clause type as the association of:
 - a type of denotation,
 - a family of syntactic types,
 - a class of lexical markers.

See Marandin 2008, 2010.

The exclamative clause type

- Exclamatives in French:
 - Share the same type of denotation: they denote a true proposition. The witness of the truth of the propositional content is the speaker.
 - Are either *wh*-clauses or canonical Head-Subject clauses.
 - Feature at least one exclamative modifier, either a *wh*-expression or a canonical modifier.

Membership criterion

The common semantics provides one with a criterion for being an exclamative: exclamatives are incompatible with an explicit marker of evidentiality unlike other clause types (declaratives, interrogatives).

For example: *à mon/ton avis* ('to my/your opinion') :

(1) a. * *A mon/ton avis, comme il a mangé, ce type !*

Lit. *To my/your opinion, how much he ate, this guy*

b. * *A mon avis, elle est si intelligente!*

Lit. *To my opinion, she is so smart*

c. *A ton avis, comment il a mangé, ce goinfre ?*

Lit. *To your opinion, how did he eat, this greedy pig*

d. *A mon avis, elle est super, super intelligente.*

Lit. *To my opinion, she is really, really smart*

Syntactic subtypes of exclamatives

□ There are two syntactic subtypes of exclamatives:

- *wh*-exclamatives

- (2) a. Comme il est beau, ce type! Lit. *How very beautiful he is, this guy*
b. Ce qu'il a mangé, le goinfre ! Lit. *How much he ate, the greedy pig*

- *head-subject*-exclamatives:

- (3) a. Il est si beau, ce type! Lit. *He is so beautiful, this guy*
b. Il a tellement mangé, le goinfre! Lit. *He ate so much, the greedy pig*

In this talk, we only consider *wh*-exclamatives and among *wh*-exclamatives, *wh*-exclamatives with a degree interpretation.

Exclamative *wh*-words

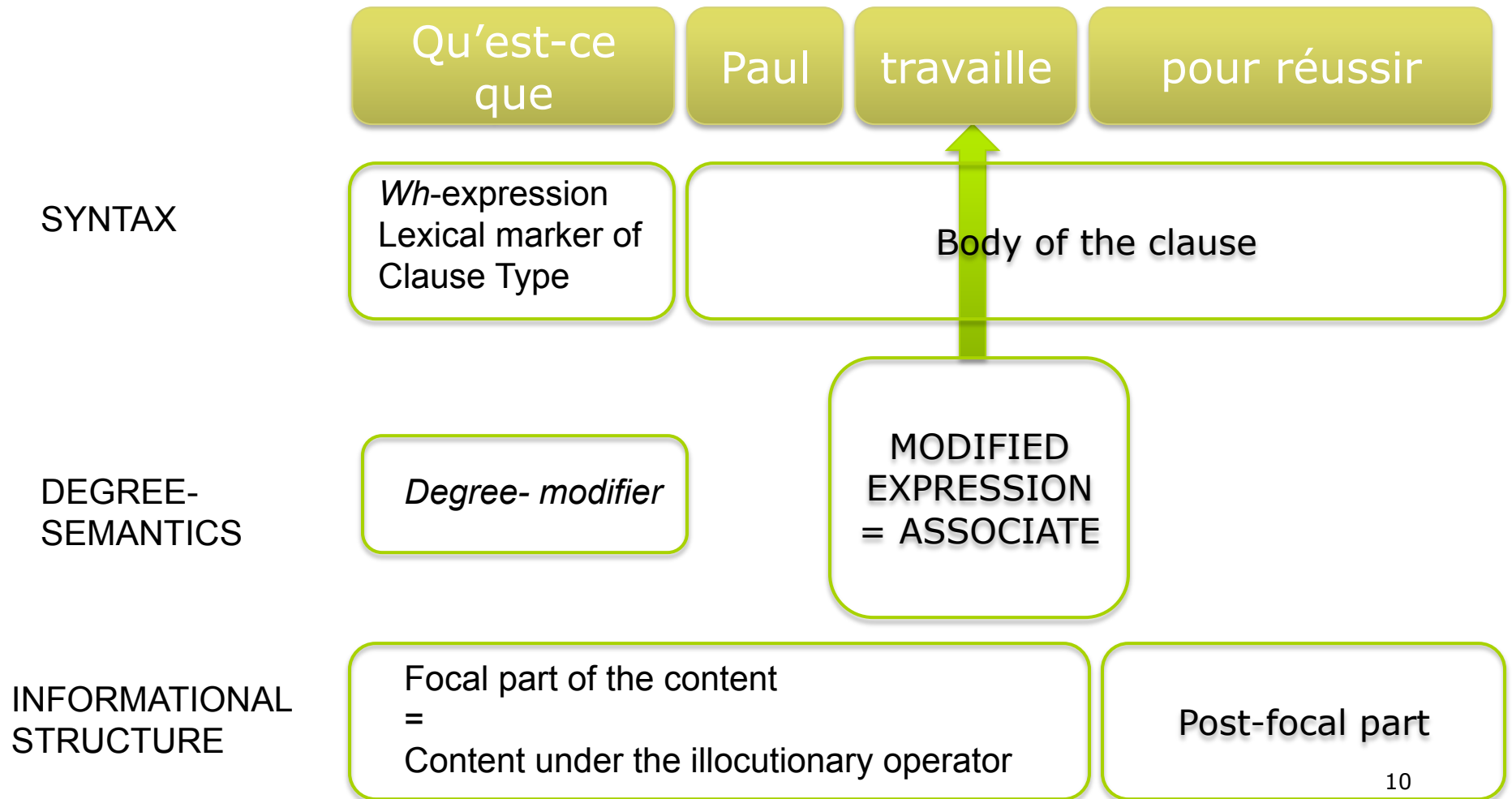
- Among exclamative *wh*-words, most are homophonous or partially homophonous with interrogative *wh*-words.
Combien ('How many'), *quel* ('which/ what a'), *qu'est-ce que* ('what'), *comme/comment* ('how'), ..

