

Prosody and Information Structure in French

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Introduction

Information structure primarily refers to:

Variations in word order or prosody

To account for those variations, notions such as Focus, Givenness, Topic, Contrast (...) are used.

In this tutorial, we concentrate on Focus.

Introduction (2)

It is common wisdom to distinguish:

- Prosodic Focus
- Informational Focus
- Quantificational Focus
- Contrastive Focus

Descriptively, *Focus* here means

to be set off against a ground of other elements in the current sentence or in the current discourse.

Introduction (3)

Set off against the current sentence:

- **Prosodic focus:** a salient prosodic unit.

In English, the most salient pitch accent in the Intermediate Phrase (ip) or the Intonation Phrase (IP).

- **Informational Focus:** XPs conveying the most informative content.
- **Quantificational Focus:** XPs in the scope of associative adverbs (e.g. *only, even, ..*).

Set off against the current discourse:

- **Contrastive Focus:** XPs being the member of an activated set of alternatives (= Kontrastive in Vallduví & Vilkuna's sense).

Introduction (4)

We focus on:

the informational focus (IF)

Informational Focus is identified with
XP(s) resolving a question

Issues:

- What is the prosodic realization of XPs resolving questions in French?
- What do we learn from the analysis of French about prosodic, informational and quantificational Foci.

Plan of the tutorial

Part 1 – Focus in answers in English

Part 2 – Prosody of answers in French

Part 3 – Meaning of NPA anchoring and IR in French

Part 4 – Focus in Grammar



Part 1

Focus in answers in English

1.1 Prosodic variations in English

Capitalized letters= prosodic focus

– Partial questions (*wh*-Questions)

- (1) A: Who did Paul introduce to Sue ?
B: a. Paul introduced BILL to Sue
b. # Paul introduced Bill to SUE
- (2) A: Who did Paul introduce Bill to ?
B: a. Paul introduced Bill to SUE
b. # Paul introduced BILL to Sue

– broad questions [In out-of-the blue contexts]

- (3) A: What happened?
B: a. A MEteorite fell down
b. # A meteorite FELL down
- (4) A: What happened?
B: a. John hit the DOOR
b. # John HIT the door

NB.: We leave aside the contrast (3B.a) vs (4B.a).

1.1 Prosodic variations in English

Three main explanations of the variation in (1)-(4).

- in terms of Information Structure (IS).

Focus is a part of the content

- in terms of prosodic salience in English (H*).

Focus is a pitch accent

- in terms of a syntactic feature Focus.

Focus is a feature (without specified spell-out)

1.2 Information Structure (1)

Utterance content is partitioned into two parts:

- Rheme or Focus: the informative part
- Theme or (Back)ground: the anchoring part

Definition:

- Rheme/Focus: a constant (a saturated term)
- Theme/Ground: a lambda-abstraction (an unsaturated term)

1.2 Information Structure (2)

Example:

- (5) A.: Who did Paul introduce to Sue ?
B.: Paul introduced BILL to Sue.

Analysis:

- (6) a. $\langle \lambda.x \text{ Introduce}(\text{Paul}, x, \text{Sue}), \text{Bill} \rangle$
 $\langle \text{Theme/Ground} \quad \quad \quad , \text{Rheme/Focus} \rangle$
b. Application of the Focus to the Ground yields the propositional content.

1.2 Information Structure (History)

- The contrasts in Question/Answer pairs are considered the main motivation for positing a level of Information structure in Grammar. Cf. Paul's contrast (1880):

- (7)i. A.: Wohin fährt Karl morgen? *Où va Karl demain ?*
 B.: Karl fährt morgen nach BERLIN *Karl va à Berlin dema*
- ii. A.: Wann fährt Karl nach Berlin? *Quand Karl va-t-il à Berlin*
 B.: Karl fährt MORGEN nach Berlin
- iii. A.: Wie reist Karl nach Berlin? *Comment Karl se rend-il à Berlin*
 B.: Karl fährt morgen nach Berlin *Karl va en voiture (..)*

- The label and the notion *Information Structure* have been forged by Halliday 1967. *Information packaging* (Chafe 1974) highlights the pragmatic nature of IS.
- In the generative paradigm, this contrast has been put together with the cleft construction, which paved the way to the common idea that IS may be realized prosodically, syntactically (word order or construction) or morphologically (i. a. Jackendoff 1972).

1.2 Information Structure (4)

The simplest story:

- The XP contributing the rheme/focus (= the Informational Focus) anchors the Prosodic Focus.
- The Prosodic Focus is the most salient pitch accent in the sentence (= the Nuclear Pitch Accent (NPA)).

NB. We leave aside more recent approaches: i. a. Selkirk (1995, to app.), Schwarzschild 1999.

1.2 Information Structure (5)

Given Clark 2004 typology of prosodic entities:

- Anchoring of NPA is **a compositional cue**
(= how to compute the informational content of the utterance).
- Correlative deaccentuation of the Ground is **a contextualizing cue**
(= how to relate the content of the utterance to the on-going making of the Common Ground).

1.3 Prosodic salience

(Rooth 1992,1996)

- The resolving XP is marked by a prosodic prominence (H^*).
- H^* is anaphoric to a set of alternatives.
- ⇒ H^* interpretation is simply a matter of anaphora resolution.
- ⇒ H^* triggers a presupposition which has to be linked in context.

An 'Accent to Focus' approach

1.3 Prosodic salience

Alternative semantics

Two semantic values:

- ordinary semantic value $[[S]]^o$
- focus semantic value $[[S]]^f$

$[[Ede \text{ wants } [coffee]_F]]^f =$

the set of propositions of the form *Ede wants y*

$[[[Ede]]_F \text{ wants coffee}]^f =$

the set of propositions of the form *x wants coffee*

1.3 Prosodic salience

Focus interpretation Principle

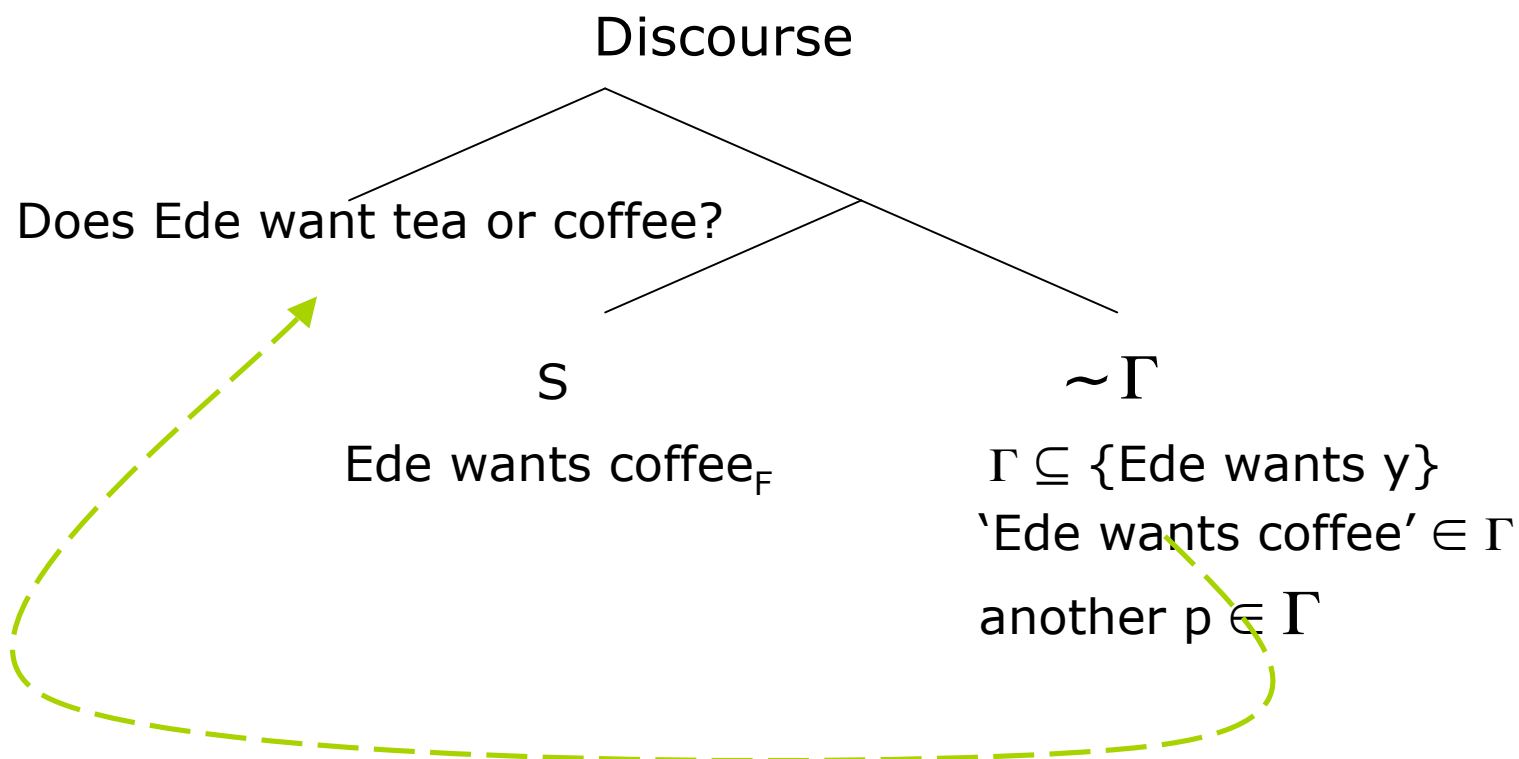
A constituent **may be focused** iff it is contained in a clause S and there is an salient set of propositions, Γ , such that:

- $[[S]]^f \supseteq \Gamma$
- $[[S]]^o \in \Gamma$
- there is some proposition p such that $p \neq [[S]]^o$ and $p \in \Gamma$

1.3 Prosodic salience

Example

The focus interpretation operator \sim



1.3 Prosodic salience

Conclusion

A theory of prosodic focus, more precisely an analysis of the meaning of the high pitch accent (H*) in English.

« Intonational focus in English has a weak semantics of evoking alternatives »
(Rooth, 1996).

1.4 Feature FOCUS (Krifka 2007)

Focus is defined as a syntactic feature [FOCUS] spelled out or implemented either in prosody, or in syntax, or in morphology.

A 'Focus to Accent' approach

(8) « Focus indicates the presence of alternatives that are relevant for the interpretation of linguistic expressions» (Krifka, 2007)

1.4 Feature FOCUS

- Krifka's definition does not say anything about how the focus is marked in a language and across languages.
- Different ways of focus marking signal different ways of how alternatives are exploited.
 - Cleft and exhaustification
 - Prosodic focus in answer and CG management
 - Association focus and CG content

1.4 Feature FOCUS

Pragmatic uses (CG management)

The focus placement has an impact on the coherence of the discourse and on the way it should pursue or develop.

Focus makes public communicative goals of Speaker.

| Krifka | Clark |
|---------------|--|
| CG management | Contextualizing cue Collateral system |

1.4 Feature FOCUS

Pragmatic uses (CG management)

CG management in Q-A pair:

(9) A: Who did Mary see?
B: Mary saw JOHN.

Question: <Background, restriction>
< λx Mary saw x, Human>

Answer: <Background, Focus>
< λx Mary saw x, John>

1.4 Feature FOCUS

Pragmatic uses (CG management)

Congruence criterion

If Q-A is a question-answer pair s.t.

$[[Q]] = \langle B, R \rangle$ and $[[A]] = \langle B', F \rangle$

A is **congruent** iff

- (i) $B = B'$
- (ii) $F \in R$

1.4 Feature FOCUS

Pragmatic uses (CG management)

Non congruent answers

(10) Q. Who did Mary see ?

$\langle \lambda x [\text{See}(m, x)], \text{Human} \rangle$

A1. *MARY saw John.

$\langle \lambda x [\text{See}(x, j)], m \rangle$

$B \neq B'$

A2. * Mary saw FIDO.

$\langle \lambda x [\text{See}(m, x)], f \rangle$

$F \notin R$

1.4 Feature FOCUS

Semantic uses (CG content)

Focus placement has an impact on the truth conditions of the sentence. Alternatives are required to compute propositional content conveyed by the sentence.

Cf. Focus sensitive particles such as *only*, *also*, *even*.

| Krifka | Clark |
|---------------|-------------------------------------|
| Focus content | Compositional cue Primary system |

1.4 Feature FOCUS

Semantic uses (CG content)

Restrictive particles *e.g. only*

(11) I only introduced BILL to Sue

Asserted content:

I introduced nobody else than Bill to Sue

Presupposed content:

I introduced Bill to Sue

The focus placement determines the asserted content and has an impact on the truth value of S.

1.4 Feature FOCUS

Semantic uses (CG content)

Additive particles *e.g. also*

(12) I also introduced BILL to Sue

Asserted content:

I introduced Bill to Sue

Presupposed content:


I introduced somebody else than Bill to Sue

The focus placement determines the presupposed content and has an impact on the meaning of S.



Part 2

Prosody of answers in French



The **syntactic** form or the **prosodic** form of answers may vary with the question in French.

2.1 Variation in Syntax

Answers are sensitive to the subject/non-subject divide.

- (1) A.: Qui a téléphoné ? *Who called?*
B.: i. C'est Bernadette.
ii. **Bernadette.**
- (2) A.: Qui elle a appelé ? *Who did she call?*
B.: i. ??# C'est Bernadette.
ii. Bernadette.

We leave aside this contrast. Two comments to take home:

- Data: **(1.B.ii)** is perfectly felicitous and in many contexts IS the only felicitous answer (contra a. o. Belletti 2005, Hamlaoui 2009).
- Analysis: (reduced) cleft or presentative "c'est NP + (reduced) predicative relative clause"? (Koenig & Lambrecht 1999).

2.1 Variation in Syntax: Examples (1)

At least two constraints:

I- Semantic type of the NP (singular vs plural entity)

(3) [Waiter arriving at table with several drinks]

A.: Qui a commandé un café ?
Who ordered a coffee?

B.: i. # C'est Pierre et Marie
ii. Pierre et Marie

2.1 Variation in Syntax: Examples (2)

II- The set of possible answers belongs to the shared ground

(4) [Husband greeting his wife coming home]

A.: Tu sais qui est venu ? *Do you know who came?*

B.: Non !

A.: i. # C'est ta mère. *'It is your mother'*

ii. Ta mère.

(5) [Asking the results of a soccer game]

A.: Tu sais qui a gagné ? *Do you know who won?*

B.: Non !

A.: i. C'est le Brésil. *'It is Brazil'*

ii. Le Brésil.

2.2 Variation in Prosody:

Empirical generalization

Broad question:

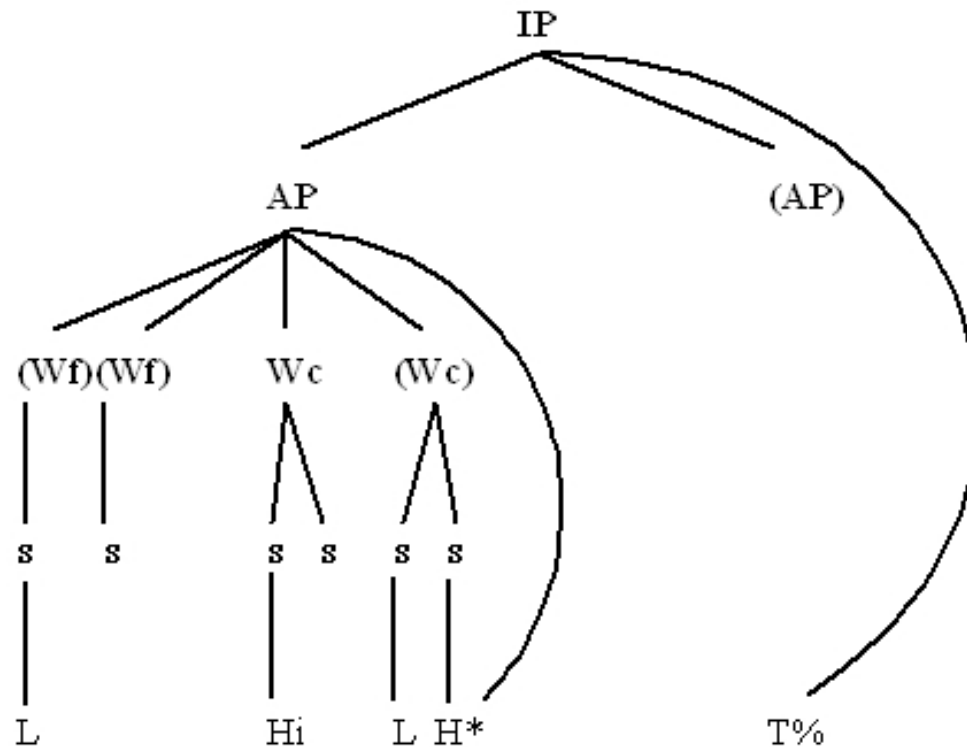
- (6) A.: Qu'est-ce qui s'est passé?
 What happened?
 B.: [Marie est venue]_F
 Marie came

Partial question:

- (7) A.: Qui est venu ?
 Who came?
 B.: [Marie]_F est venue.

- ▣ Consensus: a prosodic difference between (6B) and (7B).
- ▣ No consensus: the nature of the difference.

2.3 Background: French intonational system



IP: Intonational Phrase

AP: Accentual Phrase

Wf: function word

Wc: content word

s: syllable

L: low tone

Hi: initial high tone

H*: high pitch accent

T%: boundary tone

Surface realizations of AP:

LHiLH*

LH*

LLH*

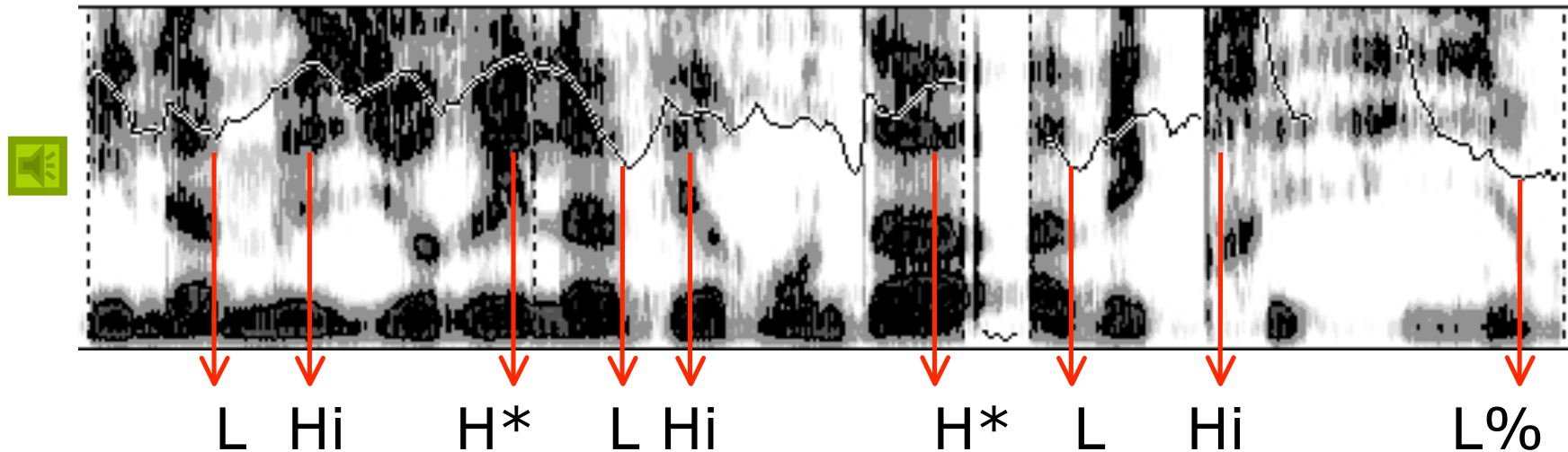
LHiH*

LHiL%

- A phonological model: Jun & Fougeron (2000)