For example: *qu'est-ce que*

- (4) a. *Qu'est-ce qu'il lit en ce moment?*
What does he read at the moment
b. *Qu'est-ce qu'il a lit en ce moment!*
How much he reads at the moment

- Our elicitation procedure takes advantage of such an homophony.

More definitions





Section II

Data


Experiment design

- Task: Subjects had to produce a sentence as if they were speaking to the experimenter. The target utterance was preceded by a mini-story inducing the use of the interrogative or that of the exclamative.

- Example (5):

-  ■ (a) Pierre s'enferme dans sa chambre dès qu'il rentre de l'école. Je ne sais pas trop ce qu'il fait.

Qu'est-ce qu'il lit en ce moment ?

-  ■ (b) Pierre a changé du tout au tout . Quand il a découvert Harry Potter. Enfin un livre qui l'intéresse !

Qu'est-ce qu'il lit en ce moment !

Experimental design and studied corpus

- The corpus of exclamative/interrogatives = distractors of a larger experiment devoted to an analysis of gapping in various syntactic environment. Total of 1520 tokens

- The pilot study is based on a sub-corpus
 - 13 pairs of interrogative/ exclamative (= 26 different sentences)
 - 2 or 3 three speakers
 - 3 utterances of the same sentence by the speakers→ Total of 183 tokens



Section III

Description

Parameters for description

□ Tune

- Perceptual description of the intonation,
- Quantitative measures of f_0 (mean, beginning, middle and end for each syllable, normalized in semi-tones)

□ Marking of the associate

- Qualitative perception of the prominence of the expressions in the clause,
- Quantitative measures of intensity (dB) and f_0 on the initial syllable of the associate