2.3 Background:

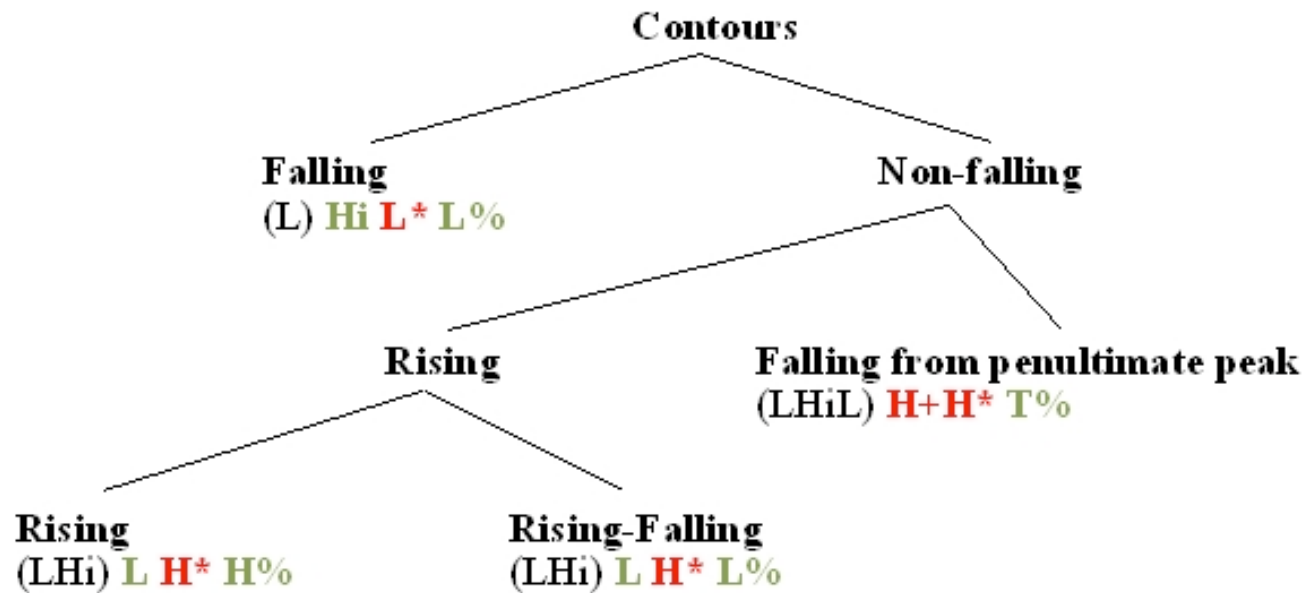
French intonation system (illustration)



[(Il a mesuré) (la véranda) (avec précision)]
He measured the veranda precisely

$[(LHi \searrow H^*)_{AP} (LHi \searrow H^*)_{AP} (LHi \searrow H^*)_{AP} L\%]_{IP}$

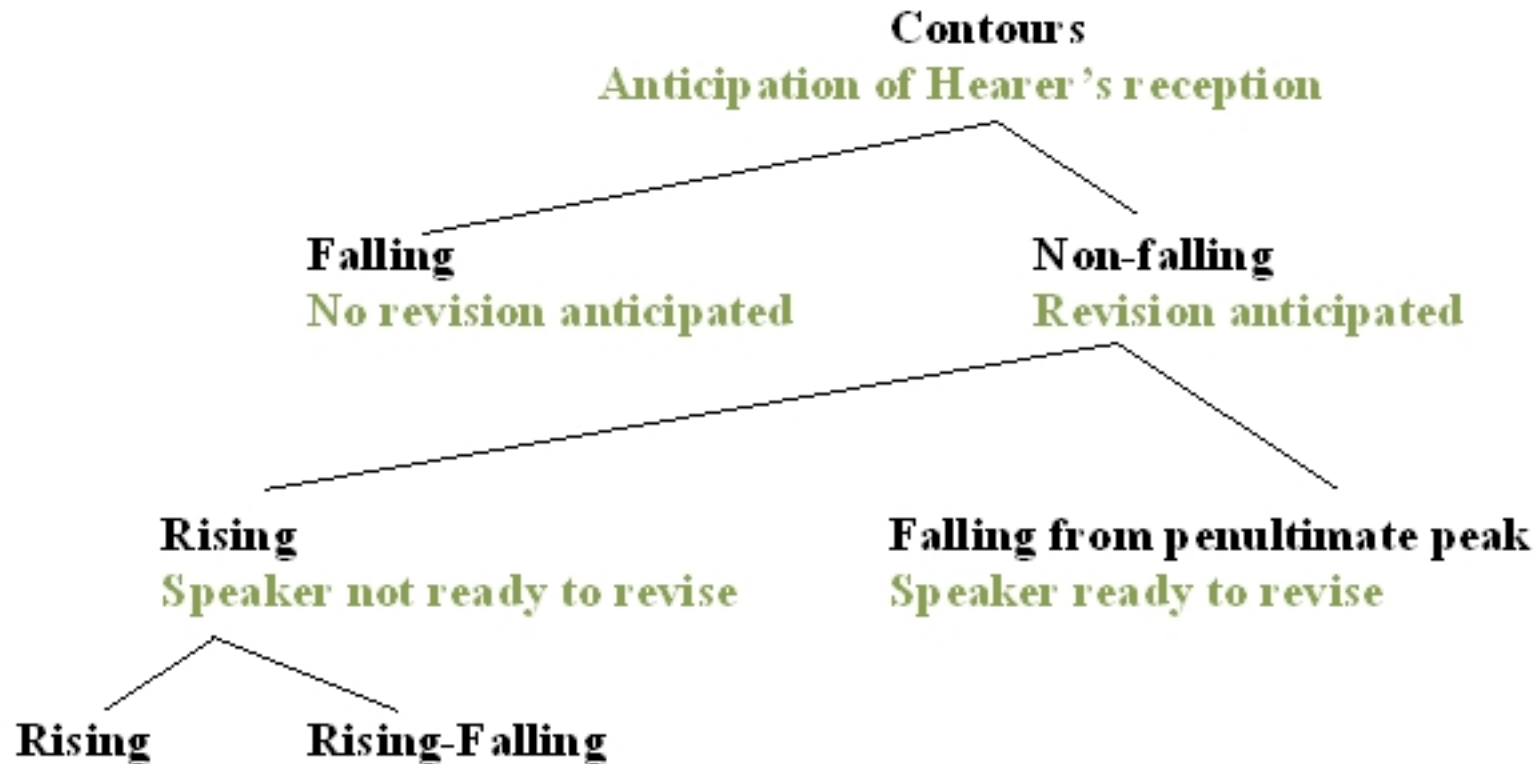
2.3 Background: French intonation system: Nuclear contours



- Jun & Fougeron 's model is modified in order to include nuclear contours (Post 2000, Beyssade et al. 2004)
- In red: nuclear pitch accents (NPA)



2.3 Background: French intonation system: Contour's meaning



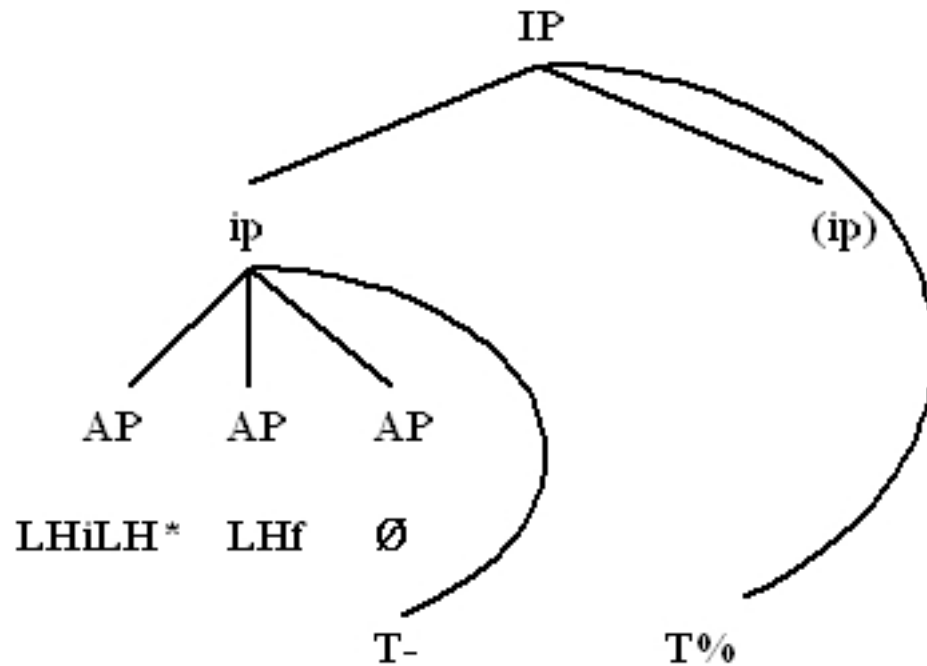
- The dialogical theory of contours' meaning from Beyssade & Marandin (2007)

2.4 Focus in French:

Introduction

- Three ways to account for the prosodic contrast between answers to broad vs partial questions:
 - Jun & Fougeron (2000):
 - Hf
 - ip boundary
 - Di Cristo (1999), Beyssade et al. (2004):
 - NPA anchoring
 - Fery (2001)
 - Autonomous phrasing

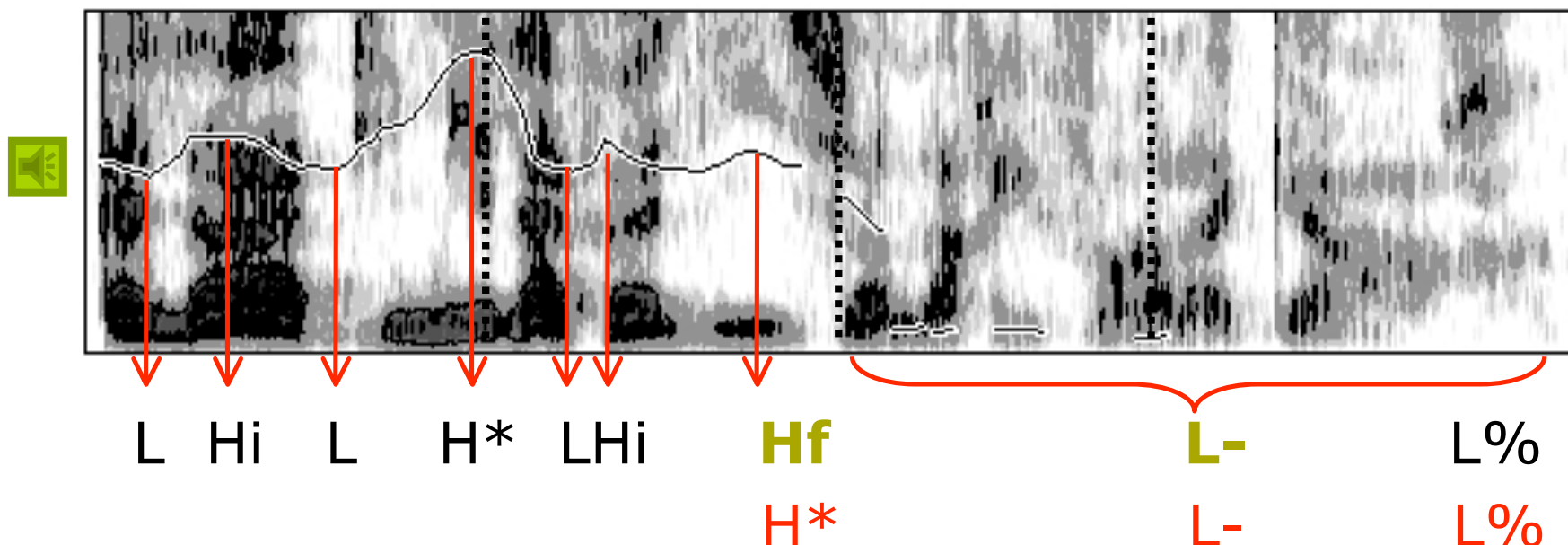
2.4 Focus in French: Hf and ip



IP: Intonational Phrase
ip: intermediate phrase
AP: Accentual Phrase
L: low tone
Hi: initial high tone
H*: high pitch accent
Hf: focus high tone
Ø: tone deletion
T-: phrase tone
T% boundary tone

- Effects of 'focus' in Jun & Fougeron (2000)

2.4. Focus in French: intermediate phrase (illustration)



[{(Elle a abîmé) (la valise)(en arrivant)(à la gare)}]
She spoils the suitcase upon arriving at the station

$[(\text{LHi LH}^*)_{\text{AP}} (\text{LHi Hf})_{\text{AP}} \emptyset \text{T- T}\%]_{\text{IP}}$



2.4 Focus in French: Anchoring of the NPA

- Focused XP hosts the *nuclear pitch accent (NPA)* at its right edge:

- Di Cristo (1999): $NPA = L^*$



- Beyssade et al. (2004): NPA = those involved in the contours L^* , H^* , $H+H^*$



=> Contours = $L^*L-L\%$, $H^*T-T\%$, $H+H^*T-T\%$

- Focus *may* also be marked by the initial rise (IR) at its left edge : Di Cristo (1999)

2.4 Focus in French: Phrasing

□ Féry (2001)

- The focused XP is *phrased by itself*.

(8) Broad Q: Qu'a fait Stéphane à la fête?
 (Stéphane) (a rencontré Mélanie) (à la fête.)

(9) Partial Q: Qui Stéphane a-t-il rencontré à la fête?
 (Stéphane) (a rencontré) (Mélanie) (à la
 fête.)

- The phrase edges are marked by an initial tone or a final tone or both.
- All tones are edge tones, not pitch accents.

2.5 Experimental investigation: Why an experimental approach ?

- ❑ Speaker's judgements about prosodic constituency or the felicity in context of intonational patterns are not reliable enough.
- ❑ Possible explanation: Speaker's have no clear representation of the structure or the meaning of prosody.

2.5 Experimental investigation: Research questions

- ❑ Is the constituent resolving the question correlated with phrasing, intonation or both?
- ❑ Are they independent prosodic cues?
- ❑ If so, is there a division of labor between them?

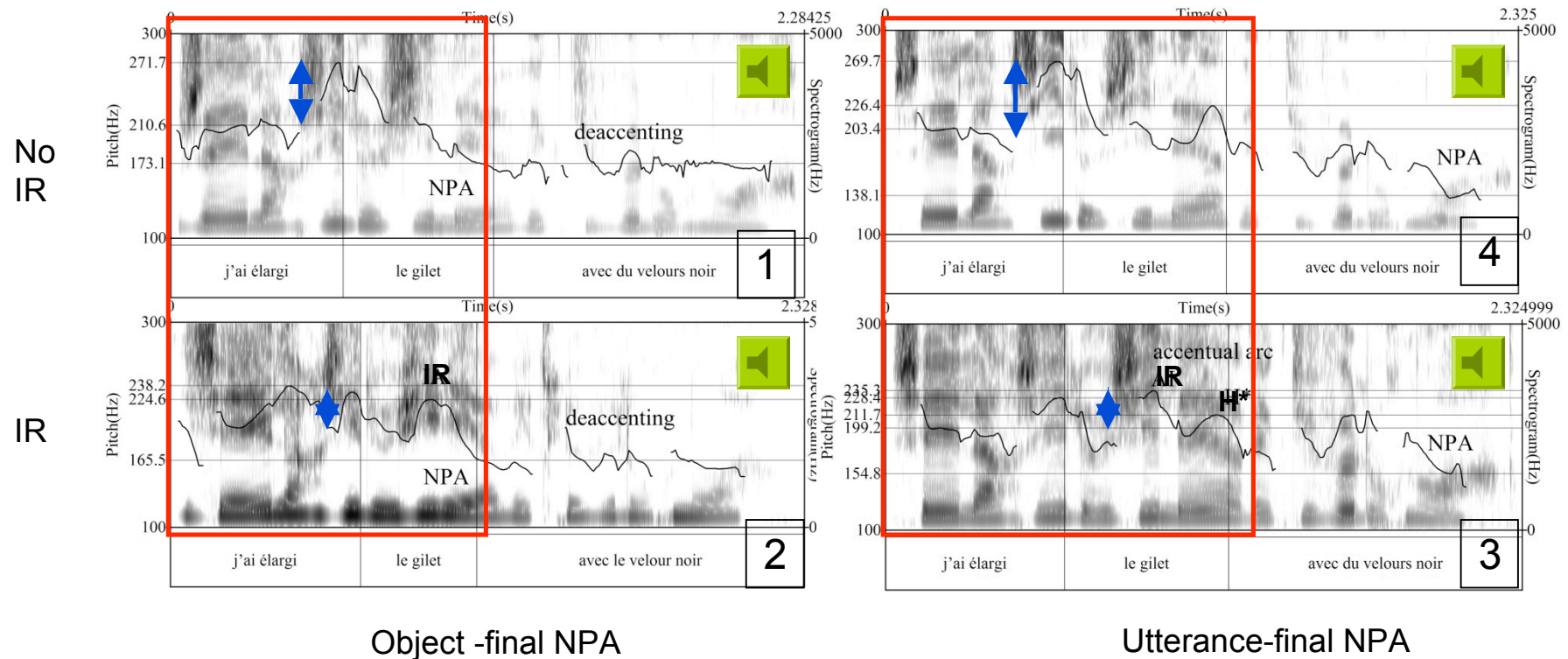
2.5 Experimental investigation: Hypotheses

- H1 = Nuclear Pitch Accent (NPA) anchors at the right edge of the resolving phrase.
- H2 = Initial rise (IR) anchors at the left edge of the resolving phrase.
- H3 = The resolving phrase is always phrased by itself.