1. Tune

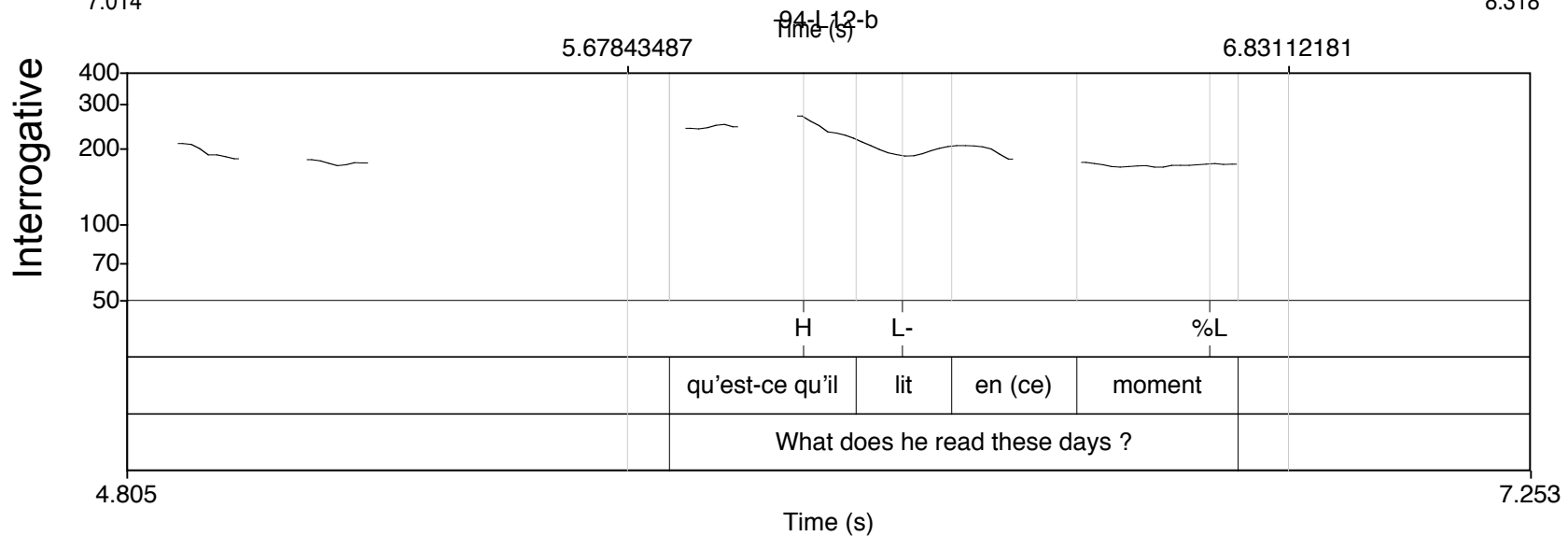
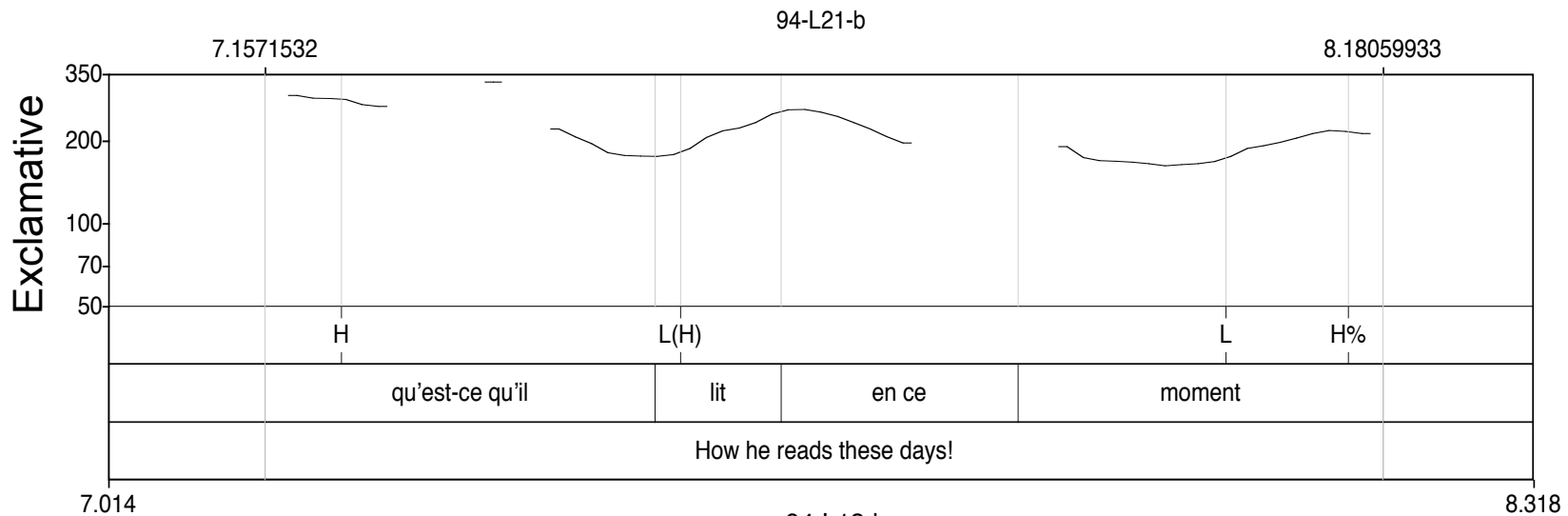
- Sequence of tones associated with the IP accounting for f0 variations making the tune

1. 1. Resemblance

Both exclamatives and interrogatives are associated with a falling tune:

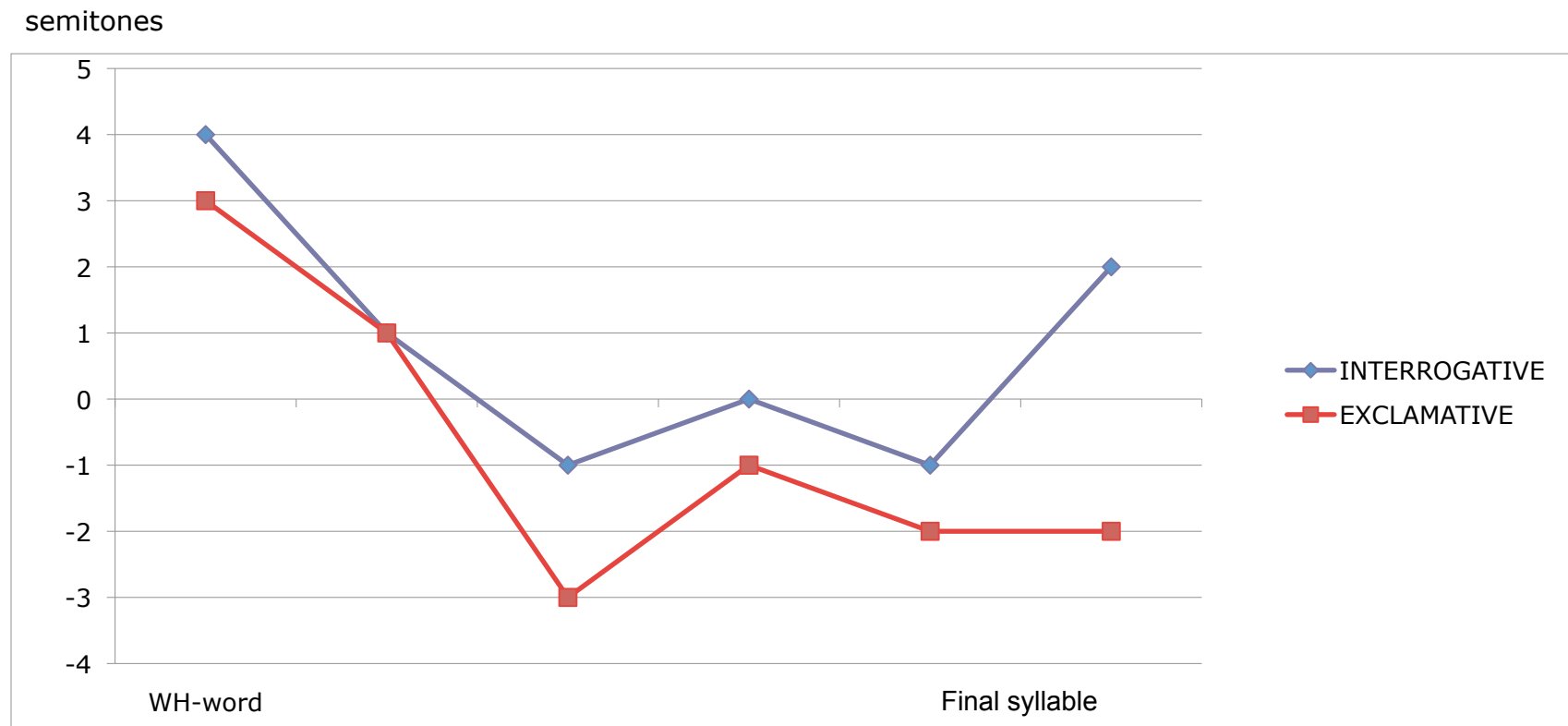
- Rise on the *wh*-word (77% of all interrogatives and 87% of all exclamatives)
- Low on the right edge of the penultimate or final accentual group of the clause (89% of all interrogatives and 82% of all exclamatives)
- Rise or fall at the very end of the clause