2.5 Experimental investigation: Production experiment

- Task = read aloud answers as if actually participating in the dialogue.
 - Context
Richard is a policeman. He has to treat various documents (films, leaflets, K7s) seized in a terrorist cache.
 - Question-answer pair
(10) Partial Q
 - a. Le responsable: Qu'as-tu visionné la nuit dernière ?
What did you screen last night?
 - b. Richard: **J'ai visionné les vidéos la nuit dernière.**
I screened the videos last night
 - (11) Broad Q
 - a. Le responsable : Où en es-tu dans ton enquête ?
What's up with your investigation?
 - b. Richard : **J'ai visionné les vidéos la nuit dernière.**
I screened the videos last night
- 14 participants, 112 target answers, 107 analyzed (5 rejected)

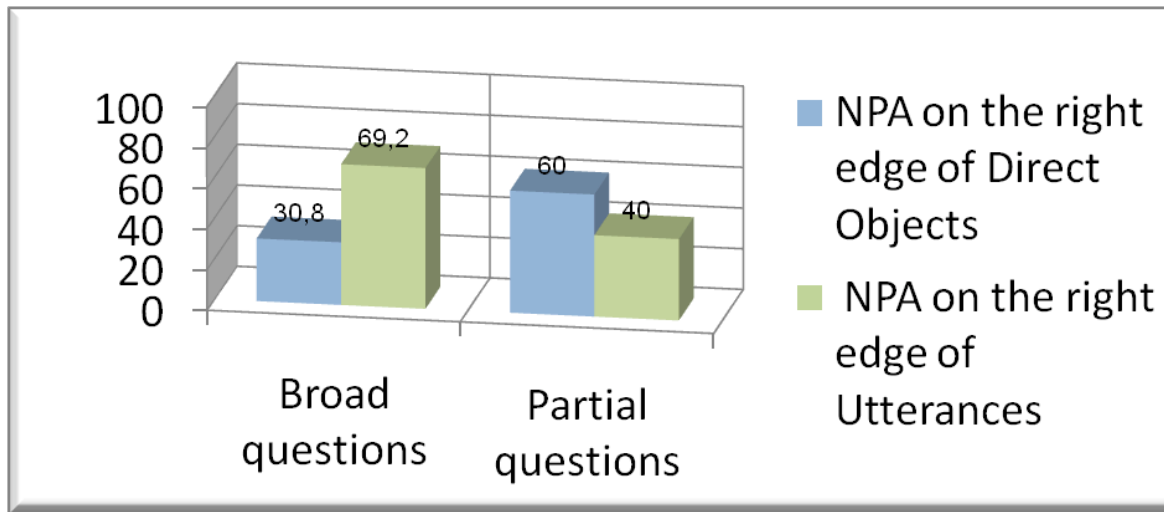
2.5 Experimental investigation: Production: Prosodic patterns



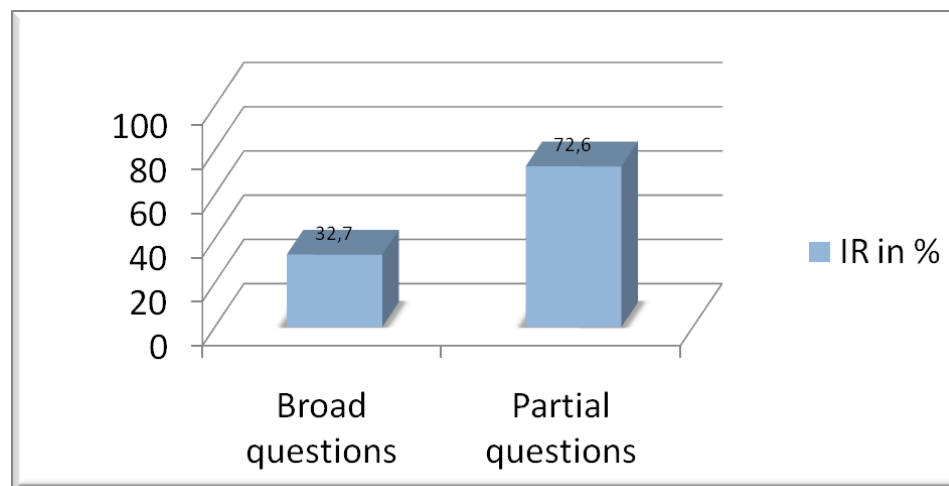
- 4 patterns
- 2 independent marks: anchoring of NPA, occurrence of IR
- Additional register compression



2.5 Experimental investigation: Production: Distribution



Distribution of NPA
in answers to broad
vs partial questions



Distribution of IR
in answers to broad
vs partial questions

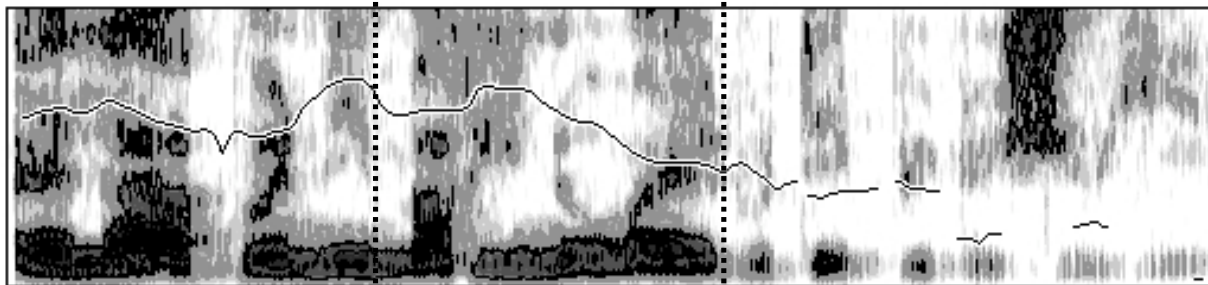
2.5 Experimental investigation: Production: Conclusion (1)

- H1 (NPA at the right edge of the resolving XP) = partly confirmed
 - Answers to partial Q: 60% Object final NPA
 - Answers to broad Q: 70% Utterance final NPA
- H2 (IR at the left edge of the resolving XP) = partly confirmed
 - 72,6% of the answers with a focused Object show IR on that Object.

2.5 Experimental investigation: Production: Conclusion (2)

- ❑ H3 (the resolving XP phrased alone)=not confirmed
- Even when focused, the Object may be phrased with the Verb
- In our data, phrasing depends on the metrical weight of Subject

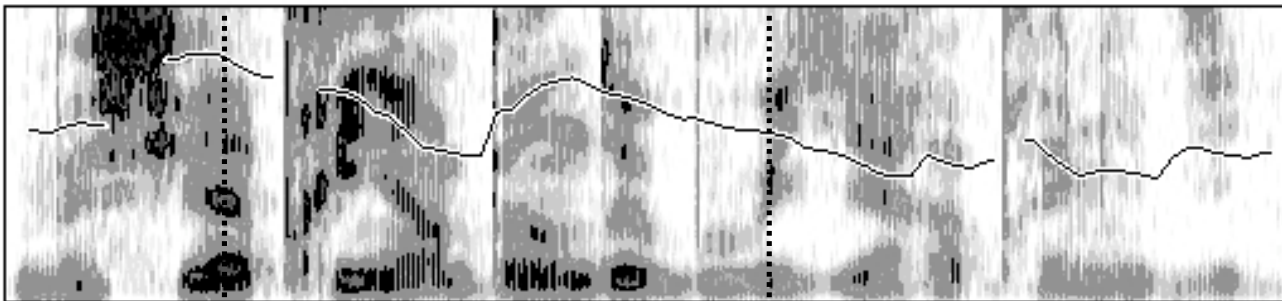
(12)



(LHi LH*) (LHi **L***) (L- L%)
(Elle a abonné) (Marie-Noëlle) (au début de juillet)

ANSWERS TO
PARTIAL Q

(13)










(LH*) (L Hi **L***) (L- L%)
(Monsieur) (a pris un bain de boue) (hier après-midi)



2.5 Experimental investigation: Production: Conclusion (3)

- In addition
 - Independance of IR and NPA anchoring
 - Rossi (1999): IR may be Kontrastive
- H4: IR marks the resolving XP
 - Perception experiment 1
- H5: IR marks the kontrastive resolving XP
 - Perception experiment 2

2.5 Experimental investigation: Perception experiments 1 & 2

- 24 participants for each experiment
- Material
 - 20 sentences (from the production experiment)
 - 10 with utterance-final NPA and no IR 
 - 5 with object-final NPA (and no IR) 
 - 5 with utterance-final NPA and IR 
 - Presented in 2 blocks
 - Block 1: 5 with utterance-final NPA and no IR 
+ 5 with utterance-final NPA and IR 
 - Block 2: 5 with utterance-final NPA and no IR 
+ 5 with object-final NPA (and no IR) 

2.5 Experimental investigation:

Perception experiment 1: Method

- Task : listen to a sentence and determine to which question this sentence had been produced as an answer. The choice has to be done between two questions which are visually presented.

- Listen to a sentence:

J'ai élargi le gilet avec du velours noir.

I let out the vest with black velvet.

- And choose the question to which it answers:

(Q1). Pour finir qu'est-ce que tu as élargi ?

Finally, what have you let out?

(Q2). Pour finir, tu t'en es sorti comment ?

Finally, how did you get by?

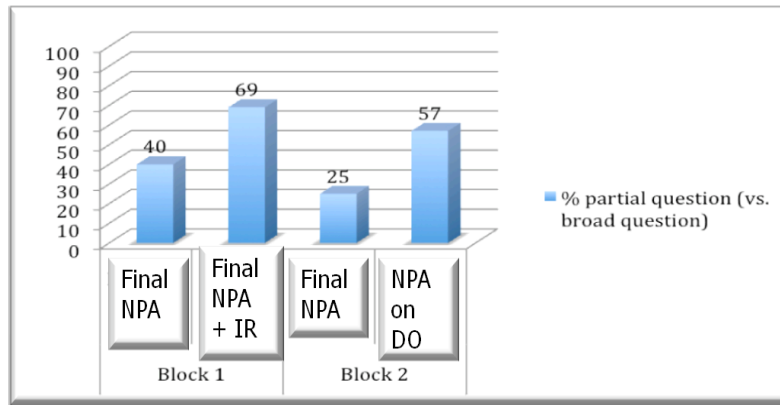
2.5 Experimental investigation:

Perception experiment 2: Method

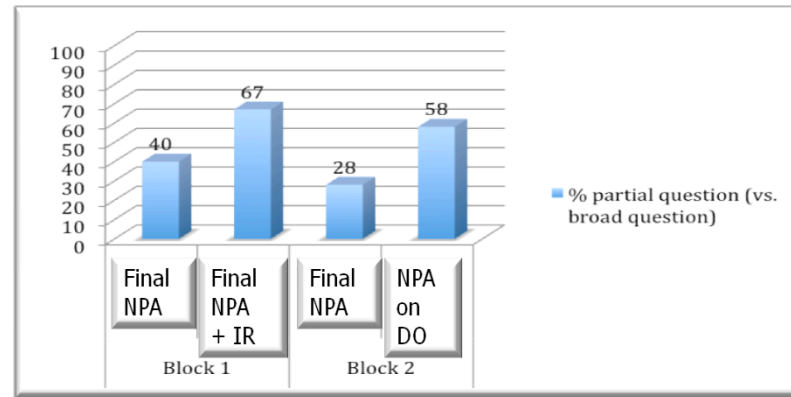
- Task : it is the same as for experiment 1 but a context presenting **explicit alternatives** has been added.
 - Listen to a sentence:
Context:
Pierre ne rentre plus dans son costume : **le gilet et la veste** sont trop serrés. Comme il est tailleur, il va faire les retouches.
His suit does not fit Pierre any longer: the vest and the jacket are too tight. As he is a tailor, he will alter them.

Sentence: J'ai élargi le gilet avec du velours noir.
I let out the vest with black velvet.
 - And choose the question to which it answers:
(Q1). Pour finir qu'est-ce que tu as élargi ?
Finally, what have you let out?
(Q2). Pour finir, tu t'en es sorti comment ?
Finally, how did you get by?

2.5 Experimental investigation: Perception experiments: Results



Experiment 1



Experiment 2 (Kontrast)

- For both experiments 1 and 2, hearers significantly preferred (answering to partial Q)
 - Block 1: answers with IR on the Object
 - Block 2: answers with NPA on the Object
- Both experiments yield the same result.

2.5 Experimental investigation: Perception: Conclusions

- H4 is corroborated:
 - IR alone is recognized as a way of marking the XP resolving a question.

- H5 is not confirmed:
 - The presence of a set of alternatives in the context does not affect the results.

- But H4 does not explain why 32,7% of all answers to a broad question show IR on the Object.



Part 3

Meaning of NPA anchoring and IR in French

3.1 Introduction

We follow an « Accent to Focus » approach, i. e. going from prosodic forms to prosodic meaning.

3.2 Assumptions

- The content of the root clause (utterance) is a proposition introducing an illocutionary relation. I. a. (Ginzburg & Sag 2000).

NB. // the performative hypothesis.

$$(1) \quad \left[\begin{array}{c} \text{ROOT} + \\ \text{CONT} \left[\begin{array}{c} \text{proposition} \\ \text{SOA/NUCL} \left[\begin{array}{c} \text{illoc} - \text{rel} \\ \text{UTTERER}[1] \\ \text{ADDRESSEE}[3] \\ \text{MSG} - \text{ARG}[2] \end{array} \right] \end{array} \right] \end{array} \right]$$

3.2 Assumptions (2)

- The content argument (MSG-ARG) is a structured proposition.

(2) Illoc-rel (Sp, Add < B,F>)

- F is the part of content that is «specifically affected » by the illocutionary force, B is the backgrounded part of the content.

NB.: “inhaltlich besonders betroffen” vs “inhaltlich vorausgesetzt” (Jacobs 1984).

3.2 Assumptions (3)

Example:

(3) Marie est arrivée
Marie arrived

- (4) a. Assert (Sp, Add, $\langle \lambda x. \text{Arrive}(x), \text{Marie} \rangle$)
b. Assert (Sp, Add, $\langle \lambda P. P, \text{Arrive}(\text{Marie}) \rangle$)

3.3 NPA and IR in Q-A pairs

NPA anchoring

NPA anchoring:

- NPA anchors at the right edge of F: the XP contributing the affected content.

Hence:

- F cannot be on the right of the NPA.
- The right edge of F coincides with the right edge of an ip or with the right edge of IP.

Assuming that, in answers, the affected content is the resolving content, we predict the distribution of NPA in answers.

3.3 NPA and IR in Q-A pairs

NPA anchoring (2)

Resolving XPs should not be to the right of the NPA. They must be inside IP.

(5) A.: Où Marie a-t-elle rencontré Paul ?
Where did Marie meet Paul ?

B.: ## Elle l'a rencontré]**NPA** à Paris

NPA anchoring (3)

Within IP:

- (7) A.: Qui Bernadette a-t-elle rencontré ce matin ?
Who did Bernadette meet this morning?
 B.: Bernadette a rencontré Marie ce matin.
- (8) Assert (Sp, Add, < λx . Meet (Bernadette,x, this-morning), Marie>)
- (9) [$\{(\text{Bernadette})_{AP} \quad (\text{a rencontré Marie})_{AP}\}_{ip}$ (ce matin)_{AP}] _{IP}
- H*
L*
L-
L%

Note that **NPA** marks the right edge of F leaving the left edge unmarked.

3.3 NPA and IR in Q-A pairs.

NPA anchoring (4)

At the right edge of IP:

(10) A.: Que s'est-il passé ?
What happened?

B.: Bernadette a rencontré Marie ce matin.
Bernadette met Marie this morning.

(11) Assert (Sp, Add, < $\lambda P.P$, Meet (Bernadette, Marie, this-morning)>)

(12) [$\{(\text{Bernadette})_{AP} (\text{a rencontré Marie})_{AP} (\text{ce matin})_{AP}\}_{ip}$]_{IP}
 H* H* **L***L-L%

Note that (from a quantitative study currently in progress): The tonal marking to the left of the phrase hosting the **NPA** is reduced in answers to a partial question (7B) vs answers to a broad question (10B). Two explanations: (a) an effect of givenness or (b) an effect of contrastive highlighting.

3.3 NPA and IR in Q-A pairs





Initial rises

Initial rises:

Initial rises set off the content of the phrase hosting them.

Note that they are associated with other prosodic features (currently under study) which differentiate them from pure metrical initial rises (Astesano 2001).

3.4 Prosodic patterns in answers

| Pattern | | Answers to a partial Q | Answers to a broad Q |
|---------|--|------------------------|----------------------|
| 1 |  | 11% | 17,3% |
| 2 |  | 49% | 13,5% |
| 3 |  | 23,6% | 19,2% |
| 4 |  | 16,4% | 50% |

3.4 Prosodic patterns in answers

Table

| Pattern | DO to the left of NPA --> Content of DO within the affected content | IR at the left edge of DO --> Content of DO set off |
|--|--|---|
| Pattern 1 Paul a vu Marie] _{NPA} à Paris | + | |
| Pattern 2 Paul a vu <u>MArie</u>] _{NPA} à Paris | + | + |
| Pattern 3 Paul a vu <u>MArie</u> à Paris] _{NPA} | + | + |
| Pattern 4 Paul a vu Marie à Paris] _{NPA} | + | |

3.4 Prosodic patterns in answers

Discussion (1)

- In pattern (4), the whole content is affected. There is no distinguished part.
--> The most felicitous pattern for an All Focus answer.
- In pattern (2), the content of the PP is excluded from the affected content. Moreover, the content of the DO is set off against the affected content restricted to *Paul a vu Marie*.
--> The most felicitous pattern for an answer to a partial question
- In pattern (1), the content of the PP is excluded from the affected content. The DO is not set off. The content of the DO is within the asserted content and contrastively highlighted by the compression of the phrases to its right.
--> A felicitous pattern to express the resolving XP
- In pattern (3), the content of the DO is set off against the whole content.
--> A felicitous pattern to express the resolving XP.

3.4 Prosodic patterns in answers

Discussion (2)

Answers to broad questions:

- Pattern (4) is felicitous.
- What about patterns (1), (2), (3)?

Answers to partial questions:

- Patterns (3), (2), (1) are felicitous.
- What about pattern (4)?

3.5 Answering strategies

Congruence vs coherence

How to account for cases where the background-focus partition varies from question to answer?

Both NPA and IR are contextualizing cues: they can change the context of utterance by **accommodating implicit questions**, which structure the discourse.

Semantic congruence \neq discursive coherence

3.5 Answering strategies

Discourse trees (1)

- Dialogue and discourse may be represented as trees (a.o. Roberts 1995, Buring 2003).
- Discourse trees are build from minimal entities, which are pairs of utterances of type **question-question** or **question-answer**.

Question
|
Question

Question
|
Answer

3.5 Answering strategies

Discourse trees (2)

(13)

A.: How was the concert? Was the sound good?

B.: No, it was awful.