1.1 Example



1.1 Stylized tunes

- Stylized tunes based on mean values for each clause type.



1.1 Analysis

- First observation : speakers use the same gestalt of falling tune with both exclamatives and interrogatives.
 - In particular, an H tone is anchored on the *wh-expression*, be it interrogative or exclamative. This is in keeping with Beyssade *et al.*'s 2007 analysis of interrogatives in French: an H tone is anchored on the lexical marker of the clause type: the *wh*-word or the subject enclitic in the case of the interrogatives.
- (6) a. Qui a-t-il rencontré hier soir? Lit. *Who did he meet yesterday night*
 b. Pierre a-t-il rencontré Marie hier soir?
 Lit. Did Pierre meet Marie *yesterday night*
- From this standpoint, exclamatives behave in the same way as interrogatives.

1.2. Difference. L

- The Low realized in the right part of the utterance is lower in exclamatives than in interrogatives
 - Difference of 1 tone at least
 - The difference may be of 2,5 tones

1.2. L. Analysis

- Generally, the Low tone occurs at the right edge of the modified expression. It may correspond to the final XP (7a) or the penultimate one (7b).

- (7) a. [Qu'est-ce qu]'il est [mignon]_{Modified}
 b. [Qu'est-ce qu]'il a [travaillé]_{Modified} pour réussir

Hypothèse:

- Beyssade *et al* (2004) claim that the Low tone occurs at the right edge of the part of utterances contributing the focal content.
- The focal content is the content that is primarily affected by the illocutionary operator (Jacobs 1984, Beyssade et al. 2004)
- The degree modification constitutes the focal part of exclamatives.
- Under such an analysis, the localization of L abides by the general principle constraining the localization of the L central to the falling tone in French.

1.3. Difference : the last tone

Distribution of the final T: more H in interrogatives than in exclamatives; more L in exclamatives than in interrogatives.

Clause type	H	L	No T
Interrogative	67%	14%	19%
Exclamative	42%	23%	35%

1.3. The final tone. Analysis

Marandin & Yoo 2009 make two claims:

- C1: the f0 movement occurring at the very end of an utterance conveys a meaning pertaining to the call-on-addressee, i.e. the uptake speakers expect the addressee to make.
 - C2: such a movement should be felicitous with utterances of any type.
- The very fact that it occurs with exclamatives support C2.
 - The distribution of H and L across interrogatives and exclamatives globally supports C1.