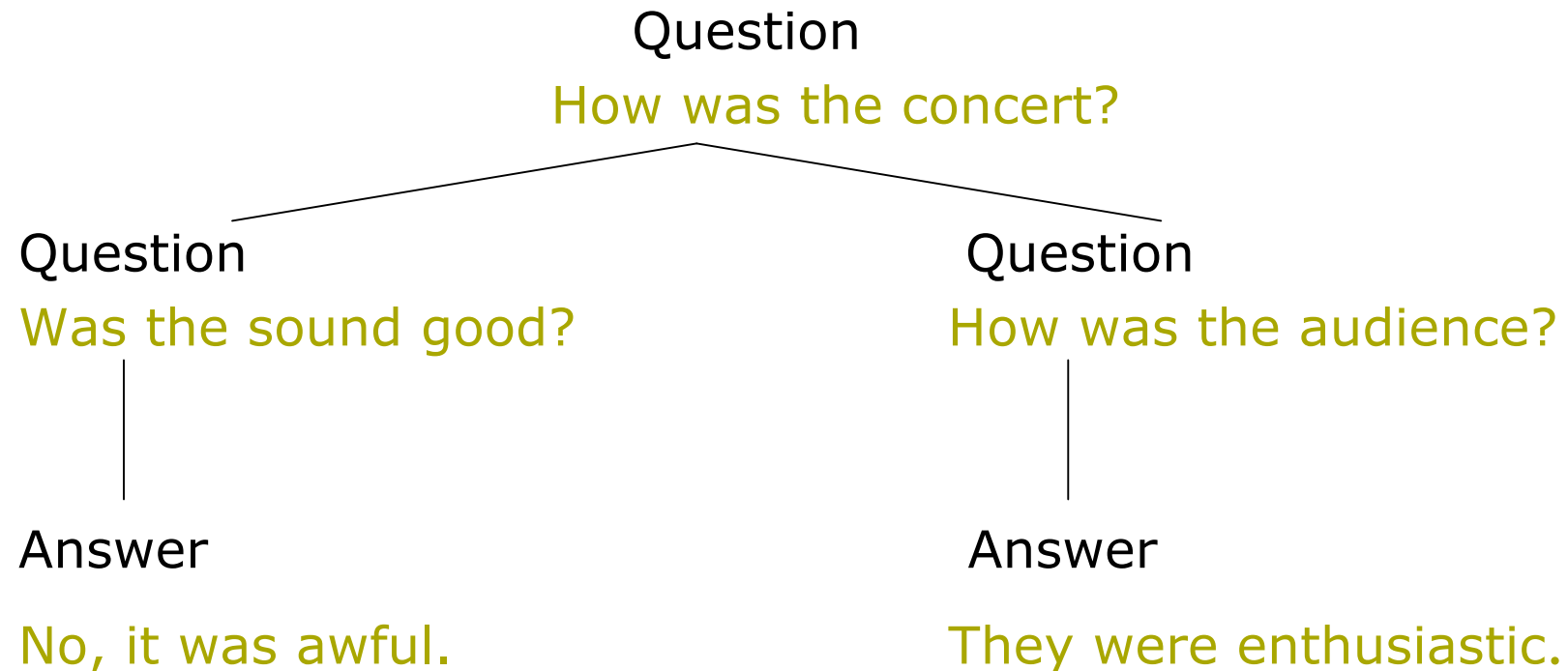
Question How was the concert?

Question Was the sound good?

Answer No, it was awful.

3.5 Answering strategies

Discourse trees (3)



3.5 Answering strategies

Discourse trees (4)

In discourse trees,

- assertions are always leaves,
- questions may be either explicit or implicit.

⇒ Each assertive sentence can be viewed as the answer to an explicit or to an implicit question.

3.5 Answering strategies

Congruent answers

In question-answer pairs, one can distinguish between

- congruent answers, which resolve the question
- Non congruent answers

- partial answers, which are under-informative

(14) A.: Where are John and Mary?

B.: Mary is in the kitchen.

- overinformative answers

(15) A.: Where are John and Mary?

B.: Everybody is out.

3.5 Answering strategies

Direct answers

Two types of answering strategies:

- **direct strategy:** the answer is congruent and it resolves the explicit question in the pair.
- **Indirect strategy:** Speaker changes the context of utterance by accommodating an implicit question, which is distinct from the explicit question in the pair.

3.5 Answering strategies

How to answer a broad question?

- **directly**, with a final NPA which indicates that all the content of the utterance is in the scope of the illocutionary operator.

(16) A: Où en es-tu dans ton enquête?
What's up with your investigation?

B: J'ai visionné les vidéos la nuit dernière]**NPA**.
I screened the videos last night.

The most frequent pattern: 69,2% of all answers to broad questions (patterns 3 & 4).

3.5 Answering strategies

How to answer a broad question?

- indirectly, with NPA on Object.

(17) A.: Où en es-tu dans ton enquête?

What's up with your investigation?

B.: J'ai visionné les vidéos]_{NPA} la nuit dernière.

I screened the videos last night.

30,8% of all answers to broad questions
(patterns 1 & 2).

3.5 Answering strategies

How to answer a broad question?

The speaker **accommodates a partial question** which is related to the broad one.

Broad Q: What's up with your investigation?

Partial Q: What did you screen last night?

Answer: I screened the videos]**NPA** last night.



3.5 Answering strategies

How to answer a broad question?

Variations with IR

direct answer, with a final NPA and an IR which sets off one constituent in the answer.

(18) A.: Où en es-tu dans ton enquête?

What's up with your investigation?

B.: J'ai visionné les **VI**deos la nuit
dernière]**NPA**

I screened the videos last night.

19,2% of all answers to broad questions (pattern 3)

3.5 Answering strategies

How to answer a broad question?

Variations with IR

indirect answer, with NPA and IR on Object.

Only a part of the content is in the scope of the illocutionary operator and the Object is set off.

(19) A.: Où en es-tu dans ton enquête?

What's up in your investigation?

B.: J'ai visionné les **VI**idéos **]NPA** la nuit dernière.

I screened the videos last night.

13,5% of all answers to broad questions (pattern 2)

3.5 Answering strategies

How to answer a broad question?

The meaning of IR

In direct and indirect answers, IR sets off the Object as a potentially thematic element, to be elaborated in the following discourse.

3.5 Answering strategies

How to answer a partial question?

- **directly**, with NPA on the Object which indicates that the Object is in the scope of the illocutionary operator.

(20) A.: Qu'as-tu visionné la nuit dernière?

What did you screen last night?

B.: J'ai visionné les vidéos]**NPA** la nuit dernière.

I screened the videos last night.

60% of all answers to partial questions (patterns 1 & 2).

3.5 Answering strategies

How to answer a partial question?

Variation with IR

direct answer, with a NPA on the Object and an IR which sets off it.

(21) A.: Qu'as tu visionné la nuit dernière?

What did you screen last night?

B.: J'ai visionné les **VI**déos **]NPA** la nuit dernière.

I screened the videos last night.

49% of all answers to partial questions (pattern 2).

3.5 Answering strategies

How to answer a partial question?

- **indirectly**, with a final NPA but with an IR on the Object.

(22) A.: Qu'as tu visionné la nuit dernière?

What did you screen last night?

B.: J'ai visionné les **VI**déos la nuit
dernière **]NPA**

I screened the videos last night.

23,6% of all answers to partial questions
(pattern 3).

3.5 Answering strategies

How to answer a partial question?

The speaker **accommodates a broad question** higher in the tree and IR sets off the Object which resolves the partial question, explicit in discourse.

Broad question: What's up with your investigation?

Partial Q: What did you screen last night?

Answer: I screened the **V**ideos last night]**NPA**



3.5 Answering strategies

How to answer a partial question?

What about answers with a final NPA and nothing on the Object?

(23) A.: Qu'as-tu visionné la nuit dernière?

What did you screen last night?

B.: J'ai visionné les vidéos la nuit

dernière]NPA

I screened the videos last night.

- Rare: 16,4% of all answers to partial questions.
- We judge them non felicitous or the least felicitous. This is corroborated by the perception experiments. They are strongly dispreferred as answers to partial questions.

3.5 Answering strategies

Congruence vs coherence

Non congruent answers don't result in incoherent discourse.

Even in a context including an explicit question, Speaker can accommodate an implicit question and produce an indirect answer. The only constraint for this implicit question is that it should be related to the explicit one.

3.5 Answering strategies

Congruence vs coherence (2)

Answers in indirect strategy may be congruent.

E. g. Implicational answers (Büning)

(24) A.: Did your wife kiss other men?

B.: [MY]_{CT} wife [DIDN'T]_F kiss other men.