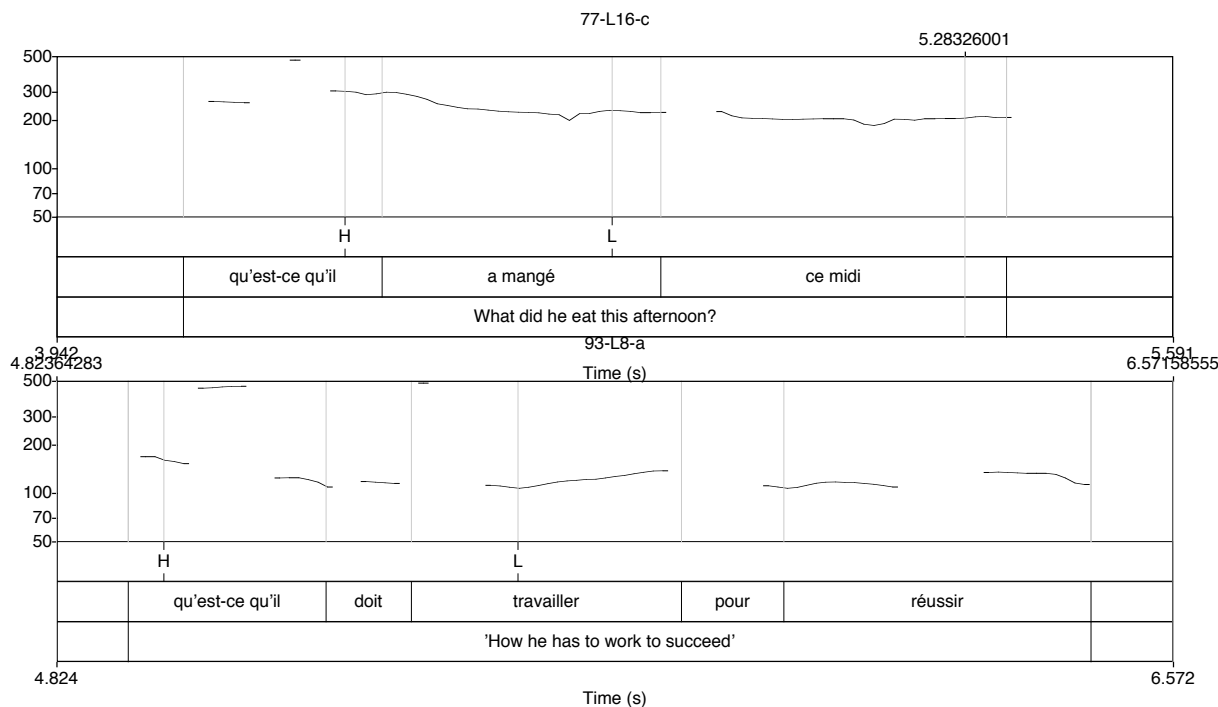
According to Marandin & Yoo, by using H, speakers seek to mitigate the uptake by the addressee, while by using L they impose the uptake. It is commonly assumed that the exclamative act is « intransitive »: the speaker does not seek the acceptance of the content of their move by the addressee.

Hence, the absence of any final movement or L is more expected than H in exclamatives, which is the tendency observed in the corpus.

1.4. Difference: the initial H

When the *wh*-word is polysyllabic (*qu'est-ce que*):

- In interrogative clauses, the initial H is anchored either on the first (53%) or the second syllable (44%)
- In exclamative clauses, the initial H is anchored more systematically on the first syllable (89%).



Interrogative



Exclamative



1.4. The initial H. Comment

The anchoring of initial H in interrogatives is in keeping with Beyssade *et al.*'s (2007) description of interrogatives: H is either anchored on the left or right edge of the accentual group comprising the *wh*-expression.

Thus, the fact that the initial H is more systematically anchored on the left edge makes a difference. It should be investigated more carefully.

All the more so that traditional grammars of French have observed that the attack in exclamatives is stronger or higher than in interrogatives.

Notice that H is higher in exclamatives only in 19% of the exclamatives (for the *qu'est-ce que* pair)

1.5. Intermediary conclusion

- Exclamatives abide by the same constraints pertaining to the alignment of the tune as interrogatives (and declaratives).

2. Marking of the expression modified by the exclamative modifier

Definition:

The semantics of degree exclamatives may be roughly described as the modification of the degree of an expression in the clause (Marandin 2009). Hence, the two crucial components of the content of the exclamative are: the degree modifier (the exclamative word) and the expression whose degree is modified by the exclamative *wh*-word.

Example:

- (8) a. [Ce/qu'est-ce que]_{Modifier} que cette histoire est [triste]_{Modified}
Lit. *How very this story is sad*
- b. [Ce que/qu'est-ce que]_{Modifier} il a [mangé]_{Modified} ce midi
Lit. *How much he has eaten at noon*

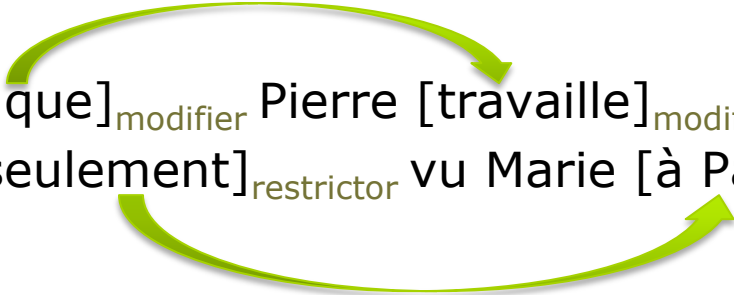
Prominence

- 92% of the modified expressions are auditorily prominent in exclamatives while only 33% of the corresponding expressions are in interrogatives.
- Two parameters are mainly responsible for the prominence:

	Qu'est-ce que		Ce que / est-ce que	
	INTER	EXCLA	INTER	EXCLA
Auditory prominence	44%	92%	22%	93%
Initial f0 peak	33%	70%	63%	81%
Intensity	59%	85%	48%	93%

Analysis (1)

The relation between the modifier and the modified in exclamatives is at a distance 9(a), in the same way the restrictive relation is at a distance in 9(b) below.

- (9) a. [Qu'est-ce que]_{modifier} Pierre [travaille]_{modified} pour réussir
b. Pierre a [seulement]_{restrictor} vu Marie [à Paris]_{restricted}
- 

Meaning 'Pierre saw Marie in Paris and nowhere else'

It is well known that the associate of adverbs such as *only* are prosodically signalled (so-called association with focus).

According to Beyssade *et al* 2008, the signalling of the associate of *only* may involve several prosodic means: in particular, more or less emphatic realization of the initial accent, increase of intensity.

Analysis (2)

Hence the hypothesis:

The modified expression in exclamatives is prosodically marked for the same reason than the associate of associative adverbs is marked (the non-adjacency of the modifier/modified, operator/operand) and it is marked with the same means.

Now, such an hypothesis must be carefully worked out by a systematic comparison of the prosodic rendering of associates of associative adverbs on the one hand and the modified expressions in exclamatives on the other.



Conclusion

Conclusion (1)

Four features stand out in exclamatives that may account for the prosodic contrast between exclamatives and interrogatives:

- (10)
- a. L is lower in exclamatives than in interrogatives,
 - b. The initial H is anchored on the left edge of the *wh*-exclamative expression,
 - c. The partition focal/post focal is rigid in exclamatives: it is aligned with the right edge of the modified expression,
 - d. The modified expression is prosodically highlighted (initial accent, increased intensity).

Conclusion (2)

The study must be extended to the *head-subject* subtype of exclamatives.

(11) a. Paul est [tellement]_{Excl-modifier} [heureux]_{Modified} depuis hier.

Lit. *Paul is so happy since yesterday*

b. Paul est très heureux depuis hier.

Lit. *Paul is very happy since yesterday*

Is there a contrast in pairs such as (11) and, if there is one, do the features in (10) characterize it:

- is L lower in (11a) than in (11b)?
- is H systematically anchored on the exclamative marker /adverb / modifier (*tellement* in (11a))?
- is L systematically anchored on the modified expression with postfocal realization to its right (*heureux* in (11a))?

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