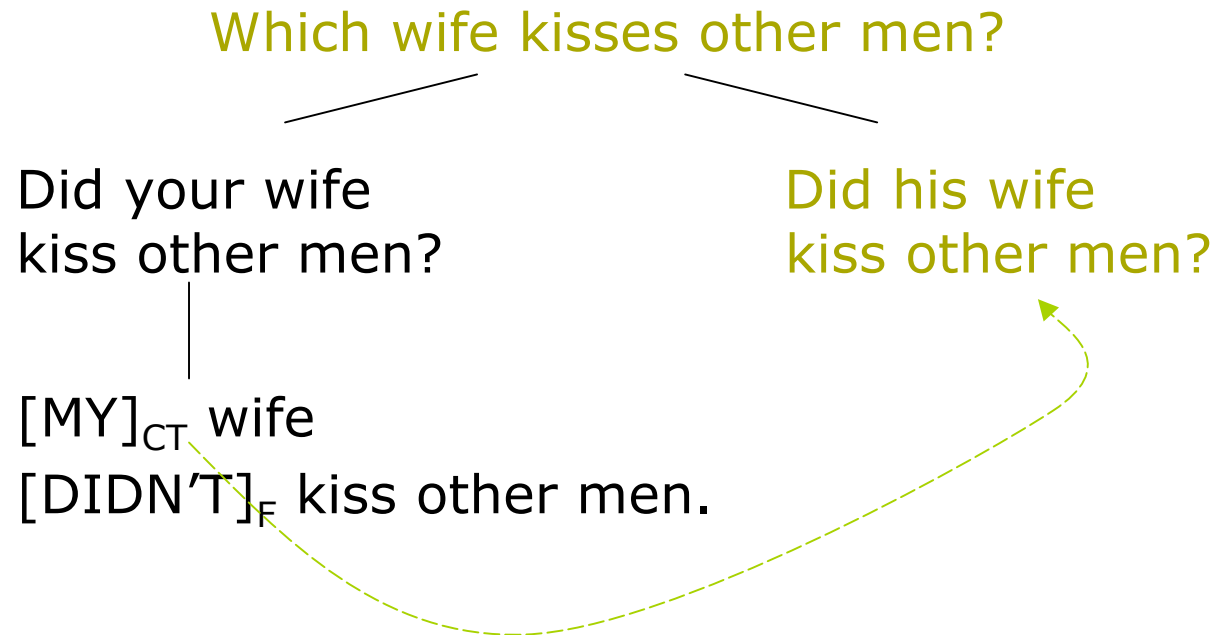
The answer is congruent, but indirect, since an implicit question is accommodated. This question could be « Which wife kiss other men? »

The CT-accent in (24B) signals that there is at least one other question which remains open, something like 'Did his wife kiss other men?'.
90

3.5 Answering strategies

Illustration

Indirect Implicational answer



3.5 Answering strategies

Congruence vs coherence (4)

Overinformative answers to polar questions are non congruent but discursively coherent answers: they indirectly resolve the explicit question.

(25) A.: Did somebody come during my absence?

B.: Your wife came around 10 hours.

(25') A.: Is there a train for Paris?

B.: at 8, platform n°2.

3.6 NPA and IR at large

NPA: the barrier effect (1)

- The resolving XP cannot be to the right of NPA.
- Analogous effect: the associates of associative adverbs (such as *only*) cannot be to the right of NPA.

(26) Il a seulement vu Marie]_{NPA} à Paris

He only saw Marie in Paris

- (27) a. * Only (à-Paris, Alt, Background)
b. Only (Marie, Alt, Background)

- Claim: NPA has a barrier effect for any operator (be it illocutionary or associative).

3.6 NPA and IR at large

Experiment « Frontier » (2)

Task: you will listen to a series of utterances such as the following:

- (28) Il a seulement photographié les animaux dans le parc.
'He has only taken picture of animals in the park'

Imagine that you do not agree with such a statement. To express your opposition, you can choose either one of the two following sentences:

- (29) 1. Non, il a aussi photographié **les arbres** dans le parc.
'No he has also taken pictures of trees in the park'
2. Non, il a aussi photographié les animaux **dans la forêt**.
'No he has also taken pictures of animals in the forest'

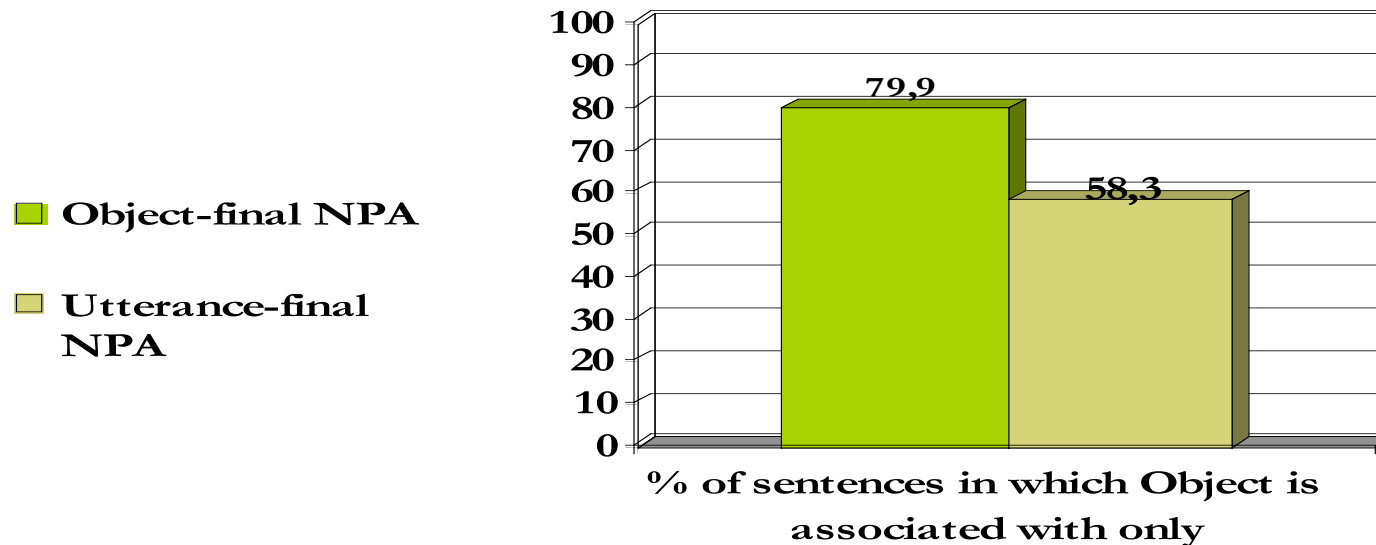
The test utterances had two prosodic renditions:

- (30) a. Il a seulement photographié les animaux **J_{NPA}** dans le parc
b. Il a seulement photographié les animaux) **H*** dans le parc **J_{NPA}**

3.6 NPA and IR at large

Experiment« Frontier ». Results (3)

- 79,9% of the sentences with Object-final NPA are interpreted as sentences in which *only* is associated with the Object.
- No preferences when the NPA is utterance-final.



3.6 NPA and IR at large IRs. Pragmatic uses

Pragmatic use of IRs

- IR is used in answers to multiple wh-questions:

(31) A.: Qui a fait quoi ce matin?
B.: (BERnadette) (a fait du tennis)]_{NPA} ce matin

- It is used for implicational (discourse) topics (Büding):

(32) A.: Qui Bernadette a-t-elle rencontrée?
B.: (BERnadette) (a rencontré) (le patron)]_{NPA} , Marie...

3.6 NPA and IR at large

IRs. Semantic uses

Currently under investigation: Is IR a mark of the quantificational focus ?

(33) Il a seulement rencontré Bernadette] _{NPA} à Paris

Two possible interpretations:

- (34) a. QF= Bernadette (Il n'a rencontré personne d'autres que Bernadette)
b. QF = rencontré (Il n'a rien fait d'autre que rencontrer Bernadette)

- (35) a. Il a seulement rencontré **BER**nadette
b. Il a seulement **REN**contré Bernadette



Part 4

Focus in Grammar

In order to conclude

Our findings and claims from the perspective of the theories presented in part 1.

4.1. Partition of content

From the Information Structure/Packaging tradition, we keep the notion of partition of content

- not as an autonomous level of grammar (Information Structure),
- but as a characteristic of illocutionary operators.

Note: This is hardly new : Jackendoff 1972, Jacobs 1984.

4.2. Prosodic salience

From Rooth, we keep the « Accent to Focus » approach.

But,

We drop the idea of a unique prosodic salience as French has two different ways of giving prominence to content of XPs:

- The anchoring of NPA
- The initial rise.

4.3. Congruence & coherence

From Krifka's approach, we keep the analysis of the congruence of answers wrt questions.

But,

To account for the actual gamut of felicitous/coherent ways of answering, we add the distinction between direct and indirect ways of answering (adapted from Büring 2003).

4.3. Congruence & coherence

Data

The paradigm we assumed initially: The paradigm we accounted for:

Broad question:

- (1) A.: Qu'est-ce qui s'est passé?
What happened?
B.: i. Marie est venue] NPA
Marie came
ii. # Marie] NPA est venue

Partial question:

- (2) A.: Qui est venu ?
Who came?
B.: i. Marie] NPA est venue
ii. # Marie est venue] NPA

Broad question:

- (1') A.: Qu'est-ce qui s'est passé?
B.: a. Marie est venue] NPA
b. **MA**rie est est venue] NPA
c. Marie] NPA est venue
d. **MA**rie] NPA est est venue

(2') Partial question:

- A.: Qui est arrivée ?
B.: a. **MA**rie] NPA est arrivée
b. Marie] NPA est arrivée
c. **MA**rie est arrivée] NPA
d. ?# Marie est arrivée] NPA

4.3. Congruence & coherence

Experiment design

- Simple design assuming the direct strategy of answering
- More complex designs to capture the indirect strategies.

4.4. Prosody

From Jun & Fougeron, we keep the overall Auto-segmental Metrical framework for French.

But,

We add the nuclear contours and the pitch accents to account for the formal and semantic diversity of intonation profiles and the working of Focus marking.

4.4 . NPA and IR meaning

Assuming a feature FOCUS as defined by Krifka:

- NPA « indicates the presence » of propositional alternatives. => hence its use as a cue to which question is resolved by the answer.

- IR « indicates the presence » of sub-propositional alternatives. => hence its use with information foci or contrastive (discourse) topics.

In today's presentation:

- NPA cues the right edge of an operator domain (illocutionary, association).
- IR is a highlighting device setting off the content of a phrase.



Merci !